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# introduction



## vision:

To be a leading centre of academic excellence in Africa and the world.

## mission:

The Mission of the University of Botswana is to improve economic and social conditions for the Nation while advancing itself as a distinctively African university with a regional and international outlook.

## Specifically, the University will:

- Provide excellence in the delivery of learning to ensure society is provided with talented, creative and confident graduates
- Advance knowledge and understanding through excellence in research and its application
- Improve economic and social development by high impact engagement with business, the professions, government and civil society

## values:

To achieve its Vision and fulfil its Mission the University of Botswana values the following:

- Students by creating a holistic environment which ensures that learning is their central focus, and by establishing and developing a range of learning, social, cultural and recreational opportunities that will facilitate the full realisation of their potential for academic and personal growth
- Staff by fostering a University community through encouraging, supporting, developing and empowering all individuals and groups to achieve the University's Goals
- Academic freedom by upholding the spirit of free and critical thought and enquiry, through the tolerance of a diversity of beliefs and understanding, as well as the open exchange of ideas and knowledge
- Academic integrity expressed in creativity, objective analysis, experimentation, critical appraisal, independent thought, informed debate and intellectual honesty
- Cultural authenticity by ensuring that the diversity of Botswana's individual values and cultural heritage forms an important part of the academic and organisational life of the institution and reflects its distinctiveness as an African university
- Internationalism through participation in the global world of scholarship, by being receptive and responsive to issues within the international environment as well as the recruitment of an international staff and student body
- Professional and ethical standards by upholding the highest professional and ethical behaviour and through openness, honesty, tolerance and respect for the individual
- Social responsibility by promoting an awareness of, and providing leadership in responding to, the issues and problems facing society
- Equity by ensuring equal opportunity and non-discrimination on the basis of personal, ethnic, religious, gender or other social characteristics
- Autonomy as an institution that is, through its self-governing structures, independent in action while being responsive to societal needs
- Public accountability by ensuring transparent decision-making and open review as well as the full participation of stakeholders in the development of the institution
- Productivity through the setting and rewarding of high standards of performance underpinned by a dedication to quality, efficiency and effectiveness throughout the institution
- Environmental Sustainability by deepening awareness and ensuring environmental issues are incorporated into student learning and teaching and research, the development of environmentally sustainable campuses and through contributing to the environmental sustainability agenda in Botswana and beyond

# University of Botswana Principal Officers



Chancellor  
Sir Q. K. J. Masire



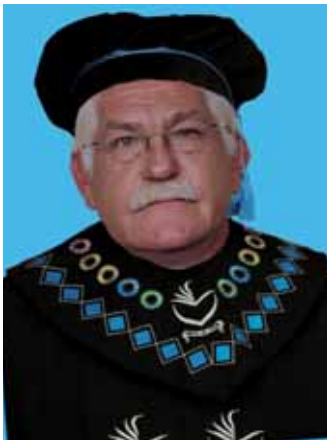
Chairman of Council  
Mr E. W. M. J. Legwaila



Vice Chancellor  
Prof. T. T. Fako



Deputy Vice Chancellor  
(Student Affairs)  
Prof. L. Nyati - Saleshando



Deputy Vice Chancellor  
(Finance & Administration)  
Mr D. B. Katzke



Deputy Vice Chancellor  
(Academic Affairs)  
Prof. F. Youngman



# 2011–2012Academic Year Almanac

SEMESTER ONE		2011	
DABS Registration Period Academic Policy Review and Planning Committee Open Registration Ends for Undergraduate Students DABS Classes Begin New Student Orientation and Registration (New Undergraduates) DABS Last Day to Add a Course DABS Late Registration President's Day Public Holiday DABS Last Day to Drop a Course Arrival and Registration (All Continuing Students) DE-Diplomas Registration Period New Graduate Student Orientation DE-Diplomas New Students Orientation Library Orientation for DE-Diploma New Students DE-Business Degrees- Introductory Session (All Levels) DE-Diplomas Residential Session 1 Classes Begin Faculty Executive Committees Late Registration and Course Add/Drop Period Begins Academic Policy Review and Planning Committee University Research Committee Last Day to Add Course Last Day of Late Registration DE-Business Degrees Residential Session 1 (Level 3.4.5) <b>SENATE</b>	5-9 July 8 July 9 July 12 July 14-24 July 16 July 16 July 19 July 20 July 23 July 26-30 July 27-30 July 29 July 30 July 30 July 31 Jul – 1 Aug 31 Jul – 4 Aug 2 August 2 – 3 August 2 August 5 August 6 August 6 August 6 August 7-8August <b>11 August</b>	Last Day to Drop a Course DE-Business Degrees Residential Session 1 (Level 1,2) Last day to withdraw and receive a refund DABS Mid-Semester Break Academic Policy Review and Planning Committee <b>COUNCIL</b> DE-Business Degrees Test 1 (level 3, 4, 5.) DABS Classes Resume after Mid Semester Break Business Faculty Board Education Faculty Board CCE Board FET Faculty Board Humanities Faculty Board School of Graduate Studies Board DE-Business Degrees Test 1 (level 1, 2) Science Faculty Board Social Science Faculty Board Health Sciences Faculty Board DE-Diplomas Residential Session 2 & Test Mid-Semester Break Begins Botswana Day Public Holiday Classes Resume after Mid Semester Break Semester 2 Class Schedule Information due Academic Policy Review and Planning Committee University Research Committee	13 August 14-15 August 27 August 30 Aug-3 Sept 2 September <b>3 September</b> 4-5 September 6 September 6 September 7 September 8 September 8 September 9 September 10 September 11-12 September 13 September 14 September 15 September 22 September 27 September 30 September 1 October 4 October 4 October 7 October 8 October
SEMESTER TWO		2012	
University Reopens Faculty Executive Committees Registration Period DE Registration Period Academic Policy Review and Planning Committee DE-Diplomas Residential Session 1 DE Business Degrees- Introductory Session (Levels 1-5) Classes Begin Late Registration and Course Add/Drop Period Begins Social Science Faculty Board Health Sciences Faculty Board <b>SENATE EXECUTIVE</b> Business Faculty Board Education Faculty Board Last Day to Add Course Last Day of Late Registration CCE Board FET Faculty Board Humanities Faculty Board Science Faculty Board School of Graduate Studies Board Last day to Drop Course Last day to withdraw and receive a refund Academic Policy Review and Planning Committee University Research Committee	3 January 3-4 January 4-7 January 5-7 January 6 January 8-9 January 8-9 November 10 January 10 January 10 January 11 January <b>12 January</b> 12 January 2 p.m. 13 January 14 January 14 January 14 January 17 January 18 January 19 January 20 January 2 p.m. 21 January 28 January 3 February 4 February	DE- Business Degrees- Residential Session 1 (Level 3, 4, 5) 5-6 February <b>SENATE</b> <b>DE-Business Degrees- Residential Session 1 (Level 1, 2)</b> DE-Business Degrees Test 1 (Level 3, 4, 5) DE-Business Degrees Test 1 (Level 1, 2) Mid-Semester Break Begins DE-Diplomas Residential Session 2 and Test Academic Policy Review and Planning Committee <b>COUNCIL</b> DE-Business Degrees Residential Session 2 (Level 3, 4, 5) DE-Business Degrees Residential Session 2 (Level 1, 2) Classes Resume after Semester Break DABS Classes Resume after Mid-Semester Break Science Faculty Board Social Science Faculty Board Health Sciences Faculty Board Busienss Faculty Board Education Faculty Board Semester 1 Class Schedule Information due DE-Business Degrees Residential Session 2 (Level 1, 2) CCE Board FET Faculty Board Humanities FacultyBoard School of Graduate Studies DE- Business Degrees Test 1 (Level 3, 4, 5)	<b>9 February</b> <b>12-13 February</b> 19-20 February 26-27 February 28 February 28-4 February 3 March <b>4 MARCH</b> 5-6 March 6-7 March 7 March 7 March 7 March 8 March 9 March. 10 March 11 March 11 March 12-13 March 14 March 15 March 16 March 17 March 19-20 March



SEMESTER ONE

2011

Graduation Ceremony <b>SENATE</b> DE - Business Degrees- Residential Session 2 (Level 3,4,5) Social Science Faculty Board Health Sciences Faculty Board Business Faculty Board Education Faculty Board FET Faculty Board DE -Business Degrees Residential Session 2 (Level 1, 2) CCE Board Humanities Faculty Board School of Graduate Studies Board Science Faculty Board DE - Business Degrees Test 1 (level 1,2) Academic Policy Review and Planning Committee DABS Classes End DABS Examination Days Open Registration for Semester 2 Last Day of Classes <b>COUNCIL</b> Reading Days (No Classes, Assessments, Examinations Held) DE-Business Degrees Residential Session 3 (Level 1, 2, 3, 4, 5) DE-Diplomas Residential Session 3 Final Examination Period Begins DE- Diplomas Examinations	9 October <b>13 October</b> 16-17 October 18 October 2 p.m. 19 October 20 October 21 October 9 a.m. 22 October 23-24 October 25 October 26 October 27 October 28 October 30-31 October 4 November 5 November 6-7,13-14 November 8-19 November 12 November <b>12 November</b> 13-14 November 13-14 November 15-16 November 15 November 17-19 November	DE-Business Degrees- Examinations Final Examinations Period Ends <b>Semester 1 Ends</b> Academic Policy Review and Planning Committee Departmental Boards of Examiners/CCE Examiners Boards Faculty Boards (Examination Results) Final Grades Due by 6 pm <b>SENATE EXECUTIVE COMMITTEE</b> All Final Grades Published University Closes for Christmas	22-29 November 26 November <b>26 November</b> 3 December  6-8 December 9-13 December 13 December <b>14 DECEMBER</b> 14 December 15 December
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SEMESTER TWO

2012

University Research Committee DE-Business Degrees Test 1 (Level 1, 2) Academic Policy Review and Planning Committee Open Registration for Semester 1 Begins <b>SENATE</b> DE -Business Degrees- Residential Session 3(Levels 5) DE- Diplomas Residential Session 3 DE- Diplomas Examination Session Last Day of Classes Good Friday (Public holiday) Readings Days (No Classes, Assessments, Examinations Held) Easter Monday (Public holiday) Final Examination Period Begins DABS Examination Period Labour Day DE-Business Degrees Residential Session 3(Levels 5) Academic Policy Review and Planning Committee <b>Semester 2 Ends</b> Final Examinations Period Ends Winter Session begins Departmental Boards of Examiners Faculty Boards (Examination Results) Final Grades Due by 6 pm <b>Senate Executive Committee</b> All Final Grades Published	25 March 26-27 March 7 April 8:30 11 April <b>13 April</b> 15-16 April 17-18 April 19-23 April 21 April 22 April 23-24 April 25 April 26 April 30-1, 7-8 May 1 May 2-6 May 5 May <b>6 May</b> 10 May 11 May 16-18 May 19-24 May 24 May <b>25 May</b> 26 May	Academic Policy Review and Planning Committee <b>Council</b> DABS Examiners Board DABS Grades Published Sir Seretse Khama Day Academic Policy Review and Planning Committee President's Day Public Holiday Winter Session Ends	2 June <b>3 June</b> 6 June 8 June 1 July 7 July 18 July 19 July 22 July
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# General Information



## Historical Note

The opening of the University of Basutoland, Bechuanaland and Swaziland (UBBS) on January 1st 1964 was the outcome of an agreement reached in mid-1962 between the High Commission Territories and the Oblate of Mary Immaculate of Pius XII Catholic University, Roma, Lesotho. Pius XII College of Roma, 35 kilometres from Maseru, was itself the product of the desire for an institution of higher learning for Africans by the Catholic hierarchy in Southern Africa. It opened its doors to students in 1946, with five students and five priest-lecturers. In 1950, it was taken over by the Catholic Order of the Oblate of Mary Immaculate. By 1963 there were 180 students, both men and women, and several buildings, including a science block, refectory, administration complex and workshops. Courses followed at Pius XII College were taught and examined under a special relationship entered into in 1955 with the University of South Africa, which awarded students its degrees and diplomas in Arts, Science, Commerce and Education. Pius XII College experienced difficulties over finance for the expanding institution and over racial restrictions on student residence required by the University of South Africa. Negotiations with the High Commission Territories to transform the University College into a fully fledged University were therefore initiated during 1962. On June 13, 1963, a deed of cession and indemnity was signed by the Oblates and the High Commissioner of Basutoland, Bechuanaland and Swaziland. The new University, with Ford Foundation and British Government funds, purchased the assets of the Roma Campus for an indemnity of half of its value, in exchange for guarantees of a continuing Catholic presence on the campus.

UBBS became UBLS (The University of Botswana, Lesotho and Swaziland) in 1966 on the Independence of Botswana and Lesotho. From a total of 188 students in 1964, the University grew to 402 students in 1970, of whom 145 were from Lesotho, with lesser numbers from Swaziland, Botswana, Rhodesia, South Africa and elsewhere. UBLS conferred its first degrees in April 1st 1967 after a transitional period during which the former Pius XII College students continued to take University of South Africa degrees. UBLS offered its own four-year undergraduate degrees and diplomas in Arts (including Economics and Administration), Science and Education, with Law students following a five-year degree, including two years tuition at the University of Edinburgh. Students seeking specialised degrees in Medicine, Engineering, etc, proceeded to other universities after completing Part I (Years 1 and 2) studies in Science. The number of academic staff grew from 31 in 1964 to 78 in 1970. Staff members were recruited from many countries, but the University pursued an active localisation policy from 1971. UBLS was equally funded by the Governments of Botswana, Lesotho and Swaziland, but had comparatively little presence in Botswana and Swaziland in the first phase of its existence during 1964-1970. The only substantial 'devolution' of UBLS from Roma Campus came towards the end of this phase of University development and was the association of the Swaziland Agricultural College of Luyengo with the University, as the Swaziland Agricultural College and University Centre. This College, built for the Swaziland

Government with Oxfam and 'Freedom from Hunger' funds, had been opened in 1966. In 1970, the Swaziland Government agreed to hand over the College to UBLS, together with the Research Division of the Ministry of Agriculture and its experimental station at Malkerns near Luyengo. From 1972, these together constituted a new Faculty of Agriculture. In Botswana, the UBLS presence was limited to the energies of the Division of Extra Mural Services and the School of Education, and a small Short-Course Centre built during 1969. With independence, the three countries began to take a closer look at the colonial inheritance of education, including their joint University, and began to identify the role of UBLS in higher and middle-level training. A series of academic planning reports for UBLS produced after 1966 culminated in the second Alexander Report of 1970, which combined, 'The major recommendations of previous reports for the development of university campuses in each country and the unified development of higher education and vocational and teacher training'. The report recommended that Part I studies begin in Botswana and Swaziland, with eventual division of Part II (Year 2 and 4) studies among the campuses, and the consideration of 'polytechnic' arrangements for technical and vocational courses. The second Alexander Report was accepted by the University and by the Governments of Botswana, Lesotho and Swaziland, at a meeting in October 1970, on the Luyengo campus. It heralded the second phase (1971-1976) of UBLS development. Plans were immediately drawn up to spend about one million Rand for campus development in each of the three countries. In Botswana and Swaziland there were to be campuses respectively within the capital of Gaborone, and at Kwaluseni adjacent to the national high school of Matsapha. Funds were obtained from the United States, British, Canada, Danish and Netherlands Governments as well as from the Governments of UBLS countries, the Anglo American Corporation and other bodies. Teaching of Part I began and temporary accommodation at Gaborone and Kwaluseni campuses became fully operational in 1971. In Swaziland, the William Pitcher and Nazarene Teacher Training Colleges were affiliated to the local university centre, as were the Francistown, Lobatse and Serowe Teacher Training Colleges in Botswana. Plans for specialised Part II and professional studies on each campus were dramatically advanced by the devolution of Part II Humanities teaching to Gaborone and Kwaluseni, as well as Roma, in 1974. Further negotiations between the three governments and the University resulted in agreement on June 11, 1975, known as the 'Luyengo Package' which was accepted by all parties.

Following student unrest at Roma, and strained relations between the central UBLS administration and the Lesotho government over implementation of the 'Luyengo Package', the Roma campus was precipitately withdrawn from UBLS and constituted as the National University of Lesotho (NUL) on Monday October 20, 1975. This occurred at a time when a working group on further devolution of UBLS into three University Colleges was preparing its report for the Council of the University. The nationalization of all facilities, monies and files in Lesotho meant the central administration of UBLS could operate

with only limited effectiveness from premises at Malkerns during 1975-1976, and considerable autonomy was devolved onto the Botswana and Swaziland campuses. Students from Botswana and Swaziland were immediately withdrawn from the Roma campus on the appropriation of all UBLS property in Lesotho by NUL. Part II teaching for students was resumed within a few months in Botswana (Economics and Social Studies and Science) and in Swaziland (Law). Following the acceptance of the Hunter Report and further negotiations between the University and the Governments of Botswana and Swaziland, the University of Botswana, Lesotho and Swaziland (UBLS) became the University of Botswana and Swaziland (UBS), with two constituent University Colleges of Botswana and Swaziland (UCB and UCS respectively). The new University structure was dedicated to maintaining and intensifying service to the ideals previously laid out for UBLS by the Botswana and Swaziland Governments. The ideals were summed up in the Second National Development Plan of Swaziland, which saw UBS as playing an 'increasingly important role in National Development not only through providing the educated manpower needed, but also through (the university's) great potential as a focus for the academic and cultural activities of the nation'. The ideals were also identified as the beginning of the devolution phase of UBLS development into Botswana and Swaziland by the then Chancellor, Seretse Khama, in his graduation speech in May 1970, on the Luyengo campus. "The University must be a committed institution, committed to the fulfillment of the ambitions and aspirations of the communities it was created to serve. One of these is rapid development, another is nonracialism, and the third is simply pride in ourselves and in our past, which in turn would lead to a greater degree of self-confidence, which is one of the very basic ingredients of true independent nationhood." The years 1976 and 1982 saw both constituent Colleges of the University develop their physical resources and their academic programmes in close cooperation with each other, with a view to the eventual establishment of separate national universities on the 1st July, 1982.

The formal inauguration of the University of Botswana was performed on 23rd October 1982 by His Excellency Sir Ketumile Masire, President of the Republic of Botswana. The University of Botswana and Swaziland continued to cooperate for a further six months to 31 December 1982 for the purpose of examining and awarding degrees, diplomas and certificates. In terms of an agreement between the Governments of Botswana and Swaziland, the National Universities in Botswana and Swaziland were to continue to exchange students and to cooperate in certain areas and to that end a consultative machinery set up to advise on how best to cooperate.

## The University Organisation

The University of Botswana was established on 1st July 1982 by an Act of Parliament. The University campus consists of that part of the two former universities (UBLS and UBS - see Historical Note above) which was situated in Botswana and was sometimes referred to as the Gaborone Campus. The University is closely involved in the national development process of

## GENERAL INFORMATION

Botswana. In this regard the special functions of the University are to engage in improving the quality and in expanding the quantity of the human resources needed for development, and to act as the repository of the collective knowledge and experience of the nation and the world. The first of these functions is fulfilled through the teaching programmes offered by the University and its affiliated institutions, leading to the award of degrees, diplomas and certificates. The second function is carried out individually and collectively by the staff of the University and its affiliated institutions, through the research and development, consultancies and information services which they undertake. Like any other complex organisation, the University has established certain patterns of authority and specialisation, systems, and rules of procedure, in order to perform its functions in an orderly and effective manner. These regulate day-to-day work within the University.

### The Council

The governing body of the University is the Council, which has the ultimate responsibility for the work and progress of the University towards the achievement of its goals. Its membership includes leading figures from the national and international community as well as senior personnel within the University. The Council has wide powers to make statutes, lay down policy, approve programmes and plans, and to establish working procedures governing the organisational life of the University. It also provides and controls the resources required to support both the academic activities and the physical development and maintenance of the University. But as a mainly policy-making body the Council cannot, and should not, be engaged in the day-to-day administration of the University. Clearly it could not carry out efficiently all its wide responsibilities by itself. On academic matters it consults the Senate; on many other matters, while retaining overall control and responsibility, it delegates much of the detailed work to the officers and committees.

### The Senate

The chief academic authority of the University is the Senate, whose membership includes the VC, DVCs, Faculty Deans, Faculty representatives and Heads of academic support units as well as student representatives. Under the Council, the Senate has the responsibility for the general control and direction of teaching and research activities, examinations, the conferment of degrees and award of diplomas and certificates. Much of its statutory authority is exercised through its approval and, from time to time, amendment of various sets of academic regulations, all of which are published for general information in the later sections of this Calendar. They include general and special academic regulations, admissions and examination procedures, degree structures, programmes of study, syllabuses, library regulations, etcetera. Regulations in any organisation may appear to restrict freedom of action, but are necessary for the orderly conduct of affairs. Additionally, in a University context, the regulations are the means by which the Senate ensures that the academic standards and quality of teaching are acceptable not only to the University and the nation, but also to the wider academic community of the world.

Senate also delegates much of its detailed work to committees, reviewing the recommendations they bring forward for its approval.

### Faculties and Departments

Below the level of the Vice Chancellor's office, the University is divided broadly into three types of specialised work: academic affairs, finance and administration, and student affairs. The academic side is represented by the Senate, Faculties, Schools, Departments and Institutes. Specialisation and the best use of staff expertise are achieved on the basis of the division of the academic areas into departments. Each department has a special focus, involving it in teaching and research in particular subjects or disciplines. These departments are responsible for the day-to-day teaching and research work of the University, and they formulate the programmes of study. A number of departments and similar or related disciplines are grouped together to constitute a Faculty. At present there are six established Faculties: Business, Education, Engineering and Technology, Humanities, Science, Social Sciences and the School of Graduate Studies. Detailed planning of the new Faculty of Health Sciences that was formally established on 1 April 2006 is underway. Currently, the Faculty is envisaged as comprising the emerging School of Medicine, a School of Nursing, a School of Allied Health Professions and the existing Department of Environmental Health. In general, departments in the same Faculty work closely together in offering Degree, Diploma and Certificate Programmes. In many cases there is a similar cooperation between Faculties. Faculties are headed by Deans, who represent the Faculty on other bodies and who have general responsibility for coordinating the work of the Faculty. Faculties work through their Faculty Boards and a variety of committees established by the Boards. Proposals from departments are brought to Faculty Boards for discussion and may then be submitted to Senate and, when necessary, to Council. Decisions and directions are then transmitted back to departments through the same channels.

### Student Financial Information

#### Student Financial Procedures

**2.21** Reporting to the Finance Office is an integral part of registration; until financial clearance has been obtained from the Finance Office, registration will be deemed to be incomplete.

**2.22** All fees must be paid by the first day of the semester. Sponsored students have to produce satisfactory evidence of the award of sponsorship.

**2.23** Where a scholarship includes a student's personal allowance, the University may advance up to one half of it, at its discretion. If a student is not honored, a student may be asked to cancel registration immediately.

**2.24** Scholarships administered by the University shall be awarded on the understanding that any monies received by the University and disbursed to or on behalf of the student, will be repayable by the student, should he or she withdraw during the course of the academic year without permission of the University.

**2.25** Students who damage University property or equipment will be charged the cost of repair or replacement of the item(s). An annual caution fee is held to cover any such charges which are not otherwise settled upon demand. Before registering for a subsequent academic session, the caution fee must be restored. Unless an account for damage is settled immediately a student may be requested to withdraw.

**2.26** Should a student leave the University without having paid the prescribed fees, including fines due, or without returning any library books, the academic results and transcripts and/or final certification for which a student is otherwise qualified, shall be withheld until such fees, library books or University property have been recovered.

**2.27** Any registered student who decides to withdraw from the University must give notice of his/her intention to do so in writing to the relevant Head of Department and Dean's Office. All students shall be eligible to get 100% refund if they withdraw within the first 30 days each semester. Any registered student who withdraws from the University after the first 30 days shall be eligible for only 50% of tuition fee refund up to mid semester and any student withdrawing from the University after mid semester break of each semester shall not be eligible for any refund of fees.

**2.28** Once a student has accepted an offer to reside in any hostel and has been duly registered for accommodation, (s)he shall remain so registered for the rest of the semester. Application or request to move out of the hostel during the semester shall not be acceded to. Where a student moves out of the hostel on their own accord no refund of accommodation fees shall be made irrespective of the period of hostel occupation.

Where a student is allocated hostel space during the course of the semester, accommodation fees shall be charged on a pro rata basis.

### Student Admissions

Prospective undergraduate applicants, may obtain application forms and information from the University Admissions Office located in Block 210 on the Main Campus. The forms must be returned directly to the Admissions Office at the University. For graduate Programmers, admission applications are made direct to The Dean, School of Graduate Studies. It must be stressed that application for a Government or other scholarship tenable at the University does not take the place of application to the University for admission. However, prospective applicants need not wait until they are assured of a scholarship before applying for admission to the University; the two applications can go forward in parallel. Similarly, students are free to simultaneously apply to other universities or educational institutions. For the admission application to be processed, all the forms and other requirements outlined in the Admission Regulations must be submitted.

### Fees and Scholarships

It should be noted that statutory fees, and





expenses do not include the costs of books, notebooks, stationery, personal laboratory equipment, medical attention, repair of clothes, dry-cleaning and living expenses. The cost of travel to and from the University is entirely the student's responsibility. Many governments are prepared to offer scholarships or grants to prospective students; information about these scholarships should be obtained from the appropriate authority in the country concerned. Some industrial trusts and corporations also offer awards, usually through the appropriate government, and information about these should be sought accordingly. Although every effort will be made to ensure that no student is deprived of the opportunity for study by lack of money, acceptance by the University does not imply that a scholarship is available.

## Bank Payments and Procedures

### 1. Existing Students

1.1 University students may pay fees at any branch of First National Bank of Botswana to University of Botswana bank account number 57110069096. To pay into this account a University student needs a valid student ID number. The University accounting system has been interfaced with that of the bank so that immediately upon payment a student will be un-blocked for registration at the University. After paying your fees you may proceed directly to your Faculty for academic registration [i.e. University students who pay fees in this manner need not queue again at Financial Services department for financial registration/clearance].

For international payments, students can pay into our Standard Chartered Bank Account details of which are as follows:

**Account Name: University of Botswana**

**Account Number: 0100110109600**

**Branch code: 662167**

**Swift code: SCHBBWGX**

Copies of proof of payment, (with full student names and student number noted on them) must immediately be sent to the attention Manager Student debtors at fax number 00 267 3959 390 or e-mailed to Studentpayments@mopipi.ub.bw

1.2. Students who are in receipt of sponsorship letters must deliver copies of the same and get financial clearance from Student Debtors office before proceeding to their respective Faculties to complete registration.

### 2. Prospective Students

2.1 Candidates or Prospective students who wish to apply for admission may pay application fees at the following banks:

- First National Bank of Botswana to University of Botswana bank account number 62130787601
- Barclays Bank of Botswana to University of Botswana bank account number 3761645
- Standard Chartered Bank of Botswana to University of Botswana bank account number 0100110109604

For payment of application fee from outside Botswana please deposit the fees into the following account; Account name, University

of Botswana; Account number, 0100110109604; Branch code, 662167; Swift Code, SCHBBWGX

2.2 A copy of the deposit slip [with your name & ID written on] should be attached to application forms when these are submitted or sent to Admissions Section of Academic Services department. Applicants who pay fees in this manner need not queue at University Cashier's Office for payment before submitting application forms. This method of payment also avoids acquisition of post office Postal Orders for onward transmission to the University as a form of payment.

### Travel and Residence

International students accepted to the University of Botswana are required to be in possession of valid travel documents, visas and residence permits (where applicable) to enter the country.

## Basic Entrance Qualifications

### 1. Admission Regulations

#### 1.1 Qualifications for Entry

1.1.1 The normal basic requirements for entrance to Undergraduate Degree and Diploma programmes shall be Botswana General Certificate of Secondary Education (BGCSE) with a grade C or better in English Language, but other qualifications may be accepted on their merit as alternatives. Entry into the Science Degree programmes shall be on the basis of BGCSE Science and Mathematics aggregates and a grade D or better in English Language or equivalents. (For further details see General Academic Regulations covering the programme in question.)

1.1.2 For all programmes, only the results of examinations taken before March 1st in the year of application will be considered in assessing an applicant's entrance qualifications.

1.1.3 Full particulars concerning qualifications must normally be available to the University before 1st March. It is the responsibility of the applicant to ensure that all examination results and other documents are forwarded to the Admissions Office before the deadline.

1.1.4 Candidates who are awaiting the issue of a certificate following results of an examination shall normally be required to provide legal proof of qualification from an examining body, stating the level of the subjects passed, before an offer of admission is issued and registration to programmes of the University is effected. Applicants admitted and registered under this provision shall not normally be permitted to register for, or write final year examinations before submitting the certificate.

#### 1.2 Admission Applications

1.2.1 Unless other specific instructions are given, application forms are obtained from and returned to:

*The Undergraduate Admissions Office  
University of Botswana  
Private Bag 0022, Gaborone, Botswana*

1.2.2 Each application shall consist of:

- i) The application form to be completed by the applicant himself/herself, in ink, clearly and in capital letters;
- ii) Academic transcripts;
- iii) Certified copy of Secondary School certificate;

iv) Appropriate application fee.

1.2.3 When returning the application form, the applicant must enclose a (non-refundable) application fee.

1.2.4 Applications will not be considered until the University has received the application form, relevant academic transcripts and certificates, and the application fee.

1.2.5 In addition, an applicant who has attended another university or other postsecondary institution must submit a certificate of good conduct, and a transcript, duly signed by the competent officer of the issuing University.

1.2.6 Unless an applicant is notified to the contrary, the closing date for the receipt of complete application forms and accompanying documents will be the last working day of March immediately preceding the commencement of the academic year for which application is made. (The academic year starts in August.)

#### 1.27 Graduate Degrees

1.271 Application procedures are as for undergraduate study (1.2.1 to 1.2.6 above).

1.272 Admission to a programme leading to a graduate degree must be approved by the School of Graduate Studies on the authority of Senate.

1.273 On receipt of the completed application forms, the Dean of the School of Graduate Studies shall send one copy to the relevant Head of Department who shall submit his/ her recommendation to the Departmental Board for consideration. The Board shall in turn forward the application with its recommendation to Senate via the Graduate Studies Board.

1.274 Permission to pursue a graduate degree programme as a part-time student shall be granted only to persons who can show that they are able to devote a reasonable proportion of their time to the work prescribed.

1.275 Registration for Master's Degree programmes by coursework and dissertation shall normally take place at the beginning of the first semester of each academic year but may, in special circumstances, and on the recommendation by the Graduate Studies Board, take place at the beginning of the semester following that in which the application is approved by the Senate.

1.276 MPhil and PhD applicants may be accepted and register anytime during the academic year with permission of the relevant Department/ unit.

#### 1.3 Notification of Acceptance

1.31 The Admissions Office for undergraduate applicants and the School of Graduate Studies for graduate applicants shall notify each applicant whether or not he/she has been accepted for admission to the University.

1.32 No applicant should come to the University unless he or she has received a formal offer of admission.

#### 1.4 Conditions of Acceptance

1.41 Acceptance of an applicant by the University shall be on the understanding that the applicant undertakes to be bound by and to observe the policies and regulations of the University. Acceptance to the University will be subject to the production of a satisfactory medical certificate.

#### 1.42 Academic Transcripts

An official transcript will be provided to each

FEES  
2011/2012

PROGRAMMES	FEES 2010/2011	FEES	
		2011-2012	
	ANNUAL	ANNUAL	FEE FOR
	FEE	FEE	ONE
	Estimate*	Estimate*	CREDIT
Undergraduate Programmes			
Certificates			
Science & Engineering			
SADC	19 300	22 200	740
Non-SADC	38 600	44 400	1 480
Other Faculties		0	0
SADC	14 500	16 680	556
Non-SADC	29 000	33 360	1 112
Diplomas		0	0
Science & Engineering		0	0
SADC	19 300	22 200	740
Non-SADC	38 600	44 400	1 480
Other Faculties		0	0
SADC	14 600	16 790	560
Non-SADC	29 200	33 580	1 119
Bachelors			0
Science & Engineering			0
SADC	19 300	22 200	740
Non-SADC	38 600	44 400	1 480
School of Medicine			
SADC	21 280	24 470	816
Non-SADC	42 560	48 940	1 631
Other Faculties		0	0
SADC	14 500	16 680	556
Non-SADC	29 000	33 360	1 112
Postgraduate Programmes		0	0
Postgraduate Diplomas		0	0
SADC	12 580	14 470	603
Non-SADC	18 870	21 705	904
Masters Programmes		0	0
Science & Engineering		0	0
SADC	17 050	19 610	817
Non-SADC	25 575	29 415	1 226
MBA		0	0
SADC	19 610	22 550	940
Non-SADC	29 415	33 825	1 409
School of Medicine			
SADC	18 750	21 560	898
Non-SADC	28 125	32 340	1 348
Other Faculties		0	0
SADC	13 550	15 580	649
Non-SADC	20 325	23 370	974
MPhil Science & Engineering			0
SADC	17 050	19 610	817
Non-SADC	25 575	29 415	1 226
Other MPhils (Other Faculties)			0
SADC	13 550	15 580	649
Non-SADC	20 325	23 370	974
PhD Science & Engineering		0	0



SADC	11 970	11 970	499
Non-SADC	17 955	17 955	748
PhD (Other Faculties)		0	0
SADC	9 350	9 350	390
Non-SADC	14 025	14 025	584
* Based on normal load of 30 credits for undergraduates , 24 credits for post graduate students and 8 credit for DABS			
PROGRAMMES	FEES 2010/2011	FEES 2011/2012	
<b>PART-TIME PROGRAMME</b>			
Diplomas( DABS)	2090	2 400	
(Excluding cost of book )			
International students fee(Undergraduate/Post-graduate)***			
Administration Fee			
Students from Africa	2 300	2 650	
Students from outside Africa	3 220	3 700	
Groyp Study Abroad			
Students from Africa	580	670	
Students from outside Africa	920	1 060	
Groyp Study Abroad (Special Service) =20% of the cost of activity			
<b>Other Fees</b>		0	0
Application Fee		0	0
SADC	180	210	
Non-SADC	360	410	
Late Application Fee			
SADC	260	300	
Non-SADC	530	610	
Student Life Fee	70	80	
Late Registration Fee/Day (Returning Students)	100	120	
(maximum 14 days)		0	
Late Registration Fee/Day (New Students)	60	70	
(maximum 14 days)		0	
Transcript Fee	25	30	
		0	
Identity Card Fee	35	40	
Typing of Dissertation	400	500	
<b>Accommodation Fee</b>		0	0
Under Graduate Full Time Student/Annum	4 000	4 600	
Under Graduate Hostel Fee during Holidays/Day	25	30	
Under Graduate Hostels For Non-Students		0	
During Holidays/Day	140	160	
Graduate Hostels/Annum	6 760	7 770	
Graduate Hostels/Annum(Including Holidays)	9 660	11 110	
Graduate Hostels Fee during Holidays/Day	60	70	
Graduate Hostels For Non-Students		0	
During Holidays/Day	300	350	
Laundry Fee/Annum	430	490	
<b>Catering charges of private Contractors</b>			
Catering charges Undergraduate Student/Annum **	8 970	8 970	

\*\*\* All International students are encouraged to take note of the International Student Fee above, (applicable to all non-citizens).

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student free at the conclusion of his/her studies. Extra copies thereafter shall be issued at a cost to be determined by the University from time to time.

### General Academic Regulations

#### 2 00.0 General Provisions

##### 00.1 Preamble

00.11 Senate reserves the right to alter, amend, replace or cancel any of the Academic Regulations and shall be the final authority for the interpretation of these regulations.

00.12 Senate has the power to exempt any student from any of the Academic Regulations.

00.13 In addition to these general academic regulations, special faculty and departmental regulations, which must be approved by Senate, shall also apply.

00.14 General regulations shall take precedence over special faculty and departmental regulations unless Senate has otherwise provided

00.15 Faculty regulations shall take precedence over departmental special regulations, unless Senate has otherwise provided.

00.16 Should a regulation, according to which a programme has been compiled, be amended, a student who has started a programme under the old regulation and who has not interrupted studies, may complete such a programme in accordance with the old regulation on condition that a faculty board may formulate special transitional requirements in order to enable that student to complete studies in accordance with the new regulation.

00.17 A student who has been admitted to a programme and fails to register for such a programme in the ensuing two semesters; or is re-admitted to such a programme, is deemed to have interrupted studies and forfeits the right to continue studies under the old regulation.

00.18 Senate shall establish procedures for the approval of all academic programmes of the university

##### 00.2 Definitions of Key Terms

In these regulations, the following terms shall be used as indicated.

##### 00.211 Academic Year and Semester:

The academic year shall comprise two semesters, each consisting of 14 teaching weeks, a one week mid-semester break, and two weeks for examinations.

##### 00.212 Programme:

A plan of study made up of core, optional, electives, and general education courses, lasting over a specified period, which leads to a Degree, or Diploma qualification.

##### 00.213 Subject:

A collection of core and optional courses in a given discipline of study that will constitute a major or minor component of the programme.

##### 00.214 Course:

For the purpose of teaching, each subject shall be divided into one or more components called courses. A course is a basic building block of teaching and learning activities with content designed to meet particular aims and objectives. Each course will normally be assessed within the semester in which it is offered, except for a year-long course, teaching practice, internship,

industrial training or any other attachments.

##### 00.215 Course Code:

A course code is an identification of a course with a prefix of three capital letters followed by three digits. The first of the three letters shall normally be the same as the first letter of the subject, and the digits shall indicate the level, with 100 to 599 for Bachelor's Degrees, and Diploma programmes.

##### 00.216 Lecture Hour:

A lecture hour is a period of instruction of a duration of 50 minutes.

##### 00.217 Lecture Hour Equivalent:

One lecture hour equivalent shall be equivalent to any of the following modes of teaching and learning: One lecture hour; Two to three hours of practical/laboratory work/activity defined by the department; or any number between one to four weeks of teaching practice, field work, industrial training or any other attachments or other academic work outside the classroom.

##### 00.218 Credit or Credit Value:

The number of credits (or credit value) is assigned to a course in relation to the work done. In any course, work entailing one lecture hour or one lecture hour equivalent per week throughout a semester shall have a credit value of 1.

##### 00.219 Major Subject:

A major subject shall comprise courses where the subject is treated in depth during the entire programme of study; and the workload shall depend on the type of programme as defined in regulation 00.230. A student shall normally register for a major subject either in the third or fifth semester.

##### 00.220 Minor Subject:

A minor subject shall comprise courses where the workload shall have fewer credits than those of the major subject as stated in regulation 00.232.

##### 00.230 Types of Programmes:

Possible programme formats shall include single major, combined degree (major/minor, major/major, multidisciplinary).

##### 00.231 Single Major:

A single major is a programme of study composed of core and optional courses from one subject (normally chosen either in the third or fifth semester), as well as electives and general education courses.

##### 00.232 Combined Degree (major/minor):

A combined degree (major/minor) is a programme of study composed of core and optional courses from two subjects normally in the ratio of major to minor of approximately 70:30, as well as electives and general education courses. A student's major and minor cannot be from the same subject.

##### 00.233 Combined Degree (major/major):

A combined degree (major/major) is a programme of study composed of core and optional courses from two equally weighted major subjects which are independently studied, as well as electives and general education courses.

##### 00.234 Combined Degree (multidisciplinary):

A combined degree (multidisciplinary) is a programme of study composed of core and optional courses from more than two subjects (for example a combination of three equally weighted subjects, or a series of individualised courses resulting in a programme constructed by negotiation between a student and a personal tutor, and approved by Heads of relevant Departments and Deans), as well as electives and general education courses.

##### 00.240 Types of Courses:

Types of courses shall include core, optional, elective, general education, pre-requisite, co-requisite, winter, project, service and audit.

##### 00.241 Core Courses:

Core courses are those courses which must be taken in order to meet the requirements of an award, that is, they are compulsory or mandatory.

##### 00.242 Optional Courses:

Optional courses are those courses which may be selected from an approved list of courses within a subject of study and which count towards the requirements of an award.

##### 00.243 Elective Courses:

Elective courses are those courses which may be selected from a list of courses outside a subject of study and which count towards the requirements of an award.

##### 00.244 General Education Courses:

General education courses are those courses taken for the purpose of broadening the knowledge of a student and count towards the overall credit requirement for the award, but are not part of the core courses of the programme.

00.245 Pre-requisite: A pre-requisite is a course that must be taken and passed in preparation for another course.

##### 00.246 Co-requisite:

A co-requisite is a course that must be taken concurrently with other courses to enhance learning in the programme.

##### 00.247 Winter Course:

A winter course is that which is taken during the long vacation, such as, teaching practice, industrial training, field work, internships, and attachments. The curriculum and methods of assessment for these courses will be specified in special faculty and departmental regulations.

##### 00.248 Project Course:

A project course may be taken in a major subject and the requirements of such a course and its method of assessment will be specified in special departmental and faculty regulations. A project course may be taken as a semester course or as a year long project course.

##### 00.249 Service Course:

A service course is a course taken in a major or minor subject of one department but is taught by another department.

##### 00.250 Audit Course:

An audit course is a course taken by a student, but no credit is earned in such a course.



#### 00.251 Attempted Credits:

Attempted credits are the total number of credits a student is officially registered for in a given semester or in all years/levels of study. They exclude audit courses, non - credit courses a student may take, and courses which a student has officially dropped. Attempted credits are used in the calculation of the grade point average (GPA).

#### 00.252 Earned Credits:

Earned credits are the total number of credit values of the courses a student has passed in a given semester or in all years/levels of study. Earned credits are used in the determination of a student's year/level of study and minimum number of credits required for graduation. Audit and non - credit courses do not count in credits earned within a particular programme.

#### 00.253 Academic Good Standing:

Students are in academic good standing at the university when their cumulative grade point average is 2.00 or above. Such students are considered to be making satisfactory progress toward a qualification.

#### 00.254 Academic Warning:

Students may be placed on academic warning for failure to make satisfactory progress toward a qualification. Students whose cumulative grade point average is between 1.99 and 1.51 (the actual lower limit is dependant on the number of attempted credits a student has as indicated in regulation 00.9) may be placed on academic warning for their subsequent semester of enrolment. Students on academic warning may not enrol for more than 16 semester credits. They are encouraged to seek appropriate advice and services from relevant offices.

#### 00.256 Academic Probation:

Students may be placed on academic probation for failure to make satisfactory progress toward a qualification. Students whose cumulative grade point average is between 1.90 and 1.21 (the actual upper limit is dependant on the number of attempted credits a student has as indicated in regulation 00.9) may be placed on academic probation for their subsequent semester of enrolment. Students on academic probation may not enrol for more than 14 semester credits. They should seek appropriate advice and services from relevant offices.

#### 00.3 Students

##### 00.31 Registered Students

00.311 Full-time Student: A full-time undergraduate student is one who is registered with the university and carries a minimum workload of 15 credits per semester, unless officially exempted.

##### 00.312 Part-time Student:

A part-time undergraduate student is one who is registered with the University and normally carries a workload of less than 15 credits per semester.

##### 00.313 Transfer Student:

A transfer student is one who is registered with UB after transferring academic credits deemed to be equivalent to UB credits. Such credits may come from another recognised university or equivalent, or be the result of various articulation agreements between UB and other

institutions. Such a student can only transfer up to a maximum of one-half of the total credits required for the programme, and must complete the remaining one-half in the university. The total credits transferred are subject to acceptance by the relevant Department(s). Grade points are not transferable, and the cumulative GPA of transfer students will be computed on the basis of the work done at UB only.

##### 00.314 Visiting/Exchange/Audit Student:

A visiting/exchange/audit student is one who satisfies the university entrance requirements and is registered for a selected number of courses for credit or audit. Such students may be from within the country, from abroad or under exchange programmes.

##### 00.315 Special Student:

A special student is one who satisfies the university entrance requirements, but does not have immediate plans to enter a programme and wants to take courses with approval from the department. Such a student shall be limited to register for a maximum of fifteen credits overall.

##### 00.32 Responsibilities of Students

00.321 While the university strives to give students proper academic advice, it is the responsibility of the individual student to know and follow all the regulations of the university.

00.322 A student registered for a course is expected to fulfil all requirements prescribed for that course.

00.323 A student who is unable to attend classes due to illness should notify the Director of Student Welfare of this fact within twenty one consecutive days from the day the student misses classes. Certification from a recognised health officer will be required in support. Prior permission or supporting evidence will be necessary for circumstances other than ill health.

00.324 A student who enters or returns to the university late shall not be entitled to extra tuition.

00.325 A student may have access to their academic transcript and has the right of appeal on any matters concerning it, to Senate through their Faculty Board.

00.4 Exemptions, Credit Banking, Credit Transfer, and recognition of prior learning.

00.41 Permission for exemptions shall be sought in all cases from the Director, Academic Services, and exemption shall be subject to the approval of the relevant Head(s) of Department. Exemption from taking certain courses may be granted under the following conditions:

a) A student who has been registered at UB can bank credits up to a maximum of ten consecutive semesters. Exemption may be given to a former UB student who subsequently rejoins UB if such a student has banked credits. Once such exemption has been granted, the programme for which the student is currently registered will be credited with the original marks obtained for the credit course(s) and the corresponding grade points.

b) Exemption(s) may be given to a student if such a student took a course or courses at another recognised university or institution with which UB has a formal articulation agreement, within ten semesters prior to registration. Once such exemptions have been granted, the student

may transfer up to a maximum of one-half of the total credits required for the programme. However, grade points for such students are not transferable, and the cumulative GPA shall be computed on the basis of the work done at UB only.

c) Exemption may be granted to a student if such a student took a course or courses at another recognized University or institution with which UB has no formal articulation agreement within ten semesters prior to registration. Such exemptions shall be based on course to course articulation and once they have been granted a student may transfer up to a maximum of one third of the total credits required for the programme. However grade points for such students are not transferable, and the cumulative GPA shall be computed on the basis of work done at UB only.

(d) Exemption(s) may be given to a student for relevant work experience and recognised prior learning upon satisfactory performance in assessments of their knowledge, skills and experience in the area as outlined in Section 6.0 of the policy organised by the Department. A student who has performed such tests shall be awarded an appropriate grade, and may be exempted in the relevant courses up to a maximum of one-sixth of the total credits required for the programme.

00.42 Articulation agreements between UB and other institutions resulting in de facto exemptions shall be applied to general admissions to diploma, higher diploma and degree programmes as well as to satisfy programme specific internal requirements.

#### 00.5 Entrance Qualifications

##### 00.51 Normal Entry Scheme

00.511 The normal requirement for entrance to Diploma Programmes are specified in General Regulation 10.2.

00.512 The normal requirements for entrance to Bachelor's Degree Programmes are specified in General Regulation 20.2.

##### 00.52 Mature Age Entry Scheme for Undergraduate Programmes

00.521 Applicants of at least 25 years of age on the first day of the semester of entry who have BGCSE with grade C or better in at least three subjects and grade D or better in English Language or equivalent but lack the qualifications for entry into the undergraduate programmes may apply as a mature age applicant.

00.522 Subject to regulation 00.521, any additional entry requirements shall be specified in the appropriate special faculty and departmental regulations.

00.523 Subject to regulations 00.521 and 00.522, a mature age applicant may use the direct entry route if such an applicant possesses BGCSE or equivalent with grade B or better in two subjects and grade C or better in four subjects.

##### 00.53 Transfer Students

00.531 Transfer students from other recognised universities or institutions may be accepted for undergraduate studies if they have at least a cumulative GPA of 2.00 (on a five point scale) or equivalent and are eligible to return to the

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university or institution last attended.

00.532 Transfer students with a cumulative GPA of less than 2.00 (on a five point scale) or equivalent shall be subjected to the provisions of general academic regulation 00.9 to determine their admissibility for undergraduate studies. Students admitted under such provisions will have an academic probation status.

### 00.6 Registration

00.611 The normal workload for a full-time undergraduate student shall be 15 to 18 credits per semester.

00.612 A full-time undergraduate student may carry 12 to 14 credits per semester if such a student has approved course exemptions or is on academic probation.

00.613 Subject to the provisions of regulation 00.912, a full-time undergraduate student may carry 19 to a maximum of 21 credits if such a student has a cumulative GPA of at least 3.50.

00.614 No student shall be registered for any programme one week after the commencement of classes. Any exception to this regulation must have the written permission of the Dean of the Faculty who may consult with the Head of Department and shall not extend beyond the end of the second week after the commencement of classes.

00.615 A student may register for a course only if the official class timetable allows the student to attend all the classes.

00.616 No student shall be allowed to add a course or courses after the first week of the commencement of classes.

00.617 A student may drop a course or courses up to the end of the second week of the commencement of classes.

00.618 A student who has been admitted to the university can register for a core, optional, elective or general education course offered in any of the university programmes, subject to pre-requisites or any other approved programme restrictions.

00.619 An undergraduate student must, during the first two semesters at the University of Botswana, register for at least ten credits in level 100 general education courses in areas 1 and 2, except where exemptions have been provided.

00.620 In addition to the requirement of general academic regulation 00.619, an undergraduate student must register for a minimum of an additional nine credits of elective and/or general education courses.

00.621 The total number of credits earned by a student from elective and general education courses shall not exceed one third of the total credits gained in the entire programme.

00.622 A Dean, on the recommendation of a relevant department may cancel the registration of a student or the registration for a course during a semester, if the student does not meet the programme requirements or prerequisite requirements for the course.

00.623 A registered student shall have access to an official registration record printout detailing the course(s) registered for. It is the student's responsibility to ensure that the registration record is correct. Any registration record amendments should be made by the end of the

add/drop/late registration period.

00.624 A student should not attend a course unless such a course is officially registered for as indicated on the official registration printout.

00.625 A student cannot earn credit for a course unless such a course is officially registered for as indicated on the official registration printout.

00.626 Any registered for course which is abandoned or not attended will be recorded with a zero mark for any graded component not taken. Such a course will be included in the calculation of the student's cumulative GPA.

00.627 The minimum number of students re-quired in order for an optional course to run is 15 students for levels 100 to 200 classes, and 8 students for classes above level 200 except as permitted by Senate.

00.628 The maximum number of students permitted to be enrolled in each course shall be determined by the Head of Department in consultation with the Dean.

00.629 Cancellation of Classes: If no class cancellation notice is posted on the classroom door, classes are officially considered cancelled if an instructor is 15 minutes late. All cases of cancelled classes must be reported to the relevant Head of department.

00.630 A visiting/exchange/special/audit student may register to take courses for credit or audit. An application to take courses for credit or audit should be made to the Director of Academic Services. The application will be subject to approval by the relevant Head(s) of Department(s).

00.631 A student may, in addition to their normal academic programme, register to audit courses up to a maximum of three credits.

00.632 A student on audit courses shall not be subject to assessment, but such audited course(s) shall be recorded on the student's academic transcript.

00.633 A visiting/exchange/special student who register for credit course(s) and subsequently enrolls in an academic programme of UB shall have their courses treated in accordance with general academic regulation 00.61 (b) on credit banking.

### 00.7 Withdrawal

00.711 Withdrawing refers to withdrawing from all courses for which a student is enrolled for a given semester, and therefore the student is no longer enrolled. The withdrawal application should be lodged through the relevant Head of Department and Dean's office.

00.712 A student may officially withdraw from the university by voluntarily terminating enrolment during a semester which is in progress. Such a student shall not receive any credit for courses taken during the semester. If such a student subsequently enrolls in the university the courses previously taken shall be treated in accordance with regulation 00.41 (b) on credit banking.

00.713 A student who withdraws prior to the end of the eighth week of a semester or who withdraws after the eighth week of a semester

where there are documented acceptable extenuating circumstances, will receive a grade of "W" (withdrawn) otherwise a zero mark will be recorded for any graded component not taken.

00.714 If a student is obliged through illness or any other cause to be absent from classes for a continuous period exceeding three weeks, the Dean, in consultation with relevant Departments and in light of an appropriate medical report, shall decide whether such a student shall be withdrawn from the university for the duration of that semester.

00.715 A student who has withdrawn from the university may re-enter the programme subject to quota restrictions and compliance with existing programme requirements. The university does not guarantee to offer the same courses as at the time the student withdrew from the university.

### 00.8 Assessment

#### 00.81 Continuous Assessment

00.811 The continuous assessment component of each course may include one or more of the following: written assignments, written tests, practicals, projects, research exercises, essays, open book tests, independent study, dissertations/theses, oral tests, plus other forms of continuous assessment as shall be determined by the instructor and approved by the Head of Department.

00.812 A student is required to fulfil all requirements prescribed for continuous assessment. Failure to do so without valid reasons will normally incur penalties as prescribed in special faculty and departmental regulations.

00.813 Progress Reports: Each faculty shall report continuous assessment marks for all undergraduate students by the end of the eighth week of classes. Progress reports are made available to students and to the students' advisors through the computer system at UB.

#### 00.82 Final Examinations

Where the assessment of a course includes final examinations, the following regulations shall apply:

00.821 All final examinations shall be held during the scheduled examination period at the end of the semester in which the course is taught.

00.822 A paper in a final written examination of a course shall be of one to three hours duration.

00.823 Other forms of examination of a course shall be as prescribed in special faculty and departmental regulations.

00.824 A student must take final examinations at the scheduled times. Failure to do so without valid reasons will amount to a candidate being awarded a zero mark in that particular examination.

00.825 Special final examinations will be considered on an individual basis for students who miss scheduled final examinations due to exceptional and extenuating circumstances.

00.826 Once a student has sat for an examination, the student may not afterwards apply for a special examination on the basis of unforeseen circumstances or illness.

00.827 In the week preceding the final examinations, all lectures and tutorials will continue, however, no assignment, test,





examination, field trip, or any assessment work may be scheduled.

### 00.83 Quality Assurance

00.831 Senate shall determine the system of quality assurance of programmes of the university.

### 00.84 Overall Course Grade

(Applicable to undergraduates entering from August 2011 deferred from August 2009)

00.841 In any course, the weighting between different components of assessment shall be specified in the special faculty and departmental regulations.

00.842 Overall performance in a course shall be assessed on a percentage scale, a letter grade, and a grade point as follows:

Marks (%)	Letter Grade	Grade Point
90 – 100	A+	5.0
85 – 89.9	A	4.9
80 – 84.9	A-	4.7
75 – 79.9	B+	4.5
70 – 74.9	B	4.0
65 – 69.9	B-	3.5
60 – 64.9	C+	3.0
55 – 59.9	C	2.5
50 – 54.9	C-	2.0
45 – 49.9	D+	1.5
40 – 44.9	D	1.0
35 – 39.9	D-	0.5
0 – 34.9	E	0.0

00.843 When letter grades are used, they shall represent the following:

A+	Outstanding
A	Excellent
A-	Excellent
B+	Very Good
B	Very Good
B-	Good
C+	Good
C	Satisfactory
C-	Satisfactory
D+	Poor - Fail
D	Poor - Fail
D-	Poor - Fail
E	Very Poor - Fail
I	Incomplete
W	Withdrawn
AUD	Audit Course. No credit granted

00.844 An Incomplete grade (I) may be awarded when some assigned work comprising continuous assessment, for example a project, has not been completed with valid reasons. The I letter grade has no grade point. The I grade must be converted to an appropriate mark within the following twelve months; otherwise the incomplete work will be awarded a zero mark.

00.845 Passing a course means obtaining a mark of at least 50 percent.

### 00.85 Completion of Credits in a Programme

00.851 A student shall only be awarded a qualification after completing a minimum number of credits in a given programme as follows:

- A minimum of 60 credits in a Diploma programme with a duration of 4 semesters; or
- A minimum of 90 credits in a Higher Diploma programme with a duration of 6 semesters; or

- A minimum of 120 credits in Bachelors' Degree programmes with a duration of 8 semesters; or
- A minimum of 150 credits in Bachelors' Degree programmes with a duration of 10 semesters.

00.852 To be awarded a qualification, at least two thirds of the total credits must come from core and optional courses prescribed in the programme, and the total number of credits from elective courses shall not exceed one third of the total credits. Where there have been exemptions, general academic regulation 00.862 shall apply.

### 00.86 Calculating Cumulative GPA

00.861 Cumulative GPA associated with courses at UB at any time during the student's programme is obtained as follows:

- Identify the credits for the course;
- Identify the marks (%), corresponding letter grade and the grade point using the table in regulation 0.842;
- Obtain the weighted score by multiplying the credits and the grade point for each course;
- Obtain the total weighted score by adding the weighted scores for all the courses;
- The cumulative GPA is given by the total weighted score divided by the total number of credits. The cumulative GPA shall be computed to two decimal places.

00.862 Where there have been exemptions for credits as per regulation 00.4, grade points from other institutions are not transferable to UB, and the cumulative GPA shall be computed on the basis of the work done at UB only.

### 00.9 Progression from Semester to Semester

#### 00.91 Proceed

00.911 To remain in academic good standing, a student must pass at least half the attempted semester credits and attain a cumulative GPA of at least 2.00.

00.912 A student proceeding on academic good standing who fails a core, prerequisite or co-requisite course must retake the course. Such a student shall carry a semester credit load not exceeding eighteen (18) credits.

00.913 To proceed on academic warning (AW) or academic probation (AP) a student must pass at least half the attempted semester credits and attain a cumulative GPA of at least 1.21. Such a student shall be subject to regulation 00.92 below.

### 00.92 Academic Warning and Academic Probation

00.921 A student must pass at least half the attempted semester credits and attain a cumulative GPA of at least 1.21 for the status of academic warning or academic probation to apply.

00.922 The status of academic warning shall apply to a student whose cumulative GPA is less than 2.00 but higher than the academic probation level as indicated in regulation 00.923 below.

00.923 The status of academic probation shall apply to a student in accordance with cumulative GPA performance levels as indicated below:

Attempted Credits	Academic Warning	Academic Probation
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Up to 30	21.99 to 1.51	1.50 to 1.21
31 to 60	1.99 to 1.61	1.60 to 1.21
61 to 90	1.99 to 1.81	1.80 to 1.21
More than 90	1.99 to 1.91	1.90 to 1.21

00.924 A student on academic warning status must retake any failed core, prerequisite and co-requisite course(s) when next offered. Such a student shall carry a semester credit load not exceeding sixteen (16) credits.

00.925 A student on academic probation status must retake any failed core, prerequisite and co-requisite course(s) when next offered. Such a student shall carry a semester credit load not exceeding fourteen (14) credits.

### 00.93 Fail and Discontinue

00.931 A student who fails more than half the attempted semester credits or attains a cumulative GPA of 1.20 or less shall be put on fail and discontinue (FD) status.

00.932 A student with two (2) consecutive academic probations shall be put on a fail and discontinue status.

00.933 A student with any combination of three (3) consecutive academic warnings and/or academic probations shall be put on a fail and discontinue status.

00.934 A student who fails a course thrice shall be put on a fail and discontinue status, even if the cumulative GPA is above 2.00.

00.935 A student on fail and discontinue status may apply for readmission to the programme after a lapse of at least one (1) semester. To return to the programme the student must apply and be accepted for re-entry/readmission.

00.936 A student on a fail and discontinue status may apply to change to another programme for which the student qualifies and can enter in the subsequent semester(s).

### 00.94 Fail and Exclude

00.941 A student who is placed on fail and discontinue status twice in one programme shall be placed on a fail and exclude (FE) status.

00.942 A student who has been unsuccessful in two programmes shall be placed on fail and exclude status.

00.943 A student placed on fail and exclude status may apply for readmission to the university after a lapse of at least two (2) academic years.

### 00.95 Retaking Courses

00.951 A student shall not retake a course already passed with a minimum grade of fifty (50 C-).

00.952 Subject to regulations on academic warning/probation, fail and discontinue, and fail and exclude, a student may retake a failed course up to two (2) times.

00.953 A student who has failed a core, prerequisite, co-requisite course or a core general education course must retake the course.

00.954 A student who has failed an optional, elective, a non-core general education course may retake the course or take a substitute course.

00.955 When a student retakes a course, the series of retakes with their grades shall appear on the student's official academic record and count in the cumulative GPA. However, in satisfying the minimum number of credits required for graduation the credits shall count only once where a passing grade is recorded.

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00.96 Prerequisite Courses

00.961 A student must achieve at least fifty (50 C-) in a prerequisite to enrol in the specific course(s) for which the course is a prerequisite.

00.97 Academic Standing

00.971 At end of each semester, a student's academic standing shall be reported using the following symbols:

P	Proceed (Academic Good Standing)
AP	Proceed (Academic Probation)
AW	Proceed (Academic Warning)
FD	Fail and Discontinue
FE	Fail and Exclude
W	Withdrawn with Permission

00.98 Minimum Cumulative GPA Required for Graduation

00.981 A student should attain a minimum cumulative GPA of 2.00 to be considered for graduation. If the cumulative GPA is below 2.00 after passing the course retakes, the student shall take additional courses to bring the cumulative GPA to at least 2.00.

01.0 Aegrotat Regulations

01.01 If a student in the final semester of a programme is prevented by illness, or other sufficient cause, from undertaking some of the requirements for assessment (continuous assessment or final examinations), Senate may, upon written report of the Department(s) concerned, and upon any other evidence as it shall deem fit, recommend to assign an aegrotat award.

The student's illness or incapacity must be reported to the office of the Director of Academic Services within two weeks of the date on which the test(s) or examination(s) should have been written.

01.02 The aegrotat award shall be unclassified.

10. General Regulations for Undergraduate Diploma and Higher Diploma Programmes

10.1 Diploma Programmes

10.11 Diplomas

Programme titles appear in Faculty and Departmental sections below.

10.12 Higher Diplomas

Programme titles appear in Faculty and Departmental sections below.

10.2 Entrance Qualifications

10.21 The normal entry requirement for Diploma programmes is at least six subjects not below grade D in the BGCSE or equivalent. English language shall be one of the required subjects. Five subjects may be accepted. A grade of C shall be required in at least three of the five or six subjects.

10.22 Other entry qualifications for entry to Diploma programmes may be accepted on their own merit as alternatives. In particular, attention is drawn to the regulations governing mature age applicants in 00.52 and the regulation in respect to recognition of prior learning general academic regulation 00.41.

10.23 Subject to regulation 10.21, any additional requirements shall be specified in appropriate special regulations.

10.24 The entry requirements specified in 10.21, 10.22 and 10.23 do not guarantee admission.

10.3 Programme Structure

10.31 Curriculum and Assessment

The curriculum and methods of assessment for the undergraduate Diploma programmes shall be specified in special faculty and departmental regulations.

10.32 Duration of the Programme

10.321 Diploma and Higher Diploma Programmes  
The normal duration for Diploma or Higher Diploma programmes shall be as follows: 4 to 6 semesters on a full-time basis; 8 to 12 semesters on a part-time basis.

10.4 Classification of Results

(Applicable to Undergraduates entering from August 2010deferred from August 2009)

10.41 Subject to regulations 00.85 and 00.98, the overall result of the Diploma or Higher Diploma shall be classified based on the cumulative GPA (computed to two decimal places) that includes all attempted credits as follows:

Classification Cumulative GPA

Distinction: 4.70 – 5.00

Merit: 4.00 – 4.69

Credit: 3.00 – 3.99

Pass: 2.00 – 2.99

20. General Regulations for Bachelor's Degree Programmes

20.1 Degree Programmes

Programme titles appear in Faculty and Departmental sections below.

20.2 Entrance Qualifications

20.21 The normal entry requirement for Degree programmes shall be at least six subjects not below grade D in the BGCSE or its equivalent. The grades obtained in five of the subjects shall be grade C or better from one examination sitting. Grades obtained from two (not more) examination sittings are acceptable, provided the applicant has grade B or better in two subjects and grade C or better in four subjects. English language must be grade C or better for non-Science based programmes and grade D or better in Science-based programmes.

20.22 Other entry qualifications may be accepted on their own merit as alternatives. In particular, attention is drawn to the regulations governing mature age applicants in 00.52 and the regulation in respect to recognition of prior learning general academic regulation 00.41.

20.23 Applicants possessing an acceptable Certificate qualification with grade C or better in at least 4 subjects and grade D in English language in the BGCSE or equivalent may be considered for entry to Level 100 of a related bachelors programme.

20.24 Where entry is on the basis of a Diploma qualification, the Diploma shall normally be two years or more and one acceptable to UB. Entry on the basis of a Diploma of less than two years in duration may be considered if the applicant has a previous related Certificate qualification.

20.25 Subject to regulation 20.21, any additional requirements shall be specified in appropriate special faculty and departmental regulations.

20.26 The entry requirements specified in 20.21, 20.22, 20.23, 20.24 and 20.25 do not guarantee admission.

20.3 Programme Structure

20.31 Curriculum and Assessment

The curriculum and methods of assessment for

Bachelor's degree programmes shall be specified in special faculty and departmental regulations.

20.32 Duration of the Programme

20.321 The normal duration for Bachelor's programmes shall be as follows: 8 to 10 semesters full-time or up to 16 to 20 semesters part-time respectively.

20.322 A student may register for a combined degree programme (major/major, major/minor or multidisciplinary) or single major programme as shall be specified in special departmental and faculty regulations.

20.4 Degree Classification

(Applicable to undergraduates entering from August 2010 deferred from August 2009)

20.41 Subject to regulations 00.85 and 00.98, the overall result of the Degree shall be classified based on the cumulative GPA (computed to two decimal places) that includes all attempted credits as follows:

Classification	Cumulative GPA
First Class:	4.70 – 5.00
Second Class, Upper Division:	4.00 – 4.69
Second Class, Lower Division:	3.00 – 3.99
Pass:	2.00 – 2.99

General Education Courses

The aim of General Education is to provide University of Botswana graduates with broad-based knowledge and skills that prepare them for life, the world of work and citizenship in the context of the University's Vision, Mission and Values. The graduates are expected to have certain general attributes, alongside the knowledge and skills of their specialist discipline. In accordance with the Learning and Teaching Policy, these graduate attributes are as follows:

- Information and communication technology knowledge and skills
- Self-directed, life-long learning skills
- Critical and creative thinking skills
- Problem-solving skills
- Communication skills
- Entrepreneurship and employability skills
- Organization and teamwork skills
- Research skills and information literacy
- Social responsibility and leadership skills
- Interpersonal skills
- Cross-cultural fluency
- Accountability and ethical standards

Graduate attributes are infused in core, optional, elective and General Education courses; and through pedagogy, engagement, and policy implementation. Communication skills are offered in Area 1; and Information and Communication Technology knowledge and skills are offered in Area 2.

Area 1 Communication and Academic Literacy Skills

Courses in Communication and Academic Literacy are open to Certificate, Diploma and Degree students. The level 100 courses with the prefix COM are compulsory:

- COM101 Introduction to Communication and Academic Literacy Skills (Medicine and Health Sciences); 3 credits.
- COM102 Health Communication (Medicine and Health Sciences); 3credits.
- COM111 Introduction to Communication



	and Academic Literacy Skills (Humanities and Education); 3 credits.
COM112	Academic and Professional Communication (Humanities and Education); 3 credits.
COM121	Introduction to Communication and Academic Literacy Skills (Business); 3 credits.
COM122	Academic and Professional Communication (Business); 3 credits.
COM131	Introduction to Communication and Academic Literacy Skills (Engineering and Technology); 3 credits.
COM132	Academic and Professional Communication (Engineering and Technology); 3 credits.
COM141	Introduction to Communication and Academic Literacy Skills (Science); 3 credits.
COM142	Academic and Professional Communication (Science); 3 credits.
COM151	Introduction to Communication and Academic Literacy Skills (Social Science); 3 credits.
COM152	Academic and Professional Communication (Social Science); 3 credits.
GEC210	Introduction to Legal Language (2, CSSU)
GEC211	Advanced Writing Skills (2, CSSU)
GEC212	Advanced Oral Presentations (2, CSSU)
GEC213	Advanced Communication Skills (2, CSSU)

## Area 2 Information and Communication Technology knowledge and Skills

Courses in the Information and Communication Technology knowledge and Skills are open to Certificate, Diploma and Degree students. The level 100 courses with the prefix ICT are compulsory:

ICT121	Computer Skills Fundamentals 1; 2 credits
ICT122:	Computer Skills Fundamentals 2; 2 credits

General Education courses available to all students  
(Students should consult relevant departments on availability of the GEC's)

GEC232	Critical Thinking – A Life Tool (2, Theology and Religious Studies)
GEC233	Logic I: Introduction to Logic (2, Theology and Religious Studies)
GEC330	Introduction to Research Methods (3, All Faculties)
GEC333	Logic II: Logic and the Sciences (2, Theology and Religious Studies)
GEC334	Epistemology: Theories of Truth (2, Theology and Religious Studies)
GEC441	Introduction to Wetland Research
GEC141	Fitness through Physical Education (2, Physical Education)
GEC145	Introduction to Swimming (2, Physical Education)
GEC148	Health and Wellness (2, Physical Education)
GEC247	HIV/AIDS Education, Prevention and Control (3, Nursing Education)

GEC248	Human Nutrition (3, Biological Sciences)
GEC249	Human Sexuality (3, Biological Sciences)
GEC371	Personal Development and
GEC441	Special Education (3, Biological Sciences)
GEC250	Earth Processes, Mineral Resources and Development (2, Geology)
GEC251	Ground Water and Society (2, Geology)
GEC252	Origins of the Universe (2, Physics)
GEC253	Energy and Society (2, Physics)
GEC254	The Environment: Our Home, Our Resource (2, Environmental Science)
GEC350	Environmental Change in Southern Africa (2, Environmental Science)
GEC255	Electrical Energy and Rural Development (2, Electrical Engineering)
GEC256	History of Technology (2 Mechanical Engineering)
GEC257	Ancient and Modern Structures (2, Civil Engineering)
GEC258	Art and Science of Design (2, Technology and Educational Studies)
GEC355	Telecommunications in Society (2, Electrical Engineering)
GEC356	Renewable Energy (2 credits Mechanical Engineering)
GEC357	Advances in Technology (2 credits Technology and Educational Studies)
GEC261	The Languages of Botswana (2, African Languages and Literature)
GEC262	Introduction to Cultural Studies (2, African Languages and Literature)
GEC263	The Politics of Gender (2, Theology and Religious Studies)
GEC264	Religion and Development (2, Theology and Religious Studies)
GEC268	Literature of Liberation (2, English)
GEC362	Africa and Its Past on Film (2, History)
GEC270	Accounting for Non- Business Majors (3, Accounting and Finance)
GEC271	Basic Cost Accounting and Control (3, Accounting and Finance)
GEC272	Basic Finance and Taxation (3, Accounting and Finance)
GEC371	Small Business Entrepreneurship (3, Management)
GEC275	Basic Concepts in Marketing (3, Management)
GEC276	Contemporary Economic Issues (3, Economics)
GEC277	Law and Society in Botswana (3, Law)
GEC278	Population and Society (3, Population Studies)
GEC279	e-Governance (2, Political and Administrative Studies)
GEC273	The State and Society (2, Political and Administrative Studies)
GEC372	Migration and Globalisation (2, Population Studies)
GEC441	Special Education (2)
FYE101	First Year Experience (3, Social Work)

Regulations for the Award of Fellowships, Scholarships, Studentship, Exhibitions and Prizes

## 0.10 General

90.11 The following Regulations are approved as per Statute 42d. 9

90.12 Special Regulations shall be approved to govern each fellowship, scholarship,

studentship, exhibition or other prize established as a result of a donation, bequest or a financial covenant accepted by the University Council.

90.13 Special Regulations shall only be amended with the written agreement of the donor or executor (unless the donor has since died or after due search cannot be traced).

90.14 No award of a fellowship, scholarship, studentship, exhibition or other prize shall be made in any year in which the accumulated special funds for that award are less than the annual value of the award.

## 90.20 Fellowships

90.21 Procedures for Instituting Fellowships

i) All proposals for the institution of fellowships shall be forwarded to the Fellowships Committee.  
ii) Proposals shall include the suggested name of the fellowship, full reasons for making the proposals and choosing the particular person, and the conditions under which the fellowship may be awarded, including the composition of the Fellowship Selection Committee.

iii) If the proposed fellowship is to be named in honour of a particular person or organisation, the donor should not inform the person(s) or organisation he/she wishes to honour before the Fellowships Committee has considered the proposal.

iv) Prospective donors of fellowships should state the intended time span of the fellowship, the amount of money they wish to donate to the University, and the value of each fellowship.

v) As a general principle, current members of staff may not have fellowships named after them.

vi) When the Fellowships Committee has satisfied itself as to the suitability of the proposed fellowship and its administration, it shall make a recommendation to the Senate.

vii) Before making a recommendation to the Senate, the Fellowships Committee may request the prospective donor to supply more detailed information on the financing, nature of conditions for the fellowship, and may advise the donor of the need to increase the donation value of the award.

viii) On the recommendation of the Fellowships Committee, the Senate shall review and set the minimum amount which a donor shall be required to pay to the University in order to establish a fellowship.

ix) A fellowship shall be established or terminated by the University Council on the recommendation of the Senate.

## 90.22 Procedures for the Award of a Fellowship

i) All proposals for the award of a fellowship to any student shall first be made to the Fellowship Selection Committee, which after careful deliberation shall recommend the name(s) of the recipient(s) to the Fellowships Committee.

ii) If the recommendation for an award of a fellowship is received and approved by the Fellowships Committee, the Vice Chancellor may approve the award on behalf of the Senate.

iii) No award of a fellowship may be approved before the donor has paid to the University the minimum amount required to establish a fellowship.

iv) All awards of fellowships shall be made subject to the Special Regulations for the individual fellowships.

90.23 Special Regulations for the University of Botswana Alumni Fellowship

## GENERAL INFORMATION

The Alumni Fellowship was established in 1996/97 as a result of a donation by the Alumni of the University of Botswana Development Trust (ALUBDEV) to promote Master's Degree studies and research on some aspect of Botswana culture in any field of study. The Alumni Fellowship will cover the following fees: tuition, book and caution fee, Identity Card and fieldwork for both part and full-time students. For full-time Students, residence, refectory and laundry fees will also be covered by the fellowship.

- i) The Alumni Fellowship shall be tenable at the University of Botswana and may be awarded by the Senate to citizens of Botswana who qualify for Master's Degree studies in any field.
- ii) The maximum period of the fellowship shall be two years for full-time study and three years for part-time study.
- iii) The Senate shall satisfy itself that the focus of the intended Master's Degree studies by the proposed recipient is on some aspect of Botswana culture.
- iv) The recipient of the Fellowship shall be required to maintain a satisfactory performance during the course of study.
- v) The UB Alumni Fellowship Selection Committee shall include two representatives of the Alumni of the University of Botswana Development Trust (ALUBDEV).

90.30 Scholarships

90.40 Studentship

90.50 Exhibitions

90.60 Prizes

### 90.61 Procedures for Instituting Prizes

- i) All proposals for the institution of prizes shall be forwarded to the Director, Academic Services.
- ii) Proposals shall include the suggested name of the prize, full reasons for making the proposals and choosing the particular name, and the conditions under which the prize may be awarded.
- iii) If the proposed prize is to be named in honour of a particular person or group, the donor should not inform the person(s) he/she wishes to honour before the appropriate University authorities have considered the proposal.
- iv) Prospective donors of prizes should state the intended time span of the prize, the amount of money they wish to donate, and the value of each award of the prize. They may also indicate the nature of the prize.
- v) As a general principle, current members of staff may not have prizes named after them.
- vi) When the Department or Faculty has satisfied itself as to the suitability of the prize, it shall make a recommendation to the Senate.
- vii) Before making a recommendation to the Senate, the Department or Faculty may request the prospective donor to supply more detailed information on the financing, nature of conditions for the award of the prize, and may advise the donor of the need to increase the donation value of the award.

### 90.62 Procedures for the Award of Prizes

- i) A prospective donor may suggest a person who qualifies to receive an award for consideration by the Department or Faculty.
- ii) Any proposal for the institution of a prize may include the composition of the awarding committee.
- iii) All proposals for the award of a prize to any student shall first be made to the awarding

committee, which after careful deliberation shall recommend the name(s) of the recipient(s).

- iv) Subject to the Special Regulations for individual prizes, the award may be in cash or in books to the value of the prize, and the award may be made jointly to two or more persons in any one year in which case its value shall be shared equally between them.

### 90.63 The following Special Regulations apply to individual prizes:

#### 1. Roderick Ross Prize in Administration

This prize was established in 1982/83 as a result of an annual donation to the University by Roderick Ross, a former visiting Registrar (1978) to the then University College of Botswana, to mark its attainment of full University status and to encourage studies in Administration. The prize may be awarded annually by the Senate to the student with the best marks in the final examinations in the subject Public Administration for the BA Degree. The Senate may in any year award the prize jointly or, exceptionally and on the recommendation of the Board of the Faculty of Social Sciences, make no award where an insufficiently high standard has been achieved. The prize shall be in books, chosen by the winner, to the value of 15 Pounds in Pula.

#### 2. Isaac Schapera Prize

This prize was established in 1983/84 as a result of a donation to the University of the royalties accruing from the sale of the book "Land Reform In The Making", edited by R.P. Werbner. The prize, which is in honour of Professor Isaac Schapera's major contribution to the Social Sciences in Botswana, may be awarded, as income permits, by the Senate to a final year degree student with the best performance or project in one of the following fields of the Social Sciences; Sociology, Environmental Science, Law, Public Administration and Political Sciences. The Senate may award the prize jointly or, exceptionally and on the recommendation of the Board of the Faculty of Social Sciences, make no award where an insufficiently high standard has been achieved. The prize shall be in books worth P150 chosen by the successful candidate.

#### 3. Vice Chancellor's Prize

This prize was established in 1989 as a result of a generous donation to the University of Botswana by the Honourable Mr D. N. Magang and his family. The prize may be awarded annually by the Senate to the most outstanding full-time first degree graduating student(s). This student(s) should have made a significant contribution to student life, should be of good conduct and should have consistently outstanding leadership qualities during his/her period as a student. The prize will be in the form of the following: a miniature trophy on which the name of the recipient will be appropriately engraved, a scroll duly signed by the Vice Chancellor and the donor during his life time, and a shield on which the name of the prize and the recipient's name will be inscribed. The shield will be placed at a conspicuous place on the University Campus. The Senate may award the prize jointly or make no award at all, if there is no candidate qualified for the prize.

#### 4. Michael Hamlyn Prize

This prize was established in 1987 by the staff

members of the Faculty of Science in memory of Mr. Michael Hamlyn, a South African refugee student who was the only member of the University of Botswana killed by a South African Government commando force that invaded Gaborone in the early hours of Friday 14th June 1985. He had just completed the Degree of Bachelor of Science, First Class when he was killed. The prize may be awarded annually by the Senate to a student who studied and showed considerable ability in Mathematics and Physics in the second year of the BSc Degree programme and who demonstrated maturity in his/her relationship with other students and staff. The Awarding Committee, comprising the Dean of the Faculty of Science, the Head and an elected member of the Mathematics Department, and the Head and elected member of the Physics Department, will make a recommendation through the Science Faculty Board to the Deputy Vice Chancellor. The prize will be in the form of books worth P200 chosen by the winner.

#### 5. Bank of Botswana Prize

This prize was established in 1989 and may be awarded annually by the Senate to a Motswana graduating student with the best marks in Accountancy and Business Administration and Economics. The recipient will be invited to attend the annual the Bankers Banquet.

#### 6. PriceWaterhouseCoopers Prize

This prize was established in 1990 as a result of a generous donation to the University of Botswana by PriceWaterhouseCoopers. The prize may be awarded annually by the Senate to a second year Motswana Bachelor of Accounting student with the best overall performance in any particular year. The prize will be in the form of books worth P500 chosen by the winner and a floating trophy. The winner will also be attached to the Firm during the vacation periods and will receive an allowance. The Firm will also pay for the student's registration with the Chartered Association of Certified Accountants in the U.K. or other approved body.

#### 7. Dean's Prize: Faculty of Education

This prize was established in 1984 and was funded by members of the academic staff of the Faculty of Education in 1993. The prize may be awarded annually by the University Senate to a final year student(s) adjudged academically the most outstanding in the Faculty of Education who should have obtained at least 4.0 CGPA. The student(s) should be of acceptable conduct. The prize will be in the form of books worth P200 chosen by the winner and a shield. The name of the recipient will be inscribed on the shield to be placed in the Dean's office.

#### 8. Dean's Prize: Faculty of Science

This prize was established in 1984 and was funded by members of the academic staff of the Faculty of Science in 1993. The prize may be awarded annually by the University Senate to a final year student(s) adjudged academically the most outstanding in the Faculty of Science who should have obtained at least 4.0 CGPA. The student(s) should be of acceptable conduct. The prize will be in the form of books worth P200 chosen by the winner and a shield. The name of the recipient will be inscribed on the shield to be placed in the Dean's office.

#### 9. Dean's Prize: Faculty of Humanities





This prize was established in 1984 and was funded by members of the academic staff of the Faculty of Humanities in 1992. The prize may be awarded annually by the University Senate to a final year student(s) adjudged academically the most outstanding in the Faculty of Humanities, who should have obtained least 4.0 CGPA. The student(s) should be of acceptable conduct. The prize will be in the form of books worth P200 chosen by the winner and a shield. The name of the recipient will be inscribed on the shield to be placed in the Dean's office.

#### **10. Dean's Prize: Faculty of Social Sciences**

This prize was established in 1984 and was funded by members of the academic staff of the Faculty of Social Sciences in 1992. The prize may be awarded annually by the University Senate to a final year student(s) adjudged academically the most outstanding in the Faculty of Social Sciences who should have obtained least 4.0 CGPA. The student(s) should be of acceptable conduct. The prize will be in the form of books worth P200 chosen by the winner and a shield. The name of the recipient will be inscribed on the shield to be placed in the Dean's office.

#### **11. Dean's Prize: Faculty of Business**

This prize was established in 2001 and was funded by members of the academic staff of the Faculty of Business in 2000. The prize may be awarded annually by the University Senate to a final year student adjudged academically the most outstanding in the Faculty of Business who should have obtained least 4.0 CGPA. The student should be of acceptable conduct. The prize will be in the form of cash to the value of P400, a shield and a Certificate of Outstanding Performance signed by the Dean of the Faculty. The name of the recipient will be inscribed on the shield to be placed in the Dean's office.

#### **12. Deloitte and Touche Prize**

This prize was established in 1994 through a donation from the Deloitte and Touche Accounting Firm. The prize may be awarded annually by the University Senate to the best final year all round Accountancy student. The prize will be P1,500 cash.

#### **13. De Beers Private Sector Trust Prize**

This prize was established in 1996 through a generous donation from the De Beers Botswana (Pty) Ltd. to the University of Botswana. The prize may be awarded annually by the University Senate to the best graduating degree MBA student(s) who have obtained the highest overall minimum average of 70 percent. The recipient should have had a clean academic record and also should not have repeated a course or have been the subject of disciplinary action while a student. In the event that a graduating student with the highest overall average is disqualified from winning this prize because of disciplinary action, the prize will be awarded to the next best graduating student with the best marks. The prize will be in the form of books worth P1,000 and a floating imbua plaque on which the name of the recipient(s) shall be inscribed.

#### **14. British High Commissioner's Prize**

This prize was established in 1990 through a donation from the then British High Commissioner Mr. Brian Smith. The prize may be awarded annually by the University Senate to a final year degree student(s) adjudged

academically the most outstanding in either the Faculty of Education (Department of Mathematics and Science) or the Faculty of Science. The student(s) should be of acceptable conduct. The prize will be a floating trophy.

#### **15. The Builders World Prize**

This prize was established in 1995 with seed money donated by Builders World Botswana (Pty) Ltd. The prize may be awarded annually to the most outstanding final year BSc Degree female student in the Faculty of Science with a degree classification of at least 2(i). The prize will be in the form of books worth P200 and a floating shield engraved with the donor's and winner's(s') names.

#### **16. The John Cooke Prize for Environmental Conservation**

This prize was established in 1993 in honour of Professor John H. Cooke (Founding Head of the Department of Environmental Science). It was established with money collected by the Department. The prize may be awarded annually to the best graduating student in Environmental Science with a degree classification of at least 2(ii) and a record of active interest in environmental issues. The prize will be in the form of books worth P200 selected by the winner.

#### **17. Botswana Institute of Accountants Prize (BIA)**

This prize was established in 1994 through a generous donation to the University of Botswana by the Botswana Institute of Accountants. The prize may be awarded annually by the University Senate to the most outstanding graduating Bachelor of Accountancy Motswana student(s) who must have obtained least 4.0 CGPA. The prize will be in the form of books worth P300, a shield for the winner with his/her name inscribed on it and a floating shield on which the name of the recipient(s) shall be inscribed.

#### **18. CISNA '93 Information Technology Prize: Computer Science**

This prize was established in 1996 through a donation from the CISNA '93 Conference Organising Committee. The prize may be awarded annually by the University Senate to the best final year degree student in the Department of Computer Science with at least 4.0 CGPA. The student(s) should be of acceptable conduct. The prize will be in the form of P500 cash and a floating shield on which the name of the recipient and prize will be inscribed.

#### **19. CISNA '93 Information Technology Prize: Engineering and Technology**

This prize was established in 1996 through a donation from the CISNA '93 Conference Organising Committee. The prize may be awarded annually by the University Senate to the best final year degree student(s) in the Department of Engineering and Technology with at least 4.0 CGPA. The student(s) should be of acceptable conduct. The prize will be in the form of P500 cash and a floating shield on which the name of the recipient(s) and prize will be inscribed.

#### **20. Michael Crowder Prize for History and Archaeology**

This prize was established in 1996 and was funded by members of the academic staff of the History Department, well-wishers and supporters. The

prize may be awarded by the University Senate to the best single or double major graduating student(s) in History Or Archaeology who should have obtained a degree classification of at least 2(i), and who should have obtained a minimum of 70% in History/Archaeology. The prize will be in the form of books worth P200 chosen by the winner.

#### **21. The Chartered Institute of Management Accountants (CIMA) Prize:**

This prize was established in 1996/97 through a donation made to the University of Botswana by the Botswana Branch of the Chartered Institute of Management Accountants. The prize was initially awarded annually by the Senate to the best final year student in the Certificate in Accounting and Business Studies (CABS) who should have obtained at least 4.0 CGPA. When UB phased out CABS, this Prize was changed to be awarded to the best final year student in Strategic Management (MGT400). The student should be of acceptable conduct. The prize will be in the form of books chosen by the winner, and a plaque retained by the University in which the name of the recipient, donor and prize shall be inscribed. The Senate may award the prize jointly or make no award at all if there is no candidate qualified for the prize.

#### **22. The Chartered Institute of Management Accountants Prize: DABS**

This prize was established in 1996/97 through a donation made to the University of Botswana by the Botswana Branch of the Chartered Institute of Management Accountants. The prize may be awarded annually by the Senate to the best final year student in the Diploma in Accounting and Business Studies who should have obtained at least 4.0 CGPA. The student should be of acceptable conduct. The prize will be in the form of books worth P200 chosen by the winner, and a plaque retained by the University in which the name of the recipient, donor and prize shall be inscribed. The Senate may award the prize jointly or make no award at all if there is no candidate qualified for the prize.

#### **23. Botswana Institute of Engineers Prize**

This prize was established in 1996 through a generous donation to the University of Botswana by the Botswana Institute of Engineers. The prize may be awarded annually by the University Senate to the most outstanding student(s) in the final year of the Bachelor of Engineering Degree programme and the student(s) should be of acceptable conduct. The prize will be in the form of P1000 cash.

#### **24. Dean's Prize: Faculty of Engineering and Technology**

This prize was established in 1996/97 through a donation to the University of Botswana by the 1995 Maintenance of Engineering Facilities (MEF '95) Conference Organising Committee. The prize may be awarded annually by the University Senate to a final year degree student(s) adjudged academically the most outstanding in the Faculty of Engineering and Technology who should have obtained at least 4.0 CGPA. The student(s) should be of acceptable conduct. The prize shall be in the form of books worth P200 chosen by the winner, a scroll given to the recipient on which the name of the recipient, donor and prize

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shall be inscribed, and a shield retained by the University on which the name of the recipient and prize shall be inscribed. The shield shall be placed in the Dean's office.

### **25. The Lady Olebile Masire Prize**

This prize was established in 1996/97 as a result of a generous donation to the University of Botswana by Lady Masire. The prize may be awarded annually by the Senate to the best final year degree student(s) in the Faculty of Engineering and Technology. The student(s) should be of acceptable conduct. The prize shall be in the form of a scroll given to the recipient on which the name of the recipient, donor and prize shall be inscribed, and a shield retained by the University on which the name of the recipient, donor and prize shall be inscribed.

### **26. The BDF Prize for Physical Education**

This prize was established in 1996/97 as a result of a donation to the University of Botswana by the Botswana Defence Force. The prize may be awarded annually by the Senate to the best final year degree student(s) in the Physical Education programme. The student(s) should be of acceptable conduct. The prize shall be in the form of a trophy given to the recipient on which the name of the recipient, donor and prize shall be inscribed.

### **27. Setswana Prize**

This prize was established in 1998/99 through a donation to the University of Botswana by the National Setswana Language Council. The prize may be awarded annually by the Senate to the student(s) with the best performance in African Languages and Literature in a single or combined major. The student(s) should be of acceptable conduct. The prize shall be in the form of a symbolic cultural artefact, depicting Setswana culture, given to the recipient. It will bear on it the name of prize, prize winner, donor and year of award. The Senate may award the prize jointly by using the interest money to purchase two or several cultural artefacts.

### **28. The Association of Chartered Certified Accountants Prize in Management (ACCA)**

This prize was established in 1996/97 through a donation to the University of Botswana by the Botswana Branch of the Association of Chartered Certified Accountants. The prize may be awarded annually by the Senate to the most outstanding Bachelor of Business Administration Management final year student(s) with at least 4.0 CGPA. The recipient should not have repeated a course or year of the programme and should be of acceptable conduct. The prize shall be in the form of a scroll on which the name of the recipient, donor and prize shall be inscribed and a plaque retained by the University on which the name of the recipient, donor and prize shall be inscribed.

### **29. The Indian High Commissioner's Prize**

This prize was established in 1997/98 as a result of a generous donation from the High Commission of India to the University of Botswana. The prize may be awarded annually by the Senate to the most outstanding post-graduate student in the Faculty of Humanities. Preference will be given to a student(s) who undertook studies on some aspect of Asia, particularly of India, if any. The

student(s) should be of acceptable conduct. The prize will be in the form of a memento worth P170 bearing the name of the prize, the achievement and the recipient's name inscribed on it, and cash or books worth P300 chosen by the winner.

### **30. The Ernst and Young Prize**

This prize was established in 1998/99 through a generous donation to the University of Botswana by the Ernst and Young firm of Certified Public Accountants. The prize may be awarded annually by the Senate to the overall top three Bachelor of Accountancy programme first year students and the best Financial Accounting and Auditing third year student(s). The student(s) should be of acceptable conduct. The prize will be in the form of cash worth P350 and P750 per student for first year and third year students respectively.

### **31. Media Communications (Pty) Ltd Prize**

A prize awarded to the student(s) with the best performance (not below 70%) in each of the courses: integrated marketing communications, international marketing, marketing ethics, product and brand marketing, retail management, services marketing, contemporary issues in social marketing, strategic marketing.

### **32. Probe Market Intelligence Prize**

A prize awarded to the student with the best performance (not below 70%) in course Marketing Research.

### **33. Sharma and Associates Prize**

The prize was established in 2002. It is awarded to a Motswana student with highest grade in Taxation in the undergraduate programme. In addition, the winner must not have failed any course in the programme and must also have a good conduct record. The prize will be either a cash award or books.

### **34. Annual BOCCIM Award**

The prize was established in 2005. It is awarded annually to the overall best Motswana 3rd year student in Bachelor of Business Administration (Marketing) with a CGPA of at least 4.5. The prize will be in the form of a special BOCCIM shield and a cash worth of P2000.00.

### **35. IEE Region 8 AFRICON'04 Prize**

This prize was established in 2004/5 through a donation to the University of Botswana by the 2004 IEEE Region 8 AFRICON Conference Organizing Committee. A prize awarded to the most outstanding graduating Electrical and Electronic degree student with a Cumulative GPA of at least 4.5. The prize will be in the form of P2000 cash.

### **36. M.L.A Kgasa Longman Prize**

A prize awarded to the best dissertation or research project.

### **37. English Prize**

A prize awarded to the best graduating student in English Language and Literature.

### **38. Chibanda, Makgalemele, Ngcongco Prize**

A prize awarded to the best graduating student in the Department of Law

### **39. Law Society of Botswana Prize**

A prize awarded to the best graduating student in Clinical Legal Education.

### **40. Helfer & Co Prize**

A prize awarded to the best graduating student in Conveyancing.

### **41. The Lady Ruth Khama Prize**

A prize awarded to the graduating student(s) in Social Work with degree CGPA of at least 4.0 and who performed exceptionally well during fieldwork placement/community service.

### **42. IASTED 2006 PRIZE**

This prize was established in 2006/7 through a donation to the University of Botswana by the IASTED 2006 Conference Organizing Committee. A prize is awarded annually to one graduating student in the Faculty of Engineering and Technology with a final cumulative GPA of at least 4.5. The student should be of acceptable conduct. The prize will be in the form of P1000 cash

### **43. ITALTSWANA CONSTRUCTION COMPANY PRIZE**

This prize was established in 2008 through a donation to the University of Botswana by the Italtswana Construction Company (ICC). A prize is awarded to the graduating student in the BEng Construction Engineering and Management degree with the best Cumulative GPA of at least 4.5. The prize will be in the form of P1000 cash.

### **44. BOTSWANA TELECOMMUNICATIONS CORPORATION PRIZE**

This prize was established in 2007 through a donation to the University of Botswana by the Botswana Telecommunication (BTC). The prize may be awarded annually by the University Senate to the most outstanding student in the final year of the Bachelor of Electrical and Electronic Engineering Degree programme and the student should be of acceptable conduct. The prize will be in the form of P2000 cash.

### **45. MASCOM PRIZE**

This prize was established in 2010 through a donation to the University of Botswana by the Mascom Wireless Botswana. The prize may be awarded annually by the University Senate to the most outstanding student in the final year of the Bachelor of Electrical Engineering Degree programme and the student(s) should be of acceptable conduct. The prize will be in the form of P2000 cash.

### **46. FMA ARCHITECTS PRIZE**

This prize was established in 2010 through a donation to the University of Botswana by the FMA Architects. The prize may be awarded annually by the University Senate to the most outstanding student in the final year of the Bachelor of Architecture Degree programme and the student(s) should be of acceptable conduct. The prize will be in the form of P2000 cash and certificate of achievement signed by the HOD and the Dean.

### **47. Botswana Development Corporation Prize**

The prize was established in 2005 through an endowment sum of the P10000.00. It is awarded annually to the overall best graduating student in the BBA (Marketing). The prize will be in the





form of cash.

#### **48. Dr M. A. Chamme Prize**

The prize was established in 2009 by the Department of Marketing as a gesture of appreciation of the contribution made by Dr Mbaki Andrew Chamme to the department. It is awarded annually to a student with the best course grade in Advertising Management. The prize will be in the form of a floating trophy.

#### **49. Choppies Group of Companies Prize**

The prize was established in 2009. It is awarded annually to a Motswana student with the best course grade in Entrepreneurship and New Business Formation. The prize will be in the form of cash.

#### **50. Moores Rowland Award**

The prize was established in 2009. It is awarded annually to a Motswana student with the highest grade in Auditing. The prize will be in the form of cash.

#### **51. Fleming Asset Management Prize**

The prize was established in 2009. It is awarded annually to a Motswana student with the highest grade in Investment and Analysis and Portfolio management. The prize will be in the form of cash.

#### **52. Stanbic Investments Award**

The award was established in 2005 through a donation of P10000.00 to the University of Botswana by the Stanbic Investment Management Services. It is awarded annually to the best graduating Motswana student in Bachelor of Finance with at least 75% aggregate in years 3 and 4. The award will be in the form of a floating trophy and cash.

#### **53. Mathata Gasennelwe Prize**

The prize was established in 2010. It is awarded annually to the overall best graduating Motswana student in Bachelor of Business Administration (Marketing). The prize will entail books to the value of P1000.00 and a certificate.

#### **54. Mascom Prize**

The prize was established in 2009. It is awarded annually to the best graduating Motswana student in Bachelor of Information Systems (Business Information Systems). The prize will be in the form of cash.

#### **55. Cresta Hospitality Excellence Award**

The award was established in 2010. It is awarded annually to two best graduating students in Bachelor of Tourism and Hospitality. The award will be in the form of a trophy, cash and internship for both students.

#### **56. Peermont Global Botswana Limited Prize**

The prize was established in 2010. It is awarded annually to the best overall graduating student in the Bachelor of Tourism and Hospitality. The prize will be in the form of a trophy and cash.

#### **57. Botswana IFSC Prize**

The prize was established in 2009. It is awarded annually to the best 3rd year student in Bachelor of Finance. It will be in the form of Cash.

### **3.1 Residence Regulations**

3.1.1 Full-time students normally live in approved Halls of Residence on campus. However, because accommodation is not enough for everyone, some students have to live off campus. Accommodation, where available, is offered by the Department of Student Welfare.

3.1.2 Students who are accommodated on campus are required to follow regulations and guidelines for Halls of Residence.

3.1.3 Off campus students are not allowed to lodge in Halls of Residence without permission from the Department of Student Welfare. This also applies to non-UB students. 4. Discipline Regulations Pursuant to Statute 8(ii) of the Statutes of the University of Botswana, the following are and shall be, until amended, the Discipline Regulations.

#### **4.1 Misconduct Under the Statute**

4.1.2 A student shall be guilty of misconduct if he/she:

- i) Engages in conduct (on or off the premises of the University) which discredits the good name or is prejudicial to the peace, good order and good government of the University;
- ii) Fails to comply with any Statute of the University;
- iii) Willfully destroys, damages, defaces, alienates or appropriates to himself/herself any property of the University;
- iv) Infringes the regulations of the University for the control of Library materials, examinations, class tests and assignments or any other approved regulations;
- v) Fails to comply with such instruction relating to his/her conduct as a student as he/she may receive from any member of the University staff in the exercise of his/her duties;
- vi) Infringes the traffic rules of the University;
- vii) Is convicted in any court of law of an offence which in the opinion of the Vice Chancellor is serious enough to warrant disciplinary action.

#### **4.2 Disciplinary Procedures**

4.2.1 Any charge of misconduct shall in the first instance be laid before the Vice Chancellor.

4.2.2 i) The Vice Chancellor may decide the case after taking such advice or seeking such evidence as he/she considers desirable or may refer the case for investigation to a sole investigator or may appoint a Disciplinary Committee with such membership as he/she deems appropriate.

ii) The Vice Chancellor may forbid such student to attend lectures and/or participate in any student activities whilst the charge against him/her is being investigated.

4.2.3 Where the Vice Chancellor refers the case to a sole investigator or appoints a Disciplinary Committee and refers the case to the same Committee, the following procedures shall be followed:

i) The student shall be given at least two clear days' notice in writing of the time and place of the hearing and of the nature and substance of the charge against him/her.

ii) The Vice Chancellor may designate a member of staff to be present at the hearing to present the case against the student. The sole investigator or the Disciplinary Committee may call witnesses and interrogate them concerning the matters at issue.

iii) The hearing before the sole investigator or the Disciplinary Committee shall be conducted

in private.

iv) The Secretary of the Disciplinary Committee who shall be appointed by the Vice Chancellor, or the sole investigator, as the case may be, shall ensure that an accurate record is kept of all the proceedings and of the evidence pertaining to the case. The Director, Legal Services Office shall have custody of records.

v) The sole investigator or the Committee, as the case may be, shall prepare a written statement of the decision together with a brief summary of the reason(s) thereof.

vi) When a student is rusticated for a period longer than a semester, or is dismissed from the University, an appeal may be made to the Council and the student shall be informed of his/her right to appeal.

vii) On receipt of a memorandum of appeal, the Vice Chancellor shall bring before the Council, which shall meet in special session if the Chairperson deems it necessary, without delay, a statement of the reasons for the decision, together with a summary of the evidence on which that decision is based, and the student's written memorandum of appeal. The case shall then be decided by the Council on the basis of the material thus presented.

viii) Such appeals may be considered by the whole Council or a Committee of not less than three members appointed by the Chairperson for the purpose. Council or its Committee may make its decision on the basis of the minutes or records of any previous hearing and students shall be given seven clear days' notice of the day and time when the appeal will be heard and, in any case in which oral representations of any kind are heard, shall be given the opportunity to hear and cross examine any person making such representations. I

x) The decision of Council shall be final.

#### **4.3 Criminal Proceedings**

4.3.1 A finding of guilt or an acquittal in a criminal court shall not preclude proceedings against a student in respect of the same incident, but any sentence or order pronounced shall be taken into account in the imposition of any penalty. Further, the finding of a criminal court in respect of any incident which is the subject of proceedings against a student, may be used in evidence in those proceedings.

### **Examinations Regulations**

4.4.1 Information and Guidance for Candidates  
All candidates will be assumed to have read the following rules and regulations.

#### **4.4.2 Examination Venues**

Examinations are normally held in the University and its Centres. The venue of each examination will be specified in the examination timetable. Candidates are responsible for knowing in advance the rooms in which they write examinations.

#### **4.4.3 Examination Numbers**

You must write your Student Identity number and full names on the cover of your answer book and any other materials used. Make sure that you write your ID Number and full names on the examination materials clearly and correctly. Candidates must produce a valid Student ID card at each of their examinations and display it on the examination desk/table for checking by the

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invigilator.

### 4.44 Time of Arrival

Examinations commence at times stated in the examination timetable. Candidates must confirm the times of each of their examinations. Candidates will be admitted into the examination room approximately 20 minutes before the start of each examination session. Candidates will be given 10 minutes reading time prior to the advertised time of exam commencement. Candidates must not make notes or commence writing during this period.

### 4.45 Absence from an Examination

i) If a candidate fails to take an examination for no good reason, special papers will not be set and the candidate will be deemed to have failed the particular examination. Losing, misreading or failure to consult the examination timetable are not acceptable reasons for absence or late arrival at an examination.

ii) In the case of absence from an examination through ill health, the candidate (or someone acting on his/her behalf) must submit a relevant medical certificate which must relate to the day or period of the examination. Evidence of illness will not normally be taken into account unless substantiated by a medical certificate. Such evidence must be received within 14 days after the day of examination in order for it to receive full consideration.

iii) It is the responsibility of the candidate to arrange with his/her doctor for any medical evidence to be sent to the relevant Head of Department

iv) In the case of absence from an examination due to serious causes (other than ill health of the candidate), the candidate (or someone acting on his/her behalf) must submit to the relevant head of Department: (a) evidence of the cause, where possible and, (b) a written explanation of the absence.

### 4.46 Entry into the Examination Room

Candidates will be told when they can enter the examination room and silence must be observed on entry and whilst in the examination room.

### 4.461 Seating Arrangements in the Examination Room

Invigilators and exam assistants will guide candidates to their seat.

### 4.462 Special Arrangements

Candidates who have a disability or suffer from any illness or condition that will require special examination arrangements should inform the Faculty office well in advance. Where feasible, special examination arrangements will be made.

### 4.463 Procedures During the Examination

Candidates must immediately on taking their examination seats fill in the attendance slip provided. Answer books and other requisite stationery will be provided. Candidates should carefully read the instructions on the front cover of the answer books and then enter their candidate's ID number and other details required. No part of the book may be torn off and all books used must be left on the desks. Rough work must be done in the answer book and should be crossed out to show that it is not part of the answer.

### 4.464 Starting the Examination

You will be told by the supervisor when you can start the examination and you should not look at the examination question paper before you are told to do so.

### 4.465 Late Arrival

Candidates who are more than one hour late will not be admitted into the examination room. Candidates who arrive late will not be allowed extra time to complete the examination.

### 4.466 Examination Reading Time

On being told to start reading, candidates will check that the question paper is the correct one, all questions are legible and all pages are attached. Discrepancies must be reported to the invigilator for attention.

### 4.467 Temporary Withdrawal

A candidate leaving the examination room temporarily for personal reasons will be accompanied by an invigilator or other authorised person. (NB: Smoking is not considered a suitable reason for leaving the examination room.) The candidate will not take the question paper, answer book(s) and other materials and must not consult or attempt to consult any materials or persons outside the room that may assist him/her in writing the examination.

### 4.468 Leaving the Examination Room

Candidates may not leave the examination room during the first hour of the examination session unless they feel unwell. Candidates must also not leave during the last ten minutes of the examination and must remain seated until all the examination scripts have been collected and checked by the invigilators.

If a candidate has completed his/her paper before the specified time and wishes to leave, he/she must do so as quietly as possible, so as not to disturb the other candidates. Such a candidate will not be allowed to re-enter the examination room. Permission to leave at any time must be requested from the supervisor.

### 4.469 Illness During Examination

Candidates who fall ill during the examination should inform the supervisor or invigilator who shall act or advise as appropriate.

### 4.470 Misconduct

The following will be construed as misconduct in an examination:

- Taking into the examination room, or possessing or using whilst in that room any unauthorised materials or items. Misconduct is presumed from the fact of possession unless an innocent explanation is obvious or is established by the candidate;
- Aiding or attempting to aid, obtaining or attempting to obtain aid from another candidate. Misconduct is presumed from the fact of communication unless an innocent explanation is obvious or is established by the candidate;
- Consulting or trying to consult during the examination any books, notes or other unauthorised materials, or another candidate while temporarily outside the examination room;
- Impersonating another candidate or allowing

oneself to be impersonated;

- Attempting to influence the examiners or other University officials;
- Failing to obey or comply with any of the examination regulations, or instructions of the supervisor/ invigilator acting within the scope of his/her authority. Such repeated behaviour as may in the view of the supervisor prejudice the performance of other candidates. It should be noted that the supervisor is empowered to discontinue the examination of a candidate suspected of misconduct and to expel him/her from the examination room.

### 4.471 End of the Examination

Candidates will be told to stop writing at the end of the examination by the supervisor. Candidates in the room should then remain seated until they have filled all the details required on the answer book and the scripts have been collected. It is the responsibility of the candidate to ensure that all the additional loose sheets, charts or papers and supplementary answer books are enclosed in the first answer book. Candidates may not take any examination materials, used or unused, out of the examination room other than:

- The material they brought into the examination room;
- The question paper (where permissible).

### 4.472 Penalties for Infringement of Examination Regulations

All candidates will be assumed to have read the above Regulations. The following steps will be taken to impose penalties on any candidate who infringes upon examination regulations.

i) Any candidate who is considered by the invigilator to be committing an infringement of the rules will be reported and appropriate action taken. The supervisor has the power to dismiss a candidate from the room and compel him/her to surrender the script if deemed to be guilty of serious misconduct.

ii) In all cases of misconduct, the candidate will be warned that his/her conduct will be reported and that the decision as to whether the work will be accepted or disciplinary action taken rests with the authorities.

iii) When it is determined that the student has committed misconduct calculated to affect improper examination performance:

- He/she may be refused credit for any courses or examinations completed or attempted;
- The results may be withheld;
- He/she may be suspended from writing the examinations;
- He/she may be dismissed from the University for repeated misconduct;
- A candidate who wishes to appeal shall follow the procedure set out in the Disciplinary Regulations.

## Academic Appeals and Procedures

### A. Continuous Assessment

Appeals student may request a review of continuous assessment mark(s) and decisions during the course of the year.

### Steps in the Process of an Assessment Appeal

#### 1. Course Instructor

First discuss concern with the course instructor promptly upon receipt of the assessment mark or decision in an attempt to resolve any differences.



The student has the right to take the matter directly to the Head of Department if need be.

## 2. Department/Programme

If the complaint has not been satisfactorily resolved at Step 1, the student may approach the Head of Department (or Dean if the Head of Department is the instructor, or DVC/AA if the Faculty/School Dean is the instructor) for review, mediation or resolution. The student should attach to the written complaint all relevant evidence as is available to substantiate the complaint. The Head of Department shall investigate and may endeavour to resolve the matter, or may seek further advice/recommendation from the Departmental Board or other persons as he/she thinks fit. The Head of Department may direct that corrective action be taken when justified.

## 3. Faculty/School

If the complaint is not resolved at Step 2, either the Head of Department or the student will refer the written complaint to the Dean of the Faculty/School for investigation, review and resolution. The Dean will review the appeal, discuss with the student, the Head of Department, and any other persons concerned, and may refer it to the Faculty/School Executive for further advice/recommendation. The Dean may direct that corrective action be taken when justified. He/she will report his/her decision to the student and the instructor.

## 4. Academic Appeals Committee

Should the complaint not be satisfactorily resolved at Step 3, either the student or Dean may refer the written appeal to the Senate Academic Appeals Committee for review and resolution. The Committee will review the appeal and the appeal decisions made at earlier steps of the appeals process. The Committee shall determine its own procedure. The student(s) and the instructor concerned may attend the hearings to hear and answer allegations and to present their arguments. The Committee shall not itself re-mark/re-grade the continuous assessment script but shall direct that this be independently done where appropriate. The Committee's decision shall be binding on all parties, may not be appealed, and takes effect when issued.

5. The Committee may refuse to proceed with an appeal or complaint if it concludes that the appeal or complaint is vexatious or malicious.

6. Appeals which challenge the professional academic judgement of individual examiners or Boards of Examiners on the examination performance of students will not be permitted.

7. Victimisation or harassment of students who lodge complaints is prohibited. Procedures relating to Sexual Harassment are dealt with separately below.

8. No fee shall be paid.

## B. Examination Appeals

Students may request a review of their examination marks, results and academic decisions. However, examination appeals against externally moderated examination marks will not normally be considered unless evidence exists that errors/omissions/irregularities had occurred or new evidence exists which necessitates a review of the mark, result or decision.

## Appeals are heard on the following grounds:

1. New evidence: i.e. evidence of circumstances affecting the student's examination performance that, through no fault of the student, could not reasonably have been presented at an earlier date.

2. Procedural or other irregularities in the conduct of the examination.

3. Procedural irregularities in the marking of the examination, e.g. evidence that the scripts have been insufficiently or incorrectly marked.

4. Evidence of prejudice or bias on the part of one or more examiners.

5. Inappropriate advice from members of administrative or academic staff on matters affecting the student's examination candidature or performance.

6. Failure of the University to implement its agreed procedures and regulations.

Grounds for appeal must be specific. Reasons such as 'I deserved a better grade', or 'I thought I did better' are unclear and unhelpful. Appeals which challenge the professional academic judgment of examiners on the student's examination performance will not be considered. Appeals or representations are allowed as a way of ensuring that as far as possible all relevant circumstances surrounding examination performance are brought to light and taken into account in formulating results and decisions. Appeals should be lodged with the relevant Head of Department. Examination appeals must state clearly the grounds for appeal and should include all relevant information. The burden of proof is on the student, and the written appeal should state and support with available evidence the grounds for appeal. The Examinations Appeals Committee will consider the details of the appeal and decide whether the appeal is valid, and if so, what relief should be provided. The Committee does not usually hold hearings. The examination script may be re-marked only if the Committee so directs; there is no automatic re-marking/ re-grading of scripts. However, for all appeals and queries received from students, the marks and/or results will be checked for errors, omissions and conformity with regulations, and a correction made where necessary. The Committee's decision is final and takes effect when issued. Examination scripts and the marks awarded for individual examination questions/answers are not shown to students.

## Procedure for Handling Queries and Appeals on Final Course Grades and Marks

1. Students shall submit queries and appeals within one month from the official date of the publication of Cumulative GPAs and academic results. Queries and appeals received after the deadline date will not be processed except where the delay was caused by factors reasonably beyond the student's control.

2. If a student feels that a final course grade/mark is inaccurate, the student may lodge a query with the Head of the Academic Department/Unit concerned. The Examiner(s) will check the continuous assessment and examination marks for errors and omissions, and

if an error is detected, submit to the Head of Department a change of course grade or mark in the approved Course Grade/Mark Change Form.

3. If the student feels that a final course grade/mark was unfairly assigned, the student may submit a written appeal of the grade/mark to the Head of the Department (HoD) concerned. The HoD shall process the appeal within one week of receipt of the written appeal.

4. If the complaint is not resolved, the HoD shall forward the student's appeal to the Deputy Dean. The Deputy Dean shall process the appeal within one week of receipt of the written appeal.

5. If the complaint is not resolved, the Deputy Dean shall forward the student's appeal to the Secretary of the Senate Academic Appeals Committee. The Committee shall process the appeal within two weeks of receipt of the written appeal and its decision is final.

6. The HoD or Deputy Dean or Appeals Committee may refuse or accept the appeal. If the appeal is accepted, the appellant's examination script shall be re-marked. The original marker or a second marker shall be asked to review the examination script along with a representative sample of all the examination scripts in the course. The appellant's scrip shall be identifiable. If the review leads to a lower grade/mark the original grade/mark shall not be lowered.

## C. Complaints Relating to Individual Course Instructors

A student who has a grievance relating to a course instructor (e.g. unsatisfactory teaching, unsatisfactory relationship with the course instructor) may follow these steps:

1. Raise concern with the course instructor as soon as the problem or difficulty arises. Most grievances can be resolved amicably and quickly in this manner. The student may take the matter directly to the Head of Department if need be.

2. Concerns related to an instructor that cannot be resolved at Step 1 should be discussed with the Head of Department (or Faculty Dean, if the Department Head is the instructor, or DVC/AA if the Dean is instructor).

3. If the complaint is not resolved at Step 2 above, the student may follow the Steps as in 1.3 through 1.5 under Section 1 above. The complaint review process is accomplished in a collegial nonjudicial atmosphere rather than an adversarial one and allows the parties involved to participate as appropriate. Complaints must be raised and resolved promptly and as soon as they arise during the course of the year. The student and instructor may enlist the aid of a neutral third party (e.g. counselor, academic advisor) to assist.

For further details of the appeals procedure, please contact the:

Department of Academic Services,  
Tel: (+267) 355 2018/2016 Fax: (+267) 3585 103.  
University of Botswana

# Faculty of **BUSINESS**

**ACCOUNTING AND FINANCE**

**MANAGEMENT**

**MARKETING**

**TOURISM & HOSPITALITY**

**DEAN**

C. R. Sathyamoorthi, BCom (Kerala), MCom (Calicut)

**DEPUT DEAN**

N. Moeti, BCom (UB), DBA, MBA, Ph D (Birmingham)

**FACULTY ADMINISTRATOR**

B. Paledi, BCom, MBA (UB), MA (Development Studies)(UB)

**MANAGER, HUMAN RESOURCE**

J.J. Tsimako, BA, PGDE (UB). MLMEd (New Castle).

**COORDINATOR, SMALL BUSINESS CLINIC**

E. D. M. Odirile, BA Economics & Statistics (UBS), PG Dip Economics & Statistics, MA Economics (East Anglia, UK), MBA (UB)

**ASSISTANT SUPPORT MANAGER**

S. Steyn , Dip in Computer studies, Dip in lib & info studies (UB) BIT (University of Canberra, Australia)

**IT TECHNICIAN**

L. Dube, Diploma in Computer Studies (UB), Hours Degree in Systems Engineering (BAC, Sunderland)







## ACCOUNTING AND FINANCE MANAGEMENT, MARKETING TOURISM & HOSPITALITY

Programmes are categorized as follows:

### Part-time

- Diploma in Accounting & Business Studies

### Full-time and Distance mode

- Bachelor of Accountancy
- Bachelor of Finance
- Bachelor of Business Administration (Management)
- Bachelor of Business Administration (Marketing)

### Full time

- Bachelor of Information Systems (Business Information Systems)
- Combined Major in Accounting as part of BA combined Degree
- Bachelor of Tourism & Hospitality Management

Full-time, Part-time and Modular  
Master of Business Administration

Special Regulations for the Faculty of Business  
Subject to the provisions of General Academic  
Regulations 00.0 to 20.4, the following special  
regulations shall apply.

### Entrance Requirement

a) Admission shall be as stipulated in General  
Academic Regulations 20.2, 20.21 and 20.22  
with the specific requirement of a grade C (60  
percent) in English and Mathematics. Subject to  
the General Regulation 00.52 in respect of the  
Mature Age Entry Scheme, applicants to the  
Bachelor of Accountancy, Bachelor of Finance,  
Bachelor of Information Systems (Business  
Information Systems), Bachelor of Business  
Administration (Management) and Bachelor of  
Business Administration (Marketing), Tourism  
& Hospitality Management shall undergo an  
aptitude test.

b) Students with a Diploma in Accounting and  
Business Studies (DABS) or equivalent with a  
cumulative GPA of 2.00 or above can be admitted  
in the first semester of the Degree programme.  
Subject to the Departmental Regulations,  
a student with DABS or equivalent can be  
admitted in the third semester of the Degree  
programme of the Faculty, provided he/she has  
secured a cumulative GPA of 2.8 or above in the  
DABS or equivalent examination.

### Assessment

Subject to General Academic Regulation 00.8  
and the Departmental Regulations, the ratio  
of continuous assessment to final examination  
shall normally be 2:3.

**Progression from Semester to Semester**  
General Academic Regulation 00.9 applies.

**Diploma in Accounting & Business Studies  
(DABS)**

### Entrance Requirements

1. The entrance requirement shall be as specified  
in general regulations 10.2.1
2. A pass in CABS will be exempted from some  
courses in DABS.

### Programme Structure

The programme will extend over a period of six  
semesters. Students will take four courses in  
each semester. Except the General Education  
Courses, all courses of this programme are  
core courses which must be taken and passed  
for the award of the certificate. Each core course  
consists of 3 credits and each General Education  
Course consists of 2 credits. The total number of  
credits for the entire programme is 68.

### Assessment

1. Two pieces of continuous assessment tests  
for each semester course
2. The continuous assessment to final  
examination is in the 2:3 ratio.
3. There will be a two-hour end-of-semester  
examination for each course.

### Progression from one Level to the next

1. The General Academic Regulations 00.9 will  
apply in this case.

### Award of the Certificate

1. A student must pass all the courses in three  
levels with a minimum GPA of 2.0
2. The Classification of results will be in  
accordance with general regulation 10.4

### Level 100

#### Semester 1

- DAB111** Business Mathematics and  
Statistics (3)  
**DAB112** Basic Accounting (3)  
**COM021** Communication and Study Skills (3)  
**ICT121** Computing and Information  
Skills I (2)

#### Semester 2

- DAB113** Principles of Management (3)  
**DAB114** Introduction to Marketing (3)  
**COM022** Communication and Study  
Skills II (3)  
**ICT022** Computing and Information  
Skills II (2)

### Level 200

#### Semester 3

- DAB211** Intermediate Accounting (3)  
**DAB212** Microeconomics (3)  
**DAB213** General Psychology (3)  
**DAB214** Business Statistics (3)

#### Semester 4

- DAB215** Macroeconomics (3)  
**DAB216** Business Finance (3)

- DAB217** Business Law (3)  
**DAB218** Taxation (3)

### Level 300

#### Semester 5

##### Core Courses

- DAB311** Quantitative Methods for  
Business (3)  
**DAB312** Financial Management (3)  
**DAB313** Cost Accounting (3)  
**DAB314** Management Information Systems

#### Semester 6

##### A – Accounting Stream

- DAB315** Financial Accounting (3)  
**DAB316** Management Accounting (3)  
**DAB317** Auditing (3)  
**DAB318** Financial Institutions & Markets (3)

##### B – Management Stream

- DAB319** Human Resource Management (3)  
**DAB320** Organisational Design and  
Development (3)  
**DAB321** Small Business Management (3)  
**DAB322** Fundamentals of Materials  
Management (3)

##### C – Marketing Stream

- DAB323** Sales Management (3)  
**DAB324** Consumer Behaviour (3)  
**DAB325** Marketing Management (3)  
**DAB326** Purchasing Management (3)

NOTE: 1. The students will choose one of the  
above streams A or B or C in the 6th  
Semester at DABS Level 300

## DEPARTMENT OF ACCOUNTING & FINANCE Bachelor of Accountancy Degree Programme

### Level 100

#### Semester 1

##### Core Courses

- COMS121** Communication and Study Skills I (3)  
**ICT121** Computing and Information Skills,  
Fundamentals I (2)  
**ECO111** Basic Microeconomics (3)  
**MGT100** Principles of Management (3)  
**PSY101** Introduction to Psychology (3)  
**STA101** Mathematics for Business and Social  
Sciences I 1 (3)  
**STA116** Introduction to Statistics (4)

#### Semester 2

##### Core Courses

- COM122** Communication and Study Skills II  
(3, pre-req. COM121)  
**ICT122** Computing and Information Skills,  
Fundamentals II (2, pre-req. ICT121)  
**ACC100** Introduction to Accounting (3)  
**ECO112** Basic Macroeconomics (3)  
**MKT100** Principles of Marketing (3)  
**STA102** Mathematics for Business and Social  
Sciences II (3, pre-req. STA101)  
**STA114** Business Statistics I (3)

## Level 200

### Semester 3

#### Core Courses

ACC201	Introduction to Cost Accounting (3, pre-req. ACC100)
ECO211	Intermediate Microeconomics (3)
FIN200	Business Finance (3, pre-req. ACC100)
LAW251	Foundations of Business Law (3)
MGT203	Quantitative Methods (3, pre-req., STA114, STA116) GEC Area 3

### Semester 4

#### Core Courses

ACC200	Financial Accounting I (3, pre-req. ACC100)
ACC203	Cost Acc. Applications (3, pre-req. ACC201)
BIS205	Information Technology (3, ICT122)
ECO212	Intermediate Macroeconomics (3)
MGT200	Organisational Design and Development (3, pre-req. MGT 100) GEC Areas 3/4/5/6/7

## Level 300

### Semester 5

#### Core Courses

ACC300	Financial Accounting II (3, pre-req. ACC200)
ACC301	Introduction to Management Accounting (3, pre-req. ACC203)
ACC302	Auditing I (3, pre-req. ACC200)
LAW351	Introduction to Company Law (4)
MGT301	Organisational Behaviour (3, pre-req. MGT 201) GEC Areas 3/4/5/6/7

### Semester 6

#### Core Courses

ACC303	Management Accounting Applications (3, pre-req. ACC301)
ACC304	Auditing II (3, pre-req. ACC302)
BIS309	Accounting Information Systems (3, pre-req. BIS205, ACC200)
FIN300	Financial Management (3, pre-req. FIN200)
MGT302	Business Research Methods (3, pre-req. MGT 203)
GEC Areas 3/4/5/6/7 or Elective / Option	

#### Optional Courses

Students to choose one of the following;

ACC310	Auditing Applications (Pre-req. ACC309)
ACC 306	Public Sector Auditing (Pre-req. ACC309)
ACC 307	Internal Auditing (Pre-req. ACC309)

## Level 400

### Semester 7

#### Core Courses

ACC400	Financial Accounting III (3, pre-req. ACC300.)
ACC401	Introduction to Taxation (3, pre-req. ACC300)
ACC443	Industrial Attachment (3)
MGT400	Strategic Management (3, pre-req. MGT 301)

Option

GEC Areas 3/4/5/6/7

### Semester 8

#### Core Courses

ACC403	Financial Accounting IV (3, pre-req. ACC400)
ACC404	Taxation Applications (3, pre-req. ACC401)
ACC405	Accounting Theory (3, pre-req. ACC400)
ACC444	Research Project (4, pre-req. MGT 302)
Elective/Option	
GEC Areas 3/4/5/6/7	

#### OPTIONAL COURSES

ACC406	Public Sector Accounting (3)
BIS302	Decision Support Systems I (3)
BIS417	Information Systems Auditing (3)
FIN301	Financial Institutions and Markets I (3, pre-req. FIN200)

## Bachelor of Arts Degree (Double Major) (Courses offered through the Department of Accounting and Finance)

### Level 100

#### Semester 2

##### Core Course

ACC100	Introduction to Accounting (3)
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### Level 200

#### Semester 3

##### Core Courses

ACC201	Introduction to Cost Accounting (3, pre-req. ACC 100)
FIN200	Business Finance (3, pre-req. ACC 100)
LAW251	Foundations of Business Law (3)

### Semester 4

#### Core Courses

ACC200	Financial Accounting I (3, pre-req. ACC 100)
ACC203	Cost Accounting Applications (3, pre-req. ACC 201)
BIS205	Information Technology (3, pre-req. GEC 122)

### Level 300

#### Semester 5

##### Core Courses

ACC300	Financial Accounting II (3, pre-req. ACC 200)
ACC301	Introduction to Management Accounting (3, pre-req. ACC 203)
ACC302	Auditing I (3, pre-req. ACC 200)

### Semester 6

#### Core Courses

ACC303	Management Accounting Applications (3, pre-req. ACC 301)
ACC304	Auditing II (3, pre-req. ACC302)
BIS309	Accounting Information Systems (3, pre-req. BIS205, ACC200)

## Level 400

### Semester 7

ACC400	Financial Accounting III (3, pre- req. ACC 300)
ACC401	Introduction to Taxation (3, pre- req. ACC 300)

### Semester 8

#### Core Courses

ACC403	Financial Accounting IV (3, pre-req. ACC 400)
ACC404	Taxation Applications (3, pre-req. ACC 401)
General Education Courses (Area 7)	
GEC270	Accounting for Non-Business Majors (2)
GEC271	Basic Cost Accounting and Control (2)

## REVISED Bachelor of Accountancy Degree Programme (those who will enroll from August 2010)

### Level 100

#### Semester 1

##### Core Courses

COM121	Communication and Study Skills I (3)
BIS 100	Introduction to Information Systems (3)
ECO111	Basic Microeconomics (3)
MGT100	Principles of Management (3)
PSY101	Introduction to Psychology (3)
STA101	Mathematics for Business and Social Sciences I 1 (3)

### Semester 2

#### Core Courses

COM122	Communication and Study Skills II (3)
ACC100	Introduction to Accounting (3)
ECO112	Basic Macroeconomics (3)
MKT100	Principles of Marketing (3)
STA102	Mathematics for Business and Social Sciences II (3, pre-req. STA101)

### Level 200

#### Semester 3

##### Core Courses

ACC 201	Introduction to Cost Accounting (3, pre-req. ACC100)
FIN 200	Business Finance (3, pre-req. ACC100)
ECO211	Intermediate Microeconomics (3, pre-req. ECO111)
LAW251	Foundations of Business Law (3)
MGT203	Quantitative Methods (3, pre-req. STA114, 116)

### Semester 4

#### Core Courses

ACC202	Ethics in Accounting (3, pre-req. ACC100)
ACC 206	Financial Accounting for Manufacturing & Alternative Entities (3, pre-req. ACC100)
BIS205	Information Technology (3, pre-req. BIS100)
Option Optional Course 3	





Elective Elective course 3

#### Optional Courses

Students to choose any one of the following;

- ACC204** Government Accounting  
(Pre-req. ACC100)
- ACC205** Special Topics in Accounting  
(Pre-req. ACC100)

#### Level 300

##### Semester 5

#### Core Courses

- ACC311** Introduction to Company Accounts  
(3, Pre-req. ACC 206)
- ACC309** Principles of Auditing  
(3, Pre-req. ACC206)
- ACC308** Cost & Management Accounting  
(3, Pre-req. ACC201)
- LAW351** Introduction to Company  
Law (4)
- MGT301** Organisational Behaviour  
(Pre-req. MGT100) 3

##### Semester 6

#### Core Courses

- FIN 300** Financial Management  
(3, pre-req. FIN200)
- ACC305** Taxation Principles  
(3, pre-req. ACC311)
- BIS309** Accounting Information Systems  
(3, pre-req. ACC206, BIS 205)
- MGT302** Business Research Methods  
(3, pre-req. MGT203)

Option Optional Course 3

#### Level 400

##### Semester 7

#### Core Courses

- ACC410** Financial Reporting  
(3, Pre-req. ACC311)
- ACC404** Taxation Applications  
(3, Pre-req. ACC305)
- ACC443** Industrial Attachment (3)
- MGT400** Strategic Management  
(3, pre-req. MGT301)

Elective Elective Course (3)

##### Semester 8

#### Core Courses

- ACC409** Management Accounting  
(3, Pre-req. ACC308)
- ACC411** Accounting for Groups  
(3, Pre-req. ACC311)
- ACC408** Current Issues in Accounting  
(3, Pre-req. ACC311)
- ACC444** Research Project  
(4, Pre-req. MGT302)

Option Optional Course 3

#### Optional Courses

Students to choose one of the following;

- ACC405** Accounting Theory  
(3, Pre-req. ACC206)
- FIN405** Seminars in Finance  
(2, Pre-req. FIN200)

### Bachelor of Finance Degree Programme

#### Level 100

##### Semester 1

#### Core Courses

- COM121** Communication and Study Skills I (3)
- ICT121** Computing and information Skills  
Fundamentals I (2)
- ECO111** Basic Microeconomics (3)
- MGT100** Principles of Management (3)
- PSY101** Introduction to Psychology (3)
- STA101** Mathematics for Business and Social  
Sciences I (3)
- STA116** Introduction to Statistics (4)

##### Semester 2

#### Core Courses

- COM122** Communication and Study Skills II  
(2, pre-req. COM121)
- ICT122** Computing and Information Skills  
Fundamentals II (2, pre-req. ICT 121)
- ACC100** Introduction to Accounting (3)
- ECO112** Basic Macroeconomics (3)
- MKT100** Principles of Marketing (3)
- STA102** Mathematics for Business and Social  
Sciences II (3, pre-req. STA101)
- STA114** Business Statistics I (3)

#### Level 200

##### Semester 3

#### Core Courses

- ACC201** Introduction to Cost Accounting  
(3, pre-req. ACC100)
- ECO211** Intermediate Microeconomics  
(3, pre-req. ECO 111)
- FIN200** Business Finance  
(3, pre-req. ACC100)
- LAW251** Foundations of Business Law (3)
- MGT203** Quantitative Methods (3, pre-req.  
STA114, STA116))

GEC Area 3

##### Semester 4

#### Core Courses

- ACC200** Financial Accounting I (3, pre-req.  
ACC100)
- ACC203** Cost Accounting Applications  
(3, pre-req. ACC201)
- BIS205** Information Technology  
(3, pre-req. ICT122)
- ECO212** Intermediate Macroeconomics  
(3, pre-req. ECO 112)
- MGT200** Organisational Design and  
Development (3, pre-req. MGT100)

GEC Areas 3/4/5/6/7

#### Level 300

##### Semester 5

#### Core Courses

- ACC300** Financial Accounting II (3, pre-req.  
ACC200)
- ACC301** Introduction to Management  
Accounting (3, pre-req. ACC203)
- FIN301** Financial Institutions and Markets I  
(3, pre-req. FIN200)
- MGT301** Organisational Behaviour ( 3, pre-  
req. MGT200)

Elective (3)

GEC Areas 3/4/5/6/7

##### Semester 6

#### Core Courses

- BIS309** Accounting Information Systems (3,  
pre-req. BIS205, ACC200)
- FIN300** Financial Management (3, pre-req.  
FIN200)
- FIN302** Financial Planning and Forecasting  
(3, pre-req. FIN200)
- FIN303** Financial Statement Analysis I (3,  
pre-req. FIN200, ACC 300)
- MGT302** Business Research Methods  
(3, pre-req. MGT 203)

GEC Areas 3/4/5/6/7

#### Level 400

##### Semester 7

#### Core Courses

- ACC400** Financial Accounting III  
(3, pre-req. ACC300)
- FIN402** International Business Finance  
(3, pre-req. FIN 301)
- FIN400** Financial Theory and Analysis  
(3, pre-req. FIN300)
- FIN443** Industrial Attachment (3)
- MGT400** Strategic Management  
(3, pre-req. MGT301))

GEC Areas 3/4/5/6/7

Elective/Option

##### Semester 8

#### Core Courses

- FIN401** Financial Statement Analysis II (3,  
pre-req. FIN303)
- FIN403** Financial Institutions and Markets II  
(3, pre-req. FIN301)
- FIN404** Investment Analysis and Portfolio  
Management (3, pre-req. FIN300)
- FIN405** Seminars in Finance (2)
- FIN444** Research Project (4. MGT 302)

GEC Areas 3/4/5/6/7

#### Optional Courses

- BIS302** Decision Support Systems I (3)
- FIN304** Principles of Risk Management and  
Insurance
- FIN305** Principles of Real Estate Finance (3)
- ACC401** Introduction to Taxation (3, (3, pre-  
req. ACC300)
- ACC404** Taxation Applications (3, (3, pre-req.  
ACC401)
- FIN407** International Trade Finance (3)

### Bachelor of Information Systems (Business Information Systems) Degree Programme

#### Level 100

##### Semester 1

#### Core Courses

- COM121** Communication and Study Skills I (3)
- ICT121** Computing and Information Skills,  
Fundamentals I (2)
- ECO111** Basic Microeconomics (3)
- MGT100** Principles of Management (3)
- PSY101** Introduction to Psychology (3)
- STA101** Mathematics for Business and Social  
Sciences I (3, pre-req. STA101)
- STA116** Introduction to Statistics (4)

## Semester 2

### Core Courses

<b>COM121</b>	Communication and Study Skills II (3, pre-req. COM121)
<b>COM122</b>	Computing and Information Skills, Fundamentals II (2, pre-req. ICT121)
<b>ACC100</b>	Introduction to Accounting (3)
<b>ECO112</b>	Basic Macroeconomics (3)
<b>MKT100</b>	Principles of Marketing (3)
<b>STA102</b>	Mathematics for Business and Social Sciences II (3, pre-req. STA101)
<b>STA114</b>	Business Statistics I (3)

## Level 200

### Semester 3

#### Core Courses

<b>BIS200</b>	Systems Development I (3, pre-req. ICT122)
<b>BIS201</b>	Foundations of Business Information Systems (3, pre-req. ICT122)
<b>CSI241</b>	Structured Programming (4, pre-req. ICT122)
<b>FIN200</b>	Business Finance (3, pre-req. ACC100)
<b>LAW 251</b>	Foundations of Business Law (3)
<b>MGT203</b>	Quantitative Methods (3, pre-req. STA114, STA116)

#### Option

GEC Area 3

## Semester 4

### Core Courses

<b>BIS204</b>	Data Organisation Methods (3, pre-req. BIS201)
<b>CSI252</b>	Operating Systems Concepts (3)
<b>CSI272</b>	Computer Communications Networking Fundamentals (2)
<b>MGT200</b>	Organisational Design & Development (3, pre-req. MGT100)

#### Option

GEC Areas 3/4/5/6/7

## Level 300

### Semester 5

#### Core Courses

<b>BIS301</b>	Business Process Re-engineering (3)
<b>BIS302</b>	Decision Support Systems I (3)
<b>BIS303</b>	Electronic Commerce 1 (3)
<b>BIS343</b>	Industrial Attachment (2)
<b>MGT301</b>	Organisational Behaviour (3, MGT250)

#### Option

GEC Areas 3/4/5/6/7

## Semester 6

### Core Courses

<b>BIS307</b>	Project Management Information Systems (3)
<b>CSI362</b>	Database Concepts (3)
<b>MGT302</b>	Business Research Methods (3, pre-req. MGT203)

#### Option/Elective

GEC Areas 3/4/5/6/7

## Level 400

### Semester 7

#### Core Courses

<b>MGT400</b>	Strategic Management (3, pre-req. MGT301))
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<b>CSI461</b>	Computer Communications Networks Management (4)
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<b>BIS443</b>	Industrial Attachment (2)
GEC Areas 3/4/5/6/7	
Option	

## Semester 8

### Core Courses

<b>BIS420</b>	Strategic Information Systems (3, pre req. BIS307)
<b>BIS403</b>	Information Systems Security (3)
<b>BIS444</b>	Research Project (4, pre-req. MGT302)
GEC Areas 3/4/5/6/7	

### Optional Courses

<b>BIS205</b>	Information Technology (3)
<b>BIS304</b>	Management Information Systems(3)
<b>BIS305</b>	Systems Development II (3)
<b>BIS306</b>	IS Research and Practice (3)
<b>BIS308</b>	Marketing Information Systems (3)
<b>BIS309</b>	Accounting Information Systems (3)
<b>BIS314</b>	Multimedia Systems (3)
<b>BIS401</b>	Current Issues in Information Systems (3)
<b>BIS402</b>	Information Technology Productivity Tools
<b>BIS404</b>	Small Business Information Systems (3)
<b>BIS405</b>	Legal and Ethical Issues of Information Systems (3)
<b>BIS406</b>	Financial Information Systems (3)
<b>BIS407</b>	Electronic Commerce II (3)
<b>BIS408</b>	Systems Development Methodologies (3)
<b>BIS409</b>	Advanced Database Systems (3)
<b>BIS410</b>	Manufacturing Information Systems (3)
<b>BIS417</b>	Information Systems Auditing (3)
<b>CSI312</b>	Expert Systems (3)
<b>CSI314</b>	Decision Support Systems II (3)
<b>CSI392</b>	Human Computer Interaction (3)
<b>CSI462</b>	Distributed Systems (3)
<b>CSI471</b>	Object Oriented Systems Development (3)
<b>CSI472</b>	Social and Professional Issues of Computing (3)

#### \*Revised

## Bachelor of Arts Degree (Double Major) (Courses offered through the Department)

### Level 100

#### Semester 2

##### Core Course

<b>ACC100</b>	Introduction to Accounting(3)
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### Level 200

#### Semester 3

##### Core Courses

<b>ACC201</b>	Introduction to Cost Accounting (3, pre-req.ACC100)
<b>FIN200</b>	Business Finance (3,pre-req.ACC100)
<b>LAW251</b>	Foundations of Business Law(3)

## Semester 4

### Core Courses

<b>ACC206</b>	Financial Accounting for Manufacturing & Alternative Entities (3, pre-req.ACC100)
<b>ACC202</b>	Ethics in Accounting (3,pre-req.ACC100)
<b>BIS205</b>	Information Technology (3,pre-req ICT 122)

## Level 300

### Semester 5

#### Core Courses

<b>ACC311</b>	Financial Accounting II (pre-req.ACC200)
<b>ACC308</b>	Introduction to Management Accounting (3, pre-req.ACC201)
<b>ACC309</b>	Principles of Auditing (3, pre-req.ACC206)

## Semester 6

### Core courses

<b>ACC305</b>	Taxation Principles (3, pre-req.ACC311)
<b>BIS309</b>	Accounting Information Systems (3, pre-req.BIS205,ACC206)

### Optional Courses

Students to choose one of the following;

<b>ACC310</b>	Auditing Applications (3, pre-req.ACC309)
<b>ACC306</b>	Public Sector Auditing (3, pre-req.ACC309)
<b>ACC307</b>	Internal Auditing (3, pre-req.ACC309)

## Level 400

### Semester 7

<b>ACC410</b>	Financial Reporting (3, pre-req. ACC311)
<b>ACC404</b>	Taxation Application (3, pre-req. ACC305)

## Semester 8

### Core Courses

<b>ACC411</b>	Accounting for Groups (3, pre-req. ACC311)
<b>ACC409</b>	Taxation Applications

### General Education Courses (Area7)

<b>GEC270</b>	Accounting for Non-business Majors (2)
<b>GEC271</b>	Basic Cost Accounting and Control (2)

## DEPARTMENT OF MANAGEMENT

### Bachelor of Business Administration (Management) Degree Programme

### Level 100

All courses at this level are core.

## Semester 1

### Core Courses

<b>COM121</b>	Communication and Study Skills I (3)
<b>ICT121</b>	Computing and Information Skills



PSY101 Fundamentals I (2)  
ECO111 Introduction to Psychology (3)  
MGT100 Basic Microeconomics (3)  
STA101 Principles of Management (3)  
STA116 Mathematics for Business and Social Sciences I (3)  
STA116 Introduction to Statistics (4)

#### Semester 2 Core Courses

COM122 Communication and Study Skills II (3)  
(3, pre-req. COM122)  
ICT122 Computing and Information Skills Fundamentals II  
(2, 2, pre-req. GEC121)  
ACC100 Introduction to Accounting (3)  
ECO112 Basic Macroeconomics (3)  
MKT100 Principles of Marketing (3)  
STA102 Mathematics for Business and Social Sciences II (3, pre-req. STA101)  
STA114 Business Statistics I (3)

#### Level 200

##### Semester 3

#### Core Courses

ACC100 Introduction to Cost Accounting (3)  
ECO211 Intermediate Microeconomics for Business (3, pre-req. ECO 111)  
LAW251 Foundations of Business Law (3)  
MGT201 Purchasing and Materials Management (3)  
MGT202 Small Business Management (3)  
MGT203 Quantitative Methods for Business (3, pre-req. STA114, STA116)

GEC Area 3

#### Semester 4

#### Core Courses

BIS205 Information Technology (3, pre-req. BIS100)  
ECO212 Intermediate Macroeconomics for Business (3)  
FIN200 Business Finance (3, pre-req. ACC 100)  
MGT200 Organisational Design and Development (3, pre-req. MGT100)  
GEC Areas 3/4/5/6/7

#### Stream A: General Management

#### Levels 300

##### Semester 5

#### Core Courses

LAW351 Introduction to Company Law (4)  
MGT300 Human Resource Management (3, pre-req. MGT 200)  
MGT301 Organisational Behaviour (3, pre-req. MGT 200)  
GEC Areas 3/4/5/6/7  
Option (6)

#### Semester 6

#### Core Courses

BIS304 Management Information Systems (3)  
MGT302 Business Research Methods (3, pre-req. MGT203)  
MGT303 Entrepreneurship and New Business

Formation (3, pre-req. MGT 202)  
GEC Areas 3/4/5/6/7  
Option (3)  
Elective (3)

#### Levels 400

##### Semester 7

#### Core Courses

MGT400 Strategic Management (3, pre-req. MGT 301)  
MGT402 Operations Management (3)  
MGT443 Industrial Attachment (3)  
GEC Areas 3/4/5/6/7  
Option (3)  
Elective (3)

#### Semester 8

#### Core Courses

BIS420 Strategic Information Systems (3, (3, pre-req. BIS 307)  
MGT405 Corporate Governance (3)  
MGT444 Research Project (4, pre-req. MGT 302)  
GEC Areas 3/4/5/6/7  
Option (3)  
Elective (3)

#### Optional Courses

MGT306 Public Sector Management (3, pre-req. MGT200)  
MGT308 Total Quality Management (3, pre-req. MGT302)  
MGT403 Application of Operations Research Methods for Business Decisions (3, pre-req. MGT203)

#### Stream B: Human Resource Management

#### Levels 300

##### Semester 5

#### Core Courses

MGT300 Human Resource Management (3, pre-req. MGT200)  
MGT301 Organisational Behaviour (3, pre-req. MGT200)  
BIS320 Human Resources Information Systems (3)  
MGT304 Industrial Relations (3, pre-req. MGT200)  
GEC Areas 3/4/5/6/7  
Optional Course (3)  
Elective (3)

#### Semester 6

#### Core Courses

BIS304 Management Information Systems (3)  
MGT302 Business Research Methods (3, pre-req. MGT203)  
MGT305 Human Resource Development (3, pre-req. MGT300)  
MGT307 Compensation and Reward Systems (3, pre-req. MGT300)  
GEC Areas 3/4/5/6/7  
Option(3)  
Elective (3)

#### Levels 400

##### Semester 7

#### Core Courses

MGT400 Strategic Management (3, pre-req. MGT301)  
MGT412 Foundations of Leadership and Teamwork (3, pre-req. MGT300)  
MGT443 Industrial Attachment (3)  
GEC Areas 3/4/5/6/7  
Option (3)  
Elective (3)

#### Semester 8

#### Core Courses

MGT410 Negotiations and Conflict Management (3, pre-req. MGT301)  
BIS 420 Strategic Information Systems (3, pre-req. BIS 307)  
MGT444 Research Project (4, MGT 302)  
MGT413 Practicum in Human Resources Management  
GEC Areas 3/4/5/6/7  
Option (3)  
Elective (3)

#### Optional Courses

MGT303 Entrepreneurship and New Business Formation (3, pre-req. MGT 202)  
MGT306 Public Sector Management (3, pre-req. MGT200)  
MGT402 Operations Management (3)

#### Stream C: Project and Logistics Management

#### Levels 300

##### Semester 5

#### Core Courses

MGT301 Organisational Behaviour (3, pre-req. MGT200)  
MGT311 Principles and Concepts of Project Management (3, pre-req. MGT200, MGT203)  
MGT310 Purchasing and Supply Chain Management  
GEC Areas 3/4/5/6/7  
Option (3)  
Elective (3)

#### Semester 6

MGT303 Entrepreneurship and New Business Formation  
MGT302 Business Research Methods (3, pre-req. MGT203)  
BIS 304 Management Information Systems (3)  
MGT312 Management of Logistics Systems (3)  
GEC Areas 3/4/5/6/7  
Option (3)  
Elective (3)

#### Levels 400

##### Semester 7

MGT400 Strategic Management (3, pre-req. MGT301)  
MGT409 Project Implementation, Monitoring Evaluation, and Analysis (3)  
BIS 410 Manufacturing Information Systems (3)  
MGT443 Industrial Attachment (3)  
GEC Areas 3/4/5/6/7  
Option (3)

Elective (3)

Semester 8

Core Courses

- MGT411** Practicum in Project Management (3, pre-req. MGT409)  
**BIS 420** Strategic Information Systems (3)  
**MGT444** Research Project (4, MGT 302)  
**MGT408** Project Financing  
GEC Areas 3/4/5/6/7  
Option (3)  
Elective (3)

Optional Courses

- MGT306** Public Sector Management (3, pre-req. MGT200)

2.0 General Education Course (GEC)

The Department offers the following General Education Course (in Area 7: World Economy and Business Skills):

- GEC371** Small Business Entrepreneurship (2)

DEPARTMENT OF MARKETING

Bachelor of Business Administration (Marketing) Degree Programme

Entrance Qualifications

The requirements for admission into BBA Marketing Degree Programme are as stipulated in the General Academic Regulations 00.0 to 20.4 and the Faculty special Regulations 1.0 to 1.3

Course Requirements

Students pursuing the Bachelor of Business Administration (Marketing) Degree Programme are required to take and pass the following courses at Levels 100,200,300,400: MKT 100 is a prerequisite for all MKT courses.

Level 100

Semester 1

Core Courses

- COM121** Communication and Study Skills I (3)  
**ICT121** Computing and Information Skills Fundamentals I (2)  
**PSY101** Introduction to Psychology (3)  
**ECO111** Basic Microeconomics (3)  
**STA101** Mathematics for Business and Social Sciences I (3)  
**STA116** Introduction to Statistics (4)

Semester 2

- COM122** Communication and Study Skills II (3, pre-req. COM121) (3)  
**ICT122** Computing and Information Skills Fundamentals II (2, pre-req. ICT121) (2)  
**ACC100** Introduction to Accounting (3)  
**ECO112** Basic Macroeconomics (3)  
**MKT100** Principles of Marketing (3)  
**STA102** Mathematics for Business and Social Sciences II (3, pre-req. STA101)

Level 200

Semester 3

- MKT202** Distribution Management (3)  
**MGT100** Principles of Management (3)  
**ACC201** Introduction to Cost Accounting (3, pre-req. ACC 100)  
**FIN200** Business Finance (3, pre-req. ACC 100)  
**LAW251** Foundations of Business Law (3)

Semester 4

- MKT204** Integrated Marketing Communication Strategy (3)  
**MKT201** Consumer Behaviour Theory and Practice (3)  
**STA 114** Business Statistics I (3)  
GEC/Option/Elective (3)

Level 300

Semester 5

Core Courses

- MGT300** Human Resource Management (3, pre-req. MGT200)  
**MKT300** International Marketing (3)  
Options (6)  
GEC/ /Elective (3)

Semester 6

Core Courses

- MKT310** Marketing Research Methods (3)  
**MKT315** Pricing Strategy  
Option (6)  
GEC/ /Elective (3)

Level 400

Semester 7

- MKT443** Industrial Attachment (3)  
**MKT409** Brand Management (3)  
Options (6)  
GEC/ /Elective (3)

Semester 8

- MKT444** Research Project (4, Prerequisite MKT 310)  
**MKT410** Marketing Management and Strategy (3)  
**MGT303** Entrepreneurship and New Business Development (3, pre-req. MGT202)  
Options (6)  
GEC/Elective (3)

Optional Courses

Students can take any of the under-listed optional courses at levels 2, 3 or 4. The number of optional courses offered shall depend on availability of staff.

- MGT201** Purchasing and Materials Management (3)  
**BIS205** Information Technology (3, pre-req. BIS100)  
**MGT200** Organizational Design & Development (3)  
**MGT203** Quantitative Methods for Business (3, pre-req. STA 114, STA116)  
**ECO211** Intermediate Microeconomics For Business (3, pre-req. ECO111)  
**MKT303** Strategic Sales Management (3)  
**MKT304** Advertising Management (3, pre-

req. MKT 204)

- MKT309** Internet Marketing (3)  
**MKT311** Strategic Retail Management (3, pre-req. MKT 202)  
**MKT312** Public Relations Strategy (3, pre-req. MKT 204)  
**MK 313** Services Marketing Theory and Practice (3)  
**MKT314** Business to Business Marketing Practice (3)  
**MKT406** Marketing Ethics (3)  
**MKT408** Contemporary Issues in Marketing (3)  
**MKT 411** Global Business Strategy (3)  
**MKT412** Managing Marketing Relationships (3)  
**MKT413** Applied Marketing Research (3, pre-req. MKT 310)  
**MKT414** Social Marketing (3)  
**MKT415** Tourism and Hospitality

DEPARTMENT OF TOURISM AND HOSPITALITY MANAGEMENT

Bachelor of Business Administration (Tourism and Hospitality Management) Degree Programme

1. Objectives of the Programme

The following are the objectives of the Bachelor of Business Administration in Tourism and Hospitality Management degree programme:

(i) To produce graduates with the necessary knowledge and practical skills to be able to efficiently and effectively operate business enterprises in the tourism and hospitality industries.

(ii) To produce graduates who can cope with the demands of a dynamic and highly competitive tourism and hospitality environment and who can innovate and manage change.

(iii) To produce graduates who can be managers in tourism and hospitality organisations or consultants in tourism and hospitality management.

(iv) To develop entrepreneurial skills in graduates so that they can be entrepreneurs in their own right in the tourism and hospitality industries.

2. Regulations

2.1.1 Entrance Qualifications

2.1.2 Normal Entry Scheme

Admission shall be as stipulated in the General Academic Regulation 20.2 for Bachelors Degree Programmes, with the specific requirement of a grade C (60%) in English and Mathematics.

2.1.3 Mature Age Entry Scheme

Admission shall be as stipulated in the General Academic Regulation 00.52.



#### 2.1.4 Articulation

The new articulation policy as may be approved by Senate will apply.

#### 2.2 Assessment

2.2.1 Assessment will be as stipulated in General Academic Regulation 00.8.

2.2.2 There will be variations in the mode of assessment in order to allow for more flexibility. In practical-based courses, continuous assessment shall have a higher weighting than the final examination.

2.2.3 A student shall undergo three periods of supervised Industrial Training: May- July (10 weeks) during the vacation between Levels 100 and 400

2.2.4 Industrial Training course codes shall be as follows:

<b>THM111</b>	Industrial Training I (duration 10 weeks, 4 credits, core course)
<b>THM222</b>	Industrial Training II (duration 10 weeks, 4 credits, core course)
<b>THM333</b>	Industrial Training III (duration 10 weeks, 4 credits, core course)

2.2.5 During the course of Industrial Training, students shall be subjected to such codes, procedures, laws, rules, and other regulations as applicable to the industry.

2.2.6 Subject to the Regulations Governing Admissions, Fees, and Discipline Regulation 4.0, and Regulation 2.2.5 above, a student who receives a final warning for misconduct during the course of Industrial Training shall be subjected to Discipline Regulations.

2.2.7 During the course of the Industrial Training period, each student shall be visited twice at the location of placement to be assessed by the Faculty of Business staff.

2.2.8 A student's performance will be assessed by means of:

- Continuous assessment by the industrial based supervisor and an assessor from the Faculty of Business,
- Industrial Training report and logbook submitted by the student at the end of the Industrial Training period, and
- Oral Presentation.

**2.2.9 THM 111: Industrial Training I and THM 222: Industrial Training II** shall be assessed as based on Regulations 2.2.8 (a) and (b). The ratio of marks for continuous assessment to Industrial Training report shall be 1:2.

2.2.10 THM 333: Industrial Training III shall be evaluated as specified in Regulation 2.2.8. The ratio of marks for continuous assessment to Industrial Training report to oral presentation shall be 1:2:1.

2.2.11 THM 444: Research Project shall be assessed according to Faculty of Business Research Project regulations.

#### 2.3 Progression from Semester to Semester

In order to proceed from one semester to the next, a student must obtain a cumulative Grade Point Average (GPA), which is in accordance with General Academic Regulation 00.9.

#### 2.4. Duration of the Bachelor's Programme

The normal duration of the proposed degree programme will be as stipulated in the General Academic Regulation 20.32 (8 semesters).

#### 2.5. Award of Degree

To be awarded a degree, a student must satisfy the requirements of General Academic Regulation 00.85.

#### 2.6 Degree Classification

The degree classification will be as stipulated in General Academic Regulation 20.4.

#### Programme Structure

##### Level 100

##### Semester 1

##### Core Courses

<b>COM121</b>	Communication and Study Skills I (3)
<b>ICT121</b>	Computing and Information Skills Fundamentals I (2 )
<b>THM101</b>	Principles of Tourism (3)
<b>ECO111</b>	Basic Microeconomics (3)
<b>MGT100</b>	Principles of Management (3)
<b>STA116</b>	Introduction to Statistics I (4)

##### Semester 2

##### Core Courses

<b>COM122</b>	Communication and Study Skills II (3, pre-req. GEC111)
<b>ICT122</b>	Computing and Information Skills Fundamentals II (2, pre-req. GEC121)
<b>ACC100</b>	Introduction to Accounting (3)
<b>ECO112</b>	Basic Macroeconomics (3)
<b>STA114</b>	Business Statistics (3)
<b>THM102</b>	Introduction to Hospitality Management (3, pre-req. THM101)
<b>THM111</b>	Industrial Training (4)

##### Level 200

##### Semester 3

##### Core Courses

<b>THM201</b>	Accommodation Management 1 (3)
<b>THM202</b>	Tour Operations Management (3)
<b>ENV202</b>	Ecotourism and Sustainable Development (3)
<b>HIS102</b>	Introduction to the Study of History (2)
Option/Elective (3)	
GEC 2/3	

##### Semester 4

##### Core Courses

<b>THM203</b>	Food and Beverage Management 1 (3, pre-req. THM 102)
<b>MKT100</b>	Principles of Marketing (3)
<b>MGT303</b>	Entrepreneurship and New Business Formation (3)

**THM204** Heritage Interpretation (3, pre-req. THM 101)

**THM222** Industrial Training II  
Option/Elective  
GEC Area 4/5/6/7

##### Level 300

##### Semester 5

##### Core Courses

<b>THM301</b>	Accommodation Management 2 (3 pre-req. THM 201)
<b>THM302</b>	Food and Beverage Management 2 (3 pre-req. THM203)
<b>THM303</b>	Research Methods (3)
Option/Elective (3)	
GEC Area 4/5/6/7 (2)	

##### Semester 6

##### Core Courses

<b>BIS326</b>	Tourism and Hospitality Information Systems (3)
<b>MK405</b>	Tourism and Hospitality Marketing (3)
<b>THM304</b>	Events and Conference Management (3, pre-req. THM 101)
<b>THM306</b>	Tourism Business Law and Ethics (3)
<b>THM333</b>	Industrial Training III (4)
Option/Elective (3)	
GEC Area 4/5/6/7 (2)	

##### Semester 7

##### Core Courses

<b>MGT400</b>	Strategic Management (3, MGT 301)
<b>ENV428</b>	Wildlife Conservation and Management (3, pre-req. THM 101)
<b>ENV408</b>	Tourism and Development (2, pre-req. THM 101, ENV 202)
Option (3)	
Elective (3)	
GEC Area 4/5/6/7 (2)	

##### Semester 8

##### Core Courses

<b>THM403</b>	Food and Beverage Control (3)
<b>THM405</b>	Tourism in Southern Africa (3, pre-req. THM 101)
<b>THM444</b>	Research Project (4)
Option (3)	
Elective (3)	
GEC Area 4/5/6/7 (2)	

##### Menu of optional courses

<b>FRE114</b>	Basic French Language
<b>FRE115</b>	Oral and Written Comprehension
<b>MKT200</b>	Marketing Communications
<b>FIN200</b>	Business Finance
<b>ACC201</b>	Introduction to Cost Accounting
<b>PHR312</b>	Leisure and Tourism Development
<b>THM308</b>	Basic Taxation
<b>MGT301</b>	Organisational Behaviour
<b>MGT300</b>	Human Resource Management
<b>PAD307</b>	Human Resource Development
<b>MGT308</b>	Total Quality Management
<b>MGT304</b>	Industrial Relations
<b>MKT308</b>	Services Marketing
<b>MKT305</b>	Public Relations
<b>ARC417</b>	Heritage Management
<b>PHR141</b>	Recreation and Leisure
<b>ENH322</b>	Food Safety and Hygiene
<b>ENH323</b>	Occupational Health, Safety and



	Hygiene
<b>ENV418</b>	Environmental Policy
<b>EN 412</b>	Environmental Impact Assessment
<b>ENV312</b>	Sustainable Development
<b>ENV 301</b>	Environmental Issues
<b>ENV310</b>	Medical Geography
<b>ENG373</b>	Botswana Literature
<b>URP200</b>	Introduction to Town Planning Techniques
<b>URP205</b>	Land Use Planning
<b>HEE445</b>	Quantity Food Production
<b>HEE446</b>	Food Service Equipment and Facility Layout
<b>HEE343</b>	Food Service Management
<b>HEE344</b>	Menu Planning and Design

REVISED Bachelor of Business Administration in Tourism and Hospitality Management Degree Programme (those who will enroll from August 2011)

### 1. Objectives of the Programme

The following are the objectives of the Bachelor of Business Administration in Tourism and Hospitality Management degree programme:

(i) To produce graduates with the necessary knowledge and practical skills to be able to efficiently and effectively operate business enterprises in the tourism and hospitality industries.

(ii) To produce graduates who can cope with the demands of a dynamic and highly competitive tourism and hospitality environment and who can innovate and manage change.

(iii) To produce graduates who can be managers in tourism and hospitality organisations or consultants in tourism and hospitality management.

(iv) To develop entrepreneurial skills in graduates so that they can be entrepreneurs in their own right in the tourism and hospitality industries.

### 2. Regulations

#### 2.1.1 Entrance Qualifications

#### 2.1.2 Normal Entry Scheme

Admission shall be as stipulated in the General Academic Regulation 20.2 for Bachelors Degree Programmes, with the specific requirement of a grade C (60%) in English and Mathematics.

#### 2.1.3 Mature Age Entry Scheme

Admission shall be as stipulated in the General Academic Regulation 00.52.

#### 2.1.4 Articulation

The new articulation policy as may be approved by Senate will apply.

### 2.2 Assessment

2.2.1 Assessment will be as stipulated in General Academic Regulation 00.8.

2.2.2 There will be variations in the mode of assessment in order to allow for more flexibility. In practical-based courses, continuous assessment shall have a higher weighting than the final examination.

2.3 A student shall undergo 6 months of supervised Industrial Training: January –June (6 months) semester 6 of Level 300.

2.3.1 Industrial Training course code shall be as follows:

**THM344:** Industrial Training  
(6 months, 15 credits, core course)

During the course of Industrial Training, students shall be subjected to such codes, procedures, laws, rules, and other regulations as applicable to the industry.

Subject to the Regulations Governing Admissions, Fees, and Discipline Regulation 4.0, and Regulation 6.2.5 above, a student who receives a final warning for misconduct during the course of Industrial Training shall be subjected to Discipline Regulations.

During the course of the Industrial Training period, each student shall be visited twice at the location of placement to be assessed.

A student's performance will be assessed by means of:

A visit by University of Botswana Supervisor  
Industrial Training report and logbook submitted by the student at the end of the Industrial training period, and  
Oral Presentation.

**THM344:** Industrial Training shall be evaluated as specified in Regulation 2.3.5. The ratio of Continuous Assessment to Industrial Training Report to Oral Presentation shall be 1:2:1.

### 2.3 Progression from Semester to Semester

In order to proceed from one semester to the next, a student must obtain a cumulative Grade Point Average (GPA), which is in accordance with General Academic Regulation 00.9.

### 2.4. Duration of the Bachelor's Programme

The normal duration of the proposed degree programme will be as stipulated in the General Academic Regulation 20.32 (8 semesters).

### 2.5. Award of Degree

To be awarded a degree, a student must satisfy the requirements of General Academic Regulation 00.85.

### 2.6 Degree Classification

The degree classification will be as stipulated in General Academic Regulation 20.4.

### Programme Structure

#### Level 100

##### Semester 1

##### Core Courses

<b>COM121</b>	Communication and Study Skills I (3)
<b>THM101</b>	Principles of Tourism (3)
<b>ECO111</b>	Basic Microeconomics (3)
<b>MGT100</b>	Principles of Management (3)
<b>STA116</b>	Introduction to Statistics I (4)
<b>BIS100</b>	Introduction to Information Systems (3)

#### Semester 2

##### Core Courses

<b>COM122</b>	Communication and Study Skills II (3)
<b>ACC100</b>	Introduction to Accounting (3)
<b>ECO112</b>	Basic Macroeconomics (3)
<b>THM104</b>	Fundamentals of the Hospitality Industry (3)
<b>MKT100</b>	Principles of Marketing (3)

Elective (3)

#### Level 200

##### Semester 3

##### Core Courses

<b>THM 210</b>	Housekeeping Operations (3 pre-req. THM 104)
<b>THM 202</b>	Tour Operations Management (3 pre-req. THM 101)
<b>LAW 251</b>	Foundations of Business Law (3)
<b>THM 206</b>	Food and Beverage Operations 1 (3 pre-req. THM 104)

Option/Elective (3)

**THM 215** Tourism in Botswana

#### Semester 4

##### Core Courses

<b>THM 208</b>	Food and Beverage Operations II (3, pre-req. THM 206)
<b>THM 307</b>	Front Office Operations (3 pre-req. THM 104)
<b>BIS 326</b>	Tourism and Hospitality Information Systems (3, pre-req. BIS 100)
<b>THM 215</b>	Tourism in Botswana (3 pre-req. THM 101)

Option/Elective (3)

GEC Area 4/5/6/7 (2)

#### Level 300

##### Semester 5

##### Core Courses

<b>THM305</b>	Tourism Planning and Policy (3, pre-req. THM 101)
<b>THM310</b>	Tourist Behaviour (3 pre-req. THM 101)
<b>THM 403</b>	Food and Beverage Control (3 Pre-req. THM 104)
<b>THM303</b>	Research Methods (3)

Option/Elective (3)

### Optional Courses

<b>THM304</b>	Event Management (3 pre-req. THM 101)
<b>THM309</b>	Tourism and Hospitality Economics (3)
<b>THM320</b>	Introduction to Tourism in Southern Africa (3 pre-req. THM 101)
<b>MKT313</b>	Services Marketing (3 pre-req. MKT 100)
<b>MGE212</b>	Fundamentals of Entrepreneurship (3)
<b>MGT202</b>	Small Business Management (3)
<b>ACC201</b>	Introduction to Cost Accounting (3 pre-req. ACC100)
<b>FIN200</b>	Business Finance (3) (3 pre-req. ACC100)

#### Semester 6

##### Core Courses

<b>THM 344</b>	Industrial Training (15)
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## FOOD AND BEVERAGES MANAGEMENT (Specialisation)

### Semester 7

#### Core Courses

- THM408** Gastronomy (3)  
**MKT415** Tourism and Hospitality Marketing  
(3, pre-req. MKT100)  
**THM402** Strategic Tourism and Hospitality  
Management (3)  
Option(3)  
Elective (3)  
GEC Area 4/5/6/7 (2)

#### Optional Courses

- THM421** Safari & Camp Management (3)  
**THM407** Contemporary Cuisine  
(3 pre-req. THM 104)  
**THM413** Food Safety (3 pre-req. THM 104)

### Semester 8

#### Core Courses

- THM415** Corporate Social Responsibility in  
Hospitality and Tourism (3)  
  
**THM424** Food and Beverage Management  
(3, pre-req. THM 208)  
**THM444** Research Project (4)  
**THM418** Fast Food Operation and Magement  
Elective (3)

## ROOMS MANAGEMENT (Specialisation)

### Semester 7

#### Core Courses

- THM310** Hotel Sales and Guest Relations (3)  
**MKT415** Tourism and Hospitality Marketing  
(3, pre-req. MKT100)  
**THM402** Strategic Tourism and Hospitality  
Management (3)  
Options (3) / Elective (3)  
GEC Area 4/5/6/7 (2)

#### Optional Courses

- THM421** Safari & Camp Management (3)  
**THM412** Front Office Management  
(3 pre-req. THM 307)  
**THM413** Housekeeping Management  
(3 pre-req. THM 210)  
**THM414** Loss Prevention Management (3)

### Semester 8

#### Core Courses

- THM415** Corporate Social Responsibility in  
Hospitality and Tourism (3)  
**THM416** Hospitality Management  
(3 pre-req. THM 104)  
**THM419** Hospitality Facilities Planning and  
Design (3)  
**THM444** Research Project (4)  
Optional/electives (3)

## TOURISM MANAGEMENT (Specialization)

### Semester 7

#### Core Courses

- ENV408** Tourism and Development  
(3pre-req. THM 101))  
**MKT415** Tourism and Hospitality Marketing  
(3, pre-req. MKT100)  
**THM402** Strategic Tourism and Hospitality  
Management (3)  
Options (3)  
Elective (3)  
GEC Area 4/5/6/7 (2)

#### Optional Courses

- THM421** Safari & Camp Management (3)  
**THM420** Tourism in Southern Africa: Cases  
and Issues (3 pre-req. THM 320)  
**THM330** Community-based Tourism  
(3 pre-req. THM 101)  
**THM308** International Tourism

### Semester 8

#### Core Courses

- THM415** Corporate Social Responsibility in  
Hospitality and Tourism (3)  
**THM427** Contemporary Issues in Tourism  
(3 pre-req. THM 101)  
**THM 407** Destination Management  
(3 pre-req. THM 101)  
**THM444** Research Project (4)  
Elective (3)

## CULTURAL and NATURE-BASED TOURISM (Specialization)

### Semester 7

#### Core Courses

- THM408** Cultural Tourism  
(3pre-requ. THM 101)  
**MKT415** Tourism and Hospitality Marketing  
(3, pre-req. MKT100)  
**THM204** Heritage Interpretation  
(3 pre-req. THM 101)  
Options/Elective (3)  
GEC Area 4/5/6/7 (2)

#### Optional Courses

- THM400** Tour Guiding (3)  
**THM409** Management of National Parks,  
Reserves and Sanctuaries (3)  
**ENV402** Natural Resources Conservation and  
Management (3)  
**THM422** Safari & Camp Management (3)  
**THM421** Pro-poor Tourism

### Semester 8

#### Core Courses

- THM415** Corporate Social Responsibility in  
Hospitality and Tourism (3)  
**THM429** Sustainable Nature-Based Tourism  
(3 pre-req. THM 101)  
**ENV418** Environmental Policy (3)  
**THM444** Research Project (4)  
Elective (3)

# EDUCATION

ADULT EDUCATION

EDUCATIONAL FOUNDATIONS

EDUCATIONAL TECHNOLOGY

FAMILY AND CONSUMER SCIENCES

LANGUAGES AND SOCIAL SCIENCES

EDUCATION

MATHEMATICS & SCIENCE EDUCATION

PHYSICAL EDUCATION

HEALTH & RECREATION

PRIMARY EDUCATION

## DEAN

Professor. R. Tabulawa, BA, PGDE (UB), MA, PhD (Birmingham)

## DEPUTY DEAN

Dr. G. Tsayang, BA, CDE (UBS), MEd (UB), EdD (Bristol) (on secondment to Faculty of Ed. Management)

## TEACHING PRACTICE COORDINATOR

Dr. P.P. Monyatsi, BA, CCE (UBS), MA (Bath), EdD (UNISA)

## FACULTY ADMINISTRATOR

Mr. G. F. Gaogane, BAcc (UB), PGDAcc., MSc (Birmingham)

## HUMAN RESOURCE MANAGER

Mr N.A.Nkanga, BA, MLIS (UB) MSc HRM (Cardiff)





The following Departments are housed in the Faculty of Education:

#### Department of Adult Education

The Department of Adult Education is responsible for the training of adult educators through full-time and part-time programmes. Programmes of study are Diploma in Adult Education, Diploma in NGO Management, Bachelor of Education, Master of Education, MPhil and PhD. In addition to academic programmes, the department also offers in-service training including the Botswana Extension Service Training (BEST) course.

#### Department of Educational Foundations

The Department of Educational Foundations offers courses in General Methods, Psychology, Philosophy, History and Sociology of Education, Educational Research and Evaluation, and Planning and Administration in selected career areas such as Teacher Education. The Department also provides training in Counseling, Gender Education, Curriculum and Instruction and Special Education, and the education component of the Design and Technology Education Program. The programmes of study are: Bachelor of Education in Special Education, Bachelor of Education in Counseling, Post Graduate Diploma in Education and Master's and Doctoral Programmes in Counseling and Human Services, Curriculum and Instruction, Educational Management, Gender Education, and Research and Evaluation.

#### Department of Educational Technology

The Department of Educational Technology provides guidance and assistance in the design and implementation of teaching methods and materials, and offers courses in the use and development of educational resources for other departments of the Faculty of Education.

#### Department of Home Economics Education

The Department of Home Economics Education is responsible for the training of Home Economics specialists to teach in the formal education system, as well as to serve in extension and other non-formal education programmes. The programme of study is the Bachelor of Education in Home Economics.

#### Department of Languages and Social Sciences Education

The Department of Languages and Social Sciences Education offers undergraduate, postgraduate diploma and graduate level courses in the areas of Languages and Social Sciences Education. There are two graduate programmes: M. Ed (Religious Education) and M. Ed (Social Studies). Plans are underway to introduce M. Ed (Moral Education) and M. Phil/PhD (Social Studies).

#### Department of Mathematics and Science Education

The Department of Mathematics and Science Education provides programmes in computer studies, mathematics and science. It offers a wide range of courses including: The theory and practice of teaching school computer studies,

mathematics and science education; curriculum development, research and evaluation; contemporary issues in computer, mathematics and science; issues in computer, mathematics and science pedagogical content knowledge; the impact of ICT on teaching-learning processes; and the philosophy and psychology of computer, mathematics and science teaching. The programmes of study are the Bachelor of Education (Science), Master of Education, MPhil, and PhD. The department offers service courses for Bachelor of Education (Secondary) and Post Graduate Diploma in Education (PGDE). Also the department has an in-service unit that provides workshops and seminars to school teachers and supports schools to strengthen the structure of computer, mathematics and science departments in these schools.

#### Department of Physical Education, Health & Recreation

The aim of the Department of Physical Education is to provide high quality academic and professional programmes in Physical Education, Recreation, Exercise Science and Sport Studies with broad applications in various career settings such as coaching, teaching administration, rehabilitation, health and fitness, recreation, parks, marketing and academic research. The undergraduate programme of study is the B.Ed in Physical Education. The Department also offers the MEd and PhD in Physical Education with specializations in Sport Management, Sport Pedagogy & Coaching, Sport Science and Sport Psychology.

#### Department of Primary Education

The Department of Primary Education provides in-service programmes to upgrade the skills of primary and secondary teacher educators, such as teacher training college tutors, education officers, members of the school management teams and teachers. The Department offers a Bachelor of Education (Primary) and a Bachelor of Education (Educational Management) Degree. Masters of Education degrees in Arts and Music Education are still on hold pending recruitment of senior staff.

#### 10.0 Faculty Regulations

All programmes in the Faculty shall be governed by the University General Academic Regulations. Any other relevant information pertaining to the programmes shall be as stipulated under the appropriate department in the following pages.

#### 10.20 Teaching Practice/Practicum

All pre-service students enrolled in a Bachelor of Education Programme shall undergo teaching practice as specified in the Faculty Teaching Practice/Practicum Regulations, obtainable from the Teaching Practice office and Faculty website.

#### 10.30 Entrance Requirements

The University General Regulations shall apply.

#### 10.40 Assessment

For courses taught by the Faculty of Education, continuous assessment shall comprise a minimum of 2 components of work per course

per semester. Each course shall be examined by an associated paper of duration between 1 to 3 hours. Some courses will be assessed by continuous assessment only, depending on the nature of the course. The ratio of continuous assessment to formal examination shall be 1:1. For courses taken in other Faculties, the ratio of continuous assessment to examination results shall be as determined by the Faculties concerned.

#### 10.50 Progression

The University General Academic Regulations shall apply.

#### 10.60 Award of Degree

The University General Academic Regulations shall apply.

## DEPARTMENT OF ADULT EDUCATION

1.0 Departmental Special Regulations for the Diploma in Adult Education

2.0 Subject to the provisions of General Regulations 000 and 100, the following Special Regulations shall apply:

#### 1.1 Entrance Requirements

The normal entrance requirements shall be as follows:

a) For Level 100, a minimum of 5 credits in the BGCSE or its equivalent or requirements as specified in General Regulation 10.21, with preference given to those with some experience in Adult Education.

b) For Level 200, a Certificate in Adult Education or its equivalent in a related field.

#### 1.2 Programme Structure

1.2.1 The Programme shall extend over two full academic years.

#### 1.2.2 Course Listings

##### Level 100

##### Semester 1

##### Core Courses

DAE100	Principles of Adult Education (3)
DAE101	Introduction to the Psychology of Adult Education (3)
DAE102	Introduction to Planning Programmes for Adult Learners (3)

##### Optional Courses

Students shall choose one of the following:

DAE210	Psychology and the Adult Learner (3)
DAE211	Promoting Community Enterprises and Economic Projects (3)
DAE214	Vocational Education and Training (3)
DAE216	Adult Education and Special Groups (3)

#### General Education courses

Two 2-credit GECs are to be taken from the university wide menu:

- GEC111 Communication and Study Skills 1 (2)  
GEC121 Computing and Information Skills Fundamentals 1 (2)

## Semester 2

- DAE103 Adult Education and Society (3)  
DAE104 Adult Education in Practice (3)  
EFR220 Introduction to Educational Research (3)

## Optional Courses

Students shall choose one of the following:

- DAE112 Participatory Development Methods (3)  
DAE 213 Adult Basic Education and Training (3)  
DAE215 Computer Applications in Adult Education (3)  
DAE217 Lifelong Learning (3)

## General Education Courses

Two 2-credit GECs are to be taken from the university-wide menu:

- GEC112 Communication and Study Skills II (2)  
GEC122 Computing and Information Skills Fundamentals II (2)

## Level 200

### Semester 3

#### Core Courses

- DAE200 Historical and Philosophical Foundations of Adult Education (3)  
DAE201 The Psychology of Adult Learning (3)  
DAE202 Programme Planning and Evaluation in Adult Education (3)  
DAE208 Rural Development and Rural Extension (3)  
DAE206 Supervising Adult Education (3)

## Optional Courses

Students shall choose one of the following:

- DAE210 Psychology and the Adult Learner (3)  
DAE211 Promoting Community Enterprises and Economic Projects (3)  
DAE216 Adult Education and Special Groups (3)  
DAE214 Vocational Education and Training (3)  
EFR220 Introduction to Educational Research (3) (new entrants only)

## Semester 4

#### Core Courses

- DAE203 Teaching Methods for Adult Education (3)  
DAE204 Gender Issues in Adult Education (3)  
DAE205 Adult Education and the World of Work (3)  
DAE207 Community Project Planning and Management (3)  
DAE209 Integrated Skills Project (3)

## Electives

One 3-credit elective, to be chosen from any course outside the Department of Adult Education, for which students are eligible, is required (except for new entrants).

## General Education Courses

For new entrants two 2-credit GEC courses are to be taken from the university wide menu. These should be GEC111 and GEC121.

## 1.3 Assessment

1.3.1 The performance of each student shall be assessed at the end of each semester with a 2-hour examination unless otherwise stated in the course outline.

1.3.2 The ratio between continuous assessment and formal exam shall be 1:1.

## 1.3.3 Continuous assessment for Adult

Education courses shall be based on extended Assignments and tests as well as other forms of assessment, such as periodic tests, projects and presentations.

## 1.4 Award of Diploma

The award of the diploma shall be in accordance with General Academic Regulations 00.85

## 1.5 Progression to the Bachelor of Education Programme (Adult Education)

A student who successfully completes Levels 100 and 200 of the Diploma Programme may be admitted directly into Level 300 of the Degree Programme.

2.0 Departmental Special Regulations for the Bachelor of Education Degree in Adult Education

Subject to the provision of the General Regulations 000 and 200, the following Special Regulations shall apply:

## 2.1 Entrance Requirements

The normal entrance qualifications shall be the following:

a) For Level 100, a minimum of 5 credits in the BGCSE or its equivalent, with credit in English Language, or as specified in General Regulations 2.2.2 and 2.2.3. Preference will be given to those applicants with some experience in adult education;

b) For Level 200, requirements will be as stipulated in General Regulation 2.2.4.

c) For Level 300, the requirement is a Diploma or its equivalent in Adult Education or a related field.

## 2.2 Programme Structure

2.2.1 Level 100 courses shall be as stipulated in Departmental Special Regulations 1.2.2.

2.2.2 Course Listings

## Level 200

### Semester 3

#### Core Courses

- DAE200 Historical and Philosophical Foundations of Adult Education (3)  
DAE201 The Psychology of Adult Learning (3)  
DAE202 Programme Planning and Evaluation in Adult Education (3)

## General Education Courses

One 2-credit GEC is to be chosen from the university-wide menu.

## Electives

One 3-credit elective is to be chosen from the university-wide menu.

## Optional Courses

One optional course from the following:

- DAE206 Supervising Adult Education Programmes (3)  
DAE208 Integrated Extension (3)  
DAE210 Psychology and the Adult Learner (3)  
DAE211 Promoting Community Enterprises and Economic Projects (3)  
DAE214 Vocational Education and Training (3)  
DAE216 Adult Education and Special Groups (3)

## Semester 4

#### Core Courses

- DAE203 Teaching Methods of Adult Education (3)  
DAE204 Gender Issues in Adult Education (3)  
DAE205 Adult Education and the World of Work (3)

## General Education Courses

One 2-credit GEC is to be chosen from the university wide menu.

## Electives

One 3-credit elective from any course outside the Department of Adult Education, for which students are eligible, is required.

## Optional Courses

Students shall choose one of the following:

- DAE209 Integrated Skills Project (3)  
DAE207 Community Project Planning and Management (3)  
DAE213 Adult Basic Education and Training (3)  
DAE215 Computer Applications in Adult Education (3)  
DAE212 Participatory Development Methods (3)  
DAE217 Lifelong Learning (3)

## Level 300

### Semester 5

#### Core Courses

- DAE300 Organization and Management in Adult Education (3)  
DAE301 Leadership in Adult Education (3)  
DAE305 Issues in International Adult Ed. (3)

## General Education Courses

One 2-credit GEC is to be chosen from the university wide menu.

## Electives

One 3-credit elective from any course outside the Department of Adult Education, for which students are eligible, is required.



### Optional Courses

Students shall choose one of the following:

- DAE312 Evaluation Methods in Adult Education (3)
- DAE313 Instructional Media and Materials Development in Adult Education (3)
- DAE314 Counseling in Lifelong Learning (3)
- DAE315 Organizational Development in Adult Education (3)
- DAE316 Issues in Adult Education (3)
- DAE317 Adult Education and Sustainable Development (3)

### Semester 6

#### Core Courses

- DAE302 Principles of Human Resource Development (3)
- DAE303 Research Design in Adult Education (3)
- DAE304 Practicum in Adult Education Methods (3)

### General Education Courses

One 2-credit GEC is to be chosen from the university wide menu.

### Electives

One 3-credit elective from any course outside the Department of Adult Education, for which students are eligible, is required.

### Optional Courses

Students shall choose one of the following:

- DAE418 Urban Adult Education (3)
- DAE419 Topics in Adult Literacy (3)
- DAE420 Adult Education, Democracy, Peace and Human Rights (3)
- DAE421 Development Policies and Adult Education (3)
- DAE422 Entrepreneurship Skills Development (3)

### Level 400

#### Semester 7

#### Core Courses

- DAE406 Political Economy of Adult Education and Development (3)
- DAE410 Adult Education Research Project (6)
- DAE411 Training and Development General (3)

### Education Courses

One 2-credit GEC is to be chosen from the university-wide menu.

### Electives

One 3-credit elective from any course outside the Department of Adult Education, for which students are eligible, is required.

### Optional Courses

Students shall choose one of the following:

- DAE312 Evaluation Methods in Adult Education (3)
- DAE313 Instructional Media and Materials Development in Adult Education (3)
- DAE314 Counselling in Lifelong Learning (3)
- DAE315 Organisational Development in Adult Education (3)

- DAE316 Issues in Adult Education (3)
- DAE317 Adult Education and Sustainable Development (3)

### Semester 8

#### Core Courses

- DAE407 Management of Community Economic Projects (3)
- DAE408 Policy Development for Lifelong Learning (3)
- DAE409 Adult Education and Social Exclusion (3)

### General Education Courses

One 2-credit GEC is to be chosen from the university-wide menu.

### Electives

One 3-credit elective from any course outside the Department of Adult Education, for which students are eligible, is required.

### Optional Courses

Students shall choose one of the following:

- DAE418 Urban Adult Education (3)
- DAE419 Topics in Adult Literacy (3)
- DAE420 Adult Education, Democracy, Peace and Human Rights (3)
- DAE421 Development Policies and Adult Education (3)
- DAE422 Entrepreneurship Skills Development (3)

### 2.3 Assessment

Assessment shall be in accordance with Departmental Special Regulations 1.3.1 to 3.3.

2.4 Progression from Semester to Semester  
Progression from one semester to the next shall be in accordance with General Academic Regulation 00.9

### 2.5 Award of the Degree

Award of the Degree shall be in accordance with General Academic Regulations 00.85

## DEPARTMENT OF EDUCATIONAL FOUNDATIONS

### Introduction

The Educational Foundations Department provides both foundational courses as well as offers full-fl edged programs. The Department is organized into disciplines as follows:

Curriculum Studies plus Design & Technology Education  
Educational Management  
Education Education Research and Evaluation  
Education Psychology  
Counselling and Human Services  
History and Philosophy of Education  
Sociology of Education  
Special Education  
Gender Education

The department houses the following programs:

### Diploma Programs

A one year full time preservice Post Graduate Diploma in Education

### First Degree Programs

A two year in-service/four year pre-service Bachelor of Education in Special Education Program

A two year in-service/four year pre-service in Bachelor of Education in Counselling Program

### Programs and Courses Offered in the Department

#### Department Regulations

#### B.Ed (Special Education)

#### Double Major)

### Aim

The aim of the B.Ed (Special Education) double major is to equip students with relevant intellectual and professional skills for providing specialized services to exceptional learners in schools and other institutions such as rehabilitation and resource centres. In more specific terms the program will  
Raise the awareness level of the student in respect to the causes, prevention and intervention strategies of the various forms of impairment.

Produce knowledgeable and skilful special education teachers for secondary schools.  
Produce knowledgeable and skilful special education teachers for primary schools.  
Produce teachers who have the skills to teach school subjects to both disabled and non-disabled persons

### Entry Requirements

#### For Level One

A minimum overall aggregate of Second class in the Botswana General Certificate of Secondary Education or its equivalent, including at least six subjects taken in not more than two sittings.  
Obtain a minimum of grade C in English for candidates wishing to take a teaching subject in humanities.

Obtain a minimum grade of C in mathematics and a pass in English for candidates wishing to take a teaching subject in the sciences.

Or as specified in General Regulation 20:22.

In-Service Teachers' Entry Requirements

Current: Level Two Entry for In-service Candidates

Applicants for the Bachelors in Special Education would be required to have a Diploma in Education or its equivalent from any recognised university/ institution. For example, Diploma in Physical Education, Home Economics, etc. Preference will be given to teachers with more than two years teaching experience in special education. The Diploma referred to shall normally be of duration of two or more years and one acceptable to UB. Refer to General Regulation 20.24. Entry on the basis of a Diploma of less than two years duration may be considered if the applicant has a previous related Certificate qualification



in the Special Education field, and experience of not less than five years. Such candidates will start at the 1st year to receive tuition in some foundation courses in education and in special education. This would allow them to bridge the gap due to the endorsement they hold.

#### Level Two

Graduates from colleges of education who did not major in Special Education and holders of Diploma in Primary Education or its equivalent from other recognized institutions. Candidates in this category will be awarded 6 credits of level one special education courses. They will however take courses as recommended by the department to make up for any shortfalls at level one

#### Level Three

Candidates with Diploma in Special Education from the University of Botswana or its equivalent qualification, will be admitted in 3. Program Structure and Content  
All Special Education courses carry three credits unless otherwise stated. Articulation of B. Ed will be done for B. Ed Special Education (Primary) in terms of content.

Level One: B.Ed Content

Level One

Course Type

**Semester One**

**Semester Two**

TOTAL cr. hrs courses cr. hrs courses cr. hrs courses

SPED Core & Area

Courses 3 (1) 9 (3) 12 (4)

Second Major - Primary

Education/Sec.

Education

6 (2) 6 (2) 12 (4)

General Education

Courses 6 (2) 3 (1) 9 (3)

Options 3 (1) - - 3 (1)

#### Electives

Student Load 18 6 18 6 36 12

NOTE: Articulation is done for B.Ed Special Education (Primary) in both content and Special Education. Articulation for the B.Ed (Special Education) secondary is only possible in Special Education and not content.

#### Level 1, Semester 1

##### Semester 1 (18)

Double Major: Special Education and Primary Education

CORE (to be taken by all)

**EFS101** Introduction to Exceptional Children (3)

**ENV101** Introduction to Physical and Human Environment (2)

**EPE100** Introduction to Algebra (3)

**EPE102** Introductory Science (3)

**GEC111** Communication study skills I (2)

**GEC121** Computer and information skills I (2)

Plus one optional course from the following:

**EFP100** Introduction to Educational Psychology (3)

**EPE101** Foundations of Developmental Psychology (3)

#### Special Education and Primary Education (18-20)

CORE (To be taken by all)

**EFS101** Introduction to Exceptional Children (3)

**ENV101** Introduction to Physical & Human Environments (2)

**EPE100** Introduction to Algebra (3)

**EPE102** Introductory Science (3)

**GEC111** Communication and Study Skills I (2)

**GEC121** Computer and Information Skills I (2)

Plus 3 credits from the following:

**EFP100** Introduction to Educational Psychology (3)

**EFP101** Foundations of Developmental Psychology (3)

Special Education and Science (18-20 credits)

CORE (To be taken by all)

**EFS101** Introduction to Exceptional Children (3)

**MAT111** Introductory Mathematics (4)

**GEC111** Communication and Study Skills I (2)

**GEC121** Computer and Information Skills I (2)

Plus one course from the following (4 credits):

**BIO 111** Principles of Biology (4)

**CHE101** General Chemistry 1 (4)

**PHY111** Geometrical Optics, Mechanics, Vibrations and Waves (3)

**PHY119** Physics Practical 1.1 (1)

Plus one course from the following (3):

**EFP100** Introduction to Educational Psychology (3)

**EFP101** Foundations of Developmental Psychology (3)

#### Special Education and Environmental Science (18-20 credits)

CORE (To be taken by all)

**EFS101** Introduction to Exceptional Children (3)

**ENV101** Introduction to the Physical and Human Environment (2)

**ENV103** Elementary Quantitative Techniques in Geography (3)

**MAT111** Introduction to Mathematics I (4)

**GEC121** Computing and Information Skills I (2)

**GEC111** Communication and Study Skills I (2)

Plus one of the courses from the following (3):

**EFP100** Introduction to Educational Psychology (3)

**EFP101** Foundations of Developmental Psychology (3)

#### Special Education Humanities

(English and African Languages) (18-20)

CORE (To be taken by all)

**EFS101** Introduction to Exceptional Children (3)

**ENG121** Introduction to English Language, and Usage (2)

**ENG113** Introduction to literature Prose (2)

**ALL121** Introduction to study of Language and Linguistics (2)

**ALL141** Introduction to Oral and Written Literature (2)

**GEC111** Communication and Study Skills I(2)

**GEC121** Computing and Information Skills I(2)

Plus one course from the following (3 credits):

**EFP100** Introduction to Educational Psychology (3)

**EFP101** Foundations of Developmental Psychology (3)

#### Special Education Humanities (History) (18-20 credits)

CORE (To be taken by all)

**EFS101** Introduction to Exceptional Children (3)

**ARC101** Introduction to Archaeology and Pre-history (2)

**ELC201** Foundations of Social Studies (3)

**ELC202** Social Studies and Nation Building (3)

**EN121** Introduction to English Language Description & Usage (2)

**GEC111** Communication and Study Skills I (2)

**GEC121** Computing and Information Skills I (2)

Plus one 3 credits from the following:

**EFP100** Introduction to Educational Psychology (3)

**EFP101** Foundations of Developmental Psychology (3)

#### Special Education Humanities (Religion) (18-20 credits)

CORE (To be taken by all)

**EFS101** Introduction to Exceptional Children (3)

**TRS101** Introduction to Biblical Studies (2)

**TRS102** Religions and Science (2)

**TRS103** Religions of Botswana (2)

**ENG121** Introduction to English Language Description & Usage (2)

**GEC111** Communication and Study Skills I(2)

**GEC121** Computing and Information Skills I (2)

Plus one course from the following (3):

**EFP100** Introduction to Educational Psychology (3)

**EFP101** Foundations of Developmental Psychology (3)

#### Level 2

##### Semester 1

##### Level Two: Diploma and B.Ed

##### Course Type

Semester 3 Semester 4 TOTAL

cr. hrs courses cr. hrs courses cr. hrs courses SPD

Core & Area Courses 6-9 2-3 6-9 2-3 12-18 4-6

Second Major- Pri. Ed /Sec. Ed. 3 (1) 3 (1) 6 (2)

General Education Courses

6 (2) 6 (2) 12 (4)

Options 3 (1) 3 (1) 6 (2)

Electives - - - - -

Student Load 18 6 18 6 36 12-14

D. Practical Subject Concentration

CORE

Take i, ii or iii

##### i. Art Education

**EPP201** Introduction to Art (4)

##### ii. Music Education

**EPP217** Intro to Philosophy of music



Education and Fundamentals of music (4)

### iii. Home Economics Education

(Take one)

HEE114 Introduction to Nutrition (3) OR

HEE115 Family studies Foundations (3)

Plus optional course choose one (for Practical Subjects concentration)

EPE211 Language across the curriculum (3)

EPS200 Intro to Social Studies Education (2)

Plus 6 credits of GEC Area 1 or 3

or 4

### Bachelor of Education

(Special Education)

Special Education and Primary Education

(18-21 credits)

CORE (to be taken by all)

EFS 201 Psychology of exceptional children (3)

Plus one course relevant to SPED specialization

Students from colleges of Education are to take GEC 441,111 and 121

EFS220 Braille Reading and Writing for the Visually Impaired(3)

EFS230 Communication Processes for Students with Hearing Impairment (3)

EFS240 Curriculum and Instructional Methods for Students with Mild to Moderate Mental Retardation (3)

EFS250 Diagnostic Teaching in Basic Skills for Students with Learning Disabilities/Difficulties (3 credits)

Plus one Core and  
Optional course in relevant  
Primary Education  
concentration chosen in level 1.

### A. Language Concentration

CORE

EPE212 Introduction to Language Arts (3)

Plus optional course. Choose two  
Courses Relevant to teaching  
subject taken in level 1.

ENG211 The Pronunciation of English (2)

ALL121 Introductions to the study of  
Language and Linguistics (2)

### B. Math and Science concentration

CORE

EPM226 Algebra and Trigonometry (3)

EPM228 Foundations of Chemistry and  
Biology (3)

### C. Social Studies/Religious

Education Concentration CORE

EPE211 Language across the curriculum (3)

EPS200 Intro to Social Studies Education (2)

ENV214 Element of the physical  
environment (3)

### D. Practical Subject Concentration

CORE

Take i, ii or iii

#### i. Art Education

EPP201 Introduction to Art (4)

#### ii. Music Education

EPP217 Intro to Philosophy of music  
Education and Fundamentals of  
music (4)

### iii. Home Economics Education

(Take one)

HEE114 Introduction to Nutrition (3)  
OR

HEE115 Family studies Foundations (3)

Plus optional course choose one (for Practical  
Subjects concentration)

EPE211 Language across the curriculum (3)

EPS201 Theory and Practice of Values in  
Education (2)

Plus 6 credits of GEC Area 1 or  
3 or 4

Special Education and Maths/Science (18-21)  
CORE (to be taken by all)

EFS201 Psychology of exceptional children  
(3)

Plus one course relevant to SPED specialization  
Students from colleges of Education are to take  
GEC 441,111 and 121

EFS220 Braille Reading and Writing for  
the Visually Impaired(3)

EFS230 Communication Processes for  
Students with Hearing  
Impairment (3)

EFS240 Curriculum and Instructional  
Methods for Students with Mild to  
Moderate Mental Retardation (3)

EFS250 Diagnostic Teaching in Basic  
Skills for Students with Learning  
Disabilities/Difficulties Plus A or B

### A. Mathematics Core

ESM 261 Basic Teaching Methods in Sec.  
Sch. Mathematics. (3)

Plus one optional course. Choose: To be taken  
by pre-service students

MAT211 Introductory set and number  
theory (3)

MAT221 Calculus (3) To be taken by  
in-service students

ESM 261 Basic Teaching Methods in Sch.  
Mathematics (3)

ESM 203 Inset Algebra (3)

ESM 213 Inset Differential Calculus (3)

### B. Science Core

ESS261 Basic Teaching Methods in Sec.  
Sch. Science (3)

Plus one optional course in I, II, III

#### I. Biology

BIO211 Cell Biology (3)

BIO213 Plant Structure and Functions (3)

BIO215 Principles of Ecology (3)

BIO217 Animal Diversity (3)

Choose One Plus Corresponding Lab I, Chemistry

CHE211 Introduction to analytical  
Chemistry (2)

CHE213 Analytical chemistry lab (1)

CHE221 Atomic Structure Bonding and Hair  
Group chem. (2)

CHE223 Inorganic chemistry lab (1)

Choose One Plus Corresponding Lab III,  
Physics

PHY211 Mechanics and Physical Optics (2)

PHY219 Physics practical 2.1(1)

PHY212 Properties of matter and thermo  
dynamics (2)

PHY219 Physics Practical 2.1(1) Plus 6  
credits of GEC Area 2/3/4/5

Special Education and Environmental Science  
(18-21 credits)

CORE (to be taken by all)

EFS201 Psychology of exceptional  
children (3)

ELG290 Theory of geography teaching (3)

ENV215 Introduction to special analysis (3)

Plus one course relevant to SPED specialization.  
Students from colleges of Education are to  
take an additional 3 credits other than area of  
specialization

EFS220 Braille Reading and Writing for the  
Visually Impaired(3)

EFS230 Communication Processes for  
Students with Hearing  
Impairment (3)

EFS240 Curriculum and Instructional  
Methods for Students with Mild to  
Moderate Mental Retardation (3)

EFS250 Diagnostic Teaching in Basic  
Skills for Students with Learning  
Disabilities/Difficulties

Plus optional course. Choose one from the  
following.

ENV211 Elements of human geography I (3)

ENV103 Elementary quantitative  
techniques in geography (3)

ENV214 Elements of physical geography (3)  
Plus 6 credits of GEC Area 4 or 5

Special Education and Humanities  
(English/African Languages)

(18-21 credits) CORE (to be taken by all)

EFS201 Psychology of exceptional  
children (3)

Plus one course relevant to SPED  
specialization Students from colleges of  
Education are to take  
GEC 441, 111 and 121

EFS220 Braille Reading and Writing for the  
Visually Impaired(3)

EFS230 Communication Processes for  
Students with Hearing  
Impairment (3)

EFS240 Curriculum and Instructional  
Methods for Students with Mild to  
Moderate Mental Retardation (3)

EFS250 Diagnostic Teaching in Basic Skills  
for Students with Learning  
Disabilities/Difficulties

Plus

ELL290 Language Education  
Issues (3)

Plus optional course. Choose two. Courses  
Relevant to teaching subject taken in level 1.

ENG211 The Pronunciation of English (2)

ENG213 Prose Literature of  
Southern Africa (2)

ENG223 The Drama of Southern Africa (2)

END212 Introduction to English Literature:  
the Novel (2)

ALL221 Sound systems in African  
languages (2)

ALL241 History and structure of the  
Setswana Novel (2)

ALL232 Language instructions III (ALL 134  
Pre required) (2)

ALL251 Folk Speech in Africa (2)

ALL252 Rites of Passage: A study of social  
dreams (2)

Plus 6 credits of GEC Area 1 or 2 or 4  
Special Education and Humanities

## FACULTY OF EDUCATION

(History) (18-21 credits)

CORE (to be taken by all)

**EFS201** Psychology of exceptional children (3)

Plus one course relevant to SPED Specialization  
Students from colleges of Education are to take  
GEC 441,111 AND121

**EFS220** Braille Reading and Writing for the Visually Impaired(3)

**EFS230** Communication Processes for Students with Hearing Impairment (3)

**EFS240** Curriculum and Instructional Methods for Students with Mild to Moderate Mental Retardation (3)

**EFS250** Diagnostic Teaching in Basic Skills for Students with Learning Disabilities/Difficulties

PLUS

**ELH290** Theory of Teaching History (3)

**HIS211** The rise of Europe world domination (3)

Plus optional course. Choose one from the following.

**HIS201** African cultures and civilizations to c.1500 (3)

**HIS213** Poverty, economic growth and affluence in Western Europe and America (3)

Plus 6 credits of GEC Area 1 or 2 or 3  
Special Education and Humanities  
(Theology and Religious Studies) (18-21 credits)

CORE (to be taken by all)

**EFS201** Psychology of Exceptional Children (3)

Plus one course relevant to SPED Specialization  
Students from colleges of Education are to take  
GEC 441 111 and 121

**EFS220** Braille Reading and Writing for the Visually Impaired(3)

**EFS230** Communication Processes for Students with Hearing Impairment (3)

**EFS240** Curriculum and Instructional Methods for Students with Mild to Moderate Mental Retardation (3)

**EFS250** Diagnostic Teaching in Basic Skills for Students with Learning Disabilities/Difficulties

PLUS

**ELR290** Theory of Teaching Religious Education (3)

Plus optional course. Choose one from the following.

**TRS203** African Traditional Religions in Botswana (2)

**TRS204** Theologies of Gender (2)

**TRS206** Beginning Biblical Greek 1: New Testament Greek (2)

**TRS207** Introd. to Christian Theology (2)  
Plus 6 credits of GEC Area 1 or 3 or 4

LEVEL 3 (17-21) credits depending on  
teaching subject concentration)  
(Holder of UB Diploma)

**Double Major: Special Education & Primary Education**

CORE (to be taken by all)

**EFS 201** Psychology of Exceptional Children (3)

Plus one course in SPED concentration Visual Impairment

**Visual Impairment**

**EFS 320** Advanced Mobility and Orientation for Students with Visual Impairment (3)

**Hearing Impairment**

**EFS 330** Communication Processes for students with Hearing Impairment (3)

**Mental Retardation**

**EFS 340** Methods in Teaching School Subjects to Students with Mental Retardation (3)  
Learning Disabilities / Difficulties

**EFS 350** Developmental Approaches and Behavior Management of Students with Learning Disabilities/Difficulties. (3)

Plus 6 credits from a, b, c or d

**a. Language concentration**

Core

**ENG 311** Modern English Grammar (2)

**ALL 221** Sound Systems in African Languages (2)

Plus optional courses. Choose one from the following:

**ALL 241** History and Structure of Setswana Novel (2)

**ALL152** Style in Writing (2)

**b. Mathematics/Science concentration**

**EPM 326** Introduction to Probability and statistics (3, pre-req. EPM227)

**EPM 328** Principles of chemistry and Physics (3)

**EPM 331** Social Studies in the Primary Schools (3)

**c. Social Studies Concentration**

Core

**EPS 322** Social Studies and Curriculum Development (3)

**EPS 331** Social Studies in the Primary Schools (3)

**d. Practical subjects concentration**

Take i, ii or iii

**i. Art Education**

**EPP 301** Appropriate Art Methods and Materials for Primary School (4)

**ii. Music Education**

**EPP 327** Introduction to Ethnomusicology Education (4)

**iii. Home Economics**

**HEE 229** Child development Pre-natal through Early Childhood (3)

PLUS : Take one course in the area chosen at  
Level 3. Semester 1

LEVEL THREE B.ED

Course Type

Semester 5 Semester 6 TOTAL

cr. hrs courses cr. hrs courses cr. hrs courses  
SPED Core & Area

Courses

6 2 6 2 12 4

Second Major: Pri. Ed./Sec.Ed.

6 2 6 2 12 4

General Education

Courses

3 1 - - 3 1

Options 3 1 3 1 6 2

Electives - - 3 1 3 1

Student Load 18 6 18 6 36 12

level 2 from the following:

**ALL 221** Sound systems in African Language(2)

**ENG 311** Modern English Grammar (2)

**EPM 326** Introduction to Probability and Statistics (3)

**EPM 328** Principles of Chemistry and Biology (3credit)

**EPM 330** Science Education (3)

**EPS 322** Social Studies and Curriculum Development (2)

**HEE 238** Orientation to Teaching home Economics (3)

Elective: EFR 200 Intro to Measurement in Education (3credits) GEC Area 4 (2credits)

Double major: Special Education & Primary Education  
Core (To be taken by all)

**EFS301** Educational Assessment and Identification of Students with Disabilities (3)

Plus one area course in SPED specialization.

**Visual Impairment**

**EFS 320** Advanced Mobility and Orientation for Students with Visual Impairment (3)

**Hearing Impairment**

**EFS 330** Communication Processes for students with Hearing Impairment (3)

**Mental Retardation**

**EFS 340** Methods in Teaching School Subjects to Students with Mental Retardation (3)  
Learning Disabilities / Difficulties

**EFS 350** Developmental Approaches and Behavior Management of Students with Learning Disabilities/Difficulties (3)

Plus 6 credits from courses relevant to area of concentration in Primary Education.

**Primary Education Teaching Subject Cluster:**

**1. Language Concentration**

**ENG 311** Modern English Grammar (2)

**ALL 221** Sound Systems in African Language (2)

**Optional courses: take one**

**ALL 241** History and Structure of Setswana and Novel (2)

**ALL 152** Style in writing (2)

**2.Mathematics & Science Concentration**

**EPM 330** Science Education (3)

**EPM 326** Introduction to Probability and Statistics (3)

**3.Social Studies & Religious Education**

**EPS 322** Social Studies and Curriculum Development (3)

**ELR 301** Theories of Religious Education (3)

**4.Practical Subject Concentration**

**i Art Education**

**EPP 301** Appropriate Art Methods and Materials for Primary School (4)

**ii Music Education**

**EPP 327** Introduction to Ethnomusicology



Education (4)

### iii Home Economics

HEE 233 Food Science (3)

Plus: Take one course in the area chosen at level 2 from the following list

ALL 221 Sound systems in African language (2)

ENG 311 Modern English grammar (2)

EPM 326 Intro to probability and statistics (3)

EPM 328 Principles of Chemistry and biology (3)

EPM 330 Science education (3)

EPS 322 Social Studies and curriculum development (3) Elective: EFR 200 Intro to measurement in education

(3 Credits) GEC Area 4 (3 credits)

Double major: Special Education

& Science (Specials)CORE (To be taken by all)

EFS 301 Educational Assessment and Identification of Students with Disabilities (3) Plus one area course relevant to SPED

specialization Visual Impairment

EFS 320 Advanced Mobility and Orientation for Students with Visual Impairment (3)

### Hearing Impairment

EFS 330 Communication Processes for students with Hearing Impairment (3)

### Mental Retardation

EFS 340 Methods in Teaching School Subjects to Students with Mental Retardation (3)

### Learning Disabilities / Difficulties

EFS 350 Developmental Approaches and Behavior Management of Students with Learning Disabilities/Difficulties (3)

Choose one of a, b, c or d

### A. Biology Core

ESS 391 Principles and Practice of Teaching School Science (3)

BIO 211 Cell Biology (3)

BIO 218 Biology of Flowering Plants (3)

Plus optional course. (Choose one)

BIO 212 Genetics (3)

BIO215 Principles of Ecology (3)

BIO214 Intro. To Mammalian Physiology (3)

### B. Chemistry Core

ESS391 Principles and Practice of Teach. Sch. Science (3)

CHE211 Analytical Chemistry (2)

CHE213 Analytical Chemistry Lab (1)

CHE232 Structure & Survey of Functional Groups 1 (2)

CHE234 Organic Chemistry Laboratory 1 (1) C. Pure Mathematics Core

ESM391 Principles and Practice of Teach. Sch. Maths (3)

MAT381 Calculus for Teachers 1(3)

MAT383 Linear Algebra for Teachers (3)

### D. Physics Core

ESS391 Principles and Practice of Teaching School Science (3)

PHY211 Mechanics and Physical Optics (2)

PHY212 Properties of Matter and Thermodynamics (2)

PHY 219 Physics Practicals 2.1(1)

GEC 2 credits area 4 or 5

Double major: Special Education & Environmental Science

CORE (To be taken by all)

EFS 301 Educational Assessment and Identification of Students with Disabilities (3)

EEL 301 Introduction to Environmental Education (3)

ENV 301 Environmental Issues (2)

ENV 304 Quantitative Methods in Human Geography (2)

Plus one area course relevant to SPED specialization

### Visual Impairment

EFS 320 Advanced Mobility and Orientation for Students with Visual Impairment (3)

### Hearing Impairment

EFS 330 Communication Processes for students with Hearing Impairment (3)

### Mental Retardation

EFS 340 Methods in Teaching School Subjects to Students with Mental Retardation (3)

### Learning Disabilities / Difficulties

EFS 350 Developmental Approaches and Behavior Management of Students with Learning Disabilities/Difficulties (3)

Optional Courses. Choose one from the following:

ENV 302 Concepts and Principles in Population Geography (2)

ENV 305 Rural Geography (2)

ENV 307 Human Settlements: Principles and Morphology (2)

Plus one GEC area 4 or 5 course

GEC

Double major: Special Education & Humanities (History)

CORE (To be taken by all)

EFS 301 Educational Assessment and Identification of Students with Disabilities. (3)

Plus one area course relevant to SPED specialization

### Visual Impairment

EFS 320 Advanced Mobility and Orientation for Students with Visual Impairment (3)

### Hearing Impairment

EFS 330 Communication Processes for students with Hearing Impairment (3)

### Mental Retardation

EFS 340 Methods in Teaching School Subjects to Students with Mental Retardation (3)

### Learning Disabilities / Difficulties

EFS 350 Developmental Approaches and Behavior Management of Students with Learning Disabilities/Difficulties (3)

### History Core

ELC302 Gender Issues in Social Studies (3)

HIS 301 Historical Research Methods (3 credit)

HIS 303 Historiography of Botswana (1) Plus Optional courses. Choose one.

ELC 321 Education for Self-reliance (3)

HIS 333 Intro to Foreign Policy, Dipl and Inter Rela 1800-1945 (3)

HIS 343 Trade & Politics in Central African Kingdoms (3)

HIS 341 African Diaspora in the Islamic World & Asia (3)

HIS 343 Trade and Politics in Central African Kingdoms (3)

Plus one GEC area 3 or 5 GEC

Double major: Special Education & Humanities (Theology and Religious Studies)

CORE (To be taken by all)

EFS 301 Educational Assess. & Identification of Students with Disabilities (3)

ELR 301 Theories of Religious Education (3)

TRS 304 African Philosophy and Culture (2)

Plus one area course relevant to SPED specialization

### Visual Impairment

EFS 320 Advanced Mobility and Orientation for Students with Visual Impairment (3)

### Hearing Impairment

EFS 330 Communication Processes for students with Hearing Impairment (3)

### Mental Retardation

EFS 340 Methods in Teaching School Subjects to Students with Mental Retardation (3)

Learning Disabilities / Difficulties

EFS 350 Developmental Approaches and Behavior Management of Students with Learning Disabilities/Difficulties (3)

Plus optional courses: choose one from the following.

TRS 301 Christology (2)

TRS 302 Missionaries in the 19th century South Africa (2)

TRS 303 Creation and the Bible (2)

TRS 309 Psychology of Religion (2)

Plus one GEC area 3 or 5 GEC

Elective:

EFR 200 Intro. To Measurement in Education (3)

Double major: Special Education & Science CORE (To be taken by all)

EFS 301 Educational Assessment and Identification of students with Disabilities (3)

Plus one area course relevant to SPED

### specialization Visual Impairment

EFS 320 Advanced Mobility and Orientation for Students with Visual Impairment (3)

### Hearing Impairment

EFS 330 Communication Processes for students with Hearing Impairment (3)

### Mental Retardation

EFS 340 Methods in Teaching School

Subjects to Students with Mental Retardation (3)  
**Learning Disabilities / Difficulties**  
**EFS 350** Developmental Approaches and Behavior Management of Students with Learning Disabilities/Difficulties (3)

Plus Core and Options in teaching subject Mathematics Core

**ESM 361** Teaching Strategies for School Mathematics (3)

**MAT 321** Real Analyses 1(3)

**MAT 311** Abstract Algebra 1 (3, pre-req. MAT 212)

Plus one from the following

**MAT 323** Vector Calculus (3, pre-req. MAT 222)

**MAT 251** Vectors & Introductory mechanics (3)

#### Biology Core

**ESB 361** Teaching Strategies for School Biology (3)

**BIO 316** Plant Physiology (3)

**BIO 317** Comparative Vertebrate Physiology (3)

Plus one from the following:

**BIO 307** Biochemistry (revised) (3)

**BIO 216** General Microbiology (pre-req. BIO 310, BIO 312) (3)

#### Chemistry Core

**ESC 361** Teaching Strategies of School Chemistry (3)

**CHE 321** Coordination in Chemistry (2)

**CHE 323** Inorganic Chemistry Lab 11 (1)

**CHE 331** Structure and Survey of Functional Group (3)

**CHE 341** Application Thermodynamics & Electro Chemistry (2)

**CHE 343** Physical Chemistry Lab 111 (1)

#### Physics Core

**ESP 361** Teaching Strategies of School Physics (3)

**PHY 311** Mechanics (2)

**PHY 312** Quantum Mechanics (2)

**PHY 319** Physics Practicals 3.1 (2)

**PHY 314** Electronics 1 (2)

Plus 2 credits GEC area 5

GEC Double major: Special Education & Home Economics (Secondary In-Service)

CORE (To be taken by all)

**EFS 301** Educational Assessment and Identification of Students with Disabilities. (3)

Plus one area course relevant to SPED specialization Visual Impairment

**EFS 320** Advanced Mobility and Orientation for Students with Visual Impairment (3)

#### Hearing Impairment

**EFS 330** Communication Processes for students with Hearing Impairment (3)

#### Mental Retardation

**EFS 340** Methods in Teaching School Subjects to Students with Mental Retardation (3)

#### Learning Disabilities / Difficulties

**EFS 350** Developmental Approaches and Behavior Management of Students with Learning Disabilities/ Difficulties (3)

#### Home Economics Take All

**HEE 229** Child Care and Development (3)

**HEE 238** Orientation to Teaching Home Economics (3)

Area of concentration (Choose One from 1 To 4)

##### 1. Food and Nutrition (take all)

**HEE 320** Community Nutrition (3)

**HEE 343** Food Service management (3)

##### 2. Human Development and Family Studies (take all)

**HEE 316** Family Health Education (3)

**HEE 348** Risk and Resiliency in Child Devt. (3)

##### 3. Clothing and Textile (Take all)

**HEE 353** Analysis & Evaluation of Textile Performance (3)

**HEE 356** Apparel Design & Product Devt. (3)

##### 4. Housing and Interior Design (Choose 2)

**HEE 359** Design Fundamentals (3)

**HEE 360** Building Construction and Envir. Systems (3)

**HEE 362** Housing & Services for Families with Special Needs (3)

GEC Area 4 (2)

B Ed Special Education

(Double major)

Semester 1 (16-18)

Double major: Special Education and Primary Education (In-service)

CORE

**EFS 401** Rehabilitation and Transition of Children with Disabilities (3)

Plus one course relevant to SPED specialization

**EFS 420** Teaching Students with Low Vision (3)

**EFS 430** Educating Students with Hearing Impairment (3)

**EFS 440** School & Community-Based Programs for Individuals with Mental Retardation (3)

**EFS 450** Educational Services for Individuals with Learning

Disabilities/ Difficulties across the Life Span (3)

Plus CORE courses and optional course relevant to concentration in Primary Education

##### 1. Language Concentration

**EPL 411** Teaching Reading in the Primary School (3)

**EPL 414** Literature for primary schools (3)

**ENG 421** Approaches to Syntax (2)

Plus Optional course

**ALL 331** Introduction to Translation (2)

##### 2. Mathematics & Science Concentration (6 credits)

**EPM 426** Introduction to Derivatives & their Application (3 s,pre-req.EPM 327)

**EPM 428** Advanced Concepts in Physics & Earth Science (3)

Plus Optional course, choose one from the following

**EPM 430** Maths Applications for Primary teaching (3)

**EPM 431** Science Applications for Primary Schools (3)

#### 3. Social Studies & Religious Education Concentration (6 credits)

**EPS 401** The Role of Democracy in the Teaching of Social Studies (3)

**ELC 431** Civic education (3) Plus Optional course (choose one)

**EPS 331** Teaching Social Studies in Primary Schools (3)

**EPS 401** The role of Democracy in the teaching of Social studies (3)

#### 4. Practical Subjects:

Choose one in the teaching subject chosen at Level 200

**ALL 321** The Structure of the Sentence (2)

**ENG 421** Approaches to Syntax (2)

**EPM 426** Introduction to Derivatives and their Applications (3)

**EPM 428** Advanced Concepts in Biology and Chemistry (3)

**ENV 307** Human Settlements: Principles and Level 4, semester 1

#### Level Four

##### Course Type

##### Semester 7

Semester 8 Total cr. hrs courses cr. hrs courses cr. hrs courses

SPED Core Courses 6 2 9 3 15 5

Second Major: Pri. Ed/Sec. Ed. 6 2 6 2 12 4

##### General Education

##### Courses

Options 3 1 - - 3 1

Electives 3 1 3 1 6 2

Student Load 18 6 18 6 36 12

Morphology (2 credits)

Plus Practical Area Subject and the optional course

##### (i) Art Education

**EPP406** Contemporary Issues in Art Education (4)

##### (ii) Music Education

**EPP 447** Basic Instrumental Skills (4)

##### (iii) Home Economics

**HEE 328** Orientation to Teaching Home Economics (3)

Optional Course (Choose one)

**PHR 309** Adapted Physical Education (2)

**HEE 338** Consumer Protection (2)

**HEE 337** Human Development across the Life Span (2)

**EFP 301** Adult-Child Interaction and Cognitive Development (3)

#### 5. Special Topics concentration

Students in this concentration shall continue with the area chosen at Level 200.

**ALL321** The Structure of the Sentence (2)

**ENG421** Approaches to Syntax (2 )

**EPM426** Introduction to Derivatives and their Applications (3)

**EPM428** Advanced Concepts in Biology and Chemistry (3 )

**ENV307** Human Settlement: Principles and Morphology (2)

Plus one from the following areas and the optional

##### Guidance and Counselling

**EFH403** Program Development in CHS (3) Infant Education

**EPI 431** Management of Early Childhood Program (3)





### Environmental Education

**EPI 442** Environmental Conservation Strategies (3)

### ONE optional course

**EPP 301** Adult-child Intervention and Cognitive Development (3)

Elective or GEC "2-3 credits"

Retake courses (if any)

Semester 1 (17 credits) Pre-service

Double major: Special Education and Science

SPED: CORE

**EFS 401** Rehabilitation and Transition of Children with Disabilities (3)

Plus one course relevant to SPED specialization

**EFS420** Teaching Students with Low Vision (3)

**EFS430** Educating Students with Hearing Impairment (3)

**EFS440** School & Community-Based Programs for Individuals with Mental Retardation (3)

**EFS450** Educational Services for Individuals with Learning Disabilities/ Difficulties across the Life Span (3)

Plus CORE and Optional courses relevant to teaching subject.

### Biology Core

**ESB461** Critical Debates in Biology Education (3)

**ESS441** Information and communication technology for the science teacher (2)

Plus Two from the following: teaching subjects in Science

**BIO412** Aquatic biology (3)

**BIO427** Evolution (3)

**BIO431** Plant Responses to Environmental Stress (3)

**BIO423** Ex. Physiology (3)

**BIO421** Entomology (3)

### Chemistry Core

**ESC461** Further Issues in Chemistry Pedagogical Content Knowledge (3)

**ESS441** Information and communication technology for the science teacher (2)

Plus Choose Two from the following teaching subjects in Science

**CHE421** Advanced Transition Metal Chemistry (3)

**CHE431** Heterocyclic Chemistry: Synthetic Chemistry and Design of Organic Synthesis (3)

**CHE441** Advanced Physical Chemistry (3)

### Mathematics Core

**ESM461** Advanced Teaching Methods in School Maths (3)

**ESM441** Intro. To Info and Communication Technology in Maths Education (2)

**MAT421** Functions of a Complex Variable (3)

**MAT423** Mathematical Methods (3)

### Physics Core

**ESP461** Advanced Pedagogic Strategies for School Physics (3)

**ESS441** Information and communication technology for the science teacher (2)

Plus teaching subjects in the Science discipline

**PHY411** Atomic and Nuclear Physics (2)

**PHY412** Statistical Mechanics & Solid State Physics (2)

**PHY419** Physics Practicals 4.1(2)

### Special Education and Science- Specials (19 credits) SPED CORE (To be taken by all)

**EFS401** Rehabilitation and Transition of Children with Disabilities (3)

Plus one course relevant to SPED specialization

**EFS420** Teaching Students with Low Vision (3)

**EFS430** Educating Students with Hearing Impairment (3)

**EFS440** School & Community-Based Programs for Individuals with Mental Retardation (3)

**EFS450** Educational Services for Individuals with Learning Disabilities/ Difficulties across the Life Span (3)

### Second Major: CORE courses in Math/ Science Teaching subject

#### 1. Biology

**ESB461** Critical Debates in Biology (3)

**BIO311** Plant Systematics (3)

**BIO315** Invertebrate Biology (3)

#### 2. Chemistry

**ESC461** Further Issues in Chemistry Pedagogic. Content (3)

**CHE321** Coordination Chemistry (2 )

**CHE323** Inorganic Chemistry Lab II (1 )

**CHE341** Applications of thermodynamic & Electrochemistry (2)

**CHE 343** Physical Chem. Lab III (1)

#### 3. Mathematics

**ESM461** Advanced Teach. Methods in Sch. Maths. (3)

**MAT483** Real Analysis for Teachers I (3 )

**MAT485** Number Theory & Abstract algebra for Teac. (3)

#### 4. Physics

**ESP461** Advanced Pedagogic Strategies for School Physics (3)

**PHY311** Mechanics (2)

**PHY312** Quantum Mechanics (2)

**PHY319** Physics Practicals 3.1 (2)

Optional course. Choose one from the following in your teaching subject:

**ESM441** Intro. to Inform & Commun. Tech. In Maths Education (2)

**ESM471** Contemporary Issues in Maths Education (2)

**ESS441** Intro. to Inform & Commun. Tech. In Science Education (2)

**ESS471** Contemporary Issues in Science Education (2) GEC (2)

Special Education and Environmental Science (19 credits)

SPED: CORE (To be taken by all)

**EFS401** Rehabilitation and Transition of Children with Disabilities (3)

Plus one course relevant to SPED specialization

**EFS420** Teaching Students with Low Vision (3)

**EFS430** Educating Students with Hearing Impairment (3)

**EFS440** School & Community-Based Programs for Individuals with Mental Retardation (3)

**EFS450** Educational Services for Individuals with Learning Disabilities/ Difficulties across the Life Span (3)

### Second Major: Core courses

**EEL401** Environmental Education Conservation Strategies (3)

**ENV402** Natural Resource Conservation and Management (3)

Plus two from the following

**ENV 404** Rural Development Theory and Practice (2)

**ENV424** Industry and Environment (2)

**ENV406** Regional Development studies (2)

**ENV408** Tourism and Development (2)

**ENV425** The African Environment (3)

**ENV407** Eco-tourism (2)

**ENV447** Environmental Hazards (2)

Electives (3) a course outside special education and second major Retake courses (if any)

Semester 1 (18 Credits ) Pre-Service Double major: Special Education and Humanities (English: African languages)

SPED: CORE (to be taken by all)

**EFS401** Rehabilitation and Transition of Children with Disabilities (3)

Plus one course relevant to SPED specialization

**EFS420** Teaching Students with Low Vision (3)

**EFS430** Educating Students with Hearing Impairment (3)

**EFS440** School & Community-Based Programs for Individuals with Mental Retardation (3)

**EFS450** Educational Services for Individuals with Learning Disabilities/ Difficulties across the Life Span (3)

### English

**ELL 401** Foundations of Multicultural Literacy in Education (3)

**ENG421** Approaches to Syntax (2)

Plus all of

**ENG412** Introduction to Shakespeare (2)

**ENG 413** The African Novel (2)

Or take one language course and one literature course (4 credits)

### African Languages

**ELL 401** Foundations of Multicultural Literacy in Education (3)

**ALL 421** Intro to Historical and Comparative Linguistics Based on Africa (2)

**ALL 422** A Sociolinguistic study of Southern Africa (2)

Plus one course from the following:

**ALL431** Introduction to Psycholinguistics (2)

**ALL452** Popular Culture in Africa (2)

**ALL 451** Studies in African Aesthetics (2)

**ALL 453** Women's Literature in Botswana (2)

Plus one Elective (3 credits)

### Special Education and Humanities:

English/African Language/Theology & Religious Studies/Social Studies/Home Economics-Specials (21 credits)

SPED: CORE (To be taken by all)

**EFS401** Rehabilitation and Transition of Children with Disabilities (3)

Plus one course relevant to SPED specialization

**EFS420** Teaching Students with Low Vision (3)

**EFS430** Educating Students with Hearing

Impairment (3)  
**EFS440** School & Community-Based Programs for Individuals with Mental Retardation (3)  
**EFS450** Educational Services for Individuals with Learning Disabilities/ Difficulties across the Life Span (3)  
 Second major: Two CORE courses and one Optional course in Teaching subject

#### 1. Home Economics

**HEE449** Seminar in Human Development (2)  
**HEE451** Public Policy for children and Families (3)  
 Optional Course, Choose one  
**HEE362** Housing and Services for Families with Special Needs (2)  
**HEE 454** Family Counselling (3)

#### 2. Social Studies

**ELC300** Socialization Issues (3)  
**ELC403** Economic Cooperation and Integration (3)  
 Optional Course, Choose one  
**ELC431** Civic education (3)  
**ELC421** Global Perspectives & Materials in Social Studies (3)  
**ELC 451** Resource Management in Africa (3)  
**ELC 461** Human Rights Issues (3)

#### 3. Theology & Religious Studies

**ELR 401** Teaching Religious Education in Sec. Sch. (3)  
**TRS401** New Religious Movements (2 )  
**TRS402** Religion and Politics (2 )  
 Optional course, Choose one  
**TRS403** The Doctrine of Sin in the Bible (2 )  
**TRS405** Intermediate Hebrew I (2 )  
**TRS406** Intermediate Arabic I (2 )  
**TRS407** Islam's Socio-Cultural, Legal & Political structures (2 )  
**TRS409** African Christian Theologies (2 )  
**TRS411** Politics and Development of Biblical thought (2 )  
**TRS412** Ecumenical Theology ((2 )  
**TRS413** Hinduism (2 )  
 Electives (3) One course outside of Special Education and the second major

Special Education and Humanities: Home Economics/ Social Studies/ Theology & Religious Studies –Specials (18 credits)  
 SPED CORE (To be taken by all)

**EFS 401** Rehabilitation and Transition of Children with Disabilities (3)  
 Plus one course relevant to SPED specialization  
**EFS420** Teaching Students with Low Vision (3)  
**EFS430** Educating Students with Hearing Impairment (3)  
**EFS440** School & Community-Based Programs for Individuals with Mental Retardation (3)  
**EFS450** Educational Services for Individuals with Learning Disabilities/ Difficulties across the Life Span (3)

Second major: Two CORE courses and one Optional course in Teaching subject

#### 4. Home Economics

**HEE337** Human Development Across the

Life Span (3)  
**HEE340** Home Economics Teach. Methods and Evaluation (3 )  
 Optional Course, Choose one  
**HEE341** Home Economics Curriculum Planning and design (3 )  
**HEE460** Clothing for People with Special Needs (3 )

#### 5. Social Studies

**ELC300** Socialization Issues ((3 )  
**ELC403** Economic Cooperation and Integration (3 )  
 Optional Course, Choose one  
**ELC431** Civic education (3)  
**ELC421** Global Perspectives & Materials in Social Studies (3 )  
**ELC451** Resource Management in Africa (3)  
**ELC461** Human Rights Issues (3 )

#### 6. Theology & Religious Studies

**ELR401** Teaching Religious Education in Sec. Sch. (3 )  
**TRS401** New Religious Movements (2)  
**TRS402** Religion and Politics (2)

#### Optional course, Choose one

**TRS403** The Doctrine of Sin in the Bible (2)  
**TRS405** Intermediate Hebrew I (2)  
**TRS406** Intermediate Arabic II(2)  
**TRS407** Islam's Socio-Cultural, Legal & Political structures (2)  
**TRS409** African Christian Theologies (2)  
**TRS411** Politics and Development of Biblical thought (2)  
**TRS412** Ecumenical Theology (2)  
**TRS413** Hinduism (2)  
 Electives (3) One course outside of Special Education and the second major Special Education and History (21 credits)  
 SPED: CORE (To be taken by all)  
**EFS401** Rehabilitation and Transition of Children with Disabilities (3)  
 Plus one course relevant to SPED specialization  
**EFS420** Teaching Students with Low Vision (3)  
**EFS430** Educating Students with Hearing Impairment (3)  
**EFS440** School & Community-Based Programs for Individuals with Mental Retardation (3)  
**EFS450** Educational Services for Individuals with Learning Disabilities/ Difficulties across the Life Span (3)

#### Second Major: CORE courses

**HIS401** Mfecane and the Settler Scramble for South Africa (3)  
**HIS412** Segregation, apartheid and African Nationalism in South Africa (3)  
**ELC400** Socialization Issues (3)  
 Or  
**ELC403** Economic Cooperation and integration (3)

#### And choose one

**HIS421** Political Ideas during the ancient and medieval periods (3)  
**HIS301** Historical research Methods (3)  
 Electives (3 credits) One course outside Special Education and second major Retake course (if any)

Special Education and Theology and Religious Studies (20 credits)

SPED CORE (To be taken by all)

**EFS401** Rehabilitation and Transition of Children with Disabilities (3)  
 Plus one course relevant to SPED specialization  
**EFS420** Teaching Students with Low Vision (3)  
**EFS430** Educating Students with Hearing Impairment (3)  
**EFS440** School & Community-Based Programs for Individuals with Mental Retardation (3)  
**EFS450** Educational Services for Individuals with Learning Disabilities/ Difficulties across the Life Span (3)

Second major: CORE course

**ELR401** Teaching Religious Education In Secondary Schools (3)  
**TRS401** New Religious Movements (2)  
**TRS402** Religion and Politics (2)

Plus optional courses, choose two from the following:

**TRS403** The Doctrine of Sin in the Bible (2)  
**TRS404** Metaphysics IV: Personal Identity (2)  
**TRS407** Islam's Sociocultural, Legal and Political Structures (2 )  
**TRS409** African Christian Theology (2 )  
**TRS411** Politics and Development of Biblical Thoughts (2)  
**TRS412** Ecumenical Theology (2 )  
**TRS413** Hinduism (2)

Electives (3) One course outside of special education and second major Bachelor of Education (Special Education) Special Education and Primary Education (19 credits)

CORE (to be taken by all)

**EFS102** Service Delivery Approaches in Special Education (3)  
**EFS103** Medical Aspects of Disability (3)  
**EFS104** Introduction to Procedures for Assessment of Disabilities (3)  
**ALL22** The Characteristics of Human Languages (2)  
**ALL142** The Study of Drama (2)

Plus one course from the following combinations

**EPE103** Principles of Science (3)  
**EPE114** Introduction to Education in Botswana (3)

OR

**EPE101** Algebra and its Applications (3)  
**EPE103** Principles of Science (3)

OR

**HIS102** Introduction to the Study of History (2)  
**EPE114** Introduction to Education in Botswana (3 credits)

Plus 4 credits of GEC

**GEC112** Communication & Study Skills II (2)  
**GEC122** Computer & Information Skills II (2)

Special Education and Science (20 credits)

CORE (to be taken by all)

**EFS102** Service Delivery Approaches in Special Education (3)  
**EFS103** Medical Aspects of Disability (3)  
**EFS104** Introduction to Procedures for



Assessment of Disabilities (3)

#### Take

- MAT122** Introduction to Mathematics II (5)  
Plus 4 credits from any one of the following courses
- BIO112** Diversity of Plants and Animal (4)  
**CHE102** General Chemistry II (4)  
**PHY121** Electricity and Magnetism, Modern Physics (3)  
**PHY121** Electricity and Magnetism Physics (3)  
**PHY119** Physics Practical 1, 2 (1)  
Plus 2 credits of GEC
- GEC112** Communication & Study Skills II (2)  
**GEC122** Computer & Information Skills II (2)  
Special Education and Science (Environmental Science) (19 credits)  
CORE (to be taken by all)
- EFS102** Service Delivery Approaches in Special Education (3)  
**EFS103** Medical Aspects of Disability (3)  
**EFS104** Introduction to Procedures for Assessment of Disabilities (3)  
**ENV102** Introduction to the Physical and Human Environments II (2)  
**ENV104** Elementary Quantitative Techniques in Geography II (3)  
**ELC202** Social Studies and Nation Building (3)  
Plus 2 credits of GEC  
Special Education and Humanities (English) (19 credits)  
CORE (to be taken by all)
- EFS102** Service Delivery Approaches in Special Education (3)  
**EFS103** Medical Aspects of Disability (3)  
**EFS104** Introduction to Procedures for Assessment of Disabilities (3)  
**ENG123** Introduction to Literature Drama & Poetry (2)

#### Plus one course from the following

- ALL134** Language Instruction II (2)  
**ALL153** Introduction to African Novel (2)  
**ALL154** Theory of Humour in Africa (2)  
**SOC133** Social Change in Botswana (2)

#### Plus 4 credits of GEC

- GEC112** Communication & Study Skills II (2)  
**GEC122** Computer & Information Skills II (2)

Special Education and Humanities (African Languages) (19 credits)  
CORE (to be taken by all)

- EFS 102** Service Delivery Approaches in Special Education (3)  
**EFS103** Medical Aspects of Disability (3)  
**EFS104** Introduction to Procedures for

#### Assessment of Disabilities (3)

- ALL122** The Characteristics of Human Languages (2)  
**ALL142** The Study of Drama (2)

Plus one course from the following:

- ALL153** Introduction to African Novel (2)  
**ALL154** Theory of Humour in Africa (2)  
Plus 4 credits of GEC
- GEC112** Communication & Study Skills II (2)  
**GEC122** Computer & Information Skills II (2)

#### Special Education and Humanities (Theology & Religious Studies) (19 credits) CORE (to be taken by all)

- EFS102** Service Delivery Approaches in Special Education (3)  
**EFS103** Medical Aspects of Disability (3)  
**EFS 104** Introduction to Procedures for Assessment of Disabilities (3)  
**TRS108** History of Philosophy I Classical Greek Philosophy (2)  
**TRS111** Epistemology I Theory of Knowledge (2)  
**TRS109** Biblical Interpretation(2)  
Plus 4 credits of GEC
- GEC112** Communication & Study Skills II (2)  
**GEC122** Computer & Information Skills II (2)

#### Special Education and Humanities (History) (17-19 credits) CORE (to be taken by all)

- EFS102** Service Delivery Approaches in Special Education (3)  
**EFS103** Medical Aspects of Disability (3)  
**EFS104** Introduction to Procedures for Assessment of Disabilities (3)  
**ELC202** Social Studies and Nation Building (3)

Plus one from the following

- HIS102** Introduction to the Study of History (2)  
**HIS202** Africa in the Era of Atlantic Slave Trade C1500 to C1800 (3)

Plus 4 credits of GEC

- GEC112** Communication & Study Skills II (2)  
**GEC122** Computer & Information Skills II (2)

#### Level 2

##### Semester 2

#### B Ed Special Education (Double Major) Special Education and Primary Education (15-18 credits)

##### CORE (to be taken by all)

- ETP200** Teaching Practice (3)  
Plus all courses relevant to SPED specialization  
Visual Impairment
- EFS221** Instructional Methods for Students with Visual Impairment (3)

#### Hearing Impairment

- EFS231** School Audiometry and Evaluation of Hearing (3)

#### Mental Retardation

- EFS 241** Program Development for Students with Mental Retardation (3)  
Learning Disabilities
- EFS 251** Remediation Techniques in School Subjects for Students with Learning Disabilities./ Difficulties (3)

#### Language Concentration

- ENG 221** English Linguistics (2)  
**ALL153** Introduction to African novel (2)  
**ALL122** African Languages and Linguistics (2)  
**ALL142** African Languages and Literature (2)  
Math and Science Concentration

- EPM227** Introduction to functions and the domains (3)

- EPM229** Foundations of Bio & Earth Sciences (3)

#### Social Studies/Religious Education concentration

- TRS107** African Traditional Religion (2)  
**ENV102** Introduction to the Physical and Human (2)

Practical Subjects Concentration Take one of the following:

#### Art Education

- EPP202** Practical Arts Skills for the Classroom Teacher (4)

#### Music Education

- EPP218** Listening, Composing and Performing (4)

#### Home Economics Education

- HEE116** Introduction to Consumer Education (3 credits)

Plus one from the following optional courses

- EPE214** Theory & Practice of the Project Method (3)  
**EPM230** Technology in Teaching Primary School Maths (3)  
**EPI225** Environmental Issues, Policies and Education (3)

#### Special Education and Math/Science (17-18 credits)

##### CORE (to be taken by all)

##### ETP200 Teaching Practice (3)

Plus all courses relevant to SPED specialization  
Visual Impairment

- EFS221** Instructional Methods for Students with Visual Impairment (3)  
**EFS223** Mobility and Orientation for the Visually Impaired (3)

#### Hearing Impairment

- EFS231** School Audiometry and Evaluation of Hearing (3)  
**EFS 233** Development of Education for the Hearing Impaired (3)

#### Mental Retardation

- EFS241** Program Development for Students with Mental Retardation (3)  
**EFS242** Early Intervention Programs for Young Children with Mental Retardation

#### Learning Disabilities

- EFS251** Remediation Techniques in School Subject for Students with Learning Disabilities/Difficulties (3)  
**EFS253** Secondary School Program for Student with Learning Disabilities/ Difficulties (3)

#### Mathematics & Science Mathematics

- ESM262** Practicum in Secondary School Mathematic (3)  
**MAT212** Introduction to Algebra (3, pre-req.: MAT111) or A-Level  
**ESM206** Inset Algebra II (3)  
**ESM216** Inset Integral Calculus (3)  
Optional. Choose one from the following  
**MAT222** Calculus11 (3, pre-req. MAT 221)  
**MAT242** Computing 1 (3)

**Biology**

**ESS262** Practicum in Secondary School Science (3)

Choose two from the following:

**BIO211** Cell Biology (3)

**BIO213** Plant Structure & Function (3, pre-req. for BIO 316)

**Chemistry – (take all)**

**ESS262** Practicum in Secondary School Science (3)

**CHE232** Structure Survey of Functional groups (2)

**CHE234** Organic Chemistry Laboratory 1 (1)

**CHE242** Introductory Physical Chemistry (2)

**CHE244** Physical Chemistry Laboratory 1 (1)

**Physics– (take all)**

**PHY221** Electricity and Magnetism (2)

**PHY222** Electronics and nuclear physics (2)

**PHY229** Physics Practical 2.2 (1)

**ESS262** Practicum in Secondary School Science (3)

Special Education and Environmental Science (17 credits)

CORE (to be taken by all)

**ETP200** Teaching Practice (3)

Plus all courses relevant to SPED specialization Visual Impairment

**EFS221** Instructional Methods for Students with Visual Impairment (3)

**EFS223** Mobility and Orientation for the Visually Impaired (3)

**Hearing Impairment**

**EFS231** School Audiometry and Evaluation of Hearing (3)

**EFS233** Development of Education for the Hearing Impaired (3)

**Mental Retardation**

**EFS 241** Program Development for Students with Mental Retardation (3)

**EFS 242** Early Intervention Programs for Young Children with Mental Retardation

**Learning Disabilities**

**EFS251** Remediation Techniques in School Subject for Students with Learning Disabilities/Difficulties (3)

**EFS253** Secondary School Program for Student with Learning Disabilities/Difficulties (3)

**Environmental Science Take**

**EEL302** Environmental Education Methodology (2)

Plus any two from the following

**ENV219** Elements of Human Geography II (3)

**ENV220** Elements of Physical Environment II (3)

**ENV216** Introduction to Remote Sensing (3)  
Special Education and Humanities (English / African Languages) (18 credits)

CORE (to be taken by all)

**ETP200** Teaching Practice (3)

Plus all courses relevant to SPED specialization Visual Impairment

**EFS221** Instructional Methods for Students with Visual Impairment (3)

**EFS223** Mobility and Orientation for the Visually Impaired (3)

**Hearing Impairment**

**EFS231** School Audiometry and Evaluation of Hearing (3)

**EFS233** Development of Education for the

Hearing Impaired (3)

**Mental Retardation**

**EFS241** Program Development for Students with Mental Retardation (3)

**EFS242** Early Intervention Programs for Young Children with Mental Retardation

**Learning Disabilities**

**EFS251** Remediation Techniques in School Subject for Students with Learning Disabilities/Difficulties (3)

**EFS253** Secondary School Program for Student with Learning Disabilities/Difficulties (3)

Plus

**ENG221** Introduction to English Linguistics (2)

**ELL302** Teaching of Literature at Secondary Level (3)

Optional course (choose one from the following)

**ENG222** Introduction to English literature: Poetry and Drama (2)

**ENG233** The Poetry of Southern Africa (2)

**ENG217** Theatre History (2)

**African Languages**

Plus

**ALL222** The Structure of words in African Languages (2)

**ELL302** Teaching of Literature at Secondary Level

Optional courses (choose one from the following)

**ALL233** Generative Phonology in African Languages (2)

**ALL234** Language Instruction IV (2)

**ALL253** The Sociology of Literature (2)

**ALL242** African Written Poetry (2) GEC (2)  
Special Education and Humanities (History) (18 credits)

**ETP200** Teaching Practice (3)

Plus all courses relevant to SPED specialization

**Visual Impairment**

**EFS221** Instructional Methods for Students with Visual Impairment (3)

**EFS223** Mobility and Orientation for the Visually Impaired (3)

**Hearing Impairment**

**EFS231** School Audiometry and Evaluation of Hearing (3)

**EFS233** Development of Education for the Hearing Impaired (3)

**Mental Retardation**

**EFS241** Program Development for Students with Mental Retardation (3)

**EFS242** Early Intervention Programs for Young Children with Mental Retardation

**Learning Disabilities**

**EFS251** Remediation Techniques in School Subject for Students with Learning Disabilities/Difficulties (3)

**EFS253** Secondary School Program for Student with Learning Disabilities/Difficulties (3)

**History Take**

**ELC321** Social Studies Methods (3)

**HIS213** Agriculture & Industrialization in World Economy 1945 (3)

**ELH290** Theory of Teaching History (3)

Plus any one courses from the following  
**HIS202** Africa in the Era of the Atlantic

Slave Trade C. 1500–C.1800 (3)

**HIS212** Catastrophe and Survival in 20th Century Europe (3)

**Special Education and Humanities**

(Theology and Religious Studies) (17–18 credits)  
CORE (to be taken by all)

**ETP200** Teaching Practice (3)

Plus all courses relevant to SPED specialization Visual Impairment

**EFS221** Instructional Methods for Students with Visual Impairment (3)

**EFS223** Mobility and Orientation for the Visually Impaired (3)

**Hearing Impairment**

**EFS231** School Audiometry and Evaluation of Hearing (3)

**EFS233** Development of Education for the Hearing Impaired (3)

**Mental Retardation**

**EFS241** Program Development for Students with Mental Retardation (3)

**EFS242** Early Intervention Programs for Young Children with Mental Retardation

**Learning Disabilities**

**EFS251** Remediation Techniques in School Subject for Students with Learning Disabilities/Difficulties (3)

**EFS253** Secondary School Programs for Student with Learning Disabilities/Difficulties (3)

Plus

**ELR302** Practice of Religious Education (3)

**TRS209** History of Christian Thought (2)

**Optional course. Choose one from the following**

**TRS210** Gospel Narratives (2)

**TRS211** Ecclesiology (2)

**TRS212** Beginning Biblical Greek II: New Testament Greek (2)

**TRS213** Johannine corpus (2)

**TRS214** Beginning Arabic I: Introduction to Basic Arabic (2)

**TRS215** Metaphysics 1: Appearance and Reality (2)

**TRS216** History of Philosophy III: Post – Medieval to 19th Century (2 credits)  
GEC (4 credits)

**Level 3****Semester 2**

**Special Education & Primary Education**  
(17–20 credits)

CORE (To be taken by all)

**EFS302** Education of the Gifted and Talented (3)

**ETP300** Teaching Practice in Special Education & Second Major (3).

Plus one area course relevant to SPED specialization

**Visual Impairment**

**EFS321** Communication and Language Development for Students with Visual Impairment (3)

**Hearing Impairment**

**EFS331** Advanced Communication Processes for Students with Hearing Impairment (3)

**Mental Retardation**

**EFS341** Society and children with Mental Retardation (3)





### Learning Disabilities

EFS351 Career Education for Students with Learning Disabilities/Difficulties (3)

Plus 6 credits from a, b or d

Primary Education Teaching subject Cluster:

#### a. Language concentration

ENG321 Usage in English Language (2)

EPL300 Theory and Practice of Second Language (3)

Optional Courses (one out of the following)

EPA303 Planning and management (3)

ALL253 The sociology of literature (2)

#### b. Mathematics & Science concentration

EPM331 Teaching School Maths (3)

EPM329 Principles of Physics & Earth Science (3)

#### c. Social Studies & Religious Education

EPS323 Social Studies and Pedagogy (3)

ELR302 Practicum in Religious Education (3)

#### d. Practical subject concentration

##### i. Art Education

EPP302 Practical Skills in Planning & Teaching Arts in the Primary School (4)

##### ii. Music Education

EPP328 Teaching Methods in Music Education (4)

##### iii. Home Economics

HEE227 Foundations of Food Preparation & meal Management (3)

Optional course: Choose one from the following:

EPA303 Planning and Management (3)

PHR261 Introduction to skills and techniques of soccer ( )

GEC Area 4 (2credits)

### Bachelor Of Education (Special Education)

(Credits depending on teaching subject concentration)

(Holder of UB Diploma)

Special Education & Primary Education (15-18 credits)

CORE (to be taken by all)

EFR220 Introduction to Educational Research (3)

EFS302 Education of the Gifted and Talented (3)

ETP300 Teaching Practice in Special Education & Second Major (3).

Plus one area course relevant to

SPED specialization Visual Impairment

EFS321 Communication and Language Development for Students with Visual Impairment (3)

#### Hearing Impairment

EFS331 Advanced Communication Processes for Students with Hearing Impairment (3)

#### Mental Retardation

EFS341 Society and children with Mental Retardation (3)

#### Learning Disabilities

EFS351 Career Education for Students with Learning Disabilities/Difficulties (3) Plus 6 credits from a, b or d

Primary Education Teaching subject Cluster:

#### a. Language concentration

ENG321 Usage in English Language (2)

EPL300 Theory and Practice of Second Language (3)

#### b. Mathematics & Science concentration

EPM331 Teaching School Maths (3)

EPM329 Principles of Physics & Earth Science (3)

#### c. Social Studies & Religious Education

EPS323 Social Studies and Pedagogy (3)

ELR302 Practicum in Religious Education (3)

#### d. Practical subject concentration

##### i. Art Education

EPP302 Practical Skills in Planning & Teaching Arts in the Primary School (4)

##### ii. Music Education

EPP328 Teaching Methods in Music Education (4)

##### iii. Home Economics

HEE227 Foundations of Food Preparation & meal Management (3)

Optional course: Choose one from the following (For all subject concentration)

EPM301 Special Issues in Maths Education(3)

EPL312 Breakthrough to Literacy (2)

EDT310 Instructional Materials (3)

GEC Area 4 (2)

Special Education & Science (17-19 credits)

CORE (To be taken by all)

EFS302 Education of the Gifted and Talented (3)

ETP300 Teaching Practice in Special Education & Second Major (3).

Plus one area course relevant to SPED

specialization Visual Impairment

EFS321 Communication and Language Development for Students with Visual Impairment (3)

#### Hearing Impairment

EFS331 Advanced Communication Processes for Students with Hearing Impairment (3)

#### Mental Retardation

EFS341 Society and children with Mental Retardation (3)

#### Learning Disabilities

EFS351 Career Education for Students with Learning Disabilities/Difficulties (3) Plus Core and Options in teaching subject.

#### Mathematics

ESM362 Advanced Practicum in School Mathematics (3)

#### Plus two from the following

MAT312 Abstract Algebra 11 (3, pre-req. MAT 311)

MAT324 Differential Equation (3, pre-req. MAT 222)

MAT322 Real Analysis 11 (3)

#### Biology

ESB362 Advanced Practicum in School Biology (3)

BIO311 Plant Systematics (3)

BIO215 Principles of Ecology (3, pre-req. BIO 434)

Plus ONE of:

BIO306 Developmental Biology (3)

BIO308 Molecular Biology (3)

#### Chemistry

ESC362 Advanced Practicum in School

Chemistry (3)

Plus two from the following:

C312II Third Year Inorganic Chemistry (3)

C312II Lab Third Year Inorganic Laboratory (1 credit)

C312IV Third Year Physical Chemistry (3)

C312IV Lab Third Year Physical Chemistry Laboratory (1)

#### Physics

ESP362 Advanced Practicum in School Physics (3 Plus)

PHY321 Electromagnetism (2)

PHY322 Thermal Physics (2)

PHY323 Vibrations, waves and Optics (2)

PHY329 Physics Practicals 3.2 (2)

Plus 2 credits GEC area 5

Special Education & Environmental Science (16-18 credits)

CORE (To be taken by all)

EFS302 Education of the Gifted and Talented(3)

ETP300 Teaching Practice in Special Education & Second Major (3).

Plus one area course relevant to SPED specialization Visual Impairment

EFS321 Communication and Language Development for Students with Visual Impairment (3)

#### Hearing Impairment

EFS331 Advanced Communication Processes for Students with Hearing Impairment (3)

#### Mental Retardation

EFS341 Society and children with Mental Retardation (3)

#### Learning Disabilities

EFS 351 Career Education for Students with Learning Disabilities/Difficulties (3)

Take

EEL302 Environmental Education Methodology (3)

ENV311 Environment, Population and Development (3)

#### Optional Course, Choose one

ENV313 Elementary Techniques in Population Geography (3)

ENV316 Agricultural Development (2 )

Plus one GEC area 4 or 5 course

Special Education & Humanities (English/ African Languages) (19 credits)

CORE (To be taken by all)

EFS302 Education of the Gifted and talented (3)

ETP300 Teaching Practice in Special Education & Second Major (3).

Plus one area course relevant to SPED specialization

#### Visual Impairment

EFS321 Communication and Language Dev for Students with Visual Impairment (3)

#### Hearing Impairment

EFS331 Advanced Communication Processes for Students with Hearing Impairment (3)

#### Learning Disabilities

EFS351 Career Education for Studs with Learning Disabilities/Difficulties (3)

#### English

ELL302 The teaching of Literature at Secondary School level (3)

ENG351 Phonology of English (2)



ENG321 Usage in English (2)

### African Languages

ELL302 The Teaching of Literature at Secondary School Level (3)

ALL342 African Oral Narratives (2)

ALL343 Introduction to African Popular Theatre (2)

Plus 2 credits of GEC area 4 or 5

Special Education & Humanities (History) (18 credits)

CORE (To be taken by all)

EFS302 Education of the Gifted and Talented (3)

ETP300 Teaching Practice in Special Education & Second Major (3).

### Plus one area course relevant to SPED specialization Visual Impairment

EFS321 Communication and Language Development for Students with Visual Impairment (3)

### Hearing Impairment

EFS331 Advanced Communication Processes for Students with Hearing Impairment (3)

### Mental Retardation

EFS341 Society and children with Mental Retardation (3)

### Learning Disabilities

EFS351 Career Education for Students with Learning Disabilities/Difficulties (3)

### History

ELC311 Multicultural Education (3)

ELC321 Social Studies Teaching Methods (3)

Plus Optional course. Choose one.

ELC342 Modern Anglophone, Francophone, and Lusophone West Africa (3)

HIS344 The root of Crises in Modern Central Africa (3)

Plus one GEC area 3 or 5

Special Education & Humanities (Theology and Religious Studies) (18 credits)

CORE (To be taken by all)

EFS302 Education of the Gifted and Talented (3)

ETP300 Teaching Practice in Special Education and Second Major (3)

Plus one area course relevant to SPED specialization Visual Impairment

EFS321 Communication and Language Development for Students with Visual Impairment (3)

### Hearing Impairment

EFS331 Advanced Communication Processes for Students with Hearing Impairment (3)

### Learning Disabilities

EFS351 Career Education for Students with Learning Disabilities/Difficulties (3)

### Theology and Religious Studies Core

ELR302 Practice of Religious Education (1)

TRS314 Christian Moral Theology (2)

Plus optional course: choose two from the following.

TRS316 History and Mythology of Jesus (2)

TRS325 Foundational Structures of Islam (2)

TRS302 Missionaries in 19th Century South Africa (2)

Plus one GEC area 3 or 5

### Level 4

### Semester 2

### Bachelor Of Education

#### (Special Education)

### Special Education and Primary Education(19-22)

#### SPED: CORE (To be taken by all)

EFS400 Project: Contemporary Issues and Concerns in SPED(3)

EFS402 Strategies for Helping Families of Students with Disabilities (3)

Plus one from the following courses:

EFS403 Speech Correction for Students with Communication Disorders (3)

EFS404 Education of Children with ADHD(3)

#### Second Major Content

Primary Education Teaching Subject Cluster:

#### 1. Reading English/Setswana

EPL411 Teaching Reading in the Primary Schools (3)

ALL342 African Oral Narratives (2)

ENG411 Form, Function and Variation (2)

#### 2. Mathematics and Science

EPM429 Advanced Concepts in Biology and Earth Science (3)

EPM427 Calculus II (3)

Plus

EPE411 Educational Management and Curriculum Development (3)

#### 3. Social Studies and Religious Education

HIS414 Chiefs, Commoners, and the Impact(3)

TRS315 Sociology of Religion (3)

ENG320 Botswana Environment (2)

#### 4. Practical Subjects. Continue with area chosen at level 200 Semester 1

##### i. Art Education

EPP405 Integrated Arts Education in Cultural Context (4)

##### ii. Music Education

EPP449 Movement in Music (4)

##### iii. Home Economics

HEE311 Clothing Design and Construction(3)

HEE453 Family Resource Management (3)

Plus a course in the following areas(Continue with area chosen at level 200 Sem. 1)

ALL342 African Oral Narratives (2) OR

ENG411 Form, Function and Variation of English (2) OR

EPM429 Advanced Concepts in Physics and Earth Science (3) OR

TRS315 Sociology of Religion (3) and

HIS414 Chiefs, Commoners and the Impact of Colonial Rule (3)

1. Special Topics (Continue with areas chosen at level 200 Sem. 1)

##### i. Guidance and Counselling

EFH406 Consultation in Counselling and Human Services (3)

##### ii. Infant Education

EPI342 Contemporary Issues in Early Childhood Education (3)

EPI443 Environmental Conservation Strategies II (3)

Plus a course in the following areas (Continue with area chosen at level 200 Sem. 1)

ALL342 African Oral Narratives (2)

ORENG411 Form,Function and Variation of English (2) OR

EPM427 Calculus II (3)

EPM429 Advanced Concepts in Physics and Earth Science (3) OR

TRS315 Sociology of Religion (3) and

HIS414 Chiefs, Commoners and the Impact of Colonial Rule (3)

Plus Optional Courses:

(Choose one)

EPE411 Educational Management and Curriculum Development (3)

ENV320 Botswana's Environment (3)

### Special Education and Science (Specials) (19)

#### SPED: CORE (To be taken by all)

EFS400 Project: Contemporary Issues and Concerns in SPED (3)

EFS402 Strategies for Helping Families of Students with Disabilities (3)

Plus one from the following courses:

EFS403 Speech Correction for Students with Communication Disorders (3)

EFS404 Education of Children with ADHD(3)

#### Second Major Biology

ESS412 Introduction to the History and Philosophy of Science (2)

ESS442 Further Issues in ICT for the Science Teacher (2)

Plus Two of:

BIO416 Immunology (3, pre-req. Pass BIO 216)

BIO424 Vertebrate Structure (3)

BIO430 Post-harvest Physiology (3)

BIO434 Plant Ecology (3, pre-req. Pass BIO 215)

BIO450 Research Project (Continued) (3)

### Chemistry

ESS412 Introduction to the History and Philosophy of Science (2)

ESS442 Further Issues in ICT for the Science Teacher (2)

Plus (choose two)

C413I Fourth Year Analytical Chemistry (3)

C413I Lab Fourth Year Analytical Chemistry Laboratory (1/2 credit)

C413III Fourth Year Organic Chemistry (3)

C413III Lab Fourth Year Organic Chemistry Laboratory (1/2 credit)

### Mathematics

ESM412 Mathematics and Society (2)

ESM442 Information and Communication Technology in Mathematics Education (2)

#### Plus (choose two)

MAT402 History of Mathematics (3)

MAT412 Number Theory (3)

MAT416 Abstract Algebra III (3)

MAT426 Partial Differential Equations (3) Physics

ESS412 Introduction to the History and Philosophy of Science (2)

ESS442 Further Issues in ICT for the Science Teacher (2)

PHY421 Solid State Physics I (2)

PHY422 Micro-Computing for Physics (2)

PHY429 Physics Practicals 4.2 (2)

### Special Education and Environmental Science (15-18)

#### CORE (To be taken by all)

EFS400 Project: Contemporary Issues and Concerns in SPED (3)

EFS402 Strategies for Helping Families of Students with Disabilities (3)

Plus one from the following courses:

EFS403 Speech Correction for Students with Communication Disorders (3)



**EFS404** Education of Children with ADHD(3)

#### Second Major

**ELC411** Curriculum Development for Social Studies Teachers (3)

Plus one from the following courses:

**ELC412** Development of Social Studies Instructional Materials (3)

**ELC432** Skills in Map Interpretation(3)

Electives (3 credits) a course outside of Special Education and second major.

Special Education and Humanities: History (15-18 credits)

SPED: CORE (To be taken by all)

**EFS400** Project: Contemporary Issues and Concerns in SPED (3 )

**EFS402** Strategies for Helping Families of Students with Disabilities (3)

Plus one from the following courses:

**EFS403** Speech Correction for Students with Communication Disorders (3)

**EFS404** Education of Children with ADHD(3)

#### Second Major:

**HIS414** Chiefs, Commoners and the Impact of Colonial Rule (3)

**HIS422** Historical lokas during the Modern and Contemporary Period (3 credits) Plus one from the

following:

**ELC422** Social Studies Teacher Preparation (3)

**ELC442** Values Education (3)

Electives (3 credits) One course outside of Special Education and second major.

Special Education and Humanities: English and African Languages/Theology and Religious Studies/Social Studies/Home

Economics- Specials (21 credits)

SPED: CORE (To be taken by all)

**EFS400** Project: Contemporary Issues and Concerns in SPED (3 )

**EFS402** Strategies for Helping Families of Students with Disabilities (3)

Plus one from the following courses:

**EFS403** Speech Correction for Students with Communication Disorders (3)

**EFS404** Education of Children with ADHD(3)

#### Second Major

##### English

**ENG411** Form, Function and Variation in English (2)

**ENG431** Introduction to Discourse Analysis(2)

**ELL402** Interdisciplinary Approaches to Literacy Education (3)

Plus one from the following courses:

**ENG451** Introduction to Semantics (2)

**ENG443** The African Novel II (2)

**ENG 452** Shakespearean Drama (2)

**ENG462** Shakespearean Poetry (2)

**ENG481** Language and Gender (2 credit) African Languages

**ALL423** Bantu and Khoesan Languages of Southern Africa (2)

**ALL442** Creative Writing, Theory and Practice (2)

**ALL443** Oral Poetry in Botswana (2)

**ELL402** Interdisciplinary Approaches to Literacy Education (3)

Plus one from the following courses:

**ALL434** Introduction to Applied

Linguistics (2)

**ALL435** Language Instruction VIII (2)

**ALL454** Children's Traditions Et Dramatics (2)

**ALL455** Post Colonial Theory and Literature (2)

**ALL456** Introduction to African Thoughts (2)

#### Theology and Religious Studies

**ELR402** Curriculum Design in Religious Education (3)

**TRS415** Twentieth Century Theologians (2)

**TRS416** Religion and Modernity (2)

Plus one from the following courses

**TRS 417** Paul's Epistles (2)

**TRS418** Contemporary African Philosophy (2)

**TRS426** Religions, Rituals and Sacred Places (2)

**TRS428** Religious Pluralism (2)

#### Social Studies

**ELC411** Curriculum Development for Social Studies Teachers (3)

**ELC412** Development of Social Studies Instructional Materials (3)

Plus one from the following courses

**ELC422** Social Studies Teacher Preparation (3)

**ELC432** Skills in Map Interpretation (3)

**ELC441** Social Studies and Affirmative Action (3)

**ELC442** Values Education (3)

**ELC462** Social Classroom Environment (3)

#### Home Economics

**HEE421** Management and Administration of Home Economics Programs (3)

**HEE453** Family Resources Management (3)

**HEE464** Housing and Environment for children (3)

Plus one from the following courses

**HEE460** Clothing for people with special needs (3)

**HEE444** Issues in Food and Nutrition (3)

**HEE448** Food Laws and Regulations (3)

Electives (3 credits)

#### Assessment

Performance in each course shall be assessed by a combination of coursework and two hour final examination in the ratio 1:1, unless otherwise stated in the Course Description.

#### Award Of Diploma and Degree

Subject to General Regulation 00.852:

To be awarded the Diploma in Special Education a student must complete a minimum of 72 credits; to be awarded the B.Ed (Special Education), a student must complete a minimum of 144 credits.

## DEPARTMENT OF EDUCATIONAL TECHNOLOGY

### 1.3 Course Listings

1.3.1 Kindly consult the Department for the list of courses on offer.

1.3.2 Courses offered by the Department of Educational Technology have been awarded the

Department's code (EDT) as follows:

**EDT310** Producing Instructional Materials for Primary Education (3 credits - Sem 2)

**EDT543** Planning and Producing Instructional Materials (3 credits - Sem 1 and 2)

**EDT411** Educational Technology Basics (3 credits - Semester 1 Only)

## DEPARTMENT OF FAMILY AND CONSUMER SCIENCES

### Bachelor of Family and Consumer Sciences Degree Programme

#### Entry Requirements

In addition to satisfying the requirements of General Regulations 20.21, candidates shall be required to have a credit in Biology, and/ or Chemistry, or related Science Combination at Ordinary Level or its equivalent. A pass in any Home Economics subject shall be an added advantage.

#### Alternative Entrance Qualifications

Applicants with a Diploma in Home Economics Education, or a Diploma in Secondary Education from Colleges of Education, shall be admitted into Level 200 or 300 of the Degree Programme on the basis of accumulated credits in the area of Home Economics.

#### Level 100

##### Semester 1

##### Core Courses

**FCS 100** Introduction to FCS (3)

**FCS 101** Foundations of Family Studies (3)

**FCS 102** Introduction to Nutrition (BNS students only) (3)

**BIO 122** Anatomy, Physiology and Biochemistry (3)

**CHE107** Chemistry Applied to Home Economics (3)

**GEC121** Computing and Information Skills I (2)

**GEC111** Communication and Study Skills I(2)

##### Semester 2

##### Core Courses

**FCS102** Introduction to Nutrition (3)

**FCS103** Child Development: Prenatal through Early Childhood (3)

**BIO123** Introduction to Microbiology and Stored Product Entomology (3)

**PHY162** Physics Applied to FCS (3)

**GEC112** Communication and Study Skills II (2)

**GEC122** Computing and Information Skills Fundamentals II (2)

**EFS101** Introduction to Exceptional Children (3)

#### Level 200

##### Semester 1

##### Core Courses

**FCS204** Introduction to Housing (3)

**FCS205** Introductory Textiles (3)

**FCS206** Fundamentals of Food Sciences (3)

**FCS207/208** Orientation to Teaching FCS/  
Foundations of FCS Extension  
(non DSE only) (3)  
**EC0111** Basic Microeconomics (3)  
**GEC111** (DSE only) (3)  
**Elective** (DSE only) (3)

Elective courses are to be chosen from any other course outside of the FCS programme for which students are eligible.

### Semester 2 Core Courses

**FCS209** Technology and Creative Sewing (3)  
**FCS210** Foundations of Food Preparation (3)  
**FCS211** Introduction to Interior Design (3)  
**EFR 200/FCS212** Introduction to Measurement  
in Education/Group Processes and  
Group Dynamics (3)

Elective (3)

Elective courses are to be chosen from any other course outside of the FCS programme for which students are eligible. (3)

### Level 300

#### Semester 1

##### Core Courses

##### A.CORE COURSES (Take all)

**HEE337** Human Dev: Across the Lifespan  
(3 credits)  
**HEE 338** Consumer Protection (2 credits)  
**HEE 339** Housing in World Perspective (3  
credits)  
**HEE 367** Research Methods in Home  
Economics (3 credits)

##### B. AREA OF CONCENTRATION (Choose one, 1 – 4)

##### 1. Food & Nutrition (Choose 2)

**HEE 320** Community Nutrition (3 credits)  
**HEE 343** Foodservice Management (3 credits)  
**HEE 345** Food Technology (3 credits)

##### 2. Human Development and Family Studies (Choose 2)

**HEE 347** Curriculum Dev. In Early Childhood  
Edu. (3 credits)  
**HEE 348** Risk and Resiliency in Child  
Development (3 credits)  
**HEE316** Family Health Education (3 credits)

##### 3. Clothing & Textile (Take all)

**HEE 355** Fashion Merchandizing and  
Marketing (3 credits)  
**HEE 356** Apparel Design and Product  
Development (3 credits)

##### 4. Housing and Interior Design (Choose 2)

**HEE 359** Design Fundamentals (3 credits)  
**HEE 360** Building Construction and  
Environmental Systems (3 credits)  
**HEE 362** Housing and Services for Families  
with Special Needs (2 credits)

### Semester 2

#### Core Courses

1 x Elective

(3 credits)

**HEE 227** Foundations of food prep & meal  
management (DSE only) (3 credits)

##### A. AREAS OF SPECIALISATION (Choose one from 1–2)

##### 1. Formal Education Specialization (take all)

**HEE340** Home-Economics Instruction in Sec.  
Schools (3 credits)  
**EFC300** Introduction Curriculum  
Development (3 credits)  
**ETP300** Teaching Practice (3 credits)

##### 2. Extension Specialisation (take all)

**HEE325** Programme Planning in HE  
Extension (3 credits)  
**HEE326** Community Mobilisation and Group  
Dynamics (3 credits)  
**HEE365** HE Internship (3 credits)

Plus,

B. AREA OF CONCENTRATION (Choose one, from  
1–4)

##### 1. Food and Nutrition (Choose two)

**HEE342** Nutrition in the life cycle (3 credits)  
**HEE344** Menu Planning & Design (3 credits)  
**HEE346** Food Quality Control (3 credits)

##### 2. Human Development and Family Studies (Choose 2)

**HEE351** Dev. Assessment & Intervention with  
Young Chd. (3 credits)  
**HEE352** Theory & Practice in Interact. with  
Young Children (3 credits)  
**HEE349** Parenting & Socialisation Process in  
the Family (3 credits)

##### 3. Clothing & Textiles (take all)

**HEE354** Textile Design & Product  
Development (3 credits)  
**HEE357** Apparel Production (3 credits)

##### 4. Housing & Interior Design (Choose two)

**HEE361** Housing Policy and Management  
(3 credits)  
**HEE363** Interior Space Design (3 credits)  
**HEE364** Residential Space Planning (3  
credits)

### Level 400

#### Semester 1

##### Core Courses

##### A. CORE COURSES

**HEE441** Research Project/ (Continued from  
sem 1)  
**MGT301** Organizational Behaviour (3 credits)  
Plus,  
Elective (3 credits)

##### B. AREA OF CONCENTRATION

##### 1. Food & Nutrition (Take all)

**HEE443** Clinical Nutrition (3 credits)  
**HEE445** Quantity Food Production  
(3 credits)

##### 2. Human Development and Family Studies (Take all)

**HEE454** Family counseling (3 credits)

Plus,  
1 X Elective (3 credits)

##### 3. Clothing & Textiles (Take all)

**HEE455** Textiles and Technology (3 credits)  
**HEE459** Tailoring (3 credits)

##### 4. Housing & Interior Design (Choose 2)

**HEE462** Housing and the Social Environment  
(3 credits)  
**HEE464** Housing and Environment for  
children (3 credits)  
**HEE466** Housing Finance (3 credits)

### Semester 2

#### Core Courses

##### A.CORE COURSES

**MGT 303** Entrepreneurship and New Business  
Formation (3 credits)  
Elective (3 credits)

##### B. AREA OF SPECIALISATION (Choose one, from 1–2)

##### 1. Formal Education Specialization

**HEE421** Mgt & Admin. Of Home Ec Programs  
(3 credits).

##### 2. Extension Specialization

**HEE442** Managing Extension Programmes  
(3 credits)

Plus,

##### C. AREA OF CONCENTRATION (Choose one, from 1– 4)

##### 1. Food & Nutrition (Choose two)

**HEE444** Issues in Food and Nutrition  
(3 credits)  
**HEE448** Food Laws and Regulations  
(3 credits)  
**HEE447** Food Product Development  
(3 credits)

##### 2. Human Development And Family Studies (Take all)

**HEE450** Issues & Trends in Early Childhood  
Educ. Progr (3 credits)  
**HEE453** Family Resource Management  
(3 credits)

##### 3. Clothing & Textiles (Take all)

**HEE456** Fashion Merchandizing, Analysis  
and Strategies (3 credits)  
**HEE458** Fashion Merchandizing Presentation  
(3 credits)

##### 4. Housing & Interior Design (Choose 2)

**HEE463** Community Housing Assessment  
(3 credits)  
**HEE461** Commercial space planning  
(3 credits)  
**HEE465** Residential technology (3 credits)

### Assessment

Student's performance in each course shall be assessed in accordance with the provision of the University General Regulations 00.8. Courses offered in other faculties/departments shall be governed by their relevant regulations.

### Progression from semester to semester

Progression from semester to semester shall be in accordance with provisions of the University General Regulation 00.9.



### Award of Degree

Shall be in accordance with provision of the University General Regulations 00.85, subject to completion of 6 credits of Teaching Practice (School Specialization) or 6 credits of Internship.

## DEPARTMENT OF LANGUAGES AND SOCIAL SCIENCES EDUCATION

### Programmes

#### Bachelor of Education

(Secondary) Humanities  
Bachelor of Education (Secondary)  
Postgraduate Diploma in Education

### Entry Requirements

The normal Entry Requirements shall be as stipulated in the University of Botswana General Regulations – Entrance Qualifications 20.20, and Departmental Regulation E.D. 26. 10 and E.D. 26.12.

### Bed (Secondary): Humanities Specialisation Semester 5

#### Level 3

#### African Languages and Literature

- ALL321 The Structure of the Sentence (2)
- ALL322 The Structure of Meaning (2)
- ALL341 Introduction to Literary Theory (2)

#### English

- ENG311 Modern English Grammar (2)
- ENG317 African Drama (2)
- ENG373 Botswana Literature (2)

#### English Language and Literature Curriculum Courses

- ELL301 Curriculum and policy issues in language education (3)

#### Environmental Education

- EEL301 Introduction to Environmental Education (2)

#### Home Economics

- HEE229 Childcare and Development (3)
- HEE238 Orientation to Teaching Home Economics (3)

#### Moral Education Curriculum Courses

- ELM301 Theory of Moral Education (3)

#### Religious Education Courses

- ELR301 Theory of Religious Education (3)

#### Setswana Language and Literature Curriculum Courses

- ELL301 Curriculum and policy issues in language education (3)

#### Social Studies

- ELC300 Education for Self-reliance (3)
- ELC302 Gender issues in Social Studies (3)

#### Theology and Religious Studies

- TRS301 Christology (2)
- TRS302 Missionaries in the 19th Century South Africa (2)

### Semester 6

#### Level 3

#### African Languages and Literature

- ALL323 Introduction to Stylistics and Discourse Analysis (2)
- ALL342 African Oral Narratives (2)
- ALL343 Introduction to African Popular Theatre (2)

### English Language and Literature Curriculum Courses

- ELL302 The teaching of Literature at Secondary School I (3)

#### Environmental Education

- EEL302 Environmental Education Methodology (2)

#### Home Economics

- HEE340 Home Economics instruction in Secondary School (3)
- HEE320 Community Nutrition (3)

#### Moral Education Curriculum Courses

- ELM302 Practice of Moral Education (3)

#### Religious Education Curriculum Courses

- ELR302 Practice of Religious Education (3)

#### Setswana Language and Curriculum Courses

- ELL302 The Teaching of Literature at Secondary School (3)

#### Social Studies

- ELC311 Multicultural Education (3)
- ELC312 Conflicts and Conflicts Resolutions (3)

#### Theology and Religious Studies

- TRS314 Christian Moral Theology (2)
- TRS315 Sociology of Religion (2)

#### Optional Course for Semester 6

One course (2-3 credits) to be selected from the menu below.

#### African Languages and Literature

- ALL332 Language Instruction V (2)
- ALL351 Politics and Southern African Poetry (2)
- ALL352 Emergent Literary Genres (2)
- ALL341 Epic Performance in Africa (2)
- ALL334 Introduction to Modern Theories in Grammatical Analysis (2)
- ALL335 Language Instruction VI (2)
- ALL354 African Oral Literature and the Media (2)
- ALL355 The Contemporary Setswana Novel(2)

#### English

- ENG312 Milton (2)
- ENG343 Modern African Poetry (2)
- ENG324 Twentieth Century American Literature (2)
- ENG327 Practical Drama (2)
- ENG321 Usage in English (2)
- ENG341 Introduction to Socio-linguistic (2)

#### Home Economics

- HEE344 Menu Planning and Design (3)
- HEE346 Food Quality Control (3)
- HEE355 Fashion Merchandising and Marketing (3)
- HEE357 Apparel Production (3)

#### Social Studies

- ELC321 Social Studies Methods (3)
- ELC322 Evaluation in Social Studies (3)

#### Theology and Religious Studies

- TRS317 Theodicy: The Co-existence of God and Evil (2)
- TRS318 Beginning Biblical Hebrew II (2)
- TRS319 Philosophy of Religion (2)
- TRS320 Theories of Truth (2)
- TRS321 Metaphysics III (2)
- TRS322 History of Christianity in Southern Africa (2)
- TRS325 Foundational Structures of Islam (2)
- TRS303 Creation and the Bible (2)

### Semester 7

#### Level 4

### Core courses

#### Research Project Courses

- ELP490 Research Methodology in Languages and Social Sciences Education (3)

#### African Languages and Literature

- ALL421 Introduction to Historical and Comparative Linguistics based in Africa (2)
- ALL422 A Socio-linguistic Study of Southern Africa (2)
- ALL441 World Literature in Setswana Translation (2)

#### English

- ENG421 Approaches to Syntax (2)
- ENG441 Introduction to Pragmatics (2)

#### English Language and Literature Curriculum Courses

- ELL401 Foundations of Multicultural Literacy Education (3)

#### Home Economics

- HEE337 Human Development Across Life Span (2)
- HEE356 Apparel Design and Product Development (3)

#### Moral Education Curriculum Courses

- ELM401 Teaching Moral Education in Secondary Schools (3)

#### Religious Education Curriculum Courses

- ELR401 Teaching Religious Education in Secondary Schools (3)

#### Setswana Language and Literature Curriculum Courses

- ELL401 Foundations of Multicultural Literacy Education (3)

#### Social Studies

- ELC401 Socialisation Issues (3)
- ELC403 Economic Cooperation & Integration (3)

#### Theology and Religious Studies

- TRS401 New Religious Movements (2)
- TRS402 Religion and Politics (2)

### Optional Courses for Semester 7

One course (2-3 credits) to be selected from the menu below.

#### African Languages and Literature

- ALL431 Introduction to Psycho-linguistics (2)
- ALL432 Language Instruction VII (2)
- ALL451 Studies in African Aesthetics (2)
- ALL452 Popular Culture in Africa (2)
- ALL453 Women's Literature in Botswana (2)

#### English

- ENG412 Introduction to Shakespeare (2)
- ENG413 The African Novel I (2)
- ENG471 Introduction to Literary Stylistics (2)

#### English Language and Literature Curriculum Courses

- ELL403 Literacy, education, culture (3)
- ELL404 Reader- response Theories in the Secondary School Classroom (3)

#### Environmental Education

- EEL401 Environmental Conservation (2)

#### Home Economics

- HEE338 Consumer Protection (3)
- HEE339 Housing in World Perspective (2)
- HEE348 Risk and Resiliency in Child (3)

#### Moral Education Curriculum Courses

- ELM492 Evaluation of Moral Education Curriculum in Botswana Secondary Schools (3)



ELM493 Contemporary Moral Issues in Moral Education (3)

#### Religious Education Curriculum Courses

ELR492 Evaluation of Religious Education Curriculum in Botswana Secondary Schools (3)

ELR493 History of Religious Education in Botswana (3)

#### Setswana Language and Literature Curriculum Courses

ELL403 Literacy, education, culture (3)

ELL404 Reader-response Theories in the Secondary School Classroom (3)

#### Social Studies

ELC421 Global Perspectives and Materials in Social Studies (3)

ELC431 Civic Education (3)

ELC451 Resource Management in Africa (3)

ELC461 Human Rights Issues (3)

#### Theology and Religious Studies

TRS403 The Doctrine of Sin in the Bible (2)

TRS405 Intermediate Hebrew I (2)

TRS406 Intermediate Arabic I (2)

TRS407 Islam's Socio-cultural, legal and Political Structure (2)

TRS409 African Christian Theologies (2)

TRS411 Politics and Development of Biblical Thought (2)

TRS412 Ecumenical Theology (2)

TRS413 Hinduism (2)

#### Semester 8

##### Level 4

##### Core courses

##### Research project courses

ELP491 Research Project in Languages and Social Sciences Education (3)

#### African Languages and Literature

ALL423 Bantu and Khoe-San Languages of Southern Africa (2)

ALL442 Creative Writing, Theory and Practice (2)

ALL443 Oral Poetry in Botswana (2)

#### English

ENG411 Form, Function and Variation in English (2)

ENG431 Introduction to Discourse Analysis (2)

#### English Language and Literature Curriculum Courses

ELL402 Interdisciplinary Approaches to Literacy Education (3)

#### Home Economics

HEE421 Management and Administration of Home Economics Programmes (3)

#### Moral Education Curriculum Courses

ELM402 Curriculum Design in Moral Education (3)

#### Religious Education Curriculum Courses

ELR402 Curriculum Design in Religious Education (3)

#### Setswana Language and Literature Curriculum Courses

ELL402 Interdisciplinary Approaches in Literacy Education (3)

#### Social Studies

ELC411 Curriculum Development for Social Studies Teachers (3)

ELC404 Development of Social Studies

Instructional Materials (3)

#### Theology and Religious Studies

TRS415 Twentieth Century Theologians (2)

TRS416 Religion and Modernity (2)

#### Optional Courses for Semester 8

One course (2-3 credits) to be selected from the menu below.

#### African Languages and Literature

ALL434 Introduction to Applied Linguistics (2)

ALL435 Language Instruction VIII (2)

ALL454 Children's Traditions and Dramatics (2)

ALL455 Postcolonial Theory and African Literature (2)

#### English

ENG443 The African Novel II (2)

ENG451 Introduction to Semantics (2)

ENG452 Shakespeare Drama (2)

ENG462 Shakespeare Poetry (2)

ENG481 Language and Gender (2)

#### English Language and Literature Curriculum Courses

ELL405 Materials Development and Evaluation in Language Education (3)

ELL406 Second/Foreign Language Research and Its Implications for Language Teaching and Learning (3)

#### Moral Education Curriculum Courses

ELM494 Moral Education Departments and Units (3)

#### Religious Education Curriculum Courses

ELR494 Role of Religious Education Departments (3)

#### Setswana Language and Literature Curriculum Courses

ELL405 Materials Development and Evaluation in Language Education (3)

ELL406 Second/Foreign Language Research and Its Implications for Language Teaching and Learning (3)

#### Social Studies

ELC422 Social Studies Teacher Preparation (3)

ELC432 Skills in Map Interpretation (3)

ELC441 Social Studies and Affirmative Action (3)

ELC442 Values Education (3)

ELC462 Social Studies Classroom Environment(3)

#### Theology and Religious Studies

TRS417 Paul's Epistles (2)

TRS418 Contemporary African Philosophy (2)

TRS419 Intermediate Hebrew I (2)

TRS421 History of Christianity: Modern and Contemporary (2)

TRS422 Empiricism (2)

TRS423 History of Philosophy IV (2)

TRS424 Buddhism (2)

TRS425 The Theology of the Reformation (2)

TRS426 Religions Rituals and Sacred Places (2)

TRS428 Religious Pluralism (2)

### Bachelor of Education (Business)

#### Level 100:

##### Semester 1

ECO111 Basic Microeconomics, Core (3)

MGT100 Principles of Management, Core (3)

STA101 Maths for Business & Social Sciences 1, Core (3)

STA116 Introduction to Statistics, Core (4)

GEC111 Communication & Study Skills 1, GEC (2)

GEC121 Computing & Information Skills 1, GEC (2)

#### Level 100:

##### Semester 2

ACC100 Introduction to Accounting, Core (3)

ECO112 Basic Macroeconomics, Core (3)

MKT100 Principles of Marketing, Core (3)

STA102 Maths for Business & Social Sciences II, Core (3)

GEC112 Communication & Study Skills 2, GEC (2)

GEC122 Computing & Information Skills 2, GEC (2)

#### Level 200:

##### Semester 3

ELB201 Introduction to Business Education, Core (3)

FIN200 Business Finance, Core, 3

EFPP100 Introduction to Educational Psychology, Core (3)

EFC300 Introduction to Curriculum Development, Core (3)

ACC201 Introduction to Cost Accounting, Core (3)

MGT203 Quantitative Methods, Core (3)

#### Level 200:

##### Semester 4

ELB202 Teaching & Learning Strategies in Business Education, Core (3)

ACC200 Financial Accounting I, Core (3)

ACC203 Cost Accounting, Core (3)

BIS205 Information Technology, Core (3)

MGT200 Organisational Design and Development, Core (3)

#### Level 300:

##### Semester 5

#### [Marketing and Management Specialization]

ELB301 Practice of Business Education, Core (3)

GEC, GEC, GEC (2)

MGT300 Human Resource Management, Core (3)

ELC300 Education and Self Reliance, Optional (3)

Elective (3)

Elective (3)

#### Level 300: Semester 5 [Accounting and Finance Specialization]

ELB 301 Practice of Business Education, Core (3) GEC, GEC, GEC (2)

ACC300 Financial Accounting II, Core (3)

ELC 300 Education and Self Reliance, Optional (3) Elective (3)

Elective (3)

#### Level 300: Semester 6 [Marketing and Management Specialization]

ELB302 Learning Support Systems in Business Education, Core (3)

MKT301 Pricing Strategy, Core (3)





	Elective (3)
<b>MGT303</b>	Entrepreneurship & New Business Formation, Core (3)
<b>BIS304</b>	Management Information System, Core (3)

#### Assessment

Assessment shall be as per General Academic Regulation 00.8.

#### Progression from Semester to Semester

Progression from Semester to Semester shall be as per General Regulations 00.9

#### Award of Degree

The award of the Degree shall be as per the General Regulations 00.85

## DEPARTMENT OF MATHEMATICS AND SCIENCE EDUCATION

### 1.0 General Information

1.0.1 The Department of Mathematics and Science Education offers courses to students in Degree and Non-Degree Teacher Education Programmes in the following teaching subjects:

- Biology
- Chemistry
- Physics
- Computer Studies
- Mathematics

### Mathematics and Science Education

1.0.2 Courses are also offered in the following specialized areas:

- Science/Mathematics/Computer Studies and Society
- Information and Communication Technology and the School Mathematics/Science Curriculum
- Theory and Practice of Teaching Computer Studies/Mathematics/ Science

1.0.3 Regulations, course details and/or pre-req. are listed for the following Programmes:

- Bachelor of Education (Science)
- Bachelor of Education (Secondary)
- Post Graduate Diploma in Education
- Master of Education (Mathematics Education)
- Master of Education (Science Education)
- MPhil and PhD in Mathematics Education
- MPhil and PhD in Science Education

1.0.4 The Bachelor of Education Programme in Science commenced in 1984 and now prepares graduates to become Computer Studies, Mathematics and Science (Biology, Chemistry and Physics) teachers.

1.0.5 The Bachelor of Education Programme in Secondary Education was designed to accommodate both the diploma of the Department and the Colleges of Education. It began in 1996 and in 1998 replaced the Bachelor of Education Programme in Science Education, which began in 1987. The PGDE is offered as a teaching qualification to holders of Bachelor of Science Degrees to prepare aspiring Computer Studies, Mathematics and Science teachers for

their teaching careers.

1.0.6 Optional courses may be taken in other departments by students who have met the appropriate Programme requirements.

1.0.7 Courses are assessed in a variety of ways, including written assignments, tests and projects as approved by the Senate.

1.0.8 The Department reserves the right not to offer optional courses in a given semester.

### 1.1 Bachelor of Education Degree in Science

The aim of the Bachelor of Education Combined Major Degree Programme in Science is to significantly contribute, in collaboration with the Faculty of Science, to national manpower development by producing high quality Computer Studies, Mathematics and Science teachers for the national education sector. Subject to the provisions of General Regulations 00.0 and 20.00 and to the Faculty of Education Special Regulations, the following Special Regulations of the Department of Mathematics and Science shall apply:

### 1.2 Entrance Requirements

1.2.1 Admission into Level One of the Programme shall be governed by General Regulation 20.2.

1.2.2 Minimum requirements are a BGCSE with a pass in English Language and a C grade in Mathematics and any two of Biology, Chemistry or Physics, or a minimum of Grade BB in Science

### Double Award

1.2.3 An applicant who has taken relevant Advanced Level (A-Level) or equivalent examinations and who has attained a minimum of one E and two Os in the relevant subjects may be admitted into the Bachelor of Education

### Degree Programme in Science

1.2.4 If an applicant has Grade E or better at Advanced Level, or equivalent qualifications in Science subjects, he/she may, subject to the approval of the relevant Head of Department and the approval of the Deputy Dean, be awarded credits and exempted from equivalent course(s) prescribed for the Degree Programme.

1.2.5 Bachelor of Science students of the University with passes in at least two teaching subjects at Level One may be admitted into Level Two of the Programme.

### 1.3 Programme Structure

There are a total of forty-three (43) Mathematics Education/ Science Education/ Educational Foundations courses in the 8-semester Programme covering the teaching subjects Biology, Chemistry, Computer Studies, Mathematics and Physics. During the Programme, each student will be required to take thirteen (13) of these courses.

1.3.1 Levels One and Two (Semesters 1 to 4) In Level 1, students shall follow a common Level One Programme with the Bachelor of Science students. In Level Two, all Education courses are core courses and the Department prescribes four of these to be taken by all students.

1.3.2 Levels Three and Four (Semesters 5 to 8) a) In Level Three, the Department prescribes four core courses for all students and one optional course which students can choose from a menu of Computer Studies Education, Mathematics Education or Science Education courses in line with the proposed areas of specialization in the Department.

b) In Level Four, the Department prescribes two core courses for all students and two optional courses, which students can choose from a menu of Computer Studies Education, Mathematics Education or Science Education courses as a follow-up to choices in Level Three.

### 1.4 Levels One and Two

#### Level One

Core Courses (6 courses/26 credits)

#### Semester 1

**MAT111** Introductory Mathematics I (4)

#### Plus:

Two of the following courses:

**BIO111** Principles of Biology (4)

**CHE101** General Chemistry I (4)

**PHY112** Geometrical Optics and Mechanics (4)

#### Plus

**GEC121S** Computer and Information Skills I (2)

**GEC111S** Communication and Study Skills I (2)

#### Semester 2

**MAT122** Introductory Mathematics II (4)

plus: Two of the following courses:

**BIO112** Diversity of Animals and Plants (4)

**CHE102** General Chemistry II (4)

**PHY122** Electricity, Magnetism, and Elements of Modern Physics (4)

#### Plus

**GEC122S** Computer and Information Skills II (2)

**GEC112(S)** Communication and Study Skills II(2)

#### Level 2

Core Courses (6 to 10 courses/16 to 20 credits)

The two teaching subjects taken and passed at Level One shall be selected as follows:

a) Courses for the Major teaching subject are to be selected from the approved Faculty of Science courses listed below;

b) One 3-credit course per semester is to be selected from the approved Faculty of Science Minor teaching subjects listed below.

#### Option A

Students shall select courses from any two of the following teaching subjects: Biology; Computer Science; Chemistry; Physics.

#### Option B

Students shall take courses in Pure Mathematics and 1 of the following teaching subjects: Applied Mathematics; Biology; Chemistry; Computer Science; Physics.

#### Semester 3

#### Biology

**BIO212** Genetics (3)

BIO214 Introduction to Mammalian Physiology (3)

#### Chemistry

CHE211 Introduction to Analytical Chemistry (2)  
 CHE213 Analytical Chemistry Laboratory I (1)  
 CHE232 Structure and survey of Functional Groups (2)  
 CHE234 Organic Chemistry Laboratory I (1)  
 MAT291 Engineering Mathematics1 (3)

#### Computer Science

CSI241 Structured Programming (4)  
 CSI261 Machine Organization (3)

#### Applied Mathematics

MAT251 Vectors and Introductory Mechanics (3)  
 MAT271 Introduction to Mathematical Statistics (3)

#### Pure Mathematics

MAT211 Intro. Set and Number Theory (3)  
 MAT221 Calculus I (3)

#### Physics

PHY231 Mechanics, Vibrations and Waves, Physical Optics (3)  
 PHY232 Properties of Matter, Basic Thermodynamics and Introduction to Nuclear Physics (3)  
 PHY239 Physics Practicals 3.1 (1)  
 MAT291 Engineering Mathematics1 (3)

#### Semester 4

##### Biology

BIO211 Cell Biology (3)  
 BIO213 Plant Structure and Function (3)

##### Chemistry

CHE221 Atomic Structure, Bonding and Main Group Chemistry (2)  
 CHE234 Organic Chemistry Laboratory I (1)  
 CHE242 Introductory Physical Chemistry (2)  
 CHE244 Physical Chemistry Laboratory I (1)

##### Computer Science

LIS208 Principles of Data Communication (3)  
 CSI252 Operating Systems Concept (3)

##### Applied Mathematics

MAT242 Computing I (3)  
 MAT252 Newtonian Mechanics (3)

##### Pure Mathematics

MAT212 Introductory Linear Algebra (3)  
 MAT222 Calculus II (3)

##### Physics

PHY241 Advanced Electricity and Magnetism (3)  
 PHY242 Basic Electronics (3)  
 PHY249 Physics Practicals 4.1 (1)  
 Core Courses (5 courses/15 credits) Students shall select courses from the approved Faculty of Education courses listed below:

#### Semester 3

EFP100 Introduction to Educational Psychology (3) plus:  
 One of the following courses based on teaching subject:  
 ESE261 Basic Teaching Methods in Secondary School Computer Studies (3)  
 ESM261 Basic Teaching Methods in Secondary School Mathematics (3)  
 ESS261 Basic Teaching Methods in Secondary School Science (3)

#### Semester 4

EFF220 Historical, Philosophical and Sociological Foundations of Education (3) plus:  
 One of the following courses:  
 ESE262 Practicum in Secondary School Computer Studies Teaching (3)  
 ESM262 Practicum in Secondary School Mathematics Teaching (3)  
 ESS262 Practicum in Secondary School Science Teaching (3)  
**Winter Course**  
 ETP200 Teaching Practice I (3)  
 General Education Courses (2 courses/6 credits)  
 Students shall choose GECs from the University-wide menu.  
 1.5 Levels Three and Four (Semesters 5 to 8)

#### 1.5.1 Level Three

Core Courses (6 to 9 courses/16 to 18 credits)  
 Courses for the Major teaching subject are to be selected from approved Faculty of Science courses listed below:

#### Semester 5

##### Biology

BIO316 Plant Physiology (3)  
 BIO317 Comparative Vertebrate Physiology (3)  
 Plus: One of the following courses:  
 BIO307 Biochemistry (3)  
 BIO216 General Microbiology (3)

##### Chemistry

CHE321 Coordination Chemistry (2)  
 CHE323 Inorganic Chemistry Laboratory II (1)  
 CHE331 Structure and Survey of Functional Groups I (3)  
 CHE341 Applications of Thermodynamics and Electrochemistry (2)  
 CHE343 Physical Chemistry Laboratory III (1)

##### Computer Science

CSI341 Introduction to Software Engineering (3)  
 CSI351 Web Technology and Applications (3)  
 CSI361 Computer Architecture (3)

##### Mathematics

MAT311 Abstract Algebra I (3)  
 MAT321 Real Analysis I (3) plus:  
**One of the following courses:**  
 MAT251 Vectors and Introductory Mechanics (3)  
 MAT323 Vector Calculus (3)

##### Physics

PHY351 Advanced Mechanics (3)  
 PHY352 Introduction to Quantum Mechanics (3)  
 PHY359 Physics Practicals 5.1 (2)

#### Semester 6

##### Biology

BIO311 Plant Systematics (3)  
 BIO215 Principles of Ecology (3)  
 Plus: One of the following courses:  
 BIO306 Developmental Biology (3)  
 BIO318 Chordates (3)

##### Chemistry

CHE312 Analytical Spectroscopy (2)  
 CHE314 Analytical Chemistry Laboratory II(1)  
 CHE322 Group Theory and Organometallic Chemistry (3)

CHE332 Physical Organic Chemistry (2)  
 CHE334 Organic Chemistry Laboratory II (1)

#### Computer Science

CSI362 Database Concepts (3)  
 CSI392 Human Computer Interaction (3)  
 CSI393 Multimedia Computing (3)

#### Mathematics

MAT324 Differential Equations (3)  
 Plus: Two of the following courses:  
 MAT312 Abstract Algebra II (3)  
 MAT322 Real Analysis II (3)  
 MAT342 Computing II (3)  
 MAT344 Numerical Methods of Linear Algebra (3)  
 MAT352 Dynamics I (3)

#### Physics

PHY361 Introduction to Electromagnetism (3)  
 PHY362 Analytical Thermodynamics (3)  
 PHY369 Physics Practicals 6.1 (2)

#### Semester 5

Core Courses (5 courses/14 credits)  
 In this semester, students shall also select courses from the following list of Faculty of Education courses:

EFS101 Introduction to Exceptional Children (3)  
 plus: One of the following courses based on teaching subject:  
 ESE361 Teaching Strategies for School Computer Studies (3)  
 ESM361 Teaching Strategies for School Mathematics (3)  
 ESB361 Teaching in the Contemporary Biology Classroom (3)  
 ESC361 Introductory Pedagogical Content Knowledge in School Chemistry (3)  
 ESP361 Pedagogic Strategies for School Physics (3)

#### Semester 6

ESR362 Introduction to Research Methods in Mathematics and Science Education (2)

Students will choose one of the following based on their teaching subject:

ESB362 Advanced Practicum in School Biology Teaching (3)  
 ESC362 Advanced Practicum in School Chemistry Teaching (3)  
 ESE362 Advanced Practicum in School Computer Studies Teaching (3)  
 ESP362 Advanced Practicum in School Physics Teaching (3)  
 ESM362 Advanced Practicum in School Mathematics Teaching (3) and:

#### Winter Course

ETP300 Teaching Practice II (3)  
 Optional Courses (1 course/2 credits)

#### Semester 6

Students shall select one of the following:  
 ESE372 Development and Evaluation of Computer Studies Practical Work (2)  
 ESE392 Impact of Information and Communication Technology on the Teaching/ Learning Process (2)  
 ESM312 Philosophy and Psychology of Mathematics Teaching (2)



- ESM372 Mathematical Problem Solving (2)  
ESS352 Human Impact on the Environment (2)  
ESS372 Development and Evaluation of Investigative Work in School Science (2)

General Education Courses (1 course/3 credits)  
Students shall choose GECs from the University-wide menu.

Elective Course (1 course/2 credits)

Elective courses shall be chosen from any course offered outside of the Department of Mathematics and Science Education for which students are eligible.

### 1.5.2 Level Four Core Courses (4 to 6 courses/12 credits)

Students shall select courses for their Major teaching subject from the approved Faculty of Science courses listed below:

#### Semester 7

##### Biology

Students shall select two of the following:

- BIO421 Entomology (3)  
BIO427 Evolution (3)  
BIO431 Plant Response to Environmental Stress (3)  
BIO450 Research Project (6)

##### Chemistry

Students shall select two of the following:

- CHE421 Advanced Transition Metal Chemistry (3)  
CHE431 Heterocyclic Chemistry, Synthetic Reactions and Design of Organic Synthesis (3)  
CHE441 Advanced Physical Chemistry I (3)

##### Computer Science

Students shall select two of the following:

- CSI421 Operating Systems (3)  
CSI423 Systems Programming (3)  
CSI441 Software Engineering (3)

##### Mathematics

- MAT421 Functions of a Complex Variable (3)  
MAT423 Mathematical Methods (3)

##### Physics

- PHY472 Statistical Mechanics I (3)  
PHY473 Solid State Physics (3)  
PHY479 Physics Practicals 7.1 (2)

#### Semester 8

##### Biology

Students shall select two of the following:

- BIO416 Immunology (3)  
BIO423 Exercise Physiology (3)  
BIO424 Vertebrate Structure (3)  
BIO430 Post-Harvest Physiology (3)  
BIO434 Plant Ecology (3)  
BIO450 Research Project (Cont) (6)

##### Chemistry

Students shall select two of the following:

- CHE412 Sample Handling and Biochemical Analysis (3)  
CHE432 Secondary Metabolites and Biomolecules (3)  
CHE442 Advanced Physical Chemistry II (3)

##### Computer Science

Students shall select two of the following:

- CSI482 Information systems engineering (3)  
CSI432 Intelligent Interfaces and Systems(3)  
CSI472 Social Issues in IT (3)

##### Mathematics

Students shall select two of the following:

- MAT402 History of Mathematics (3)  
MAT412 Number Theory (3)  
MAT416 Abstract Algebra III (3)  
MAT426 Partial Differential Equations  
Physics  
PHY481 Atomic and Basic Nuclear Physics(3)  
PHY485 Microcomputing for Physical Sciences (3)  
PHY489 Physics Practicals 8.1 (2)

#### Semester 7

Core Courses (2 courses/5 credits)

Students shall choose one course from the approved Faculty of Education courses listed below based on their teaching subject:

- ESE461 Advanced Teaching Methods in School Computer Studies (3)  
ESM461 Advanced Teaching Methods in School Mathematics (3)  
ESB461 Critical Debates in Biology Education (3)  
ESC461 Further Issues in Chemistry Pedagogical Content Knowledge (3)  
ESP461 Advanced Pedagogic Strategies for School Physics (3)

Plus one of the following courses:

- ESE441 Enrichment Topics in Computer Studies Education (2)  
ESM441 Introduction to ICT in Mathematics Education (2)  
ESS441 ICT for the Science Teacher Science (2)

Optional Courses (3 courses/6 credits)

Students shall choose one of the following based on teaching subject:

- ESE471 Contemporary Issues in Computer Studies Education (2)  
ESM471 Contemporary Issues in Mathematics Education (2)  
ESS471 Contemporary Issues in Science Education (2)  
ESR481 Research Project in Mathematics/ Science Education (2)

#### Semester 8

Students shall choose two of the following based on teaching subject:

- ESE412 Introduction to Web Design, Development and Publishing for Teachers (2)  
ESE442 ICT and e-Learning (2)  
ESM412 Mathematics and Society (2)  
ESM442 Information and Communication Technology in Mathematics Education II (2)

- ESS412 Introduction to the History and Philosophy of Science (2)  
ESS442 Further Issues in ICT for the Science Teacher (2) or:

Approved options from other DMSE courses Plus One of

- EFC 400 Curriculum Theory and Instruction (3)  
EFF420 Contemporary Issues in Teacher Education in Botswana (3)

General Education Courses (4 courses/9 credits)

Students shall select GECs from the University wide menu.

Elective Course (1 course/2 credits) One elective

course is to be chosen from any course offered outside the Department of Mathematics and Science Education for which students are eligible.

#### 1.6 Assessment

1.6.1 Courses offered by the Department of Mathematics and Science Education shall normally be assessed through continuous assessment (CA) and final examination. Courses offered in other Faculties/ Departments shall be governed by their relevant regulations.

1.6.2 Continuous assessment shall take a variety of forms including written assignments, tests, practicals, presentations and reports.

1.6.3 Continuous assessment shall normally comprise a minimum of 3 pieces of assessed work. The components of continuous assessment shall be equally weighted.

1.6.4 Courses which include a final examination in their assessment shall be examined by a 2-hour paper.

1.6.5 The ratio of continuous assessment to final examination shall be 1:1.

1.6.6 The overall grade in a course shall be in accordance with the provisions of General Regulation 00.84.

#### 1.7 Progression from Semester to Semester

Progression from semester to semester shall be in accordance with the provisions of General Regulation 00.9.

#### 1.8 Award of Degree

The Degree shall be awarded in accordance with the provisions of General Regulation 00.85, subject to completion of 6 credits of Teaching Practice.

#### 2.0 Bachelor of Education in Secondary

Education (Biology, Chemistry, Mathematics, Physics)

For all Regulations governing the Bachelor of Education Degree in Secondary Education, consult the Handbook of the Department of Languages and Social Sciences Education.

#### 2.1 Level Two Core Courses (8 to 10 courses/24 to 29 credits)

Students shall select two teaching subjects from the following subjects:

- Applied Mathematics
- Biology
- Chemistry
- Mathematics
- Physics

#### Semester 3

##### Applied Mathematics

- ESM201 INSET Introductory Mechanics I (3)  
ESM214 INSET Introductory Computer Studies (3)

##### Biology

- ESB201 Introduction to Biological Principles and Processes for Teachers I (3)  
ESB211 Introduction to Biological Principles

and Processes for Teachers II (3)

#### Chemistry

**CHE101** General Chemistry I (4)

#### Mathematics

**ESM203** INSET Algebra I (3)

**ESM213** INSET Differential Calculus (3)

#### Physics

**PHY112** Geometrical Optics and Mechanics f (4)

#### Ancillary Mathematics for the Sciences

**ESM221** Pre-Calculus for Science Teachers (3)

#### Semester 4

Applied Mathematics

**ESM204** INSET Introductory Mechanics II (3)

**ESM211** INSET Introductory Mathematical Statistics (3)

#### Biology

**ESB204** Introduction to Diversity in the Plant Kingdom for Teachers (3)

**ESB214** Introduction to Diversity in the Animal Kingdom for Teachers (3)

#### Chemistry

**CHE101** General Chemistry I (4)

#### Mathematics

**ESM206** INSET Algebra II (3)

**ESM216** INSET Integral Calculus (3)

#### Physics

**PHY112** Geometrical Optics and Mechanics (4)

#### Ancillary Mathematics for the Sciences

**ESM222** Calculus for Science Teachers (3)

On completion of Level Two, students will be at a level equivalent to Level One of the Bachelor of Science Programme in two of the following: BIO111/112; CHE101/102; MAT111/112; PHY111/121.

General Education Courses (3 courses/7 credits)

Students shall select GECs from the University wide menu.

2.2 Level Three Core Courses (6 to 10 courses/16 to 20 credits)

Students shall select courses based on their pre-determined teaching subjects from the approved Faculty of Science courses listed below:

#### Semester 5

##### Applied Mathematics

**MAT387** Mechanics for Teachers I (3)

**MAT389** Linear Programming and Game Theory for Teachers (3)

##### Biology

**BIO211** Cell Biology (3)

**BIO214** Introduction to Mammalian Physiology (3)

##### Chemistry

**CHE211** Introduction to Analytical Chemistry (2)

**CHE213** Analytical Chemistry Laboratory I (1)

**CHE221** Atomic Structure, Bonding and Main Group Chemistry (2)

**CHE223** Inorganic Chemistry Laboratory I (1)

##### Mathematics

**MAT381** Calculus for Teachers I (3)

**MAT383** Linear Algebra for Teachers (3)

##### Physics

**PHY231** Mechanics, Variations and Waves, Physical Optics (3)

**PHY232** Properties of Matter, Basic

Thermodynamics and Introduction to Nuclear Physics (4)

**PHY239** Physics Practicals 3.1 (1)

#### Semester 6

##### Applied Mathematics

**MAT384** Computing for Teachers (3)

**MAT388** Mechanics for Teachers II (3)

##### Biology

**BIO213** Plant Structure and Function (3)

**BIO215** Principles of Ecology (3)

##### Chemistry

**CHE232** Structure and Survey of Functional Groups I (2)

**CHE234** Organic Chemistry Laboratory I (1)

**CHE242** Introductory Physical Chemistry (2)

**CHE244** Physical Chemistry Laboratory I (1)

##### Mathematics

**MAT382** Calculus for Teachers II (3)

**MAT414** Combinatorics and Graph Theory (3)

##### Physics

**PHY241** Advanced Electricity and Magnetism (3)

**PHY242** Basic Electronics (3)

**PHY249** Physics Practicals 4.1 (1)

#### Semester 5

Students shall choose one of the following:

**ESM391** Principles and Practice of Teaching School Mathematics I (3)

**ESS391** Principles and Practice of Teaching School Science I (3)

#### Semester 6

**ESR362** Introduction to Research Methods in Mathematics and Science Education (2)

Students shall choose one course from the following based on teaching subject:

**ESM392** Principles and Practice of Teaching School Mathematics II (3)

**ESS392** Principles and Practice of Teaching School Science II (3) plus:

Plus: Optional Courses (1 course/2 credits)

#### Semester 6

Students shall choose one course from the following based on teaching subject:

**ESM312** Philosophy and Psychology of Mathematics Teaching (2)

**ESM372** Mathematical Problem Solving (2)

**ESS352** Human Impact on the Environment (2)

**ESS372** Development and Evaluation of Investigative Work in School Science (2)

General Education Courses (2 courses/4 credits)  
Students shall choose GECs from the University-wide menu.

#### 2.3 Level Four

Core Courses (4 to 8 courses/12 credits)

Courses in each student's Major teaching subject shall be selected from the approved Faculty of Science courses listed below.

#### Semester 7

##### Biology

**BIO316** Plant Physiology (3)

**BIO317** Comparative Vertebrate Zoology (3)

#### Chemistry

**CHE321** Coordination Chemistry (2)

**CHE323** Inorganic Chemistry Laboratory II (1)

**CHE341** Applications of Thermodynamic and Electrochemistry (2)

**CHE343** Physical Chemistry Laboratory III (1)

##### Mathematics

**MAT483** Real Analysis for Teachers (3)

**MAT485** Number Theory and Abstract Algebra for Teachers (3)

##### Physics

**PHY351** Advanced Mechanics (3)

**PHY352** Introduction to Quantum Mechanics (3)

**PHY359** Physics Practicals 5.1 (2)

#### Semester 8

##### Biology

##### Any two of:

**BIO306** Developmental Biology (3)

**BIO311** Plant Systematics (3)

**BIO314** Conservation Biology (3)

##### Chemistry

**CHE312** Analytical Spectroscopy (2)

**CHE314** Analytical Chemistry Laboratory II (1)

**CHE332** Physical Organic Chemistry (2)

**CHE334** Organic Chemistry Laboratory II(1)

##### Mathematics

**MAT324** Differential Equations (3) plus:

One of the following courses:

**MAT482** Geometry for Teachers II (3)

**MAT484** Introduction to Probability and Statistics for Teachers (3)

##### Physics

**PHY361** Introduction to Electromagnetism (3)

**PHY362** Analytical Thermodynamics (3)

**PHY369** Physics Practicals 6.1 (2)

#### Semester 7

##### Core Courses

##### Faculty of Education

(1 course/3 credits)

Students shall choose one of the following courses based on teaching subject:

**ESB461** Critical Debates in Biology Education (3)

**ESC461** Further Issues in Chemistry Pedagogical Content Knowledge (3)

**ESM461** Advanced Teaching Methods in School Mathematics (3)

**ESP461** Advanced Pedagogic Strategies for School Physics (3)

Optional Courses (3 courses/6 credits)

Students shall choose one of the following based on teaching subject:

**ESM441** Introduction to Information and Communication Technology in Mathematics Education (2)

**ESM471** Contemporary Issues in Mathematics Education (2)

**ESS441** Intro to Information and Communication Technology in Science Education (2)

**ESS471** Contemporary Issues in Science Education (2)

**ESR481** Research Project in Mathematics/ Science Education (2)

#### Semester 8

Students shall choose one of the following:





- ESM412 Mathematics and Society (2)  
ESM442 Information and Communication Technology in Mathematics Education II (2)  
ESS412 Introduction to the History and Philosophy of Science (2)  
ESS442 Information and Communication Technology in Science Education II (2) plus:  
1 optional course offered by the Department of Educational Foundations.

### General Education Courses (2 courses/6 credits)

Students shall select GECs from the University wide menu.

### Elective Courses (2 courses/6 credits)

Students shall select two electives from any courses offered outside the Department of Mathematics and Science Education for which they are eligible.

### 3.0 Post Graduate Diploma in Education

For all Regulations governing the PGDE, consult the Handbook of the Department of Educational Foundations. All students shall take eight Foundation courses and four courses from their respective teaching specializations, which shall be one of Biology, Chemistry, Computer Studies, Mathematics or Physics. The Diploma will thus comprise twelve (12) courses all of which are core plus a 3- credit Winter Course of Teaching Practice.

### Core Courses (32 credits) Options from the Department of Educational Foundations

#### Semester 1

- EFP500 Psychology of Learning (3)  
EFC500 Curriculum and Instruction (3)  
EDT500 Information and Technology (2)  
EFG500 Guidance and Counseling (2)

#### Semester 2

- EFR500 Measurement and Evaluation (3)  
EFA500 School Management (3)  
EFF500 Contemporary Issues in Education (2)  
EFS500 Special Education (2)

### Computer Studies

#### Semester 1

- ESE561 Introduction to Theory of Teaching Computer Studies (3)  
ESE591 Guided Study in Computer Education (3)

#### Semester 2

- ESE562 The Practice of Teaching Computer Studies (3)  
ESE572 Secondary School Computer Studies Teaching (3)

### Mathematics

#### Semester 1

- ESM561 Introduction to Theory of Teaching Mathematics (3)  
ESM591 Guided Study in Mathematics Education (3)

#### Semester 2

- ESM562 The Practice of Teaching Mathematics (3)  
ESM572 Secondary School Mathematics Teaching (3)

### Science

#### Semester 1

- ESS561 Introduction to the Theory of Teaching Secondary School Science (3)  
ESS591 Guided Study in Science Education (3)

#### Semester 2

- ESS562 The Practice of Teaching Secondary School Science (3)  
plus one of the following based on teaching subject:  
ESB572 Teaching the Secondary School Biology Syllabus (3)  
ESC572 Issues in Secondary School Chemistry Teaching (3)  
ESP572 Secondary School Physics Teaching (3)

### Winter Course

- ETP500 Teaching Practice (3)

## DEPARTMENT OF PHYSICAL EDUCATION, HEALTH & RECREATION

### Bachelor of Education Degree in Physical Education

### Entry Requirements

The normal entry requirements shall be as stipulated in General Regulation 20.20 and Departmental Regulations ED 9.2 and ED 9.3.

### Level 100

#### Semester 1

##### Core Courses

- PHR130 Introduction to Volleyball (2)  
PHR131 Introduction to Swimming (2)  
PHR135 Introduction to Adapted Physical Education (2)  
PHR136 Practical Coaching and Officiating Techniques in Sports and Games (2)  
PHR138 Foundations of Physical Education, Sport and Recreation (2)  
EFP100 Introduction to Educational Psychology (3)  
GEC121 Computer and Information Skills I (2)  
GEC111 Communication and Study Skills I (2)  
Elective Course (2 credits)

#### Semester 2

##### Core Courses

- PHR139 Athletics: Track (2)  
PHR140 Athletics: Field (2)  
PHR141 Recreation and Leisure (2)  
PHR142 Organization and Administration of Physical Education and Sports (2)  
EFP101 Foundations of Developmental Psychology (3)  
GEC122 Computer and Information Skills II (2)  
GEC112 Communication and Study

- Skills I (2)  
Elective Course (2 credits)

### Level 200

#### Semester 3

##### Core Courses

- PHR260 Netball (2)  
PHR262 Introduction to Skills and Techniques of Tennis (2)  
PHR264 Human Anatomy Applied to Sports and Games (2)  
PHR268 Teaching Physical Education in Secondary Schools (2)  
PHR269 Motor Learning and Human Performance (2)  
PHR210 Psychology of Sport (2)  
GEC Courses (4 credits)  
1 Elective (2 credits)

#### Semester 4

##### Core Courses

- PHR261 Introduction to Skills and Techniques of Soccer (2)  
PHR263 Table Tennis (2)  
PHR265 Accident Prevention, First Aid and Care of Sports Injuries (2)  
PHR266 Human Physiology Applied to Sports and Games (2)  
PHR267 Teaching Physical Education In Pre- Primary School (2)  
GEC Courses (6 credits)  
Elective Course (2 credits)

### Level 300

#### Semester 5

##### Core Courses

- PHR300 Advanced Swimming (2)  
PHR302 Softball (2)  
PHR313 Nutrition and Sports Performance (2)  
PHR314 Biomechanics (2)

### Optional Courses

- PHR305 Physical Education Teaching Methods (2)  
PHR306 Community Recreation (2)  
PHR307 Introduction to Biochemistry of Exercise and Sport (2)  
PHR309 Adapted Physical Education I (2)  
PHR310 Principles of Sport Management (2) GEC Courses (5 credits)

#### Semester 6

##### Core Courses

- PHR301 Gymnastics and Body Management Skills (2)  
PHR303 Basketball (2)  
PHR304 Test and Measurement in Physical Education, Sport and Recreation  
ETP200 Teaching Practice

### Optional Courses

- PHR308 Scientific Basis of Coaching and Officiating (2)  
PHR312 Leisure and Tourism Development (2)  
PHR315 Adapted Physical Education II (2)  
PHR316 Sport Marketing (2)  
PHR317 Sport and Culture (2)  
EFC300 Introduction to Curriculum Development (3)



GEC Courses (5 credits)

#### Level 400

#### Semester 7

##### Core Courses

PHR400	Track and Field Athletics and Theory of Games and Sports (2)
PHR402	Badminton (2)
PHR404	Cricket (1)
PHR409	Research Methods in Physical Education, Sport and Recreation (2)
PHR411	Research in Physical Education/ Sport/ Recreation I Project I (2)
EFS404	Education of Children with Attention Deficit/Hyper-Activity Disorders (3)
PHR412	Research in Physical Education/ Sport/ Recreation II Project II (2)

##### Optional Courses

PHR406	Physiology of Exercise I (2)
PHR415	Facility Management (2)
PHR416	Kinesiology (2)
PHR419	Supervision of School Physical Education (2)
PHR420	Leisure and Youth (2)
PHR422	Sociology of Sport (2)
PHR424	Movement and Creative Dance Technique (2)

#### Semester 8

##### Core Courses

PHR401	Advanced Volleyball (1, pre-req. PHR130)
PHR403	Handball (1)
PHR405	Hockey (1)
EFH 407	Consultation Schools and Community Settings (3)
ETP300	Teaching Practice (3)

##### Optional Courses

PHR407	Motor Development and Movement Experiences for Young Children (2)
PHR408	Mechanical Analysis of Sports and Games (2)
PHR413	Issues in Physical Education, Sport and Recreation (2)
PHR414	Prevention and Care of Sports Injuries (2)
PHR417	Physiology of Exercise II (2)
PHR418	Psychological Basis of Physical Activity (2)
PHR421	Principles and Methods of Coaching(2)
PHR423	Sports Medicine (2) Elective Course (2 credits)

#### Assessment

Assessment shall be as per General Regulation 00.8.

#### Progression from Semester to Semester

Progression from semester to semester shall be as per General Regulation 00.9.

#### Award of Degree

The award of the Degree shall be as per General Regulation 00.85

## DEPARTMENT OF PRIMARY EDUCATION

### B.Ed (Primary Education); 4 years

#### Entry Requirements

(a) Applicants with a Diploma in Primary Education or equivalent shall enter at Level 300 of the degree programme. Relevant work experience in an educational setting shall be an added advantage.

(b) Holders of a Certificate in Primary Education or its equivalent plus BGCSE with at least three grades at a minimum of grade C shall be admitted into Level 200 of the programme. Relevant work experience in an educational setting shall be an added advantage.

(c) Holders of a Certificate in Primary Education or its equivalent who do not meet the requirements above but who have experience in an educational setting will be admitted into Level 100 of the degree programme. Applicants seeking admission through this route shall submit recommendation letters and proof of experience in teaching and evidence of prior learning.

#### Level 100

##### Semester 1

Major: Primary Education (15-18 Credits)	
ENV101	Introduction to the Physical & Human Environments I (2)
EPE100	Introduction to Algebra (3)
EPE102	Introduction to Science (3)
EFP100	Introduction to Educational Psychology (3)
GEC111E	Communication and Study Skills I (2, GEC)
GEC121E	Computing and Information Skills Fundamentals I (2, GEC)

##### Semester 2

Major: Primary Education (15-18 Credits)	
EPE101	Algebra and its applications (3, pre-req. EPE100)
EPE103	Principles of Science (3)
EPE114	Introduction to Education in Botswana (3) 1 Elective Course (3)
GEC112E	Communication and Study Skills II (2, GEC)
GEC122E	Computing and Information Skills Fundamentals II (2, GEC)

In Level 200-400, in addition to the major Primary Education, choose one of the following areas of concentration to make the second major:

1. Languages concentration
2. Maths & Science concentration
3. Social Studies /Religious Education concentration
4. Special Topics concentration
5. Practical Subjects concentration

#### Level 200

##### Semester 3

Major I: Primary Education (15-18 Credits)

EPE215	Fundamental Issues in Developmental Psychology (3)
EPE211	Language Across the Curriculum (3)
Or	
EPE212:	Introduction to Language Arts (3) (Take EPE211 if not chosen the language concentration).

Major II: Choose one of the following areas of concentration. This choice will be followed throughout the course of the degree programme.

#### 1. Languages concentration

ALL141	Introduction to African Oral Literature (2)
ALL121	Introduction to the study of language and linguistic (2)
ENG211	The pronunciation of English (2)
1 Elective Course (3)	
Optional courses (Choose one):	
EFA100	School Organisations (3)
ALL151	Short Story Theory and Practice (2)
ALL152	Style in writing (2)

#### 2. Maths & Science concentration

EPM226	Algebra and trigonometry I (3, Pre EPE101)
EPM229	Foundations of Biology and Earth Sciences (3)

#### 1 Elective Course (3)

Optional courses (Choose one):	
EFA100	School Organisations (3)
EPA203	Theories of Leadership & Supervision (3)

#### 3. Social Studies/Religious Education concentration

ELC202	Social Studies and Nation building (3)
EPS200	Introduction to Social Studies (2)
Plus	
1 Elective Course (3)	
Optional courses (Choose one):	
EFA100	School Organisations (3)
EPA203	Theories of Leadership & Supervision (3)

4. Special Topics Concentration (take ONE of the following areas as a teaching subject)

#### English

ENG211	The pronunciation of English (2) Plus 1 Elective Course (3)
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#### Setswana

ALL121	Introduction to the study of language and linguistics (2) and
ALL141	Introduction to African Oral Literature (2)

#### Mathematics

EPM226	Algebra and trigonometry I (3) Plus 1 Elective Course (3)
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#### Science

EPM229	Foundations of Biology & Earth Sciences (3) Plus 1 Elective Course (3)
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#### Social Studies

EPS200	Introduction to Social Studies (2) Plus 1 Elective Course (3)
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In addition choose any 2 special topic areas from the following list:

Guidance/Counselling	
EFH201	Counselling over a life span (3)

#### Infant Education



EPI228 Foundations of Early Childhood Education (3)

#### Environmental Education

EPI224 Foundations of Environmental Education (3)

#### Special Education

EFS101 Introduction to Exceptional Children (3)

5. Practical Subjects Concentration (take ONE of the following areas as a teaching subject)

#### English

ENG211 The pronunciation of English (2)  
Plus 1 Elective Course (3)

#### Setswana

ALL121 Introduction to the study of language and linguistics (2) and  
ALL141 Introduction to African Oral Literature (2)

#### Mathematics

EPM226 Algebra and trigonometry I (3)  
Science

EPM229 Foundations of Biology & Earth Sciences (3)

#### Social Studies

EPS200 Introduction to Social Studies (2)  
Plus

#### 1 Elective Course (3)

In addition, choose ONE of the following areas:

EPP201 Introduction to Art, Craft & Design (4)

EPP217 Introduction to Philosophy of Music Education and

#### Fundamentals of Music (4)

HEE114 Introduction to Nutrition (3) Or

HEE115 Family Studies Foundations (3)

PHR138 Foundations of Physical Education Sport and Recreation (2)

#### Plus 1 Elective Course (3)

Optional courses (Choose one):

EFA100 School Organisations (3)

EPS200 Introduction to Social Studies (2)  
Plus

1 Elective Course (3)

#### Level 200

##### Semester 4

Major I: Primary Education (15-18 Credits)

EPE217 Human Growth and Development (3)

EPE214 Theory and Practice of the Project Method (3)

Major II: Continue with the area of concentration chosen in Semester 1.

#### 1. Languages Concentration

ALL142 The Study of Drama (2)

ENG221 English Linguistics (2)

#### 1 Elective Course (3)

Optional courses (Choose one):

EPA201 Classroom Management (3)

ALL153 Introduction to the African Novel(2)

#### 2. Maths & Science Concentration

EPM227 Introduction to functions and the domains (3, pre EPM 226)

EPM228 Foundations of Chemistry and Physics (3)

#### Optional courses (Choose one):

EPA201 Classroom Management (3)

EPM230 Technology in Teaching Primary Mathematics (3)

#### 3. Social Studies/Religious Education

EPS203 Indigenous People and their Environment (3)

EPS201 Theories & Practice of Values in Education (2)

#### Optional courses (Choose one):

TRS107 African Traditional Religion (3)

HIS202 Africa in the Era of the Atlantic Slave Trade (3)

ENV102 Introduction to the Physical and human environment (2)

#### 4. Special Topics Concentration (continue with the area chosen as a teaching subject in Semester 1)

#### English

ENG221 English Linguistics (2)  
Plus 1 Elective Course (3)

#### Setswana

ALL142 The study of Drama (2) Plus 1 Elective Course (3)

#### Mathematics

EPM227 Introduction to functions and the domains (3, pre EPM 226)

#### Science

EPM228 Foundations of Chemistry and Physics (3)

#### Social Studies

EPS201 Theories & Practice of Values in Education (2)

Plus 1 Elective Course (3)

In addition, continue with the two special topic areas chosen in semester 1

#### Guidance/Counselling

EFH200 Group Work in Counselling (3)  
Infant Education

EPI229 Theories and Principles of Infant Education (3)

#### Environmental Education

EPI225 Environmental Policies, Issues and Education for Sustainable Development (3)

#### Special Education

EFS104 Introduction to Procedures for Assessment of disabilities (3)  
Elective Courses (3)

5. Practical Subjects Concentration (continue with the area chosen as a teaching subject in Semester 1)

#### English

ENG221 English Linguistics (2)

#### Setswana

ALL142 The study of Drama (2)

#### Mathematics

EPM227 Introduction to functions and the domains (3, pre EPM 226)

#### Science

EPM228 Foundations of Chemistry and Physics (3)

#### Social Studies

EPS201 Theories & Practice of Values in Education (2) Plus 1

Elective Course (3)

In addition, continue with the area chosen in Semester 1

EPP202 Practical Art, Craft & Design Skills for the Classroom Teacher (4)

EPP218 Listening, Composing and Performing (4)

HEE116 Introduction to Consumer Education (3)

Plus 1 Elective Course (3)

PHR142 Organisation and Administration of Physical Education and

Sports (2) Plus 1 Elective Course (3)

Optional courses (Choose one):

EPA201 Classroom Management (3)

EPI225 Environmental Policies, Issues & Education for Sustainable Development (3)

EFA100 School Organisations (3)

#### Level 300

##### Semester 5

#### Major I: Primary Education (15-18 Credits)

EPA302 Introduction to Educational Research (3)

EPE316 Assessment in Primary Schools (3)

Major II: Primary Education (15-18 Credits)

Continue with the area of concentration chosen in Semester 1.

#### Languages Concentration

ALL221 Sound systems in African Languages (2)

ENG351 Phonology of English (2)  
Plus 1 Elective Course (3)

Optional courses (Choose one):

ALL152 Style in Writing (2)

ALL241 History and structure of the Setswana Novel (2)

ENG341 Introduction to Socio Linguistics (2)

ENG415 Reading in Literary Theory I (2)

ENG441 Introduction to Pragmatics (3rd years only) (2)

#### Mathematics/Science Concentration

EPM326 Introduction to probability and statistics, (3), pre EPM 227

EPM328 Principles of Chemistry and Physics (3)

EPM330 Science Education (3)  
1 Elective Course (3)

#### Social Studies/Religious Education

EPS322 Social Studies and Curriculum Development (3)

EPS331 Teaching social studies in the primary school (3)

1 Elective Course (3)

4. Special Topics Concentration (continue with the area chosen as a teaching subject in Semester 1)

#### English

ENG311 Modern English Grammar (2)

Plus 1 Elective Course (3)

#### Setswana

ALL221 Sound systems in African language (2)

Plus 1 Elective Course (3)

#### Mathematics

EPM326 Introduction to probability and statistics (3)

#### Science

EPM328 Principles of Chemistry and Physics (3)

EPM330 Science Education (3)

#### Social Studies

EPS322 Social Studies and Curriculum Development (3)

In addition, continue with the two special topic areas chosen in semester 1

#### Guidance/Counselling

EFH303 Multi Cultural Counselling (3)

#### Infant Education

EPI320 Learning Experiences and Material Development (3)

#### Environmental Education

EPI334 Curriculum Development in

Environmental Education (3, pre EPI225)

### Special Education

**EFS250** Diagnostic Teaching in Basic Skills for students with Learning Disabilities/Difficulties (3)

5. Practical Subjects Concentration (continue with the area chosen as a teaching subject in Semester 1)

### English

**ENG311** Modern English Grammar (2)  
Plus 1 Elective Course (3)

### Setswana

**ALL221** Sound systems in African language (2)

Plus 1 Elective Course (3)

### Mathematics

**EPM326** Introduction to probability and statistics (3)

### Science

**EPM328** Principles of Chemistry and Physics (3) and

**EPM330** Science Education (3)

### Social Studies

**EPS322** Social Studies and Curriculum Development (3)

In addition, continue with the area chosen in Semester 1

**EPP301** Appropriate Art, Craft & Design Methods and Materials for the Primary School (4)

**EPP327** Introduction to Ethnomusicology Education (4)

**HEE229** Child Development- Prenatal through Early Childhood (3)

**PHR269** Motor Learning and Human Performance (2)

Optional courses (Choose one):

**PHR210** Psychology of Sports (2)  
Plus 1 Elective Course (3)

**HEE347** Curriculum Development in Early Childhood Education (3)

### Level 300

#### Semester 6

Major I: Primary Education (15-18 Credits)

**EDT310** Instructional Materials (2)

**EPA304** Advanced Investigation in Education (3, pre-reg. EPA302)

Major II: Primary Education (15-18)

Continue with the area of concentration chosen in Semester 1.

### Languages Concentration

**ALL222** The structure of words (2)

**ENG311** Modern English Grammar (2)

**EPL312** Breakthrough to Literacy (3)

**EPL300** Theory and Practice of Second Language (3)

Optional courses (Choose one):

**ENG321** Usage in English (2)

**ENG361** Morphology of English (2)

**EPA300** Action Research (2)

**EPA301** Leadership styles & organizational behaviour (3)

**ALL253** The sociology of literature (2)

### Mathematics/Science Concentration

**EPM331** Teaching School Mathematics (3)

**EPM 327** Introduction. To Limits & Tangents (3, pre EPM 326)

**EPM329** Principles of Biology and Earth Science (3)

Optional courses (Choose one):

**EPA300** Action Research (2)

**EPA301** Leadership styles & organizational behaviour (3)

**EPM301** Special Issues in Math education (3)

**EPM302** Geometry for Primary school teachers(3)

### Social Studies Education Concentration

**EPS300** Culture & Citizenship Education (3)

**EPS323** Social Studies and Pedagogy (3)

**ELC311** Multicultural Education (3)

### 1 Elective Course (3)

4. Special Topics Concentration (continue with the area chosen as a teaching subject in Semester 1)

### English

**EPL300** Theory and Practice of Second Language Teaching (3)

**ENG321** Usage in English Language (2)

### Setswana

**ALL222** The structure of words in African Languages (2)

**EPL312** Breakthrough to literacy (3)

### Mathematics

**EPM331** Teaching School Mathematics (3)

**EPM327** Introduction to Limits and Tangents (3)

### Science

**EPM329** Principle of Biology and Earth Science (3) Plus 1

Elective Course (3)

### Social Studies

**EPS323** Social Studies and Pedagogy (3)  
1 Elective Course (3)

In addition, continue with the two special topic areas chosen in semester 1

### Guidance/Counselling

**EFH305** Teaching Guidance & Counselling in Schools & Other Settings (3)

### Infant Education

**EPI321** Curriculum Development in Early Childhood Education (3)

### Environmental Education

**EPI335** Evaluation and Monitoring in Environmental Education (3, pre EPI334)

### Special Education

**EFS251** Remediation Techniques in school subjects with learning Disabilities (3) pre EFS250)

5. Practical Subjects Concentration (continue with the area chosen as a teaching subject in Semester 1)

### English

**EPL300** Theory and Practice of Second Language Teaching (3)

**ENG321** Usage in English Language (2)

### Setswana

**ALL222** The structure of words in African Languages (2)

**EPL312** Breakthrough to literacy (3)

### Mathematics

**EPM331** Teaching School Mathematics (3)

**EPM327** Introduction to Limits and Tangents (3) (Pre3 EPM326)

### Science

**EPM329** Principle of Biology and Earth Science (3)

### Social Studies

**EPS323** Social Studies and Pedagogy (3)

In addition, continue with the area chosen in Semester 1

**EPP302** Practical Skills in the planning and Teaching of Art & Craft Design (4)

**EPP328** Teaching Methods in Music Education (4)

**HEE218** Fundamentals of Clothing Production (3) Plus 1

Elective Course (3)

**PHR267** Teaching PE in Pre-Primary and Primary Schools (2) Plus 1 Elective Course (3)

Optional courses (Choose one):

**EPA301** Leadership styles & organizational behaviour (3)

**EPA300** Action Research (2)

**PHR261** Introduction to Skills and Techniques of Soccer (2)

**HEE218** Fundamentals of Clothing Production (3)

### Level 400

#### Semester 7

Major I: Primary Education (15-18 Credits)

**EPE419** Computer Applications in Primary Schools (2)

**EPE442** Research Project (2, pre EPA304)  
Major II: Primary Education (15-18 Credits)

Continue with the area of concentration chosen in Semester 1.

### 1. Languages Concentration

**EPL411** Teaching Reading in Primary Schools (3)

**EPL414** Literature for Primary Schools (3)

**ENG421** Approaches to Syntax (2)

**ALL321** The structure of the sentence (2)

Optional courses (Choose one):

**EFS240** Curriculum and instructional methods for students with mild to moderate Mental Retardation (3)

**ALL331** Introduction to translation (2)

**EFP301** Adult-Child Interaction and Cognitive Development (3)

### 1. Mathematics/Science Concentration

**EPM426** Introduction to Derivatives and their application (3, pre EPM 327)

**EPM429** Advanced Concepts in Biology and Earth Science (3)

1 Elective Course (3)

Optional courses (Choose one):

**EFS240** Curriculum and instructional methods or students with mild to moderate Mental Retardation (3)

**EFP301** Adult-Child Interaction and Cognitive Development (3)

**EPM430** Mathematical Applications for Primary Teachers (3)

**EPM431** Science Applications for Primary Schools (3)

### Social Studies/Religious Education Concentration

**EPS401** The Role of Democracy in the Teaching of Social Studies (3)

**ELC421** Global Perspectives & Materials in Social Studies (3)

1 Elective Course (3)

Optional courses (Choose one):

**HIS201** African Cultures & Civilizations (3)

**ELR301** Theories of Religious Education (3)

**EPI442** Environmental Conservation Strategies I (3)



EFP301 Adult-Child Interaction and Cognitive Development (3)

#### 4. Special Topics Concentration

(continue with the area chosen as a teaching subject in Semester 1)

##### English

ENG421 Approaches to Syntax (2)

##### Setswana

ALL321 The Structure of the Sentence (2)

##### Mathematics

EPM426 Introduction to Derivatives and their Applications (3, Pre EPM327)

##### Science

EPM429 Advanced Concepts in Biology and Earth Science (3)

##### Social Studies

EPS401 The Role of Democracy in the Teaching of Social Studies (3)

In addition, continue with the two special topic areas chosen in semester 1

##### Guidance/Counselling

EFH400 Substance Abuse Counselling (3)

##### Infant Education

EPI431 Management of Early Childhood Programme (3)

##### Environmental Education

EPI442 Environmental Conservation Strategies I (3)

##### Special Education

EFS350 Developmental Approach and Behavioural Management of students with learning disabilities (3, pre EFS101)

Optional courses (Choose one):

EFS240 Curriculum and instructional methods for students with mild to moderate Mental Retardation (3)

EFP301 Adult-Child Interaction and Cognitive Development (3)

5. Practical Subjects Concentration (continue with the area chosen as a teaching subject in Semester 1)

##### English

ENG421 Approaches to Syntax (2)  
Plus 1 Elective Course (3)

##### Setswana

ALL321 The Structure of the Sentence (3)

##### Mathematics

EPM426 Introduction to Derivatives and their applications (3)

##### Science

EPM429 Advanced Concepts in Biology and Earth Science (3)

##### Social Studies

EPS401 The Role of Democracy in the Teaching of Social Studies (3)

In addition, continue with the area chosen in Semester 1

EPP405 Integrated Arts Education in Cultural Context (4)

EPP447 Basic Instrumental Skills (4)

HEE454 Family Counselling (3) Plus 1 Elective Course (3)

PHR313 Nutrition and Sports performance(2)  
Plus 1 Elective Course (3)

Optional courses (Choose one):

EFS240 Curriculum and Instructional methods for students with mild to moderate

mental retardation (3)

PHR309 Adapted Physical Education (2)

HEE337 Human Development across the life span (2) Or

HEE338 Consumer Protection (2)

EFP301 Adult-Child Interaction and Cognitive Development (3)

#### Level 400

##### Semester 8

#### Major I Primary Education (15-18 Credits)

GEC441 Special Education (3) -for students who have not chosen EFS101

EFS404 Education of Children with Attention Deficit Hyper Disorder (3)- for students who have chosen EFS101

EPE442 Research Project- continues from Semester 1- (2)

EFF410 Philosophy of Education (3)  
Major II: Primary Education (15-18 Credits)

Continue with the area of concentration chosen in Semester 1.

##### 1. Languages Concentration

ENG411 Form, Function and Variation (2)

EPL412 Introduction to Reading Process (3)

ALL342 African Oral Narratives (2)

Optional courses (Choose one):

ENG435 Readings in Literary Theory 2 (2)

EFS351 Career Education for students with Learning difficulties (3, pre EFS101)

EPA300 Action Research (2)

EPE411 Educational Management and Curriculum Development (3)

ALL354 The Contemporary Setswana Novel (2)

EFS402 Strategies for Helping Families of Students with disabilities (3)

##### 2. Mathematics/Science Concentration

EPM427 Calculus II (3, pre EPM426)

EPM428 Advanced Concepts in Physics and Chemistry (3) Plus 1 Elective Course (3)

##### 3. Social Studies/Religious Education Concentration

EPS400 Contemporary Issues in Teaching Primary Social Studies (3)

EPS403 International Organisations & Governance (3)

Optional courses (Choose one):

TRS315 Sociology of Religion (3)

EPA300 Action Research (2)

HIS414 Chiefs, Commoners and the Impact of Colonial Rule on Botswana, Lesotho & Swaziland (3)

ENV316 Agricultural Development (2)

4. Special Topics Concentration (continue with the area chosen as a teaching subject in Semester 1)

##### English

ENG411 Form, Function and Variation English (2)

##### Setswana

ALL342 African Oral Narratives (2)

##### Mathematics

EPM427 Calculus II (3, pre EPM426)

##### Science

EPM428 Advanced Concepts in Physics and Chemistry (3)

#### Social Studies

EPS400 Contemporary Issues in Teaching Primary Social Studies (3)

In addition, continue with the two special topic areas chosen in semester 1

##### Guidance/Counselling

EFH407 Consultation in Schools & Community Settings (3)

##### Infant Education

EPI432 Contemporary Issues in Early Childhood Education (3)

##### Environmental Education

EPI443 Environmental Conservation Strategies II (3)

##### Special Education

EFS351 Career Education for students with learning difficulties (3, pre EFS101)

5. Practical Subjects Concentration

(continue with the area chosen as a teaching subject in Semester 1)

##### English

ENG411 Form, Function and Variation English (2)

Plus 1 Elective Course (3)

##### Setswana

ALL342 African Oral Narratives (2)

Plus 1 Elective Course (3)

##### Mathematics

EPM427 Calculus II (3) (pre EPM426)  
Plus 1 Elective Course (3)

##### Science

EPM428 Advanced Concepts in Physics and Chemistry (3)

Plus 1 Elective Course (3)

##### Social Studies

EPS403 International Organisations & Governance (3)

Plus 1 Elective Course (3)

In addition, continue with the area chosen in Semester 1

EPP406 Contemporary Issues in Art Education (4)

EPP449 Movement in Music (4)

HEE450 Issues and Trends in Early Childhood Education Programs (3)

PHR308 Scientific Basis of Coaching and Officiating (2) and

PHR317 Sports & Culture (2)

#### Assessment

All courses except EPE214, EPA300 EPA304, EPE419, EPM331, EPM431, EPP302, EPP405, EPP406 and EPE442 shall be assessed as stipulated in general regulation 00.8. EPE214 would be assessed by practical presentations. For EPA304 assessments shall be based on tests/ assignments (40%) and the research proposal (60%). EPE442 assessments shall be based on the research report only. EPE419 and EPA300 would be assessed by tests/ assignments and Project Work. EPM331 & EPM431 would be assessed by assignments and presentations. Failure without a good cause to submit continuous assessment work within 24 hours of the due date shall carry a penalty

# Faculty of ENGINEERING AND TECHNOLOGY

INDUSTRIAL TRAINING COORDINATOR

ARCHITECTURE AND PLANNING

CIVIL ENGINEERING

ELECTRICAL AND ELECTRONIC ENGINEERING

INDUSTRIAL DESIGN AND TECHNOLOGY

MECHANICAL ENGINEERING

**DEPUTY DEAN (ACTING DEAN)**

J. Chuma, BEng (Nottingham), M.Sc, (Essex) Ph.D (Essex) IEEE, IEE, BIE

**FACULTY ADMINISTRATOR**

L. B. J. Dingalo, BA (UB) MA, (Sussex)

**INDUSTRIAL TRAINING COORDINATORS**

J. Marumo, BSc. (Florida A&M), PGD (UMIST)

**ASSISTANT INDUSTRIAL TRAINING COORDINATOR**

Mr. R. Sehurutshi, BEng (Hons), MOMS UK, AVT – Industrial (Germany)







### 11.20 Programme Structure

11.21 Diploma programmes will normally extend over 4 semesters of full-time study, unless otherwise specified in the Special Departmental Regulations.

11.22 The courses offered in the programme shall be as specified in the Special Departmental Regulations.

11.23 Industrial and/or site visits may be arranged to supplement learning, as specified in the Special Departmental Regulations.

11.24 The availability of optional courses offered shall be at the discretion of the Department.

### 11.30 Assessment

11.31 Except for a project and courses with 100 percent continuous assessment, the ratio of continuous assessment to end of semester examination marks shall be 2:3, unless otherwise specified in the Special Departmental Regulations.

11.32 A project shall be evaluated by continuous assessment, oral presentation and/or demonstration and a written report. The ratio of the marks for continuous assessment, presentation assessment and written report shall be 1:1:2.

11.33 For continuous assessment, the ratio of marks for tests to assignment and/or laboratory report marks shall be 1:1.

11.34 The final project report must be submitted to the co-ordinator at least 2 weeks before the beginning of the end of semester examinations.

11.35 Failure without good cause to submit an item of continuous assessment within 24 hours of the due date shall carry a penalty of 5 percentage marks per working day. Failure to submit the assignment before the end of 1 week from the due date shall incur a zero mark.

11.36 A student who fails to sit a continuous assessment test without documented valid reasons shall score a zero mark for that test. A student absent from a test with documented legitimate reason shall be entitled to a special test.

11.37 Where a course includes a written final examination, a course with a credit value of 3 or more shall be examined by an end of semester examination of duration 2 hours, and 1 hour for a course with less than 3 credits.

11.38 Courses with a practical component or drawing included in a written examination shall be examined by a 3-hour, end-of semester examination.

### 120 Industrial Training Regulations for the Diploma in Engineering

Subject to the provisions of General Academic Regulations 000 and 100, the following Special Regulations shall apply to students in the following programmes:

- Diploma in Mining Engineering.

- Diploma in Mineral Engineering

### 12.10 Programme Structure

12.11 A student shall undergo a single period of supervised Industrial Training for 8 weeks and shall be undertaken at a time specified by the Faculty.

12.12 Industrial Training course codes shall be as follows:

ITD100 Industrial Training (duration 8 weeks, 4 credits, core course)

12.13 During the course of Industrial Training a student shall be subjected to such codes, procedures, laws, rules, and other regulations as applicable to the industry.

12.14 Subject to Regulations Governing Admissions, Fees and Discipline Regulation 4.0, and Regulation 12.13 above, a student who receives a final warning during the course of Industrial Training shall be subjected to Disciplinary Regulations.

### 12.20 Assessment

12.21 During the course of Industrial Training, each student shall be visited at least once at the location of placement to be assessed by Faculty of Engineering and Technology staff.

12.22 A student's performance will be assessed by means of:

12.22a) Continuous assessment by the industrial based supervisor and an assessor from a relevant department of the Faculty of Engineering and Technology;

12.22b) Industrial Training report and logbook submitted by the student at the end of the Industrial Training period.

12.23 ITD100 shall be assessed as based on Regulations 120.22 a) and 120.22 b). The ratio of marks for continuous assessment to Industrial Training report shall be 1:2.

12.24 A student who has an incomplete grade shall be allowed to complete Industrial Training at a time recommended by the Faculty.

### 210 Special Regulations for the Degree in Bachelor of Engineering

Subject to the provisions of the General Regulations 000 and 200, the following Special Regulations shall apply:

### 21.10 Entrance Requirements

21.11 Admission to the Bachelor of Engineering Degree shall be as stipulated in General Regulation 20.20.

21.12 The normal minimum entry requirement for admission to level 100 of the degree programme shall be BGCSE/equivalent with a minimum of grade D in English Language and a grade of C in Mathematics and Physics, and a grade of C in any one from Biology or Chemistry.

21.13 The normal minimum requirements for

admission to Level 200 of the Degree programme shall be satisfactory completion of Level 100 of the Bachelor of Science (General) Degree of the Faculty of Science with at least C grades in Mathematics and Physics.

21.14 Applicants in possession of an appropriate 'A' level qualification with at least C grades in Mathematics and Physics may be admitted directly into Level 200 of the Degree programme.

21.15 Applicants in possession of an appropriate Diploma may be admitted directly into Level 200 of the Degree programme.

21.16 Applicants in possession of an appropriate Higher Diploma may be admitted directly into Level 300 of the appropriate Degree programme.

### 21.20 Programme Structure

21.21 Level 100 courses shall be as specified in the Faculty of Science Special Regulations for the Bachelor of Science Degree.

21.22 Level 200 shall consist of the following core courses:

#### Semester 3

- DTB211** Workshop Technology I (2)
- MMB211** Engineering Drawing (2)
- CCB211** Engineering Materials (2)
- CCB212** Statics (2)
- EEB211** Electrical Principles I (2)
- MAT291** Engineering Mathematics I (3, pre-req. MAT111, MAT122)

#### Semester 4

- DTB221** Workshop Technology II (2)
- MMB221** Manual and Computer Aided Drafting (2, pre-req. MMB211)
- MMB222** Dynamics (2)
- CCB221** Strength of Materials (2)
- EEB221** A.C. Circuit Principles II (2)
- MAT292** Engineering Mathematics II (3, pre-req. MAT291)

21.23 Students registered for a Bachelor of Engineering programme shall undergo two periods of Industrial Training: 8 weeks and 20 weeks as specified in Faculty Special Regulation 22.10.

21.24 At Levels 300, 400 and 500 each student shall register for General Education Courses as prescribed by General Regulations 00.2124, Departmental prescribed number of core, optional and elective courses per semester, unless exempted.

21.25 The availability of optional and elective courses offered by a Department shall be at the discretion of the relevant Department.

21.26 A student shall register for a Single Major or a Combined Degree programme in the fifth semester.

21.27 A subject may include courses consisting entirely of fieldwork, project work, practical work or seminars. In addition to work during the semester, a subject may include prescribed fieldwork or assignments during the vacation periods.

**21.30 Assessment**

21.31 Continuous assessment in Levels 200, 300, 400 and 500 courses shall be based on tests and/or assignments, and where applicable, laboratory reports/field reports.

21.32 Except for a project and courses with 100 percent continuous assessment, the ratio of continuous assessment to end of semester examination shall be 2:3, unless otherwise specified in the Departmental Special Regulations.

21.33 A project shall be evaluated by continuous assessment, oral presentation and/or demonstration and a written report. The ratio of the marks for continuous assessment, presentation assessment and written report shall be 1:1:2.

21.34 For continuous assessment, the ratio of marks for tests to assignments and/or laboratory marks shall be 1:1.

21.35 Level 500 Project Report must be submitted to the co-coordinator at least two weeks before the beginning of the end-of semester examinations.

21.36 Where a course includes a written final examination, a course with a credit value of 3 or more shall be examined by an end of semester examination of duration 2 hours, and 1 hour for a course with less than 3 credits.

21.37 Courses with a practical component or drawing included in a written examination shall be examined by end of semester examination of duration 3 hours.

21.38 Industrial Training shall be assessed as specified in the Faculty Special Regulation 22.20.  
21.39 Failure without good cause to submit an item of continuous assessment within 24 hours of the due date shall carry a penalty of 5 percentage marks per day. Failure to submit the assignment before the end of one week from the due date shall incur a zero mark.

21.40 A student who fails to sit a continuous assessment test without documented valid reasons shall score a zero mark for that test. A student absent from a test with documented legitimate reason shall be entitled to a special test.

**220 Industrial Training Regulations for the Degree in Bachelor of Engineering**

Subject to the provisions of General Regulations 000 and 200, the following Industrial Training Regulations shall apply to students in the following programmes:

- Bachelor of Engineering (Civil Engineering)
- Bachelor of Engineering (Construction Engineering and Management)
- Bachelor of Geomatics
- Bachelor of Land Management
- Bachelor of Engineering (Electrical and Electronic Engineering)

- Bachelor of Industrial Engineering
- Bachelor of Engineering (Mechanical Engineering)
- Bachelor of Engineering (General).

**22.10 Programme Structure**

22.11 A student shall undergo two periods of supervised Industrial Training: 8 weeks between Levels 200 and 300, and 20 weeks starting from the beginning of Semester 2 of Level 400 including part of the vacation between Levels 400 and 500.

22.12 Industrial Training course codes shall be as follows:

<b>ITB200</b>	Industrial Training I (duration 8 weeks, 4 credits, core course)
<b>ITB420</b>	Industrial Training II (duration 20 weeks, 10 credits, core course).

22.13 During the course of Industrial Training, a student shall be subjected to such codes, procedures, laws, rules, and other regulations as applicable to the industry.

22.14 Subject to Regulations Governing Admissions, Fees and Discipline Regulation 4.0, and Regulation 22.13 above, a student who receives a final warning for misconduct during the course of Industrial Training shall be subjected to Discipline Regulations.

**22.20 Assessment**

22.21 During the course of the Industrial Training period, each student shall be visited twice at the location of placement to be assessed by the Faculty of Engineering and Technology staff.

22.22 A student's performance will be assessed by means of:

22.22a) Continuous assessment by the industrial based supervisor and an assessor from a relevant department of the Faculty of Engineering and Technology;

22.22b) Industrial Training report and logbook submitted by the student at the end of the Industrial Training period;

**22.22c) Oral Presentation.**

22.23 ITB200 shall be assessed as based on Regulations 22.22 a) and 22.22 b). The ratio of marks for continuous assessment to Industrial Training report shall be 1:2.

22.24 ITB420 shall be evaluated as specified in Regulation 22.22. The ratio of marks for continuous assessment to Industrial Training report to oral presentation shall be 1:2:1.

**230 Special Regulations for the Degree in Bachelor of Design**

Subject to the provisions of the General Regulations 000 and 200, the following Special Regulations shall apply:

**23.10 Entrance Requirements**

23.11 Admission into Level 100 of the Bachelor of

Design Degree Programme shall be as stipulated in the General Admission Regulations. 23.12 Admission into Level 100 of the BDes Degree Programme shall be minimum requirement of a BGCSE with a with a minimum of grade D in English Language and a grade C in Mathematics, Physics and Chemistry or a minimum of grade BB in Science Double Award or equivalent.  
23.13 Admission into Level 200 of the Bachelor of Design Degree Programme shall be as stipulated in General Admission Regulations.

23.14 Admission into Level 200 of the BDes Degree Programme shall be satisfactory completion of Level 100 of the Bachelor of Science General Degree of the Faculty of Science with at least C- (C minus) grades in Mathematics and Physics.

23.15 Applicants in possession of an appropriate 'A' level qualification with at least D grades in Mathematics and at least one of: Physics, Chemistry or Design and Technology may be admitted directly into Level 200 of the Degree Programme.

23.16 Applicants in possession of an appropriate Diploma may be admitted directly into Level 200 of the Degree Programme.

23.17 Applicants in possession of an appropriate Higher Diploma may be admitted directly into Level 300 of the Degree Programme.

**23.20 Degree Structure**

23.21 Level 100 courses shall be as specified in the Faculty of Science Special Regulations for the Bachelor of Science Degree.

23.22 Level 200 shall consist of the following courses:

**Semester 3**

<b>DTB210</b>	Elements of Design (3)
<b>DTB211</b>	Workshop Technology I (2)
<b>MMB211</b>	Engineering Drawing (2)
<b>CCB211</b>	Engineering Materials (2)
<b>CCB212</b>	Statics (2)
<b>EEB211</b>	Electrical Principles I (2)

**Semester 4**

<b>DTB220</b>	Designing Artifacts (3, pre-req. DTB210)
<b>DTB221</b>	Workshop Technology II (2, pre-req. DTB211)
<b>MMB221</b>	Computer Aided Drafting (2, pre-req. MMB211)
<b>MMB222</b>	Dynamics (2)
<b>CCB221</b>	Strength of Materials (2)
<b>DTB 222</b>	Graphics (2)

23.23 Students registered for a Bachelor of Design Degree Programme shall undergo industrial training as specified under Departmental Special Regulations.

23.24 At Levels 300, 400 and 500 each student shall register for General Education Courses as prescribed by General Regulation 00.2124, Departmental prescribed number of core,



optional and elective courses per semester, unless exempted.

23.25 The availability of optional and elective courses offered by a Department shall be at the discretion of the Department.

23.26 A student shall register for a Single Major or a Combined Degree Programme in the third semester.

23.27 A subject may include courses consisting entirely of fieldwork, project work, practical work, and seminars. In addition to work during the semester, a subject may include prescribed fieldwork or assignments during the vacation periods.

### 23.30 Assessment

23.31 Continuous assessment in Levels 200, 300, 400 and 500 courses shall be based on tests and/or assignments, and where applicable laboratory reports/field reports.

23.32 Except for a project and courses with 100 percent continuous assessment, the ratio of continuous assessment to end of semester examination shall be 2:3, unless otherwise specified in the Departmental Special Regulations.

23.33a) A Design Project shall be assessed through documentation (folio, report and diary) of the Design Process and presentation. The ratio of marks for documentation to presentation shall be 2:1.

23.33b) A Major Make and Evaluate Project shall be assessed through Product and its Evaluation and presentation. The ratio of marks for documentation to presentation shall be 2:1.

23.33c) A Design and Make Project shall be evaluated as specified in Regulations 23.33a and 23.33b.

23.34 The Level 500 Project Report must be submitted to the co-coordinator at least 2 weeks before the beginning of the end-of semester examinations.

23.35 Where a course includes a written final examination, a course with a credit value of 3 or more shall be examined by an end of semester examination of duration 2 hours, and 1 hour for a course with less than 3 credits.

23.36 Courses having a practical component or drawing that include a written examination shall be examined by an end of semester examination of duration 3 hours.

23.37 Industrial Training shall be assessed as specified in the Faculty Special Regulation 35.20.

23.38 Failure without good cause to submit an item of continuous assessment within 24 hours of the due date shall carry a penalty of 5 percentage marks per day. Failure to submit the assignment before the end of 1 week from the due date shall incur a zero mark.

23.39 A student who fails to sit a continuous assessment test without documented valid reason shall score a zero mark for that test. A student absent from a test with documented legitimate reason shall be entitled to a special test.

### 350 Industrial Training Regulations for the Degree in Bachelor of Design Preamble

Subject to the provisions of General Regulations 000 and 200 the following Industrial Training Regulations shall apply to students on the following programmes:

- Bachelor of Design (Design and Technology Education)
- Bachelor of Design (Industrial Design)

### 35.10 Structure

35.11 A student shall undergo a period of supervised Industrial Training for 7 weeks between Levels 300 and 400.

35.12 In addition to the above, a student doing Industrial Design shall undergo a second period of supervised Industrial Training for 20 weeks starting from the beginning of semester 2 of Level 400 including part of the vacation between Levels 400 and 500.

35.13 Industrial Training course codes shall be as follows:

- |               |   |
|---------------|---|
| <b>DTB300</b> | Industrial Training (duration 7 weeks, 3 credits, core course).                         |
| <b>IDB400</b> | Industrial Training for Industrial Design (duration 20 weeks, 10 credits, core course). |

35.14 During the course of Industrial Training a student shall be subjected to such codes, procedures, laws, rules, and other regulations as applicable to the industry.

35.15 Subject to Regulations Governing Admissions, Fees and Discipline Regulation 4.0, and regulation 35.13 above, a student who receives a final warning for misconduct during the period of Industrial Training shall be subjected to Discipline Regulations.

### 35.20 Assessment

35.21 During the periods of Industrial Training, each student shall be visited a minimum of twice at the location of placement to be assessed by Faculty of Engineering and Technology staff.

35.22 A student's performance will be assessed by means of:

35.22a) Continuous assessment by the industry based supervisor and an assessor from a relevant Department of the Faculty of Engineering and Technology.

35.22b) Industrial Training Report and logbook submitted by the student at the end of the Industrial Training period.

### 35.22c) Oral Presentation.

35.23 DTB300 shall be assessed as based on

regulations 35.22a) and 35.22b). The ratio of marks for Continuous Assessment to Industrial Training Report and Logbook shall be 1:2.

35.24 IDB400 shall be assessed as based on regulation 35.22. The ratio of marks for Continuous Assessment to Industrial Training Report and Logbook to Oral Presentation shall be 1:2:1.

## DEPARTMENT OF ARCHITECTURE AND PLANNING

### 240 Departmental Regulations for Undergraduate Programmes General Provisions

Subject to General Academic Regulations and the Faculty of Engineering and Technology Special Regulations, the following Departmental Regulations shall apply:

### 24.10 Programmes and Qualification Titles

The Department of Architecture and Planning offers programmes in Architecture and Urban and Regional Planning, leading to the following qualifications:

24.11 A Single Major Programme leading to a Bachelor's Degree in Architecture for students specialising in Architecture.

24.12 A Single Major Programme leading to a Bachelor of Science Degree in Urban and Regional Planning for students following the Urban and Regional Planning Programme

### 24.20 Aim and Objectives of Undergraduate Programmes Aim

24.4 The aim of the URP programme is to train students to enable them to function and work in the fields of human settlement development and urban and regional planning. The Architecture programme is designed to equip students with the academic knowledge and skills they will need for a successful professional career in architecture. The Programmes have been carefully developed to be broad based including courses from the faculties of Science, Engineering, Humanities, Social Sciences and Business that are uniquely related to the cultural heritage of Botswana. These Programmes will benefit immensely from each other and also from other departments within The Faculty.

### 24.30 Objectives

24.31 The cores of the Architecture Programme are consecutive courses in design, consisting of studio work augmented by lectures and seminars in humanities, technology, environment and professional practice. At the end of the programme students should be able to:

- Deal creatively with architectural problems on analytical, conceptual, and developmental levels;
- Undertake more challenging formal architectural principles that will develop in them an aptitude for functional and

programmatic accommodation, structural and technological integration, energy conscious design, and materials and methods of construction; and

- Carry out independent judgments rooted in an ever-changing context of architectural thought.

#### 24.40 Entrance Requirements Architecture Programme

24.41 Admission to the BArch Degree programme shall be as stipulated in General Academic Regulation 20.20

24.42 Applicants for admission to level 100 must have a minimum of Grade D in English Language, a minimum of Grade C in Mathematics, either a minimum of Grade C in Physics or Grade BB in Science Double Award, and a minimum of Grade C in Art or in Design and Technology.

24.43 Advanced Standing: Students with credits towards a degree from other Post-Secondary Educational institutions are eligible for application and may receive advanced credit for their prior studies in comparable courses.

24.44 All applicants are required to attend an interview with Architecture Programme Staff and are advised that it would be an advantage to bring a portfolio containing evidence of interest in visual arts and/or design. Admission into the programme is subject to the positive result of the interview.

24.45 In addition to 1.4.1.1, applicants for admission to Level 100 of the programme must take courses in Physics, Chemistry and mathematics in the Faculty of Science. Applicants in possession of an appropriate 'A' level qualification with at least C grades in Mathematics and at least one of:

24.22 Physics, Chemistry, Art or Design and Technology may be exempted from taking Physics, Chemistry and Mathematics in the Faculty of Science.

24.23 Applicants who possess the normal entry requirements listed in the General Academic Regulation 20.2 but who do not satisfy 1.4.1.2 or 1.4.1.3 may be admitted to the programme if they: a) have assessable experience in artistic and/or design activities and/or b) submit a portfolio of drawings and design exercises (not exceeding 10) with the application.

#### 24.50 Urban and Regional Planning Programme

24.51 Urban and Regional Planning (URP) is offered as a Single Major Programme only. Students who wish to register for URP must satisfy any one of the following requirements:

- Successful completion of Semesters 1 and 2 in the Faculty of Science;
- Successful completion of relevant courses in Semesters 1 and 2 in the Faculty of Social Sciences;
- Appropriate passes in relevant Advanced Level subjects or equivalent qualifications from a

recognised University or equivalent institution, which may be considered on their own merit.

24.52 Satisfying the requirements listed above does not guarantee automatic entry into the Programme. Students with the above qualifications must also take and pass at least 2 courses in each semester from the following course listings:

##### Semester 1 Core courses

<b>STA101</b>	Mathematics for Business and Social Sciences
<b>STA111</b>	Elementary Statistics
<b>STA116</b>	Introduction to Statistics
<b>MAT111</b>	Introductory Mathematics I
<b>DCS101</b>	Introduction to Computing Systems

##### Semester 2 Core courses

<b>STA102</b>	Mathematics for Business and Social Sciences II
<b>STA112</b>	Statistical Tools for Social Research and Elements in Probability
<b>MAT122</b>	Introductory Mathematics II
<b>DCS102</b>	Data Processing and Communication and:
Take and pass at least 2 courses in each semester from the following:	

##### Semester 1 Electives

<b>BIO111</b>	Principles of Biology
<b>CHE101</b>	General Chemistry I
<b>ENV101</b>	Introduction to the Physical and Human Environments I
<b>PHY112</b>	Geometrical Optics, Mechanics, Vibrations and Waves Physics Practical's 1.1
<b>ECO111</b>	Basic Microeconomics
<b>SOC121</b>	Introduction to Sociological Concepts and Principle or:
<b>SOC122</b>	Dominant Sociological Themes and Perspectives or:
<b>SOC123</b>	Social Structure of Society

##### Semester 2 Electives

<b>BIO112</b>	Diversity of Animals and Plants
<b>CHE102</b>	General Chemistry II
<b>ENV102</b>	Introduction to the Physical and Human Environments II
<b>PHY121</b>	Electricity, Magnetism and Modern Physics
<b>PHY129</b>	Physics Practical's 1.2
<b>ECO112</b>	Basic Macroeconomics
<b>SOC131</b>	Introduction to Social and Cultural Anthropology or:
<b>SOC132</b>	Introduction to the Study of Human Societies or:
<b>SOC133</b>	Social Change in Botswana

##### Programme Structure Architecture Programme

Level 100 shall consist of the following courses:

##### Semester 1 Core Courses

<b>ARB111</b>	Design & Communication I (4)
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<b>ARB112</b>	Building Materials & Construction I (2)
<b>ARB122</b>	Building Materials & Construction II (2)
<b>PHY112</b>	Geometrical optics, Mechanics, Vibrations and Waves
<b>COM132</b>	Communication and Academic Literacy II (3)
<b>ICT122</b>	Computer Skills Fundamentals (2)

##### Semester 2 Core Courses

<b>ARB121</b>	Design & Communication II (4)
<b>ARB113</b>	Traditional African Architecture (2)
<b>ARB123</b>	History of Art (2)
<b>ARB124</b>	Environment and Comfort (2)
<b>MAT192</b>	Design Mathematics II (3)

##### GEC Courses

Level 200 shall consist of the following courses:

##### Semester 3 Core Courses

<b>ARB211</b>	Architectural Design I (6)
<b>ARB212</b>	Building Materials & Construction III (2)
<b>ARB222</b>	Building Materials & Construction IV (2)
<b>ARB214</b>	Energy Efficiency in Buildings (2)
<b>ARB216</b>	Computer Aided Drafting (2)
<b>CCB217</b>	Theory of Structures 1 (2)

##### Semester 4 Core Courses

<b>ARB220</b>	Internship I (2)
<b>ARB221</b>	Architectural Design II (6)
<b>ARB213</b>	History of Architecture I (2)
<b>ARB223</b>	History of Architecture II (2)
<b>CCB227</b>	Theory of Structure II (2)
<b>URP207</b>	Land Surveying and Cartography + Lab (3)

Level 300 shall consist of the following courses:

##### Semester 5 Core Courses

<b>ARB311</b>	Architectural Design III (6)
<b>ARB312</b>	Building Services I (2)
<b>ARB322</b>	Building Services II (2)
<b>CCB317</b>	Theory of Structures III (2)
<b>LAW253</b>	Foundations of Engineering Law (2)

##### Optional Courses

<b>URP200</b>	Introduction to Town Planning (2)
<b>URP202</b>	Infrastructure Planning & Management (20) (2)

##### Semester 6 Core Courses

<b>ARB320</b>	Internship II (2)
<b>ARB321</b>	Architectural Design IV (6)
<b>ARB313</b>	History of Architecture III (2)
<b>ARB323</b>	History of Architecture IV (2)
<b>CCB 327</b>	Theory of Structures IV (2)
<b>ARB325</b>	Interior Design (2)

Level 400 shall consist of the following courses:

##### Semester 7



#### Core Courses

ARB411	Architectural Design V (6)
ARB412	Building Systems I (2)
ARB422	Building Systems II (2)
LAW452	Construction Law (2)
URP305	Research Methods (2)
ARB415	Landscape Design (2)

#### Semester 8

##### Core Courses

ARB420	Internship III (2)
ARB421	Architectural Design VI (6)
ARB413	Philosophy of Architecture I (2)
ARB423	Philosophy of Architecture II (2)
ARB424	Professional Practice I (2)
ARB514	Professional Practice II (2)

##### Optional Courses

ENV412	Environmental Impact Assessment (2)
ENV484	Urbanisation & the Environment (2)

Level 500 shall consist of the following courses:

#### Semester 9

##### Core Courses

ARB511	Design Project I (8)
CCB519	Building Economics (2)
ARB524	Project Management (2)

##### Optional Courses

URP307	Land and Property Evaluation (2)
URP314	Land and Property Management (2)

#### Semester 10

##### Core Courses

ARB521	Design Project II (8)
ARB522	Urban & Rural Design Practice (2)
	GEC Courses
GEC273	The State & Society (2)
GEC277	Law & Society in Botswana (2)

A course may consist entirely of fieldwork, project work, practical work, design, and seminars. In addition to work during the semester, a subject may include prescribed fieldwork or assignments during the vacation periods.

#### 24.60 Programme Structures

##### Urban and Regional Planning Programme

24.61 Urban and Regional Planning (URP) is a Single Major Programme offered to students registered in the Faculties of Science and Social Sciences, subject to Departmental Regulations 1.4.2.1 and 1.4.2.2.

24.62 In accordance with Regulation 00.62, the URP Programme shall consist of 15 credits of both core and optional courses. Courses URP 312, URP 404 and URP 411 jointly satisfy Faculty Regulation 23.47.

#### Level 100

URP courses are not offered at this level

#### Level 200

#### Semester 3

##### Core Courses

URP200	Introduction to Town Planning (2)
URP201	Introduction to Drawing Techniques (4)

URP202	Infrastructure Planning and Management (2)
URP203	Urban and Regional Economics (2)
URP204	Planning and History of Settlements (2)

##### Optional Courses

URP205	Environmental Planning (2)
URP206	Urban Morphology (2)

#### Semester 4

##### Core Courses

URP207	Land Surveying and Cartography (3)
URP208	Site Planning (4)
URP209	Transport Planning and Management (2)
URP210	Planning Techniques (3)
URP211	Internship I (1)

##### Optional Courses

URP212	GIS for Planners (3)
URP213	Globalisation and Sustainable Cities (2)

#### Level 300

#### Semester 5

##### Core Courses

URP301	Urbanisation and Planning (2)
URP302	Neighbourhood Planning (4)
URP303	Housing Studies (2)
URP304	Regional Planning (2)
URP305	Research Methods and techniques (2)

##### Optional Courses

URP306	Remote Sensing for Planners (3)
URP307	Land and Property Valuation (2)

#### Semester 6

##### Core Courses

URP308	Planning Policy and Politics (2)
URP309	Urban Land Use Planning (2)
LAW353	Planning and Environmental Law (3)
URP311	Settlement Upgrading (4)
URP312	Project Directed Readings (1)
URP313	Internship II (1)

##### Optional Courses

URP314	Land and Property Management (2)
URP315	Building Technology and Materials (2)

#### Level 400

#### Semester 7

##### Core Courses

URP400	Philosophy and Planning (2)
URP401	Rural Land Use Planning (4)
URP402	Transport Engineering for Planners (2)
URP403	Urban Governance and Management (2)
URP404	Project Research Methodology (3)

##### Optional Courses

URP405	Gender and Physical Planning (2)
URP406	Public Participation in Physical Planning (2)

#### Semester 8

##### Core Courses

URP407	Planning and Social Theory (2)
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URP408	Development Impact Assessment (2)
URP409	Settlement Development Planning (4)
URP410	Project Planning and Management (2)
URP411	Project Report (3)

##### Optional Courses

URP412	Planning Negotiation and Contracting (2)
URP413	Urban Agriculture (2)

#### 24.70 Assessment and Examination

Performance in Urban and Regional Planning courses shall be evaluated through a combination of continuous assessment and final examination in the ratio of 2:3 for theory courses and 1:1 for practical courses. The duration of examinations will be 2 hours for all the courses irrespective of the number of credits. Courses URP211, URP312, URP313, URP404 and URP411 shall be assessed by continuous assessment only. Courses URP 401 and URP 409 shall be assessed by submissions of planning projects (part I and part II). For Architecture courses, continuous assessment shall be based on tests and/or design, assignments, and where applicable laboratory reports and field reports. The ratio of continuous assessment to formal examination shall be 2:3. A project or design shall be evaluated by continuous assessment, oral presentation and/or demonstration and a written report. The ratio of the marks for continuous assessment, presentation assessment and written report shall be 2:1:1. Where a course includes a written final examination, the duration of the examination will be 2 hours for all the courses irrespective of the number of credits. Overall performance in a course shall be as specified in the General Regulation 00.84. There shall be no supplementary examinations. A student who fails a core or pre-req. or co-requisite course shall retake the course when offered again. A student who has failed an optional/Elective/general education course may retake the course or its equivalent.

#### 24.71 Progression from Semester to Semester

Progression from semester to semester shall be accordance with General Academic Regulation 00.90.

#### 24.72 Duration of the Programmes

The duration of the URP Programme shall be 8 to 10 semesters full-time; and the duration of the Architecture Programme shall be a minimum of 10 and a maximum of 14 semesters on a full-time basis. Award of the Degree General Academic Regulation 00.85 shall apply. However, for the Architecture Programme a minimum of 180 credits is required. Classification of the degree shall be in accordance with the provisions of General Academic Regulation 20.4

#### 24.73 Professional Training

For both Architecture and Urban and Regional Planning Programmes, students shall be subjected to such codes, procedures, laws, rules, and other regulations as applicable to the industry/organisation during the Professional



Training.

#### 24.731 Urban and Regional Planning Programme

Students shall undergo Professional Training (Internship) of 6 weeks duration after Assessment of Professional Training at level 200 and 300. The internship courses are URP 211 and URP 323. During each Professional Training period, students shall be visited 2 times at locations of placement by staff teaching the programme to monitor progress and also give advise where necessary.

#### 24.732 Architecture Programme

Professional Training (Internship) Regulations for the Bachelor of Architecture Programme Subject to the provisions of General Academic Regulations 00.0 and 100 the following Professional Training Regulations shall apply to students on the Bachelor of Architecture Programme.

A student shall normally undergo 3 periods of supervised Professional Training (Internship) of 8 weeks each after Levels 200, 300 and 400. Professional Training course codes are: ARB220, ARB320 and ARB420.

#### 24.80 Assessment

A student's performance will be assessed by means of:

- Confidential report from the student's immediate supervisor at location of placement.
- Professional Training reports and logbook submitted by the student at the end of each Internship period.
- Professional Training visits by an assessor from the relevant Department of the Faculty of Engineering and Technology.
- Students will be assessed through confidential reports from the organisation they have been placed at, production of a concept paper and an oral presentation.

Therefore the assessment ratio for Confidential Report to Internship Concept Paper to Oral Presentation shall be 1:2:1. For both Architecture and Urban and Regional planning Programmes, a student who has an incomplete grade shall be allowed to complete Professional Training at a time recommended by the Faculty.

#### 24.81 Repeating Professional Training

A student who fails to meet the requirements of Professional Training shall be required to repeat the training at a time recommended by the Faculty.

## DEPARTMENT OF CIVIL ENGINEERING

#### Introduction

The Department of Civil Engineering offers the following programmes:

- Bachelor of Engineering (Civil)
- Bachelor of Engineering (Construction Engineering and Management)

- Bachelor of Engineering (Mineral Engineering)
- Bachelor of Science (Mining Engineering)
- Bachelor of Geomatics
- Bachelor of Land Management
- Diploma in Land Management
- Certificate in Land Administration
- Diploma in Mining
- Diploma in Mineral Engineering

#### 25.0 Departmental Regulations for the Bachelor of Engineering (Civil) Degree

Subject to the provisions of General Regulations 000 and 200 and the Faculty Special Regulation 21.0, the following Departmental Regulations for the Bachelor of Engineering (Civil) Degree shall apply:

#### 25.10 Entrance Requirements

25.11 Admission to the Bachelor of Engineering (Civil) Degree shall be as stipulated in the Faculty Special Regulation 21.10.

#### 25.20 Programme Structure

25.21 The Programme for the Degree in Civil Engineering will be a Single Major Programme that will extend over 10 semesters of fulltime study. It shall contain 1 subject called Civil Engineering consisting of courses shown below.

25.22 The curriculum for Levels 100 and 200 shall be stipulated in the Faculty Special Regulation 21.20.

#### Level 300

#### Civil Engineering

##### Semester 5

##### Core Courses

- MAT391** Engineering Mathematics III (3, pre-req. MAT 292)
- CCB313** Surveying (3)
- CCB311** Geomechanics I (3)
- CCB315** Environmental Engineering (2)

In addition, all students shall select at least 1 of the following 2 credit, optional courses:

- CCB312** CAD for Civil Engineers (pre-req. MMB 221)
- CCB316** Principles of Mining Engineering
- CCB314** Engineering Geology

##### Semester 6

##### Core Courses (all 3 credits)

- CCB321** Structural Analysis (pre-req. CCB212, CCB221)
- CCB324** Construction Materials (pre-req. CCB211)
- CCB322** Fluid Mechanics and Hydraulics
- CCB323** Construction Principles

In addition, all students shall select at least 1 of the following 2 credit, optional courses:

- CCB325** Geomechanics II (pre-req. CCB 311)
- CCB329** Architectural Design
- MAT392** Engineering Mathematics IV (pre-req. MAT391)

#### Level 400

#### Civil Engineering

##### Semester 7

#### Core Courses

- CCB411** Structural Design (3)
- CCB412** Water Engineering (3, pre-req. CCB315)
- CCB413** Traffic and Highway Engineering (3, pre-req. CCB313)
- CCB414** Geotechnics (2, pre-req. CCB311)

In addition, all students shall select at least 2 of the following 2 credit, optional courses:

- CCB415** Civil Engineering Construction (pre-req. CCB323)
- CCB416** Structural Steelwork (pre-req. CCB321, co-requisite CCB411)
- URP200** Introduction to Town Planning
- CCB418** Hydrology and Water Resources (pre-req. CCB322, Co-requisite CCB412)
- CCB419** Engineering Surveying (pre-req. CCB313)

#### Semester 8

- ITB420** Industrial Training [Vacation, 20 weeks], (10, core, pre-req. ITB 200)

#### Level 500

#### Civil Engineering

##### Semester 9

##### Core Courses

- CCB514** Project I (3)
- CCB511** Structural Engineering (2, pre-req. CCB321)
- CBB512** Construction Management I (2)
- CCB515** Transportation Engineering (2, pre-req. CCB413)

In addition, all students shall select at least 2 of the following 2 credit, optional courses:

- CCB516** Foundation Design (pre-req. CCB414)
- CCB517** Structural Dynamics (pre-req. MMB222)
- CCB518** Public Health Engineering (pre-req. CCB315)
- CCB513** Measurements and Specifications - Civil Works

#### Semester 10

##### Core Courses

- CCB524** Project II (3, pre-req. CCB514)
- CBB522** Construction Management II (2, pre-req. CBB512)

In addition, all students shall select at least four of the following 2 credit, optional courses:

- CCB521** Waste Water Engineering (pre-req. CCB412)
- CCB523** Timber and Pre-stressed Concrete Structures (pre-req. CCB411)
- CCB525** Advanced Transportation Engineering (pre-req. CCB515)
- CCB526** Foundation on Problematic Soils (pre-req. CCB516)
- CCB527** Construction Costs & Financial Control
- CCB528** Estimating and Tendering for Civil Works (pre-req. CCB 513)

#### 25.30 Assessment

2531 Except for CCB313 (Surveying), all courses shall be assessed as stipulated in the Faculty



Special Regulation 21.30.

25.32 For CCB313 the ratio of marks for continuous assessment to examination shall be 1:1.

### 26.0 Departmental Regulations for the Bachelor of Engineering (Construction Engineering and Management) Degree)

Subject to the provisions of General Regulations 000 and 200 and the Faculty Special Regulation 210, the following Departmental Regulations for the Bachelor of Engineering (Construction Engineering and Management) Degree shall apply:

#### 26.10 Entrance Requirements

26.11 Admission to the Bachelor of Engineering (Construction Engineering and Management) Degree shall be as stipulated in Faculty Special Regulation 21.10.

#### 26.20 Programme Structure

26.21 The Programme for the Degree in Construction Engineering and Management will be a Single Major Programme that will extend over 10 semesters of full-time study. It shall contain 1 subject called Construction Engineering and Management consisting of courses shown below.

26.22 The curriculum for Levels 100 and 200 shall be stipulated in the Faculty of Engineering and Technology Special Regulation 21.20.

#### Level 300

##### Construction Engineering and Management Semester 5

###### Core Courses (all are 3 credits)

<b>MAT391</b>	Engineering Mathematics III (pre-req. MAT292)
<b>CCB313</b>	Surveying
<b>CCB311</b>	Construction Technology I
<b>MGT100</b>	Principles of Management

In addition, all students shall select at least 2 of the following optional courses:

<b>CCB312</b>	History of Building (2)
<b>CCB312</b>	CAD for Civil Engineers (2) (pre-req. MMB 221)
<b>CCB315</b>	Environmental Engineering (2)
<b>ECO111</b>	Basic Microeconomics (3)

#### Semester 6

##### Core Courses (all 3 credits)

<b>CCB321</b>	Structural Analysis (pre-req. CCB212, CCB221)
<b>CCB324</b>	Construction Materials (pre-req. CCB211)
<b>CCB322</b>	Measurement and Specification I (pre-req. CCB311)
<b>LAW253</b>	Foundation of Engineering Law In addition, all students shall select at least 1 of the following 2 credit, optional courses:
<b>CCB323</b>	Construction Industry Economics
<b>CCB325</b>	Information Technology in the Construction Industry (pre-req. MMB221)

#### Level 400

##### Construction Engineering and Management Semester 7

###### Core Courses

<b>CBB411</b>	Construction Economics I (3)
<b>CBB412</b>	Construction Technology II (3, pre-req. CBB311)
<b>CBB413</b>	Measurement and Specification II (3, pre-req. CBB322)
<b>CBB414</b>	Building Services (2)
<b>CBB415</b>	Health and Safety Management in Construction (2)

In addition, all students shall select 1 of the following optional courses:

<b>LAW452</b>	Construction Law (3, pre-req. LAW253)
<b>MMB414</b>	Engineering Management (3)

#### Semester 8

<b>ITB420</b>	Industrial Training II [Vacation, 20 weeks] (10, core, pre-req. ITB 200)
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#### Level 500

##### Construction Engineering and Management Semester 9

###### Core Courses

<b>CCB514</b>	Project I (3)
<b>CCB515</b>	Estimating and Tendering (3, pre-req. CBB413)
<b>CCB511</b>	Construction Economics II (2, pre-req. CBB411)
<b>CCB512</b>	Construction Management I (2)

In addition, all students shall select at least 2 of the following 2 credit, optional courses:

<b>CCB513</b>	Measurements and Specifications - Civil Works
<b>CCB518</b>	Public Health Engineering (pre-req. CCB315)
<b>CCB526</b>	Construction Disputes Resolution (pre-req. LAW452)

#### Semester 10

##### Core Courses

<b>CCB524</b>	Project II (3, pre-req. CCB 514)
<b>CCB522</b>	Construction Management II (2, pre-req. CBB512)
<b>CCB523</b>	Construction Technology III (2, pre-req. CBB412)
<b>CCB521</b>	Contract Administration (2, pre-req. CBB515 and CBB413)

In addition, all students shall select at least 2 of the following 2 credit, optional courses:

<b>CCB525</b>	Property Management and Valuation
<b>CCB527</b>	Facilities Management (pre-req. CBB414)
<b>MMB516</b>	Building and Factories Services (4)

#### 26.30 Assessment

25.31 Except for CCB313 (Surveying), all courses shall be assessed as stipulated in the Faculty Special Regulation 21.30.

25.32 For CCB313 the ratio of marks for continuous assessment to examination shall be 1:1.

#### 27.0 Special Regulations for Bachelor of

#### Science (Mining Engineering)

Subject to the provisions of the General Regulations 00.0 and 20.00, the following Faculty Special Regulations for the Bachelor of Science (Mining Engineering) Degree shall apply.

#### 27.10 Degree Programmes

The following degree programme is offered:

#### Bachelor of Science (Mining Engineering) Degree

#### 27.20 Entrance Requirements

27.21 Admission to the Bachelor of Science (Mining Engineering) Degree shall be as stipulated in the Faculty Special Regulations 21.10.

27.22 The normal minimum requirements for admission to level 200 for a degree program shall be satisfactory completion of level 100 of the Bachelor of Science (General) degree of the Faculty of Science or equivalent institution with at least C grades in Mathematics, Chemistry and Physics.

27.23 Applicants in possession of an appropriate 'A' level qualification with at least C grades in Mathematics and at least one of: Physics and Chemistry may be admitted directly to Level 200 of the programme.

27.24 Applicants in possession of an appropriate Diploma may be admitted directly into Level 200 of the degree programme.

#### 27.30 Duration of the Programme

The duration of the programme shall be: A minimum of 10 and a maximum of 12 semesters on a full-time basis.

#### 27.40 Degree Structure

27.41 The curriculum for Level 100 shall be stipulated in the Faculty Special Regulation 21.20.

27.42 Level 200 Mining Engineering shall consist of the following courses:

#### Semester 3

<b>MAT 291</b>	Engineering Mathematics 1 (3)
<b>CCB 211</b>	Engineering Materials (2)
<b>CCB 212</b>	Statics (2)
<b>MIN 211</b>	Introduction to Mining Engineering (2)
<b>EEB 211</b>	DC Circuit Principles (2)
<b>MMB211</b>	Engineering Drawing (2)
<b>GEC 253</b>	Energy and Society (2)

#### Semester 4

##### Core Courses

<b>MAT 292</b>	Engineering Mathematics 11 (3, pre-req. MAT 291)
<b>CCB 221</b>	Strength of Materials (2)
<b>MIN 221</b>	Introduction. to Mine Safety and Health (3)
<b>EEB221</b>	AC Circuit Principles (2)
<b>MMB221</b>	Computer Aided Drafting (2, pre-req. MMB211)
<b>MMB222</b>	Dynamics (2)

**GEC 250** Earth processes, mineral resources and development (2)

**MIN 220** Professional Training (4, pre-req. MIN211)

27.43 Level 300 Mining Engineering shall consist of the following courses:

## Semester 5

### Core Courses

**MIN 311** Introduction to Mine Surveying (3)

**MIN 312** Introduction to Geology (2)

**MIN 313** Introduction to Mineral Processing (3)

**MIN 314** Computer Applications in Mining (2)

**MIN 315** Small Scale Mining (2, pre-req. MIN211)

**MIN 316** Elements of Mining Environmental Management (2)

**GEC 276** Contemporary Economic Issues (2)

## Semester 6

### Core Courses

**MIN 321** Elements of Mining Methods (3, pre-req. MIN211)

**MIN 322** Elements of Mine Safety & Health (2, pre-req. MIN221)

**MIN 323** Elements of Mine Ventilation (2)

**MIN 324** Botswana Mining Law (2)

**MIN 325** Introduction to Mine Supervision & Management (2)

**MIN 326** Mine Surveying (2, pre-req. MIN311)

**ECO 111** Basic Microeconomics (2)

**ECO 112** Basic Macroeconomics (2)

**MIN 320\*** Mine Tour (1)

27.44 Level 400 Mining Engineering shall be as stipulated in the advanced mining engineering subjects offered at the Mining Engineering Department, University of Missouri Rolla.

27.45 Level 500 Mining Engineering shall be as stipulated in the advanced mining engineering subjects offered at the Mining Engineering Department, University of Missouri Rolla.

27.46 A course may consist entirely of fieldwork, project work, practical work, design, and seminars. In addition to work during the semester, a subject may include prescribed fieldwork or assignments during the vacation periods.

## 27.50 Assessment

27.51 Continuous assessment in courses shall be based on tests and/or design, assignments, and where applicable laboratory reports and field reports.

27.52 The ratio of continuous assessment to formal examination shall be 2:3 12.53 Overall performance in a course shall be as specified in the General Regulation 00.84.

## 27.60 Final Examinations

There shall be no supplementary examinations. A student who fails a core or pre-req. or co-requisite course shall retake the course when offered again. A student who has failed an

optional/elective/general education course may retake the course or its equivalent.

**27.70 Progression from Semester to Semester** General Regulation 00.90 shall apply.

## 27.80 Award of the Degree

12.81 The UMR General Regulation for awarding the degree shall apply.

## 27.90 Professional Training

Students shall undergo Professional Training (Internship) of 8 weeks duration after levels 200 and take a 2-week Mine Tour after level 300 as specified in the Special Regulations for the Professional Training and Mine Tour for the Bachelor of Science (Mining Engineering) Programme.

## 27.91 Assessment of Professional Training

Professional Training shall be assessed as specified in the Special Regulations for the Professional Training and Mine Tour for the Bachelor of Science (Mining Engineering) Programme.

## 28.0 Special Regulations for Professional Training and Mine Tour for the Bachelor of Science (Mining Engineering)

### Preamble

Subject to the provisions of General Regulations 000 and 100 the following Professional Training Regulations shall apply to students on the Bachelor of Engineering (Mining) programme.

## 28.20 Structure

1.1 A student shall undergo supervised Professional Training of 8 weeks duration after level 200 (MIN 220).

1.2 A student shall undergo a 2 week Mine Tour after level 300 (MIN 320).

1.3 During the Professional Training students shall be subjected to such codes, procedures, laws, rules, and other regulations as applicable to the mining industry/organisation.

## 28.30 Assessment

2.1 During each Professional Training period, students shall be visited 2 times at location of placement to be assessed by staff teaching on the programme.

2.2 A student's performance will be assessed by means of:

- Confidential report from the student's immediate supervisor at location of placement.
- Professional Training reports and logbook submitted by the student at the end of each Internship period.
- Professional Training visits by an assessor from the relevant Department of Faculty of Engineering and Technology.

2.3 The Professional Training session shall be evaluated as specified in 2.2. The ratio of Confidential Report marks to Professional Report marks to Professional Training Visits shall be

based on the FET industrial training regulations.

2.4 Assessment of the Mine Tour shall be by submission of a written report.

2.5 A student who has an incomplete grade shall be allowed to complete Professional Training at a time recommended by the Faculty.

## 3.0 Repeating Professional Training

3.1 A student who fails to meet the requirements of Professional Training shall be required to repeat the training at a time recommended by the Faculty.

## 29.0 13 Special Regulations for Bachelor of Engineering in Mineral Engineering

### Preamble:

Subject to the provisions of the General Regulations 00.0 and 20.00, the following Faculty Special Regulations for the Bachelor of Science (Mineral Engineering) Degree shall apply.

## 29.10 Degree Programmes

13.11 The following degree programme is offered:

## BSc (Eng) Mineral Engineering Degree Entrance Requirements

Admission to the Bachelor of Science (Mineral Engineering) Degree shall be as stipulated in the Faculty Special Regulations 21.10.

29.22 The normal minimum requirements for admission to level 200 for a degree program shall be satisfactory completion of level 100 of the Bachelor of Science (General) degree of the Faculty of Science or equivalent institution with at least C grades in Mathematics, Chemistry and Physics.

29.23 Applicants in possession of an appropriate 'A' level qualification with at least C grades in Mathematics and at least one of: Physics and Chemistry may be admitted directly to Level 200 of the programme.

29.24 Applicants in possession of a relevant Diploma may be admitted directly into Level 200 of the degree programme.

## 29.30 Duration of the Programme

The duration of the programme shall be: A minimum of 10 and a maximum of 12 semesters on a full-time basis.

## 29.40 Degree Structure

13.41 The curriculum for Level 100 shall be stipulated in the Faculty Special Regulation 21.20.

## 29.42 Level 200 Mineral Engineering shall consist of the following courses:

### Semester 3

#### Core Courses

**MAT 291** Engineering Mathematics 1 (3)

**CCB 211** Engineering Materials (2)

**CCB 212** Statics (2)

**MIN 211** Introduction to Mining Engineering (2)



EEB 211	DC Circuit Principles (2)
MMB 211	Engineering Drawing (2)
CHE 211	Introduction to Analytical Chemistry(2)
CHE 213	Analytical Chemistry Lab 1(1)
Total	16

#### Semester 4 Core Courses

MAT292	Engineering Mathematics 11 (3)
CCB221	Strength of Materials (2)
MIN221	Introduction. to Mine Safety and Health (3)
EEB 221	AC Circuit Principles (2)
MMB221	Computer Aided Drafting (2)
MMB222	Dynamics (2)
GEC250	Earth processes, mineral resources and development (2)
Totals	16

MIP220	Professional Training (8 weeks)(4)
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#### Level 300 Mineral Engineering shall consist of the following courses:

##### Semester 5

##### Core Courses

MAT391	Engineering Mathematics III (3)
MIN312	Introduction to Geology (2)
MIN313	Introduction to Mineral Processing(3)
MIP311	Process Mineralogy (3)
MIN316	Elements of Mining Environmental Management (2)
ECO111	Basic Microeconomics (3)
Totals	16

##### Semester 6

##### Core Courses

CHE221	Atomic Structure, Bonding and Main Group Chemistry (2)
CHE223	Inorganic Chemistry Lab 1 (1)
CCB322	Fluid Mechanics and Hydraulics (3)
MIP321	Physical Mineral Processes (3)
MIN324	Botswana Mining Law (2)
ECO112	Basic Macroeconomics (3)
GEC253	Energy and Society (2)
Totals	16

#### Level 400 Mineral Engineering shall consist of the following courses:

##### Semester 7

##### Core Courses

MIP411	Computer Applications in Mineral Processing (3)
MIP412	Flotation and Other Concentration Methods (3)
MIP413	Extractive metallurgy (3)
MMB 413	Systems and Control Engineering 1 (3)
MGT202	Small Business Management (3)
Totals	15

##### Semester 8

##### Core Courses

MIP421	Coal Preparation (3)
MIP422	Processing of Precious Metals (3)
MIP423	Diamond Processing Technology (3)
MIP424	Mineral Economics (3)
MIP425	Mine Management (3)
Totals	15

#### Level 500 Mineral Engineering shall consist of the following courses:

##### Semester 9

##### Core Courses

MIP511	Mineral Separation Processes (3)
MIP512	Plant Process and Flow Sheet Design (3)
MIP513	Process Control and Instrumentation for Mineral Engineers (3)
MIP514	Project I (3)

##### Electives

MMB512	Project Management	or
MMB513	Industrial Relations	(3)
Totals		15

##### Semester 10

##### Core Courses

MIP521	Processing Plant Equipment Selection Et Maintenance (3)
MIP522	Material Handling and Transport(3)
MIP523	Tailings and Wastewater Disposal(3)
MIP 524	Project II (3)

##### Electives

IMB 523	Professional Ethics	or
IMB 526	Environmental Engineering (3)	
Totals		15

29.43 A course may consist entirely of fieldwork, project work, practical work, design, and seminars. In addition to work during the semester, a subject may include prescribed fieldwork or assignments during the vacation periods.

##### 29.50 Assessment

12.51 Continuous assessment in courses shall be based on tests and/or design, assignments, and where applicable laboratory reports and field reports.

29.52 The ratio of continuous assessment to formal examination shall be 2:3

29.53 Overall performance in a course shall be as specified in the General Regulation 00.84.

##### 29.60 Final Examinations

There shall be no supplementary examinations. A student who fails a core or pre-requisite or co-requisite course shall retake the course when offered again. A student who has failed an optional/elective/general education course may retake the course or its equivalent.

##### 29.70 Progression from Semester to Semester

General Regulation 00.90 shall apply.

##### 29.80 Award of the Degree

29.81 General Regulation 00.85 shall apply.

29.81 Classification of the degree shall be in accordance with the provisions of General Regulation 20.4

##### 29.90 Professional Training

Students shall undergo Professional Training (Internship) of 8 weeks duration after levels 200

and take a 2 weeks Tour of Mine Treatment Plants after level 300 as specified in the Special Regulations for the Professional Training and Tour of Mine Treatment Plants for the Bachelor of Engineering (Mineral Processing) Programme.

##### 29.91 Assessment of Professional Training

Professional Training shall be assessed as specified in the Special Regulations for the Professional Training and Tour of Mine Treatment Plants for the Bachelor of Engineering (Mineral Engineering) Programme.

Special Regulations for Professional Training and Tour of Mine Treatment Plants for the Bachelor of Engineering(Mineral Processing) Programme.

##### Preamble

Subject to the provisions of General Regulations 000 and 100 the following Professional Training Regulations shall apply to students on the Bachelor of Engineering (Mineral Engineering) programme.

##### 29.92 Structure

29.921 A student shall undergo supervised Professional Training of 8 weeks duration after level 200 (MIP 220).

29.922 A student shall undergo a 2 week Mine Tour after level 300 (MIP 320).

29.923 During the Professional Training students shall be subjected to such codes, procedures, laws, rules, and other regulations as applicable to the mining industry/organisation.

##### 29.93 Assessment

During each Professional Training period, students shall be visited 2 times at location of placement to be assessed by staff teaching on the programme.

A student's performance will be assessed by means of:  
Confidential report from the student's immediate supervisor at location of placement.

Professional Training reports and logbook submitted by the student at the end of each Internship period.

Professional Training visits by an assessor from the relevant Department of Faculty of Engineering and Technology.

The Professional Training session shall be evaluated as specified in 2.2. The ratio of Confidential Report marks to Professional Report marks to Professional Training Visits shall be based on the FET industrial training regulations.

Assessment of the Tour of Mine Treatment Plants shall be by submission of a written report. A student who has an incomplete grade shall be allowed to complete Professional Training at a time recommended by the Faculty.

##### 29.94 Repeating Professional Training

A student who fails to meet the requirements of

Professional Training shall be required to repeat the training at a time recommended by the Faculty.

### 30.0 Special Regulations for Bachelor's Degree in Geomatics (BGeom)

#### Preamble:

Subject to the provisions of the General Regulations 000 and 200, the following Faculty Special Regulations for the Bachelor of Geomatics Degree shall apply.

#### 30.20 Entrance Requirements

10.21 Admission into the Bachelor of Geomatics Degree Programme shall be as stipulated in the

#### 30.22 General Regulations

30.22 Admission into Level 100 of the BGeom Degree Programme shall be a minimum requirement of BGCSE with a D grade in English and a C grade in Mathematics and Physics and any one of Chemistry or Biology or a minimum of Grade B in Science Double Award.

30.23 Admission into Level 200 of the Bachelor of Geomatics Degree Programme shall be as stipulated in the General Admission Regulations.

30.24 Applicants who are in possession of an appropriate Diploma in Geomatics, Land Surveying, Cartography, GIS, or equivalent and have GPA of at least 2.5 or its equivalent may be admitted directly into Level 200 of the Degree Programme.

30.25 Admission into Level 200 of the BGeom Degree Programme shall be upon satisfactory completion of Level 100 of the Bachelor of Science General Degree of the Faculty of Science with at least C grades in Mathematics and Physics.

30.26 Applicants in possession of an appropriate "A" level qualification with at least C grades in Mathematics and Physics maybe exempted from taking Mathematics and Physics from the Faculty of Science and may be admitted into Level 200 but will take Level 100 Geomatics courses.

30.27 A student admitted directly to Level 200 Geomatics who has not completed Level 100 Geomatics courses must take them during their first year at the University of Botswana.

#### 30.30 Programme Structure

The programme for the degree in Geomatics will be a single major programme that will extend over 8 semesters of Full time studies. It shall consist of a single subject called Geomatics consisting of the courses shown below:

#### 30.40 Degree Structure

10.41 Level 100 shall consist of the following courses:

#### Semester One

**MAT111** Introductory Mathematics 1 (4 credits, core)

**PHY111** Geometrical Optics, Mechanics, Vibrations and Waves (3 credits, core)  
**PHY119** Physics Practical 1.1 (1 credit, core)  
**CGB111** Geomatics I (4 credits, core)  
 In addition students will take the following GEC Courses  
**COMS131** Communication and Academic Literacy (3)  
**ICT121** Computer Skills Fundamentals (2)

#### Semester Two

**MAT122** Introductory Mathematics 11 (4 credits, core, pre-req. MAT111)  
**PHY121** Electricity and Magnetism, Modern Physics (3 credits, core, pre-req. PHY111)  
**PHY129** Physics Practicals 1.2 (1 credit, core, pre-req. PHY119)  
**CGB121** Geomatics II (4 credits, core, pre-req. CGB111)

In addition students will take the following GEC Courses

**COMS132** Communication and Academic Literacy II (3)  
**ICT122** Computer Skills Fundamentals

Students will also take the following winter course:

**CGB122** Survey Camp I (2 credits, core, pre-req. CGB111, CGB121, 2 weeks)

Level 200 shall consist of the following courses:

#### Semester Three

**MAT271** Introduction to Mathematical Statistics (3 credits, core)  
**MAT291** Engineering Mathematics I (3 credits, core)  
**CSI241** Structured Programming (4 credits, core)  
**CGB213** Principles of Cartography (3 credits, core)  
**CGB211** Elements of Photogrammetry (3 credits, core)  
**URP200** Introduction to Town Planning (2 credits, core)

#### Semester Four

**MAT292** Engineering Mathematics II (3, core, pre-req. MAT291)  
**CGB221** Digital Photogrammetry (3, core)  
**CGB222** Theory of survey adjustments (3 credits, core, pre-req. MAT271, CGB121)  
**CGB223** Digital Cartography (3, core, pre-req. CGB213)  
**CGB224** Programming for Geomatics (3 credits, core, pre-req. CSI241)

The students will also take the following winter course:

**ITB200** Industrial Training (4 credits, core, 8 weeks)

10.42 Level 300 Shall consist of the following courses:

#### Semester Five

**MAT391** Engineering Mathematics III (3, core)  
**CGB311** Engineering Surveying (3, core, pre-req. CGB121, CGB222)  
**CGB312** Geodesy I (3, core)  
**LAW354** Land Law for Geomatics (3, core)  
**ENV330** (3, exempt from pre-req. ENV215)

#### Semester Six

**CGB321** Introduction to Land Administration (3, core, pre-req. CGB313)  
**CGB322** Principles of GIS (3, core, pre-req. CGB213, CGB223)  
**CGB323** Satellite Positioning Systems (3 credits, core, pre-req. CGB312)  
**CGB324** Geodesy II (3, core, pre-req. CGB312)  
**CSI362** Database Concepts (3, core)

In addition students will take the following winter courses:

**ITB300** Industrial Training II (4 credits, core, 8 weeks)

**CGB325** Survey Camp II (2 credits, core, pre-req. CGB323, CGB324, 2 weeks)

10.43 Level 400 shall consist of the following courses:

#### Semester Seven

**CGB411** Research Project I (3, core)  
**CGB412** Spatial Data Modelling and Analysis (3, core, pre-req. CGB322)  
**CGB413** Advanced Land Administration (3, core, pre-req. CGB321)

In addition the students will choose 2 options from the following:

**CGB414** Remote Sensing Applications (3, option, pre-req. CGB221)  
**CGB415** Advanced Cartographic Visualisation (3, option, pre-req. CGB223)  
**CGB416** GIS Design and Implementation (3 credits, option, pre-req. CSI362 & CGB322)  
**CGB417** Digital Image Processing (3, option, pre-req. CGB221)  
**CGB418** Principles and Practice of SDI Development (3, option)

#### Semester Eight

**CBB529** Professional Ethics (3, core)  
**CBB521** Contract Administration (2, core)  
**CGB421** Research Project II (3, core)  
**CGB422** Cadastral Surveying Practice (3 credits, core, pre-req. CGB413)  
**CGB423** GIS Applications (3, core, pre-req. CGB224)

In addition students will choose any 2 options from the following:

**CGB424** Special Studies in Land Administration (3 option, pre-req. CGB413)  
**CGB425** Location-based Services (2, option, pre-req. CGB224)  
**MIN326** Mining Surveying (3 option, pre-req. CGB121)

10.45 A course may consist entirely of





fieldwork, project work, practical work, design, and seminars. In addition to work during the semester, a subject may include prescribed fieldwork or assignments during the vacation periods.

### 30.50 Assessment

30.51 Continuous assessment in courses shall be based on tests and assignments, and where applicable laboratory reports and field reports. The ratio between tests and assignment shall be 1:1.

30.52 The ratio of continuous assessment to formal examination shall be 2:3.

30.53 A project shall be evaluated by continuous assessment, oral presentation and/or demonstration and a written report. The ratio of the marks for continuous assessment, presentation assessment and written report shall be 2:1:1.

### 30.60 Progression from Semester to Semester General Regulation 00.90 shall apply.

### 70.70 Award of the Degree

10.71 General Regulation 00.85, shall apply. (A minimum of 139 credits).

72.72 Classification of the degree shall be in accordance with the provisions of General Regulation 20.4.

### 40.0 Special Regulations for Bachelor's Degree in Land Management (BLM)

#### Preamble:

Subject to the provisions of the General Regulations 000 and 200, the following Faculty Special Regulations for the Bachelor of Land Management Degree shall apply.

#### 40.20 Entrance Requirements

40.21 Admission into the Bachelor of Land Management Degree Programme shall be as stipulated in the General Regulations 20.2.

40.22 Admission into Level 100 of the BLM Degree Programme shall be a minimum requirement of BGCSE with a D grade in English and a C grade in Mathematics,

40.23 Admission into Level 200 of the Bachelor of BLM Degree Programme shall be as stipulated in the General Admission Regulations.

40.24 Mature Age Entry Scheme and Recognition of Prior Learning admission shall be stipulated in the General Academic regulation 00.52

40.25 Applicants with an appropriate Diploma in Land Management, Land Administration, Estates Management, Geomatics, Land Surveying, Cartography, GIS, or equivalent and have GPA of at least 3.0 or its equivalent may be admitted directly into Level 200 but will take any Level 100 missing courses if necessary.

40.26 A student admitted directly to Level

200 BLM who has not completed Level 100 Geomatics courses must take them during their first year at the University of Botswana.

### 40.30 Programme Structure

The programme for the degree in Land Management will be a single major programme that will extend over 8 semesters of Full time studies. It shall consist of a single subject called Land Management consisting of the courses shown below:

### 40.40 Degree Structure

15.41 Level 100 shall consist of the following courses:

#### Semester One

- ECO111** Basic Microeconomics (3 credits, core)
- STA101** Mathematics for Business and Social Sciences 1, (3 credits, core)
- LAW131** Introduction to Law (3)
- CGB111** Geomatics I (4 credits, core)

In addition students will take the following GEC Courses

- COMS131** Communication and Academic Literacy (3)
- ICT121** Computer Skills Fundamentals (2)

#### Semester Two

- BLM121** Principles of Valuation (3,credits, core)
- BLM122** Land Economics (3 credits, core)
- ECO112** Basic Macroeconomics (3 credit, core)
- STA102** Mathematics for Business and Social Science II (3 credits, core, pre-req. STA101)

In addition students will take the following GEC Courses

- COMS132** Communication and Academic Literacy II (3)
- ICT122** Computer Skills Fundamentals (2)

Level 200 shall consist of the following courses:

#### Semester Three

- BLM211** Methods of valuation (3 credits, core)
- URP200** Introduction to Town Planning (2 credits, core)
- LAW354** Land Law for Geomatics (3credits, core)
- MGT100** Principles of Management (3 credits, core)
- STA111** Elementary Statistics (3 credits, core)

GEC in area 3/4/5/6

#### Semester Four

- CGB321** Introduction to Land Administration (3 credits, core)
- CGB322** Principles of GIS (3 credits, core)
- CCB323** Construction Principles (3 credits, core)
- MGT200** Organisation Design and Development (3 credit, core)
- PAD202** Public Administration in Botswana

(3 credits, core)

GEC in Area 3/4/5/6 (2 credits)

The students will also take the following winter course:

**ITB200** Industrial Training (4 credits, core, 8 weeks)

15.42 Level 300 Shall consist of the following courses:

#### Semester Five

- FIN305** Principles of Real Property Finance (3 credits, core)
- BLM312** Statutory Valuations (3 credits, core)
- BLM313** Remote Sensing for Land Management (3 credits, core)
- GEC279** eGovernance (3 credits, core)
- URP303** Housing Studies (2 credits)

#### Semester Six

- BLM321** Tribal Land Management (3 credits, core)
- BLM322** Estates Management and Agency (3 credits, core)
- BLM323** Project Planning and Implementation (3 credits, core)
- BLM324** Computer Application in Land Administration (3 credits, core)
- Elective (3 credits)

In addition students will take the following winter courses:

**ITB300** Industrial Training II (4 credits, core, 8 weeks)

15.43 Level 400 shall consist of the following courses:

#### Semester Seven

- CGB411** Research Project I (3 credit, core)
- CGB413** Advanced Land Administration (3 credit, core)
- BLM411** Alternative Dispute Resolution in Land Administration (3 credits, core)

In addition the students will choose 2 options from the following:

- BLM412** Real Estate Development (3 credits, option)
- BLM413** Property Management (3 credits, option)
- CGB416** GIS Design and Implementation (3 credits, option)
- CGB418** Principles and Practice of SDI Development (3 credits, option)

#### Semester Eight

- BLM421** Real Property Investment Appraisal (3, core)
- CBB529** Professional Ethics (3 credits, core)
- CGB421** Research Project II (3, core)
- CBB521** Contract Administration (2 credits, core)

In addition students will choose any 2 options from the following:

**CGB424** Special Studies in Land

- Administration (3 option, pre-req. CGB413)
- CBB527** Facilities Management (2 credits, option)
- CGB422** Cadastral Surveying Practice (3 credits, option)

15.45 A course may consist entirely of fieldwork, project work, practical work, design, and seminars. In addition to work during the semester, a subject may include prescribed fieldwork or assignments during the vacation periods.

#### 40.50 Assessment

15.51 Continuous assessment in courses shall be based on tests and assignments, and where applicable laboratory reports and field reports. The ratio between tests and assignment shall be 1:1.

40.52 The ratio of continuous assessment to formal examination shall be 2:3.

40.53 A project shall be evaluated by continuous assessment, oral presentation and/or demonstration and a written report. The ratio of the marks for continuous assessment, presentation assessment and written report shall be 2:1:1.

#### 40.60 Progression from Semester to Semester General Regulation 00.90 shall apply.

#### 40.70 Award of the Degree

40.71 General Regulation 00.85, shall apply. (A minimum of 144 credits).

40.72 Classification of the degree shall be in accordance with the provisions of General Regulation 20.4.

#### 50.0 Departmental Special Regulations for the Diploma in Mining Engineering

Subject to the provisions of General Regulations 000 and Faculty Special Regulations 110 for Diploma Programmes, the following Special Regulations shall apply:

#### 50.10 Entrance Requirements

50.11 The normal minimum entrance requirements to the Diploma in Mining Engineering Programme shall be the Botswana General Certificate of Secondary Education (BGCSE) or its equivalent, with passes in Mathematics and at least 1 Science subject.

50.12 Preference will be given to candidates with relevant industrial experience.

#### 50.13 Medical requirements are:

a) Applicants must be in possession of a satisfactory medical certificate required under University Regulations Governing Admissions (Regulation 1.41) and must also comply with the health and fitness requirements in accordance with Regulations 91 and 92 of the Mines, Quarries, Works and Machinery Regulations [CAP. 44:02];

b) A student who becomes permanently medically unfit to be employed at a mine as specified in the Mines, Quarries, Works and Machinery Regulations [CAP. 44:02] will be required to withdraw from the Programme.

#### 50.20 Programme Structure

116.21 The Programme will be a Single Major that will normally extend over 6 semesters of full-time study, of which 40 weeks shall be spent on Industrial Training. It shall contain 1 subject called Mining Engineering consisting of courses shown below.

50.22 Students who have been in full-time employment within the mining sector may be exempted from part or all of the Industrial Training requirements at the discretion of the Departmental Board.

#### Level 100

#### Diploma in Mining Engineering Semester 1

##### Core Courses

- CMD111** Introduction to Mining Engineering (2)
- CBD112** Introduction to Engineering Drawing (2)
- CGD111** Plane Surveying (3)
- SED111** Engineering Science (2)
- SMD111** Mathematics 1 (2)
- COMS131** Communication and Academic Literacy (3)
- ICT121** Computer Skills Fundamentals (2)

#### Semester 2

##### Core Courses

- CMD121** Mining Methods (3, pre-req. CMD111)
- GE0104** Introduction to Geology for Mining Engineering (2)
- CMD123** Mining Safety and Health (2)
- SMD121** Mathematics II (2)
- CMD124** Introduction to Mineral Processing (2)
- COMS131** Communication and Academic Literacy (3)
- ICT121** Computer Skills Fundamentals (2)

In addition all students shall select at least 1 from the following 2-credit options:

- MED120** Engineering Materials
- CMD125** Mine Ventilation

Industrial training shall be taken prior to Level 200 and shall consist of the following courses:

- ITD100** Industrial Training (6 shifts/week, 48 weeks, 15, core)
- CMD200** Mine Tour (1, core, pre-req. CMD 111, CMD 121)

#### Level 200

#### Diploma in Mining Engineering Semester 3

##### Core Courses

- CMD211** Advanced Mining Methods and Production Control (2, pre-req.

CM111, CMD121 )

- CMD212** Principles of Ground Control (2, pre-req. CMD111, CMD 122)
- CMD213** Mining Plant, Equipment Selection and Maintenance (2)
- CMD214** Explosives, Drilling and Blasting (3)
- CMD215** Computer Applications in Mining Problems (2)

In addition all students shall select at least 1 from the following 2-credit options:

- CMD216** Small Scale Mining (pre-req. CMD111, CMD124)
- CMD217** Mine surveying (pre-req. CGD111)
- CMD218** Mining Environmental Management
- CBD217** Soil Mechanics I

#### Semester 4

##### Core Courses

- CMD221** Mine Planning and Design (2, pre-req. CMD 211)
- CMD222** Mining, Health and Safety and Environmental Laws (2)
- CMD223** Mine Supervision and Management (2)
- CMD224** Project (3)

In addition all students shall select at least 2 from the following options:

- CMD225** Advanced Explosives, Drilling and Blasting (2, pre-req. CMD214)
- CMD226** Advanced Mine Geotechnics (2, pre-req. CMD212)
- CMD227** Introduction to Mine Design Software (2, pre-req. CMD121, CMD214, Co-requisite CMD221) (2)
- CMD228** Extractive Metallurgy (2, pre-req. CMD124)
- CMD229** Ore Reserve Management (3, pre-req. CMD122)

#### 50.30 Assessment

50.31 All courses shall be assessed as stipulated in the Faculty Special Regulation 11.30.

#### 60.0 Special Regulations for Diploma in Mineral Engineering

#### Preamble

Subject to the provisions of General Regulations 000 and 100, Faculty Special Regulations 110 and Faculty Industrial Training Regulations for Diploma Programmes the following Special Regulations shall apply.

#### Objectives of the programme.

The programme is designed to provide the mining Industry with competent and safety conscious Engineering Technicians. Further to this, the programme will:

- Provide students with a broad grounding in the theory and practical aspects of science, engineering and ancillary disciplines relating to mining.
- Equip students with knowledge and skills that will add value in the mining related operations.
- Facilitate students progressing into



technical and supervisory roles.

iv) Strengthen the communication skills and supervisory potential of students

v) Facilitate the process of life-long learning.

vi) Highlight best practice in areas of relevance to the minerals industry, including issues of sustainable development.

#### 60.10 Entrance Requirements

60.11 The normal minimum entrance requirements to the Diploma in Mineral Engineering Programme shall be the Botswana General Certificate of Secondary Education (BGCSE) or its equivalent, with passes in Mathematics and at least one science subject.

60.12 All candidates are required to pass an aptitude test.

60.13 Preference will be given to candidates with relevant industrial experience.

#### 60.20 Medical Requirements

60.21 The satisfactory medical certificate required under General Regulation 1.41 must also comply with the requirement for being fit to be employed at a mine in accordance with Regulations 91 and 92 of the Mines, Quarries, Works and Machinery Regulations [CAP. 44:02].

60.22 A student who becomes permanently medically unfit to be employed at a mine as specified in the Mines, Quarries, Works and Machinery Regulations [CAP. 44:02] will be required to withdraw from the programme.

#### 60.30 Programme Structure

60.31 The programme shall consist of a single subject Mineral Engineering.

60.32 The full-time programme shall extend over three years, one of which shall be spent on industrial training.

60.33 If taken part-time the programme must be completed within 10 semesters.

60.34 Students who have been in full-time employment within the mining sector may be exempted from part or all of the industrial training requirements at the discretion of the Departmental Board.

60.35 Level 100 shall consist of the following courses:

#### Semester 1

**CMD111** Introduction to Mining Engineering (Core, 2 Credits)  
**CBD112** Introduction to Engineering Drawing (Core, 2 Credits)  
**CGD 110** Plane Surveying (Core, 3 Credits)  
**SED111** Engineering Science (Core, 2 Credits)  
**SMD111** Mathematics I (Core, 2 Credits)  
**ICT121** Computer Skills Fundamentals  
**COM131** Communication and Academic Literacy (3)

#### Semester 2

**CMD121** Mining Methods (Core, 3 Credits)  
**GEO104** Introduction to Geology for Mining Engineering (Core, 2 Credits)  
**CMD123** Mining Safety & Health (Core, 2 Credits)  
**SMD 124** Mathematics II (Core 2, 2 Credits)  
**CMD124** Introduction to Mineral Processing (Core, 2 Credits)  
**COMS132** Communication and Academic Literacy (3)  
**ICT122** Computer Skills Fundamentals (2)

In addition all students shall select one from the following courses:

**MED120** Engineering Materials (Elective, 2 Credits)  
**CMD125** Mine Ventilation (Elective, 2 Credits)

60.36 Industrial training shall be taken prior to Level 200 and shall consist of the following courses:

**MPD100** Industrial Training (Core, 6 shifts/ week. 40 weeks, 15 Credits)

60.37 Level 200 shall consist of the following courses:

#### Semester 3

**MPD211** Process Mineralogy (Core, 3 Credits)  
**MPD212** Processing of Gold Ores (Core, 3 Credits)  
**MPD213** Comminution (Core, 3 Credits)  
**MPD214** Processing Plant, Equipment Selection and Maintenance (Core, 2 Credits)  
**CMD215** Computer Applications in Mining Problems (Core, 2 Credits)

In addition, all students shall select one from the following courses:

**CMD 218** Mining Environmental Management (Elective, 2 Credit)  
**CMD 216** Small Scale Mining (Elective, 2 Credits)

#### Semester 4

**MPD221** Coal Preparation (Core, 3 Credits)  
**MPD 222** Flotation (Core, 3 Credits)  
**MPD223** Processing of Diamonds (Core, 2 Credits)  
**MPD224** Project (Core, 3 Credits)  
**CMD228** Extractive Metallurgy (Core, 2 Credits)

In addition all students shall select one from the following courses:

**CMD222** Mining Health, Safety and Environmental Laws (Elective, 2 Credits)  
**CMD 223** Mine Supervision and Management (Elective, 2 Credits)

#### 60.40 Assessment

Assessment of all courses shall be in accordance with the Academic General Regulation 00.86

and Faculty Special Regulation for Diploma Programmes 1.30.

#### 60.50 Progression

Progression shall be in accordance with the Academic General Regulations 00.9.

#### 60.60 Industrial Training

Conduct of the Industrial Training shall be in accordance with the Faculty Special Regulations for Diploma programmes 1.80

#### 60.70 Award of the Diploma

The Diploma shall be awarded in accordance with the Special Faculty Regulations for Diploma programmes 1.70.

#### 70.0 Departmental Special Regulations for the Diploma in Land Management

Subject to the provisions of Academic General Regulations 000 and the Special Faculty of Engineering and Technology Regulations for Diploma 110, the following Special Departmental Regulations shall apply:

#### 70.10 Entrance Requirements

70.11 In line with the University of Botswana entrance qualifications (General Regulation 10.21(a), the minimum entrance requirements to the Diploma Programme shall be the Botswana General Certificate of Secondary Education (BGCSE) or its equivalent, with at least six subjects not below the grade E. (This being a special project, admission shall be reserved for in-service staff at the Ministry of Lands and Housing only).

70.12 Applicants with Certificate in Land Administration or equivalent from this University with a GPA of 2.5 or more may be admitted into Level 100 of the Diploma programme. They may also be exempted from taking certain courses with approval from the Head of Department.

#### 70.20 Programme Structure

117.21 The Programme will be a Single Major that will normally extend over 4 semesters of full-time study It shall include 8 weeks spent on Industrial Training during winter break. It shall contain 1 subject called Land Management consisting of courses shown below.

70.22 Students who have been in full-time employment within the Land Management sector may be exempted from part or all of the Industrial Training requirements at the discretion of the Departmental Board.

#### Level 100

#### Diploma in Land Management

#### Semester 1

#### Core and GEC Courses

**MGT100** Principles of Management (3 credits)  
**ECO111** Basic Microeconomics (3 credits)  
**DAB111** Business Mathematics and Statistics (3)  
**CGB111** Geomatics I (4 credits)  
**COMS131** Communication and Academic Literacy (3)

**ICT122** Computer Skills Fundamentals (2)

### Semester 2

#### Core and GEC Courses

**BLM121** Principles of Valuation (3 credits, core)  
**DAB214** Basic Statistics (3 credits, core)  
**ECO112** Basic Macroeconomics (3 credits, core)  
**GEC277** Law and Society in Botswana (3 credits, core)  
**COMS131** Communication and Academic Literacy (3)  
**ICT122** Computer Skills Fundamentals (2)

The students will also take the following winter course:

**ITB100** Industrial Training (4 credits, core, 8 weeks)

### Level 200

#### Diploma in Land Management

### Semester 3

#### Core Courses

**BLM211** Methods of Valuations (3 credits, core)  
**URP200** Town Planning (2 credits, core)  
**LAW354** Land Law for Geomatics (3 credits, core)  
**DAB314** Management Information Systems (3 credits, core)  
**BLM122** Land Economics (3 credits, core)

In addition all students shall select at least 1 GEC in area 3/4/5/6

### Semester 4

#### Core Courses

**CGB321** Introduction to Land Administration (3 credits, core)  
**CGB322** Principles of GIS (3 credits, core)  
**CCB323** Construction Principles (3 credits, core)  
**BLM212** Alternative Dispute Resolution in Land Administration (3 credits, core)  
**PAD202** Public Administration in Botswana (3 credits, core)

### 70.30 Assessment

70.31 All courses shall be assessed as stipulated in the Faculty Special Regulation 11.30.

### 80.0 Departmental Special Regulations for the Certificate in Land Administration

Subject to the provisions of Academic General Regulations 000 and the Special Faculty of Engineering and Technology Regulations for Diploma 110, the following Special Departmental Regulations shall apply:

### 80.10 Entrance Requirements

118.11 Candidates must have obtained the Botswana General Certificate of Secondary Education (BGCSE) or its equivalent

118.12 Mature Entry Scheme: Candidates who do not meet the normal qualification but have JC or equivalent qualification and have attained

the age of 25 years and have minimum 2 years working experience in Land Administration or related areas may be admitted. (This being a special project, admission shall be reserved for officers at the Ministry of Lands and Housing only).

### 80.20 Programme Structure

118.21 The programme for the Certificate in Land Administration will be a single major programme that will extend over 2 semesters of full-time studies done during the winter break. It shall also consist of 1 year in-service project work to be conducted between August and May at the places of work. (This being a special project, admission shall be reserved for officers at the Ministry of Lands and Housing only).

The single subject called Certificate in Land Administration will consist of the courses shown below:

### Level 100

#### Certificate in Land Administration

### Semester 1

#### Core and GEC Courses

**CGC111** Introduction to Land Administration (3 credits)  
**CGC112** Planning and Environmental Studies (3 credits)  
**CGC113** Land Records and Information Management (3 credits)  
**COMS131** Communication and Academic Literacy (3)  
**ICT122** Computer Skills Fundamentals

In addition students will register for a one year project course CGC115 –Special project in industry (8 credits, core)

### Semester 2

#### Core and GEC Courses

**CGC122** Land Policies and Law (3 credits, core)  
**CGC123** Land Use Planning (3 credits, core)  
**CGC124** Land Surveying and Measurements (3 credits, core)  
**CGC125** Introduction to Public Administration (3 credits, core)  
**CGC127** Introduction to Valuation (3 credits, core)

## DEPARTMENT OF ELECTRICAL ENGINEERING

### Bachelor of Electrical and Electronic Engineering

#### Entrance Requirements

Admission to the B.Eng. (Electrical and Electronic) shall be as stipulated in Faculty Special Regulations 21.20. Applicants in possession of a Diploma in Electrical and Electronic Engineering, or its equivalent, with a minimum of Credit including a Credit in Mathematics, may be admitted directly into Level 200. Applicants in possession of a Higher Diploma in Electrical

and Electronic Engineering, or its equivalent, with a minimum of Credit including a Credit in Mathematics, may be admitted directly into Level 300.

### Level 300

### Semester 5

#### Core Courses

**MAT391** Engineering Mathematics III (3 pre-req. MAT 292)  
**EEB311** Network Theory (4) (pre-req. EEB221 & MAT 292)  
**EEB 315** Computer Programming (2)  
**EEB316** Electrical Measurements and Instrumentation I, (3) (pre-req. EEB221)  
**EEB 317** Principles of Telecommunications (3) (pre-req. MAT 292)

### Level 300

### Semester 6

#### Core Course

**MAT 392** Engineering Mathematics IV (3 pre-req. MAT 391)  
**EEB322** Digital Electronics I (3) (pre-req. EEB211)  
**EEB 323** Analogue Electronics (3) (pre-req. EEB221)  
**EEB 326** Electrical Machines I (3) (pre-req. EEB311)  
**EEB 327** Electromagnetic Field Theory (3) (pre-req. MAT 391)

### FOR INDUSTRIAL DESIGN STUDENTS:

**EEB328** Electronics for Designers (pre-req. EEB211)

### Level 400

### Semester 7

#### Core courses

**EEB418** Control Theory I (3) (pre-req. EEB311 & MAT 392)  
**MMB414** Engineering Management (3)

### Optional courses:

At least three from

**EEB411** Electronic Devices and Circuits (3) (pre-req. EEB323)  
**EEB412** Digital Electronics II (3) (pre-req. EEB322)  
**EEB413** Power Generation and Distribution (3) (pre-req. EEB326 & MAT 392)  
**EEB 414** Electrical Machines II (3) (pre-req. EEB326 & MAT 392)  
**EEB415** Digital Communication and Telephony (3) (pre-req. EEB317)  
**EEB416** Electrical Measurements and Instrumentation II (3) (pre-req. EEB316)  
**EEB417** Microprocessor Based Systems (3) (pre-req. EEB322)

### Level 400

### Semester 8

**ITB400** Industrial Training II [Vacation, 20 weeks] (10 Credits, Core, pre-req. ITB 200)



### Level 500

#### Semester 9

##### Core courses

**EEB510** Project I (3) (pre-req. EEB316, EEB327 & EEB418) and either (EEB411 & EEB412), or ( EEB413, EEB414)

##### Optional courses:

At least three from

**EEB511** Control Theory II (3) (pre-req. EEB418)  
**EEB512** Digital Signal Processing I (3) (pre-req. MAT392)  
**EEB513** Analogue Electronic System Design, (3) (pre-req. EEB323)  
**EEB514** Process Instrumentation (3) (pre-req. EEB416 & EEB418)  
**EEB515** Power System Analyses (3) (pre-req. EEB413 & EEB414)  
**EEB516** Power Electronics (3) (pre-req. EEB323)  
**EEB517** Computer Aided Electrical Machine Analysis (3) (pre-req. EEB414)

##### Optional Courses

**EEB518** Guided Waves (3) ( pre-req. EEB327)  
**EEB 519** Computer Architecture and Design (3) (pre-req. EEB 417)

### Level 500

#### Semester 10

##### Core courses

**EEB 520** Project II (3, pre-req. EEB 510)

##### Optional courses:

At least three from

**EEB522** Digital Signal Processing II (3, pre-req. EEB 512)  
**EEB523** Digital Electronic System Design (3, pre-req. EEB 412)  
**EEB524** Process Control Systems (3, pre-req. EEB 511 & EEB514)  
**EEB525** Power Systems (3, pre-req. EEB 413)  
**EEB 526** Electrical Machines and Drives (3, pre-req EEB 516)  
**EEB 527** Computer Aided Power Systems Analysis (3, pre-req. EEB515)  
**EEB 528** Antennas and Propagation (3, pre-req. EEB518)  
**EEB 529** Computer Networks (3, pre-req. EEB 519)

##### Assessment

As per Special Faculty Regulations 21.40.

##### Progression

As per General Regulations 00.90.

##### Award of the Degree

The award of the BEng. in Electrical and Electronic Engineering shall be in accordance with the Faculty Special regulations 21.80.

##### Combined Bachelor of Engineering (B-Eng Major)

##### Degree Structure

The Major shall be a minimum of 53 credits over 10 semesters of full-time study. The major may

be combined with a second major or minor. The curriculum for Level 100 and 200 shall be as stipulated in the Faculty Special Regulations 21.30.

### Level 300

#### Semester 5

##### Core Courses

**MAT391** Engineering Mathematics III (3, pre-req MAT 291)  
**EEB 311** Network Theory (4) (pre-req. EEB221 & MAT292)  
**EEB 316** Electrical Measurements and Instrumentation I, (3) (pre-req. EEB221 )

### Level 300

#### Semester 6

##### Core courses

**MAT392** Engineering Mathematics IV (3,pre-req. MAT 391)

##### Optional courses:

At least two from

**EEB322** Digital Electronics I (3) (pre-req. EEB211)  
**EEB323** Analogue Electronics (3) (pre-req. EEB211)  
**EEB326** Electrical Machines I (3) (pre-req. EEB311)  
**EEB327** Electromagnetic Field Theory (3) (pre-req. MAT391)

### Level 400

#### Semester 7

##### Core courses

**EEB418** Control Theory I (3) (pre-req. EEB 311 & MAT392)

##### Optional courses:

At least two from

**EEB411** Electronic Devices and Circuits, (3) (pre-req. EEB323)  
**EEB412** Digital Electronics II (3) (pre-req. EEB322)  
**EEB413** Power Generation and Distribution, (3) (pre-req. EEB326 & MAT392)  
**EEB414** Electrical Machines II (3) (pre-req. EEB326 & MAT392)  
**EEB417** Microprocessor Based Systems, (3) (pre-req. EEB322)

### Level 400

#### Semester 8

**ITB400** Industrial Training II [Vacation, 20 weeks] (10, Core)

### Level 500

#### Semester 9

##### Core courses

**EEB510** Project I, (3) (pre-req. EEB316, EEB327 & EEB418) and either (EEB411 & EEB412) or (EEB413 & EEB414)

##### Optional courses:

At least two from

**EEB512** Digital Signal Processing I (3) (pre-req. MAT392)

**EEB513** Analogue Electronic System Design (3)(pre-req. EEB323)  
**EEB514** Process Instrumentation (3) (pre-req. EEB416 & EEB418)  
**EEB515** Power System Analysis (3) (pre-req. EEB413 & EEB414)  
**EEB 516** Power Electronics (3) (pre-req. EEB323)

### Level 500

#### Semester 9

##### Core courses

**EEB 520** Project II (3 , pre-req. EEB 510)

##### Optional courses:

At least two from

**EEB522** Digital Signal Processing II (3, pre-reqEEB 512)  
**EEB523** Digital Electronic System Design (3, pre-req. EEB 412)  
**EEB524** Process Control Systems (3, pre-req. EEB 511 & EEB514)  
**EEB525** Power Systems (3, pre-req. EEB 413)  
**EEB526** Electrical Machines and Drives, (3, pre-req. EEB 516)  
**EEB529** Computer Networks (3, pre-req. EEB 519)

##### Assessment

As per Special Faculty Regulations 21.40.

##### Progression

As per General Regulations 00.90.

##### Award of the Degree

The award of the BEng. in Electrical and Electronic Engineering shall be in accordance with the Faculty Special regulations 21.80.

##### Combined Bachelor of Engineering (B-Eng Minor)

##### Degree Structure

The Minor shall be a minimum of 23 credits over 8 semesters of full-time study. The minor may be combined with a major or minor. The curriculum for Level 100 shall be as stipulated in the Faculty Special Regulations 21.30.

### Level 200

#### Semester 3

##### Core Courses

**EEB216** Electrical Principles (2)  
**MMB211** Engineering Drawing (2)

### Level 200

#### Semester 4

##### Core Courses

**EEB 226** AC Circuit Principles, (2)

### Level 300

#### Semester 5

##### Core Courses

A minimum of 5 credits from:

**EEB311** Network Theory (4) (pre-req. EEB221 & MAT292)  
**EEB315** Computer Programming (2)  
**EEB316** Electrical Measurements and Instrumentation I (3) (pre-req. EEB211)



**EEB317** Principles of Telecommunications  
(3)(pre-req. MAT292)

### Level 300

#### Semester 6

##### Core Courses

A minimum of 5 credits from:

**EEB322** Digital Electronics I (3)  
(pre-req. EEB211)

**EEB323** Analogue Electronics (3)  
(pre-req. EEB211)

**EEB326** Electrical Machines I (3)  
(pre-req. EEB311)

**EEB327** Electromagnetic Field Theory (3)  
(pre-req. MAT391)

### Level 400

#### Semester 7

##### Optional Courses

A minimum of 5 credits from:

**EEB411** Electronic Devices and Circuits, (3)  
(pre-req. EEB211)

**EEB412** Digital Electronics II (3)  
(pre-req. 322)

**EEB413** Power Generation and  
Distribution, (3) (pre-req. EEB326  
& MAT392)

**EEB414** Electrical Machines II (3)  
(pre-req. EEB326 & MAT392)

**EEB417** Microprocessor Based Systems (3)  
(pre-req. EEB322)

### Higher Diploma in Electrical and Electronic Engineering

#### Entrance Requirements

Diploma in Electrical and Electronic Engineering or its equivalent. At least one year of industrial work experience in the field of Electrical and Electronic Engineering.

### Level 100

#### Semester 1

##### Core Courses

**SMH 111** Mathematics 1 (2)

**EEH 111** Circuit Theory (3)

**EEH 112** Analogue Electronics (3)

**EEH 113** Measurement and Instrumentation  
(2)

**EEH 114** Computer Aided Electrical Drafting  
(2)

### Level 100

#### Semester 2

##### Core Courses

**EEH 129** Mathematics II (2, pre-req. SMH 111)

**EEH 121** Network Theory (3)

**EEH 122** Digital Electronics (2)

**EEH 123** Computer Programming (2)

**EEH 124** Electromagnetic Field Theory (2)

**EEH 125** Electrical machines 1 (2)

### Level 200

#### Semester 3

##### Core courses

**EEH 211** Control Theory (3)

##### Optional courses

At least four from

**EEH212** Fundamentals of Computer

Networks, (3)

**EEH 213** Process Instrumentation (3)

**EEH 214** Analogue and Digital  
Communication (3, pre-req.  
EEH 124)

**EEH215** Troubleshooting Digital Systems, (3)

**EEH 216** Electrical Machines II (3)

**EEH 217** Power Transmission and  
Distribution (3)

**EEH 218** Power Electronics (3)

**EEH 219** Electrical Power Production (3)

### Level 200

#### Semester 4

##### Core courses

**EEH 221** Project (2)

**EEH 222** Electrical Maintenance and Repair  
(2)

##### Optional courses

At least three from:

**EEH223** Motor Drive Applications  
(3, pre-req. EEH 125, EEH 216)

**EEH 224** Computer Engineering  
(3, pre-req. EEH 122)

**EEH225** Process Control Systems  
(3, pre-req. EEH 213)

**EEH226** RF Transmission and Propagation  
(3, pre-req. EEH 124)

**EEH227** Audio Visual Engineering (3)

**EEH228** Power System Protection (3)

**MDH225** Renewable Energy (3)

All courses shall be assessed as stipulated in the Faculty Regulation 13.30.130 In addition to the above, the department of Electrical and Electronic Engineering also offers the following General Education Courses (GEC)

**GEC 255** Electrical Energy and Rural  
Development (2 )

**GEC354** Domestic Use of Electrical  
Energy (2)

**GEC355** Telecommunications and Society

## DEPARTMENT OF INDUSTRIAL DESIGN AND TECHNOLOGY

### 90.0 Special Regulations for the Degree in Bachelor of Design

Subject to the provisions of the General Regulations 000, 100 and 200, the following Special Regulations shall apply:

#### 90.10 Entrance Requirements

90.11 Admission into Level 100 of the Bachelor of Design Degree Programme shall be as stipulated in the General Admission Regulations.

90.12 Admission into Level 100 shall be possession of BGCSE/equivalent with a minimum of grade D in English Language and a grade C in Mathematics, Physics and Chemistry or a minimum of grade BB in Science Double Award or equivalent. OR

90.13 Admission into Level 200 of the Bachelor of

Design Degree Programme shall be as stipulated in General Admission Regulations.

90.14 Admission into Level 200 of the BDes Degree Programme shall be satisfactorily completion of level 100 of Bachelor of Science with at least the equivalent of C grades in Mathematics and Physics. OR

90.15 Applicants in possession of an appropriate A-Level qualification with at least C grades in Mathematics and any one of Physics, Chemistry, or Design and Technology may be admitted directly into Level 200 of the Degree Programme. OR

90.16 Applicants in possession of an appropriate Diploma may be admitted directly into Level 200 of the Degree Programme. OR

90.17 For admission into Level 300 of the Degree Programme, applicants must have an appropriate Higher (or a 3 Year) Diploma with Mathematics, Physics, Chemistry and Engineering Drawing.

#### 90.20 Degree Structure

90.21 Level 100 courses shall be as specified in the Faculty of Science Special Regulations for the Bachelor of Science Degree.

90.22 Level 200 shall consist of the following courses:

#### Semester 3

##### Core Courses

**DTB210** Elements of Design (3)

**DTB211** Workshop Technology I (2)

**MMB211** Engineering Drawing (2)

**CCB211** Engineering Materials (2)

**CCB212** Statics (2)

**EEB211** Electrical Principles I (2)

#### Semester 4

**DTB220** Designing Artifacts  
(3, pre-req. DTB210)

**DTB221** Workshop Technology II  
(2, pre-req. DTB211)

**MMB221** Computer Aided Drafting  
(2, pre-req. MMB211)

**MMB222** Dynamics (2)

**CCB221** Strength of Materials (2)

**DTB222** Graphics (2)

90.23 Students registered for a Bachelor of Design Degree Programme shall undergo industrial training as specified under Departmental Special Regulations.

90.24 At Levels 300, 400 and 500 each student shall register for General Education Courses as prescribed by General Regulation 00.2124, Departmental prescribed number of core, optional and elective courses per semester, unless exempted.

90.25 The availability of optional and elective courses offered by a Department shall be at the discretion of the Department.

90.26 A student shall register for a Single Major



or a Combined Degree Programme in the third semester.

90.27 A subject may include courses consisting entirely of fieldwork, project work, practical work, and seminars. In addition to work during the semester, a subject may include prescribed fieldwork or assignments during the vacation periods.

#### 90.30 Assessment

90.31 Continuous assessment in Levels 200, 300, 400 and 500 courses shall be based on tests and/or assignments, and where applicable laboratory reports/field reports.

90.32 Except for a project and courses with 100 percent continuous assessment, the ratio of continuous assessment to end of semester examination shall be 2:3, unless otherwise specified in the Departmental Special Regulations.

#### 90.33 Project Assessment

a) A Design Project shall be assessed through documentation (folio, report and diary) of the Design Process and presentation. The ratio of marks for documentation to presentation shall be 2:1.

b) A Major Make and Evaluate Project shall be assessed through Product and its Evaluation and presentation. The ratio of marks for documentation to presentation shall be 2:1.

c) A Design and Make Project shall be evaluated as specified in Regulations 23.33a and 23.33b. 23.34 The Level 500 Project Report must be submitted to the co-coordinator at least 2 weeks before the beginning of the end of semester examinations.

90.35 Where a course includes a written final examination, a course with a credit value of 3 or more shall be examined by an end of semester examination of duration 2 hours, and 1 hour for a course with less than 3 credits.

90.36 Courses having a practical component or drawing that include a written examination shall be examined by an end of semester examination of duration 3 hours.

#### 90.37 Due Dates and Tests

a) Failure without good cause to submit an item of continuous assessment within 24 hours of the due date shall carry a penalty of 5 percentage marks per day. Failure to submit the assignment before the end of 1 week from the due date shall incur a zero mark.

b) A student who fails to sit a continuous assessment test without documented valid reason shall score a zero mark for that test. A student absent from a test with documented legitimate reason shall be entitled to a special test.

#### 90.40 Departmental Regulations for the Bachelor of Design (Design and Technology Education) Degree

Subject to the provisions of the General Regulations 000 and 200 and the Faculty Special Regulation 230, the following Departmental Regulations for the Bachelor of Design (Design and Technology Education) Degree shall apply:

#### 90.10 Entrance Requirements

90.11 Admission to the Bachelor of Design (Design and Technology Education) Degree shall be as stipulated in Faculty Special Regulation 23.10, i.e., 23.11 to 23.17.

#### 90.20 Programme Structure

90.21 The Programme shall consist of the Major Subject called 'Design and Technology' and the Minor Subject called Education.

90.22 The curriculum for Levels 100 and 200 shall be stipulated in the Faculty Special Regulations.

#### Level 300

##### Design and Technology Education Semester 5

##### Core Courses

DTB311	Design, Technology and Society (2)
DTB312	Aesthetics (2)
DTB313	Ergonomics (2)
DTB314	Materials Processing (3)
EDT311	Principles of Learning (2)

In addition, all students shall select at least two of the following optional courses:

DTB315	Internet for Designers (2)
DTB317	Textiles and Leather Technology (2)
HEE345	Food Technology (3)

#### Semester 6

##### Core Courses

DTB 321	Computer Aided Design (3)
EEB328	Electronics for Designers (3) (pre-req. EEB211)
DTB323	Pneumatic Controls (2)
DTB324	Product Analysis (3)
EDT321	Teaching Methodology (2)
DTB300	Industrial Training (Vacation, 7 Weeks) (3 Credits)

#### Level 400

##### Design and Technology Education Semester 7

##### Core Courses

DTB410	Computer Based Manufacture (2)
DTB411	Hydraulic Controls (2)
DTB412	Product Design I (3)
EDT411	Educational Technology (2)

In addition, all students shall select at least two of the following optional courses:

DTB413	Special Human Needs (2)
DTB414	School Design and Technology Projects (2)
DTB415	Design for Sustainable Development (2)
DTB416	Interior Design (2, pre-req. DTB312) Teaching Practice
ETP300	School Teaching Practice (Vacation, 7 weeks) (3)

#### Semester 8

##### Core Courses (Both 2 credits)

DTB422	Product Design II (2)
DTB423	Minor Design and Make Project (2)

In addition, all students shall select at least two of the following optional courses:

EDT421	Educational Testing and Evaluation (2)
EDT422	Curriculum Studies (2)
EDT423	Philosophy of Education (2)

In addition, all students shall select at least one of the following optional courses:

DTB421	Ceramics, Glass and Stone Technology (2)
MMB420	Applied Thermodynamics (2)
DTB424	Safety and First Aid (2)

#### Level 500

##### Design and Technology Education Semester 9

##### Core Courses

DTB511	Major Design Project (3)
EDT511	Research Project in D&T Education (3)

In addition, all students shall select at least two of the following optional courses:

EDT512	School Organisation and Management (2)
DTB512	Design and Technology School Curriculum Innovations (2)
DTB513	Product Design III (2)
DTB514	Industrial Product Design (2)
DTB515	Microcomputer Controls (2)

#### Semester 10

DTB521	Major Make-and- Evaluate Project (3, core)
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In addition, all students shall select at least one of the following optional courses:

DTB522	Case Studies in Designing (2)
DTB524	Environmental Factors in Design (2)

In addition, all students shall select at least two of the following optional courses:

EFA500	School Management (2)
EFF430	Philosophical Analysis of Educational Concepts and Policies (3)
EFH500	Guidance and Counselling (3)
EFR500	Measurement and Evaluation (3)

#### 28.30 Assessment

28.31 For courses DTB220, DTB300, DTB312, DTB315, ETP400, DTB321, DTB413, DTB414, DTB416, DTB422, DTB423, DTB424, DTB511, DTB514, DTB521 and DTB522 the assessment mode shall be continuous assessment only.

28.32 Assessment for courses offered by other faculties, e.g. Education, will be as stipulated in their Faculty/Departmental Regulations.

### 90.50 Departmental Regulations for the Bachelor of Design (Industrial Design Degree)

Subject to the provisions of the General Regulations 000 and 200 and the Faculty Special Regulations 230 the following Departmental Regulations for the B Des. (Industrial Design) shall apply:

#### 90.51 Entrance Requirements

90.51 Admission to the Bachelor of Design Degree (Industrial Design) shall be as stipulated in Faculty Special Regulations 23.10, i.e., 23.11 to 23.17

#### 90.52 Degree Structure

90.52 The Programme shall consist of a single major subject called 'Industrial Design'.

90.53 The curriculum for Level 100 and 200 shall be stipulated in the Faculty Special Regulations.

#### Level 300 Industrial Design Semester 5

##### Core Courses

<b>DTB311</b>	Design, Technology and Society (2)
<b>DTB312</b>	Aesthetics (2)
<b>DTB313</b>	Ergonomics (2)
<b>IDB311</b>	Industrial Design: Concept and Practice (2)
<b>IDB312</b>	Design of Mechanisms and Structures (2)

In addition, all students shall select at least one of the following optional courses:

<b>IDB313</b>	History of Industrial Design (2)
<b>DTB315</b>	Internet for Designers (2)
<b>DTB317</b>	Textiles and Leather Technology (2)

#### Semester 6

##### Core Courses

<b>DTB324</b>	Product Analysis (3)
<b>EEB328</b>	Electronics for Designers (3) (pre-req. EEB211)
<b>IDB321</b>	Computer Aided 3-D Design (2)
<b>IDB322</b>	Product Design (2)

In addition, all students shall select at least one of the following optional courses:

<b>IDB323</b>	Basic Control Systems (2)
<b>IDB324</b>	Ceramics, Glass and Stone Technology (2)
<b>MGT303</b>	Entrepreneurship and New Business Formation (3)
<b>MGT325</b>	Industrial Environment (2)

#### Industrial Training

<b>DTB300</b>	Industrial Training (Vacation 7 Weeks, 3 Credits)
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#### Level 400 Industrial Design Semester 7

<b>IDB411</b>	Computer Aided Manufacture (3)
<b>IDB412</b>	Research Methods in Design (2)
<b>IDB413</b>	Minor Project (3)

In addition, all students shall select at least two of the following optional courses:

<b>DTB415</b>	Design for Sustainable Development (2)
<b>DTB416</b>	Interior Design (2)
<b>IDB414</b>	Eco-Product Design (2)
<b>IDB415</b>	Universal Design (2)

#### Semester 8

<b>IDB400</b>	Industrial Training for Industrial Design (20 Weeks, 10 Credits)
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#### Level 500 Industrial Design

##### Semester 9

<b>IDB 511</b>	Major Design Project (3)
<b>IDB 512</b>	Contemporary Issues in Industrial Design (2)
<b>IDB 513</b>	Advanced Product Design (2)

In addition, all students shall select at least three of the following optional courses:

<b>IDB514</b>	Design Management (2)
<b>IDB515</b>	Occupational Health and Safety (2)
<b>IDB516</b>	Design Studies (2)
<b>IDB517</b>	Optimisation in Design (2)

#### Semester 10

<b>IDB521</b>	Major Make-and-Evaluate Project, (3)
<b>IDB523</b>	Professional Practice (2)

In addition, all students shall select at least two of the following optional courses:

<b>DTB522</b>	Case Studies in Designing (3)
<b>IDB522</b>	Design for Automation (3)
<b>IDB524</b>	Multimedia for Industrial Designers (3)
<b>IDB525</b>	Packaging Design, (3)

#### 34.24 Assessment

34.25 For DTB220, DTB300, DTB312, DTB315, IDB313, IDB321, IDB 322, IDB324, IDB400, IDB411, IDB413, IDB513, IDB515, IDB516, IDB517, IDB522, IDB524 and IDB525, the assessment mode shall be continuous assessment only.

#### Service Courses

DTC221 Entrepreneurial Skills (2): This course is available for students who are undertaking certificate or diploma programmes in FET.  
GEC357 Advances in Technology (2):  
Examinable: CA:Exam Ratio as per FET Regulations

GEC 258 Art and Science of Design (2):  
Examinable: CA:Exam Ratio as per FET Regulations

#### 90.60 Industrial Training Regulations for the Degree of Bachelor of Design Preamble

Subject to the provisions of General Regulations 000 and 200 the following Industrial Training Regulations shall apply to students on the following Programmes:

a) Bachelor of Design (Design and Technology Education)

b) Bachelor of Design (Industrial Design)

#### 90.61 Structure

90.62 BDes (Design and Technology Education) and BDes (Industrial Design) students shall undergo supervised Industrial Training for 7 weeks between Levels 300 and 400. B Des. Industrial Design students shall in addition undergo supervised Industrial Training for Industrial Design for 20 weeks from the beginning of semester 2 of Level 400 including part of the vacation between Levels 400 and 500.

#### 90.63 Industrial Training course codes shall be as follows:

DTB 300 - Industrial Training (BDes Design and Technology Education and B Des. Industrial Design) duration 7 weeks, 3 credits, core course.  
IDB 400 - Industrial Training for Industrial Design (BDes. Industrial Design) duration 20 weeks, 10 credits, core course.

90.64 During the periods of Industrial Training students shall be subjected to such codes, procedures, laws, rules, and other regulations as applicable to the industry.

90.65 Subject to Regulations Governing Admissions, Fees and Discipline Regulation 4.0, and regulation 35.13 above, a student who receives a final warning for misconduct during the period of Industrial Training shall be subjected to Discipline Regulations.

#### 90.70 Assessment

90.71 During the periods of Industrial Training, each student shall be visited a minimum of twice at the location of placement to be assessed by Faculty of Engineering and Technology staff.

90.72 A student's performance will be assessed by means of:

a) Continuous assessment by the industry based supervisor and an assessor from a relevant Department of the Faculty of Engineering and Technology.

b) Industrial Training Report and logbook submitted by the student at the end of the Industrial Training period.

c) Oral Presentation for IDB400 only.  
35.23 DTB300 shall be assessed as based on regulations 35.22 (a and b). The ratio of marks for Continuous Assessment to Industrial Training Report and Logbook shall be 1:2.

90.73 IDB400 shall be assessed as based on regulations 35.22 (a,b and c). The ratio of marks for Continuous Assessment to Industrial Training Report and Logbook to Oral Presentation shall be 1:2:1.



## DEPARTMENT OF MECHANICAL ENGINEERING

### Introduction

The Department of Mechanical Engineering offers the following programmes:

- Bachelor of Engineering (Mechanical)
- Combined Degree (Major in Mechanical Engineering)
- Combined Degree (Minor in Mechanical Engineering)
- Bachelor of Industrial Engineering
- MSc in Mechanical Engineering

Departmental Regulations for the Bachelor of Engineering (Mechanical) Degree Subject to General Regulations 000 and 200 and the Faculty Special Regulations 210, the following Departmental Regulations for the Bachelor of Engineering (Mechanical) Degree (BEng) shall apply:

### Entrance Requirements

Admission to the Bachelor of Engineering (Mechanical Engineering) Degree Programme shall be as stipulated in Faculty Special Regulations 21.10.

### Programme Structure

The Programme for the Degree in Mechanical Engineering will be a Single Major that will extend over 10 semesters of full-time study. It shall contain one subject called Mechanical Engineering consisting of courses shown below. The curriculum for Levels 100 and 200 shall be as stipulated in Faculty Special Regulation 21.20.

#### Level 300

##### Mechanical Engineering

##### Semester 5

##### Core Courses

- MAT391** Mathematics III (3, pre-req. MAT291)
- MMB311** Solid Mechanics (3, pre-req. CCB221)
- MMB312** Materials (2, pre-req. CCB211)
- MMB313** Mechanics of Machines (3, pre-req. MMB222)
- MMB314** Measurement and Instrumentation (2)

##### Semester 6

##### Core Courses

- MMB322** Machine Component Design (2, pre-req. MMB 311)
- MMB323** Thermodynamics I (3)
- MMB324** Fluid Mechanics (3)
- MMB325** Manufacturing (2)
- EEB326** Electrical Machines I (3)

#### Level 400

##### Mechanical Engineering

##### Semester 7

##### Core Courses

- MMB411** Machine and Industrial Design (2, pre-req. MMB322)
- MMB421** Heat Transfer

- (2, pre-req. MMB323, MMB324)
- MMB413** Systems and Control Engineering I (3)
- MMB414** Engineering Management (3)
- MMB417** Thermodynamics II (2, pre-req. MMB323)

In addition, all students shall at least select One of the following optional courses:

- MMB416** Mechatronics (2, pre-req. MMB314)
- MMB418** Pneumatics and Hydraulics (2)
- MMB410** Advanced Manufacturing (2, pre-req. MMB325)

##### Semester 8

- ITB420** Industrial Training II [ 20 Weeks], (10 credits, core, pre-req. ITB 200)

#### Level 500

##### Mechanical Engineering

##### Semester 9

##### Core Courses

- MMB511** Project I (3)
- MMB512** Plant Engineering (3)

In addition, all students shall select at least two of the following optional courses:

- MMB513** Manufacturing Systems (4)
- MMB514** Systems and Control Engineering II (4)
- MMB515** Energy Conversion (4, pre-req. MMB412, MMB417)
- MMB524** Refrigeration and Air conditioning (4, pre-req. MMB412, MMB417)

##### Semester 10

##### Core Courses

- MMB521** Project II (3, pre-req. MMB511)
- MMB522** Production and Operations Management (3, pre-req. MMB414)

In addition, all students shall select two of the following optional courses:

- MMB516** Building and Factory Services (4)
- MMB523** Industrial Engineering (4, pre-req. MMB414)
- MMB527** Thermo/Fluid system design (4, pre-req. MMB 421, MMB 417)
- MMB526** Computational Mechanics (4)

### Assessment

Except for MMB211 (Engineering Drawing), MMB411 (Engineering Design), MMB511 (Project I), MMB521 (Project II) and MMB526 (Computational Mechanics), all courses shall be assessed as stipulated in the Faculty Special Regulations 21.30. For MMB411 the ratio of marks for continuous assessment to examination shall be 1:1. For MMB211, MMB511, MMB521, and MMB526 the assessment mode shall be by continuous assessment only.

### Departmental Regulations for the Bachelor of Engineering (General) Degree

Subject to the General Regulations 000 and 200 and the Faculty Special Regulations 210, the following Departmental Regulations for

the Bachelor of Engineering Degree (Major in Mechanical Engineering) shall apply:

### Entrance Requirements

Admission to the Bachelor of Engineering Degree (Major in Mechanical Engineering) shall be as stipulated in Faculty Special Regulations 21.10.

### Programme Structure

The Combined Programme shall extend over 10 semesters of full-time study. It shall consist of one major subject (Mechanical Engineering) and 1 minor subject selected outside the major subject. The curriculum for Levels 100 and 200 shall be stipulated in the Faculty Special Regulations 21.20. At Levels 300, 400 and 500 students shall be required to follow a selected minor subject outside the major subject. The courses from the minor subject shall have a minimum credit value of 23. Subject to Regulation 31.22, students must achieve a minimum of 53 credits from the major subject courses listed below. In cases where a similar course appears in both the minor and the major subject, there shall be no double crediting of the course. Students shall be required to undertake Industrial Training as per Faculty of Engineering and Technology Special Regulations 220.

#### Level 300

##### Major in Mechanical Engineering

##### Semester 5

##### Core Course

- MAT391** Mathematics III (3, pre-req. MAT291)

Students shall select and follow at least 3 of the following optional courses:

- MMB311** Solid Mechanics (3)
- MMB312** Materials (2)
- MMB313** Mechanics of Machines (3, core, pre-req. MMB222)
- MMB314** Measurement and Instrumentation (2)

##### Semester 6

Students shall select and follow at least three of the following optional courses:

- MMB322** Machine Component Design (2)
- MMB323** Thermodynamics I, (3)
- MMB324** Fluid Mechanics (3)
- MMB325** Manufacturing (2)

#### Level 400

##### Major in Mechanical Engineering

##### Semester 7

Students shall select and follow at least two of the following core courses:

- MMB411** Machine and Industrial Design (2, pre-req. MMB322)
- MMB527** Thermal Fluid System Design (2, pre-req. MMB421, MMB417)
- MMB413** Systems and Control Engineering I (3)
- MMB414** Engineering Management (3)
- MMB417** Thermodynamics II (2, pre-req. MMB323)

In addition, all students shall select at least one

of the following optional courses:

- MMB416** Mechatronics  
(2, pre-req. MMB314)  
**MMB418** Pneumatics and Hydraulics (2)  
**MMB410** Advanced Manufacturing  
(2, pre-req. MMB325)

#### Semester 8

##### Core Course

**ITB420** Industrial Training II [20 Weeks] (10)

#### Level 500

##### Major in Mechanical Engineering

#### Semester 9

##### Core Course

**MMB511** Project I (3)

In addition, all students shall select at least two of the following options:

- MMB512** Plant Engineering (3)  
**MMB513** Manufacturing Systems (4)  
**MMB514** Systems and Control Engineering II (4)  
**MMB515** Energy Conversion  
(4, pre-req. MMB412, MMB417)  
**MMB524** Refrigeration and Air Conditioning  
(4, pre-req. MMB412, MMB417)

#### Semester 10

##### Core Course

**MMB521** Project II (3, pre-req. MMB511)

In addition, students shall select at least one of the following courses:

##### Core Course

**MMB522** Production and Operations Management (3, pre-req. MMB414)

##### Optional Courses

- MMB516** Building and Factory Services (4)  
**MMB523** Industrial Engineering  
(4, pre-req. MMB414)  
**MMB525** Process Engineering II (4)  
**MMB526** Computational Mechanics (4)

##### Assessment

Except for MMB211 (Engineering Drawing), MMB411 (Machine and Industrial Design), and MMB526 (Computational Mechanics), all courses shall be assessed as stipulated in the Faculty Special Regulations 21.30. For MMB411 the ratio of marks for continuous assessment to examination shall be 1:1. For MMB211 and MMB526 the assessment mode shall be by continuous assessment only.

##### Departmental Regulations for the Combined Degree Programme

Subject to the General Regulations 000 and 200 and the Faculty Special Regulations 210, the following Departmental Regulations for the Minor in Mechanical Engineering shall apply:

##### Entrance Requirements

Applicants shall have successful registration in a Combined Major Degree Programme in Science, Engineering or Technology. Courses in Mathematics must be covered in the major

subject with at least two such courses in Level 200.

##### Programme Structure

The Minor Programme shall extend over 8 semesters of full-time study and shall be part of a Combined Major in another subject. It shall consist of one subject Mechanical Engineering with courses listed below. The curriculum for Level 100 shall be as stipulated in Faculty Special Regulation 21.20. In cases where a similar course appears in both the minor and the major subject, there shall be no double crediting of the course. Students should achieve a minimum of 23 credits in the Minor Subject of Mechanical Engineering.

#### Level 200

Minor in Mechanical Engineering

#### Semester 3

##### Core Courses

- CCB212** Statics (2)  
**MMB211** Engineering Drawing (2)

#### Semester 4

##### Core Courses

- CCB221** Engineering Materials (2)  
**MMB222** Dynamics (2)

#### Level 300

##### Minor in Mechanical Engineering

#### Semester 5

Students shall attain a minimum of four credits from any of the following core courses:

- MMB311** Solid Mechanics (3, pre-req. CCB221)  
**MMB312** Materials (2, pre-req. CCB211)  
**MMB313** Mechanics of Machines  
(3, pre-req. MMB222)  
**MMB314** Measurement and Instrumentation  
(2)

#### Semester 6

Students shall attain a minimum of four credits from any of the following optional courses:

- MMB322** Machine Component Design (2)  
**MMB323** Thermodynamics I (3)  
**MMB324** Fluid Mechanics (3)  
**MMB325** Manufacturing (2)

#### Level 400

##### Minor in Mechanical Engineering

Students shall attain a minimum of six credits from any of the following optional courses:

#### Semester 7

- MMB411** Machine and Industrial Design (2)  
**MMB421** Heat Transfer  
(2, pre-req. MMB323, MMB324)  
**MMB413** Systems and Control Engineering I (3)  
**MMB414** Engineering Management (3)  
**MMB416** Mechatronics (2)  
**MMB417** Thermodynamics II (2)  
**MMB418** Pneumatics and Hydraulics (2)  
**MMB410** Advanced Manufacturing (2)

##### Assessment

Except for MMB211 (Engineering Drawing) and MMB411 (Machine and Industrial Design) all courses shall be assessed as stipulated in the

Faculty Special Regulations 21.30. For MMB411 the ratio of marks for continuous assessment to examination shall be 1:1. For MMB211 the assessment mode shall be by continuous assessment only.

Departmental Special Regulations for the Bachelor of Engineering (Industrial Engineering)

##### General provisions

Subject to the provisions of the General Regulations 000, and 200, the following Departmental Special Regulations shall apply:

##### Entrance Requirements

Admission into Level 100 of the Programme shall be governed by General Regulation 20.2.

Admission into Level 200 of the Degree programme shall be satisfactorily completion of Level 100 of Bachelor of Science with at least the equivalent of C grades in Mathematics, Chemistry, and Physics. OR

Applicants in possession of an appropriate A-Level qualification with at least C grades in Mathematics and any one of Physics or Chemistry may be admitted directly into Level 200 of the Degree Programme. OR

Applicants in possession of an appropriate Diploma in Mechanical Engineering may be admitted directly into Level 200 of the Degree Programme. OR

Applicants in possession of an appropriate Higher Diploma in Mechanical Engineering may be admitted directly into Level 300 of the Degree Programme.

## Bachelor of Industrial Engineering

##### Degree Structure

The Programme shall consist of a single major subject called Industrial Engineering.

Level 100 courses shall be as specified in the: Faculty of Science Special Regulations for the Bachelor of Science Degree.

Level 200 courses shall be as specified in the Faculty Special Regulations for the Bachelor of Engineering Degree.

#### Level 300 Semester 5

- Core Courses **MAT271** Introduction to mathematical Statistics (3 credits, core)  
**LAW251** Foundations of Business Law  
(3 credits, core)  
**MMB312** Engineering Materials  
(3 credits, core, prerequisite CCB211)  
**ECO313** Engineering Economics  
(3 credits, core) **MGT100** Principles of Management  
(3 credits, core)

#### Level 300 Semester 6

##### Core Courses

- IMB321** Information System Design  
(3 credits, core)





IMB322	Technological Entrepreneurship (3 credits, core)
ACC203	Cost Accounting Applications (3 credits, core)
IMB324	Productivity and Technology Management (3 credits, core)
EEB315	Computer Programming (3 credits, core)

#### Level 400 Semester 7

##### Core Courses

IMB411	Industrial Logistics (3 credits, core)
IMB412	Manufacturing I (3 credits, core, prerequisite MMB312)
IMB413	Simulation Modelling(3 credits, core)
IMB414	Organizational Ergonomics (3 credits, core)
IMB415	Facilities planning and Value engineering (3 credits, Core, prerequisite ECO313)

#### Level 400 Semester 8

##### Core Courses

MKT100	Principle of Marketing (3 credits, core)
IMB422	Manufacturing II (3 credits, core, prerequisite IMB 412)
IMB423	Process Planning and Cost Estimation (3 credits, core, prerequisite ECO313)
IMB424	Industrial Quality Control (3 credits, core, pre requisite MAT271)
IMB425	Operations Research I(3 credits, core)
ITB400	Industrial Training II (Vacation, 8 weeks duration, 4 credits, core, prerequisite ITB200).

#### Level 500 Semester 9

##### Core Courses

IMB511	Project I (6 credits, core)
IMB515	Operations Research II (4 credits, core, prerequisite IMB425)

In addition, all students shall select at least two of the following optional courses:

##### Optional Courses:

IMB522	Project Management (3 credits, option, prerequisite ECO313, IMB321)
IMB523	Industrial Relations(3 credits, option)
IMB516	Industrial Analysis (3 credits, option, prerequisite IMB413)

#### Level 500 Semester 10

##### Core Courses

IMB521	Project II (6 credits, core)
IMB522	Computer Aided (4 credits, core,)

In addition, all students shall select at least two of the following optional courses:

##### Optional Courses:

IMB523	Professional Ethics (3 credits, option, prerequisite IMB322)
MMB522	Production and Operations Management (3 credits, option, prerequisite, ECO313 and IMB324)
CCB315	Environmental Engineering (3 credits,

option)

##### Assessment

All courses shall be assessed as stipulated in the Faculty Special Regulation 21.30.

##### Progression from Semester to Semester

261.41Progression from one semester to the next shall be as per General Regulations 00.9.

##### Award of the Degree

The Degree shall be awarded in accordance with the provisions of General Regulation 00.85.

Classification of the degree shall be in accordance with the provisions of General Regulation 20.4

## ARCHITECTURE AND PLANNING

### YEAR 1

#### Level 100

##### Semester 1

##### Core Courses

##### ARB111 Design Communication I

This course concerns the experience of seeing, drawing and communication of form, mainly physical form. It deals with free hand drawing as well as geometric projections: Orthographic, axonometric, and isometric. The course deals with communication through three main topics: free-hand drawing, geometric projections, and colour.

Credits: 4.

Lectures/Studio: 8 hours per week

Continuous assessment: Research report and interim assessments of design project

Final examination: Final assessment of design project

CA/Exam ratio: 1:1

##### ARB112 Building Materials & Construction I

This course deals with building materials and their use in "fundamental" conditions, "natural" as distinct from "fabricated" materials: earth and its derivatives and wood. It does so through observation of these materials in traditional and modern buildings. The course deals with materials and process of construction and their inter-relationship in the way they are used in building. Credits: 2 Lectures/Studio: 2 hours per week

Continuous assessment: 2 Tests and 2 assignments Final examination: 2 hours

CA/Exam ratio: 2:3

##### ARB113 Traditional African Architecture

This course concerns the genesis of Architecture in Africa as a part of African Culture. It examines architecture as a response, an expression, and a formative part of the communal and individual human habitation. This course begins with a review of African communes and villages, proceeds to the study of particular buildings within them from their origin to the present.

Credits: 2

Lectures/Studio: 2 hours per week

Continuous assessment: 2 Tests and 2 Assignments

Final examination: 2 hours

CA/Exam ratio: 2:3

##### PHY 111 Physics

Laws of reflection and refraction and applications: Mechanics Units and dimensions; Vector algebra; Kinematics; Projectiles; Newton's laws; Work, Energy and Power; Circular motion; Torque; Vibrations and Waves.

Credits: 3

Hours per week: 3 Lectures and 3 Tutorials

Continuous Assessment: Tests and assignments

Final Examination: 3 hours

CA/Exam ratio: 2:3

##### PHY119 Physics Practicals 1.1

A set of experiments to be performed in Semester 1 illustrating work done in Level 100 Physics lecture courses.

Credits: 1

Tests: 2 hours per week

Final Examination: 1 hour

CA/Exam ratio: 1:1

##### MAT191 Design Mathematics I

Basic algebra, introduction to functions, trigonometry, series, complex numbers, permutations and combinations.

Credits: 3

Hours per week: 3 Lectures and 3 Tutorials

Continuous Assessment: Tests and Assignments

Final Examination: 3 hours

CA/Exam ratio: 2:3

##### GEC Courses

##### GEC 111 Communication and Study Skills I

The course deals with language use for academic purposes including introduction to communication, factors for independent learning, note-taking and making skills, reading skills, writing skills, aspects of academic language, and interfacing between reading and writing.

Credits: 2

Lectures: 2 hours per week

Continuous assessment: Tests and Assignments

Final Examination: 2 hours

CA/Exam ratio: 2:3

##### GEC 121 Computing and Information Skills

The course introduces students to computer systems; equip them with basic computing skills using application packages, like word-processing and electronic communications using e-mail and internet facilities.

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: Tests and Assignments

Final Examination: 2hours

CA/Exam ratio: 2:3

##### Semester Two

##### Core Courses

##### ARB 121 Design Communication II

This course deals with representation and abstraction in the process of communication. It deals with free-hand drawing, perspective projection, three-dimensional models as

instruments of study of geometry and appearance (light) of physical form, leading to the design of a simple structure.

pre-req.: ARB111

Credits: 4

Lectures/Studio: 8 hours per week

Continuous assessment: Research report and interim assessments of design project

Final examination: Final assessment of design project

CA/Exam ratio: 1:1

### **ARB122 Building Materials & Construction II**

This course deals with building materials and their use in "fundamental" conditions with focus on industrially produced materials: cement, concrete, glass, steel and other metals used in buildings. The course covers basic characteristics of these materials but focusing on them as construction materials.

pre-req.: ARB112

Credits: 2

Lectures/Studio: 2 hours per week

Continuous assessment: At least 1 test and 1 assignment

Final examination: 2 hours

CA/Exam ratio: 2:3

### **ARB 123 History of Art**

Architecture is rooted in the search for order and the establishment of immortality. The achievement of mankind is easily assessed through art, from traditional art found worldwide and then the beginning of modernism at the Renaissance. The rising figure of the individual artist and the several revolutions since lead to the confirmation of radical movements from Impressionism onwards, until today.

pre-req.: ARB113

Credits: 2

Lectures/Studio: 2 hours per week

Continuous assessment: At least 1 Test and 1 assignment

Final examination: 2 hours

CA/Exam ratio: 2:3

### **ARB 124 Environment and Comfort**

This course introduces (1) the range of human comfort conditions within the built environment and the effect of air, light and temperature (2) sources of the natural and artificial environmental conditions affecting the built environment including the sun, wind, precipitation, seasons, day and night, weather and climatic conditions, electricity, HVAC and (3) the building as a controlled environment. Coursework consists of lectures providing knowledge of principles to be observed in field studies and reports to document the results. Assessment will be through continuous assessment in form of essays and tests and a final examination.

pre-req.: PHY111

Credits: 2

Lectures/Studio: 2 hours per week

Continuous assessment: At least 1 test and 1 assignment

Final examination: 2 hours

CA/Exam ratio: 2:3

### **MAT 192 Design Mathematics II**

Calculus, co-ordinate geometry, vectors

pre-req.: MAT191

Credits: 3

Hours per week: 3 Lectures and 3 Tutorials

Continuous Assessment: Tests and Assignments

Final Examination: 3 hours

CA/Exam ratio: 2:3

### **GEC Courses**

#### **GEC112 Communication and Study Skills II**

Descriptive writing, Analysis, Use of Diagrams, Reading demands, language and style of formal writing, Forms/Types of professional writing and correspondence, basic oral presentation skills.

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: Tests and Assignments

Final Examination: 2 hours

CA/Exam ratio: 2:3

#### **GEC122 Computing and Information Skills II**

Additional computing and information skills including advanced operating systems file management concepts, basic spread sheets, and database management facilities.

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: Tests and Assignments

Final Examination: 2 hours

CA/Exam ratio: 2:3

### **Year 2**

#### **Level 200**

#### **Semester 3**

#### **Core Courses**

#### **ARB211 Architectural Design I**

The course will deal with the simplest possible enclosure – a room, a hut, through examination of the room and buildings in existing contexts, examples in the work of architects, and its design by the students. The course will apply the various types of spatial organization and basic structures in small buildings in context, and the possibilities of presentational modes of professional architecture.

pre-req.: ARB121

Credits: 6

Lectures/Studio: 12 hours per week

Continuous assessment: Research report and interim assessments of design project

Final examination: Final assessment of design project

CA/Exam ratio: 1:1

#### **ARB212 Building Materials & Construction III**

Students are asked to study selected buildings as case studies, analyse the use of materials and methods of construction in the building, and apply the results in their own design. Emphasis will be put on cladding and external finishes.

pre-req.: ARB122

Credits: 2

Lectures/Studio: 2 hours per week

Continuous assessment: At least one test and one assignment

Final examination: 2 hours

CA/Exam ratio: 2:3

### **ARB 213 History of Architecture I**

The course Covers Architecture As A Development of the individual and community as inhabitants of the earth. It examines the seminal building and communal forms that emerge as the "typical" forms in this evolutionary process. Beginning with the Prehistoric, the main civilisations from Mesopotamia to Rome are examined, detailing their main aspects.

pre-req.: ARB123

Credits: 2

Lectures/Studio: 2 hours per week

Continuous assessment: At least 1 test and 1 assignment

Final examination: 2 hours

CA/Exam ratio: 2:3

### **ARB214 Energy Efficiency In Buildings**

This course deals with the following topics: Basic principles of energy efficiency, energy efficiency and sustainable development, energy efficient design (passive and active design), technologies for energy efficient building, energy efficiency policy and legislation introduction to energy management, green financing. Throughout the course, case studies and existing good practice examples will be used as a major instrument of instruction. Assessment will be through continuous assessment in form of essays and tests and a final examination.

pre-req.: ARB124

Credits: 2

Lectures/Studio: 2 hours per week

Continuous assessment: At least 1 test and 1 assignment

Final examination: 2 hours

CA/Exam ratio: 2:3

### **ARB216 Computer Aided Drafting**

Introduction to computers and two drafting tools: Arch-Cad and Auto-Cad. This course involves four lectures followed by extensive exercise and application of exercises in the use of two architectural drafting tools.

pre-req.: GEC121 and GEC122, ARB111 and ARB121

Credits: 2

Lectures/Studio: 2 hours per week

Continuous assessment: Interim assessments

Final examination: Assessment of major design project

CA/Exam ratio: 2:3

### **CCB 217 Theory of Structures I**

The Course combines the fundamental concepts taught in two typical courses of the civil engineering discipline, such as Statics and Strength of Materials. The emphasis is put on the behaviour of different structural forms subjected to applied forces - what is essential in developing a common ground uniting the principles of safe and economical design of any type of structural system between the architect and structural engineer.

Credits: 2

Hours per week: 2 Lectures and 2 Tutorials

Continuous Assessment: 2 Tests and at least 2 Assignments

Final Examination: 2 hours

CA/Exam ratio = 2:3



#### Semester 4

##### Core Courses

##### ARB221 Architectural Design II

More advanced and institutional building types form the vehicle of instruction in this course, allied with case studies and the understanding of natural light in architecture. A full response of the selection of materials, appropriate finishes and more complex structural applications is also demanded to ensure competence at this level.

pre-req.: ARB211

Credits: 6

Lectures/Studio: 12 hours per week

Continuous assessment: Research report and interim assessments of design project

Final examination: Final assessment of design project

CA/Exam ratio: 1:1

##### ARB222 Building Materials & Construction IV

Students are asked to study selected buildings, analyse the use of materials and methods of construction in the building, and apply the results in their own designs. Emphasis will be put on materials used for interior finishes: floor and wall tiling, ceilings etc.

pre-req.: ARB212

Credits: 2

Lectures/Studio: 2 hours per week

Continuous assessment: At least 1 test and 1 assignment

Final examination: 2 hours

CA/Exam ratio: 2:3

##### ARB223 History of Architecture II

The course will deal with architecture as a development of the individual and community as inhabitants of the earth and examines the seminal building and communal forms that emerge as the "typical" forms in this evolutionary process. Beginning with Early Christian architecture, the course proceeds to deal with the Middle Ages, looking at Europe, Africa and the Far East.

pre-req.: ARB213

Credits: 2

Lectures/Studio: 2 hours per week

Continuous assessment: At least 1 test and 1 assignment

Final examination: 2 hours

CA/Exam ratio: 2:3

##### CCB 227 Theory of Structures II

As a continuation of CCB217, this Course develops the principles already established and relates them to more complex structural forms and methods of building in terms of such materials as timber, steel and reinforced concrete, considering simple design examples, and exercises based on such examples.

pre-req.: CCB217

Credits: 2

Hours per week: 2 lectures and 2 Tutorials

Continuous Assessment: 2 Tests and at least 2 Assignments.

Final Examination: 2 hours

CA/Exam ratio=2:3

##### ARB 220 Internship I

Internship means the external placement of a student with a professional or other kind of body in order to gain the necessary experience of the profession. During the long vacation of May to July, students spend at least eight weeks undergoing this professional experience. Staffs visit the students and meet their supervisors to get a feedback on the attachment.

pre-req.: None

Credits: 2

Duration: Minimum 8 weeks.

Assessment: Field Supervisor/Concept Paper/ Presentation =1/2/1

##### URP 207 Land Surveying and Cartography

The Course introduces students to basic elements of land surveying and cartography including linear measurements, levelling and cadastral surveying; making, interpretation and reproduction of maps; coordinate systems; map projections; data manipulation, classification and generalisation; profiles and land-surface forms. At the end of the course, students are expected to submit thematic atlas of a selected urban or rural area covering different aspects of a human and natural phenomena in a scale from 1:5,000 to 1:50,000.

pre-req.: None

Co-requisite: ARB 216

Credits: 2

Lectures/studio: 1 lecture + 3 hours practical exercises per week

Continuous Assessment: 2 tests and submission of thematic atlas

Final examination: 2 hours

CA/exam ratio: 1:1

#### Year 3

##### Level 300

##### Semester 5

##### Core Courses

##### ARB311 Architectural Design III

This course builds on the input of previous design courses with the emphasis on buildings serving the community. More advanced structural analysis and response is expected, and issues of detailed planning of site and overall organization are explored, resulting in deepening awareness of architecture in relation to current norms of professional achievement.

pre-req.: ARB221

Credits: 6

Lectures/Studio: 12 hours per week

Continuous assessment: Research report and interim assessments of design project

Final examination: Final assessment of design project

CA/Exam ratio: 1:1

##### ARB312 Building Services I

This course covers building services including water supply and plumbing, drainage and waste disposal, electricity supply, lighting, communications, HVAC, fire fighting, and conveyance. Assessment will be done by essays and examination.

Credits: 2

Lectures/Studio: 2 hours per week

Continuous assessment: At least 1 test and 1

assignment

Final examination: 2 hours

CA/Exam ratio: 2:3

##### ARB313 History of Architecture III

The Post-Renaissance period up to nineteenth century was a period of revolutions in science, technology, commerce, and politics and had a decisive shaping influence on today's world. The achievements of the High Renaissance and the Baroque are examined and how the Enlightenment and other movements prepared the way for Modernist ideas in the early nineteenth century.

pre-req.: ARB223

Credits: 2

Lectures/Studio: 2 hours per week

Continuous assessment: At least 1 test and 1 assignment

Final examination: 2 hours

CA/Exam ratio: 2:3

##### CCB 317 Theory of Structures III

The Course begins with the basic principles of the design of steelwork connections, and tensile and compression structural elements to BS 5950. The application of those principles to design of roof trusses and spatial grid systems constitutes the main Course content. Other types of long span structures, and tensile and shell like structures are also covered, as well as roof trusses, and tensile, textile and hybrid structures.

pre-req.: CCB227

Credits: 2

Hours per week: 2 lectures and 2 Tutorials

Continuous Assessment: 2 Tests and at least 2 Assignments.

Final Examination: 2 hours

CA/Exam ratio=2:3

##### Optional Courses

##### URP 200 Introduction To Town Planning

The Course focuses on understanding the need to plan, the emergence of modern town planning, and the foundations of town planning legislation. It also provides an insight into the organisation and administration of town planning; the Planning Process; Survey preparation and techniques of analysis, and development control. The course also highlights the role of planners in dealing with current topical problems and issues in modern day living.

pre-req.: None

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: 2 tests, 1 assignment

Final examination: 2 hours

CA/exam ratio: 2:3

##### URP 202 Infrastructure Planning and Management

The aim of the course is to introduce students to aspects of planning and designing of technical infrastructure such as sanitation, water supply, wastewater treatment, solid waste management, power and telecommunication planning. It covers on-site and off-site sanitation systems, storm water management, solid waste management, water demand and supply, energy and power, telecommunication, technical infrastructure

layouts and financing and cost recovery issues on provision of technical infrastructure.

pre-req.: None

Credits: 2

Lectures/studio: 2 hours per week

Continuous Assessment: 2 tests

Final examination: 2 hours

CA/exam ratio: 2:3

## Semester 6

### Core Courses

#### ARB321 Architectural Design IV

The emphasis in this course is to heighten the interpretation of more complex briefs and building programmes, with emphasis on landscape, structure and basic building services. The final design should be a multi-storey building with a public address, and related to full exploration of design method and competent presentation on professional lines.

pre-req.: ARB311

Credits: 6

Lectures/Studio: 12 hours per week

Continuous assessment: Research report and interim assessments of design project

Final examination: Final assessment of design project.

CA/Exam ratio: 1:1

#### ARB322 Building Services II

Subsequent to ARB321, this course will cover a practical analysis of the requirements of a selected building type followed by design of the building services as part of the process of design. Assessment will be done by coursework.

pre-req.: ARB312

Credits: 2

Lectures/Studio: 2 hours per week

Continuous assessment: At least 1 test and 1 assignment

Final examination: 2 hours

CA/Exam ratio: 2:3

#### ARB323 History of Architecture IV

This course deals with the rise of modern states/cities and institutions in Europe following the Industrial Revolution and examines new building types and technology in response to these developments up to the present. Clear notions of High Modernism are followed by a treatment of Postmodernism.

pre-req.: ARB313

Credits: 2

Lectures/Studio: 2 hours per week

Continuous assessment: At least 1 test and 1 assignment

Final examination: 2 hours

CA/Exam ratio: 2:3

#### ARB320 Internship II

Internship means the external placement of a student with a professional or other kind of body in order to gain the necessary experience of the profession. During the long vacation of May to July, students spend at least eight weeks undergoing this professional experience. Staffs visit the students and meet their supervisors to get a feedback on the attachment.

pre-req.: ARB220

Credits: 2

Duration: Minimum 8 weeks.

Assessment: Field Supervisor/Concept Paper/Presentation =1/2/1

#### ARB325 Interior Design

The course consists of extensions of the current architectural design project in the studio. Students are taught to deal with colour, light and texture as well interior arrangements and spatial qualities. Advanced awareness of issues such as the integration of structures, services and environmental control are also expected.

Credits: 2

Lectures/Studio: 2 hours per week

Continuous assessment: At least 1 test and 1 assignment

Final examination: 2 hours

CA/Exam ratio: 2:3

## Year 4

### Semester 7

#### Core Courses

#### ARB411 Architectural Design V

This course will be concerned with urban and community issues of some complexity and the development of design skills in terms of functional and environmental control systems. Possible vehicles of delivery could be an urban design complex or social housing, accompanied by building studies and/or selected exemplars incorporated in a short report to accompany drawings and model.

pre-req.: ARB321

Credits: 6

Lectures/Studio:

Continuous assessment: Research report and interim assessments of design project

Final examination: Final assessment of design project

CA/Exam ratio: 1:1

#### ARB412 Building Systems I

The course will introduce the detailed critical analysis of the various Building Systems and their interactive effect on the built environment in general. It will include group work studies, review of theoretical material, case studies, documentation and presentation. Assessment will be done by coursework.

Credits: 2

Lectures/Studio: 2 hours per week

Continuous assessment: At least 1 Test and 1 Assignment

Final examination: 2 hours

CA/Exam ratio: 2:3

#### ARB413 Philosophy of Architecture I

This course consists of examination of main theories of architecture since the Renaissance and exercises aimed at helping the student to develop/ refine their own position in design. Many aspects of philosophical and cultural criticism are introduced, leading to a final essay on a major topic.

pre-req.: ARB323

Credits: 2

Lectures/Studio: At least 1 test and 1 assignment

Continuous assessment:

Final examination: 2 hours

CA/Exam ratio: 2:3

#### ARB415 Landscape Design

This course consists of study of principles of landscape design as related to design of micro-climate and ecological considerations. It is centred around lectures on land and landscape design and parallel studio exercise based closely on the context of the architectural design project in ARB411.

Credits: 2

Lectures/Studio: 2 hours per week

Continuous assessment: At least 1 test and 1 assignment

Final examination: Assessments of studio projects

CA/Exam ratio: 2:3

#### LAW 253 Foundations of Engineering Law

An introduction to the Botswana Legal system and to aspects of contractual and delictual liability designed to provide nonlaw students with the necessary legal foundation for further study of aspects of the law relevant to construction, design, technology and other engineering activities.

pre-req.: None

Credits: 3

Lectures: 3 hours per week

Continuous Assessment: Tests and Assignments

Final Examination: 3 hours

CA/Exam ratio=2:3

## Semester 8

### Core Courses

#### ARB421 Architectural Design VI

This course will treat a major building of known performance or derived brief, and of high complexity in terms of structural application, formal exploration and environmental control systems and sustainability. The brief must be fully understood and realized in the design response, and issues of contemporary theory and international norms should be addressed as well.

pre-req.: ARB411

Credits: 6

Lectures/Studio: 12 hours per week

Continuous assessment: Research report and interim assessments of design project

Final examination: Final assessment of design project

CA/Exam ratio: 1:1

#### ARB422 Building Systems II

The course introduces analytical methods in architectural design by applying the knowledge of various building systems from previous courses. Students are required to produce a comparable analytical report of their own design.

pre-req.: ARB412

Credits: 2

Lectures/Studio: 2 hours per week

Continuous assessment: At least 1 test and 1 assignment

Final examination: 2 hours

CA/Exam ratio: 2:3

#### ARB423 Philosophy of Architecture II

The course will engage with current issues of the region, and especially those of Botswana. The diversity of contemporary architecture will be



explored leading to a final essay dealing with a particular building or practitioner.

pre-req.: ARB413

Credits: 2

Lectures/Studio: 2 hours per week

Continuous assessment: At least 1 test and 1 assignment

Final examination: 2 hours

CA/Exam ratio: 2:3

#### **ARB424 Professional Practice I**

The course deals with an introduction to the common and statute law and goes into the details of contract law before concentrating on construction contracts, types of building contracts and conflict/dispute resolution.

pre-req.: LAW253

Credits: 2

Lectures/Studio: 2 hours per week

Continuous assessment: At least 1 test and 1 assignment

Final examination: 2 hours

CA/Exam ratio: 2:3

#### **ARB420 Internship III**

Internship means the external placement of a student with a professional or other kind of body in order to gain the necessary experience of the profession. During the long vacation of May to July, students spend at least eight weeks undergoing this professional experience. Staffs visit the students and meet their supervisors to get a feedback on the attachment.

pre-req.: ARB320

Credits: 2

Duration: Minimum 8 weeks.

Assessment: Field Supervisor/Concept Paper/ Presentation = 1/2/1

#### **Optional Courses**

**ENV412** Environmental Impact Assessment

**ENV484** Urbanisation & The Environment

For these two courses contact "The Environment Science Handbook"

#### **Year 5**

##### **Semester 9**

##### **Level 500**

##### **Core Courses**

##### **ARB511 Design Project I**

The course consists of a proposal for a project at a community scale and the design from general strategy to Preliminary design stage, accounting for massing, basic organizational strategies and other issues of relevant importance.

pre-req.: ARB421

Credits: 8

Lectures/Studio: Individual supervised research

Continuous assessment: Interim assessments of research report

Final examination: Final assessment of research report

CA/Exam ratio: 1:1

##### **ARB514 Professional Practice II**

This course deals with the following issues: Architect licensing process, techniques and rationale of marketing architectural services, market forecasting, client behaviour, office

organisation and business methods applied to architecture, meeting procedures.

pre-req.: ARB424

Credits: 2

Lectures/Studio: 2 hours per week

Continuous assessment: At least 1 test and 1 assignment

Final examination: 2 hours

CA/Exam ratio: 2:3

##### **CCB519 Building Economics**

The course is concerned with the nature, role and market issues of the construction industry, and construction project economics. The character and organisation of the construction industry in Botswana provide the starting point for a host of issues that make up design economics, leading to cost analysis, and value engineering and management.

pre-req.: None

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: At least 1 test and 1 assignment

Final Examination: 2 hours

CA/Exam ratio: 2:3

##### **LAW452 Construction Law**

The course offers a detailed study of construction contracts and related legal issues, such as planning and environment considerations and dispute resolutions. It is designed to familiarise students with legal concepts and issues likely to be encountered in construction and related engineering fields.

pre-req.: LAW253

Credits: 3

Lectures: 3 hours per week

Continuous Assessment: Tests and Assignments

Final Examination: 3 hours

CA/Exam ratio: 2:3

#### **Optional Courses**

##### **URP 307 Land and Property Valuation**

The Course starts with an introduction to the property market, the different types of property, the organisations and individuals that require and trade in property, and the dealing methods employed. The basic characteristics of real estate and the principal factors affecting value are then considered, followed by the concept of valuing a legal interest in land, and not the property itself. The Course also examines the appropriate valuation techniques employed in assessing the open market value of property, why valuations are required and the concept of intrinsic worth. The difference between open market value (property exchange price) and worth to the individual is finally introduced.

pre-req.: None

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: 2 tests

Final examination: 2 hours

CA/exam ratio: 2:3

##### **URP 314 Land and Property Management**

This Course develops the principles of land management through the consideration of the role of the commercial, residential

and industrial property estate manager, the types of organizations that own and manage property, the practical understanding of the rent review process and lease renewal process, the examination of and practical consideration of commonly drawn lease terms and finally, an understanding of the use and application of information technology.

pre-req.: URP307

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: 2 tests

Final examination: 2 hours

CA/Exam ratio: 2:3

Semester 10

#### **Core Courses**

##### **ARB521 Design Project II**

This course requires the students to take the proposal in ARB511 – or using an alternative strategy depending on the student. The course requires the student to prepare and present a proposal for a final design. Students will be expected to develop performance criteria for major spaces and components for the design and to present results to a high professional degree.

pre-req.: ARB511

Credits: 8

Lectures/Studio: Individual supervised studio

Continuous assessment: Interim assessments of design project

Final examination: Final assessment of design project

CA/Exam ratio: 1:1

##### **ARB522 Urban and Rural Design Practice**

This course requires a comprehensive urban study of the project selected as the subject of ARB521. The students will be required to prepare a comprehensive research report on possible approaches to the urban design aspects of the "thesis" project – ARB521. The report will be illustrated with design options related to each approach and to develop a selected approach in detail.

Credits: 2

Lectures/Studio: 2 hours per week

Continuous assessment: At least 1 test and 1 assignment

Final examination: 2 hours

CA/Exam ratio: 2:3

##### **ARB524 Project Management**

This course deals with various processes and techniques of monitoring projects: the project life cycle, project planning and control, project cost control, Work Breakdown Structures (WBS), Programme Evaluation and Review Technique (PERT), Critical Path Method (CPM).

Credits: 2

Lectures/Studio: 2 hours per week

Continuous assessment: At least 1 test and 1 assignment

Final examination: 2 hours

CA/Exam ratio: 2:3

#### **Optional Courses**

**GEC273** The State and Society (2)

(Consult Department of Political and Administrative Studies)



**GEC277 Law & Society in Botswana (3)**  
(Consult Department of Law)

## **Bachelor of Science in Urban and Regional Planning Programme (URP)**

**Year 1**

**Level 100**

URP Courses are not offered at this level.

**Year 2**

**Level 200**

**Semester 3**

**Core Courses**

### **URP 200 Introduction to Town Planning**

The Course focuses on understanding the need to plan, the emergence of modern town planning, and the foundations of town planning legislation. It also provides an insight into the organisation and administration of town planning; the Planning Process; Survey preparation and techniques of analysis, and development control. The course also highlights the role of planners in dealing with current topical problems and issues in modern day living.

pre-req.: None

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: 2 tests, 1 assignment

Final examination: 2 hours

CA/exam ratio: 2:3

### **URP 201 Introduction to Drawing Techniques**

The Course introduces students to the art, science and techniques of planning required to communicate graphically through drawings related to layout planning, design and construction of buildings and other structures. It covers description and care and use of drawing equipments; line drawing and lettering; colouring and shading; scales and measurements; projections; types, layout and presentation of drawings; tracing and reproduction of drawings.

pre-req.: None

Credits: 2

Lectures/studio: 6 hours per week

Continuous Assessment: 1 test, 2 practical exercises

Final examination: 2 hours

CA/exam ratio: 1:1

### **URP 202 Infrastructure Planning and Management**

The aim of the course is to introduce students to aspects of planning and designing of technical infrastructure such as sanitation, water supply, wastewater treatment, solid waste management, power and telecommunication planning. It covers on-site and off-site sanitation systems, storm water management, solid waste management, water demand and supply, energy and power, telecommunication, technical infrastructure layouts and financing and cost recovery issues on provision of technical infrastructure.

pre-req.: None

Credits: 2

Lectures/studio: 2 hours per week

Continuous Assessment: 2 tests

Final examination: 2 hours

CA/exam ratio: 2:3

### **URP 203 Urban and Regional Economics**

This is a basic Course that introduces students to application of economic theories and concepts in urban and regional planning. Emphasis is on spatial/land use models founded on economic models. These will include for example central place theory; Agricultural location theory and industrial location theory. Various regional growth models such as sector model will be discussed. Emphasis is on how these models have actually been used in urban and regional planning. Their application internationally and nationally should be reviewed.

pre-req.: ECO111, ECO112

Credits: 2

Lectures/studio: 2 hours per week

Continuous Assessment: 2 tests

Final examination: 2 hours

CA/exam ratio: 2:3

### **URP 204 Planning and History of Settlements**

The Course introduces students to the history and planning of urban settlements. It presents the variety of urban settlements over the course of 5000 years from the Sumerian civilisation in the 3rd millennium BC until the functionalist urban forms created by modernist in first half of the 20th century. The Course focuses on morphology of urban space; urban taught; it also presents the main environmental, socio-economical and technological aspects of the historical periods examined and attempts to analyse the current various urban forms within the historical paradigm. It explains the concept of unplanned cities that grow organically, in contrast with planned cities that were shaped following urban regulations.

pre-req.: None

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: 2 tests

Final examination: 2 hours

CA/exam ratio: 2:3

### **Optional Courses**

#### **URP 205 Environmental Planning**

The course provides a clear overview and analysis of environmental factors in the formulation of development plans and projects and helps students to understand 1) different perspectives on sustainable environmental planning and development; 2) the legal, economic, ethical and ecological foundations of environmental planning; 3) the environmental planning process; and 4) the different types of environmental planning practices and topics.

pre-req.: ENV101, ENV 102

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: tests, theoretical and practical assignments

Final examination: 2 hours

CA/exam ratio: 2:3

#### **URP 206 Urban Morphology**

The course helps students to understand the structures and shapes of urban space covering physical, social, functional and

ecological dimensions of a city. It explores both theoretical and practical underpinning of urban morphology helping the students to understand the complexity of urban settlement form and its constitutive functional, spatial and social elements. It is tailored to help the students to comprehend the way in which urban space is created over time highlighting on the nature and the character of city's functionality and materiality, as well as on socio-cultural and economic context of urban space production.

pre-req.: ENV101, ENV 102

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: tests, theoretical and practical assignments

Final examination: 2 hours

CA/exam ratio: 2:3

### **Semester 4**

#### **Core Courses**

#### **URP 207 Land Surveying and Cartography**

The Course introduces students to basic elements of land surveying and cartography including linear measurements, levelling and cadastral surveying; making, interpretation and reproduction of maps; coordinate systems; map projections; data manipulation, classification and generalisation; profiles and land-surface forms. At the end of the course, students are expected to submit thematic atlas of a selected urban or rural area covering different aspects of a human and natural phenomena in a scale from 1:5,000 to 1:50,000.

pre-req.: URP201

Co-requisite: ARB 216 and URP 207

Credits: 2

Lectures/studio: 1 lecture + 3 hours practical exercises per week

Continuous Assessment: 2 tests and submission of thematic atlas

Final examination: 2 hours

CA/exam ratio: 1:1

#### **URP 208 Site Planning**

The Course aims to to introduce students to practical basic design concepts and principles used in preparing layouts and site plans for common land use activities such as residential, commercial, civic & community, industrial, recreational and mixed land uses. This includes understanding the scope of site planning, site analysis in terms of the natural, physical and social environments and user requirements and urban management in town planning. The course will be taught through lectures, practical exercises, site visits, and group work and class presentations. At the end of the course, students should be able to interpret planning projects in real time production by presenting (2) dimensional to three (3) dimensional details alongside elaborate design considerations from design rationale(s) to design briefs.

pre-req.: URP 201

Credits: 2

Lectures/studio: 6 hours per week

Continuous Assessment: 1 test, 2 practical exercises

Final examination: 2 hours

CA/exam ratio: 1:1



### **URP 209 Transport Planning and Management**

Transportation planners are responsible for estimating where future travel will occur, by what means, and on what routes. What tools are available for planners to evaluate the future demand for travel in our communities? This course introduces the student to transportation planning and provides an understanding of transportation planning models, including travel demand models of trip generation, trip distribution, mode choice, and traffic assignment. The course will also discuss data collection processes and limitations, new approaches, and the land use and transportation interactions.

pre-req.: URP 202

Credits: 2

Lectures/studio: 2 hours per week

Continuous Assessment: 2 tests and 2 assignments

Final examination: 2 hours

CA/exam ratio: 2:3

### **URP 210 Planning Techniques**

This Course introduces students to the type of data required in planning such as sources, how it is collected (both quantitative and qualitative, questionnaire construction, interviews, non-survey methods and rapid appraisal methods). The Course continues with data analysis using frequency distribution, measures of dispersion, and statistical techniques, followed by data presentation using cartographic techniques and lastly, the stages in writing dissertations.

pre-req.: None

Credits: 2

Lectures/studio: 2 hours per week

Continuous Assessment: 2 tests

Final examination: 2 hours

CA/exam ratio: 2:3

### **URP 211 Internship**

The purpose of this Course is to provide opportunities to make the transition from school to professional planning, by translating knowledge into effective action, through field placement. The internship component is available to all students registered in the URP Programme.

pre-req.: None

Credits: 1

Duration: Minimum 6 weeks.

Assessment: Field Supervisor/Concept Paper/ Presentation =1/2/1

### **Optional Courses**

#### **URP 212 GIS for Planners**

The Course introduces the student to the fundamental principles of GIS and use of computerised geographic information systems (GIS), focusing on their significance for planning. The course focuses on fundamental principles of GIS and applications of GIS in planning. Students are introduced to GIS principles through lectures, exercises and demonstrations.

pre-req.: GEC121 and GEC 122

Co-requisite: ARB 216 and URP 207 Credits: 2

Lectures/studio: 1 lecture + 3 hours practical exercises per week

Continuous Assessment: 1 test, 2 practical

exercises

Final examination: 2 hours

CA/exam ratio: 1:1

### **URP 213 Globalisation and Sustainable Cities**

The search for sustainable cities and debates surrounding globalisation currently feature prominently in emerging planning discourse. The Course explores such debates under such headings as: Defining globalisation as historical transformation; Globalisation, economic and political process and the built environment; Globalisation and denationalization of the economy; Actors in the Global Project; Trans national capital, urbanization and planning; International organization as agents of globalisation in the built environment.

pre-req.: None

Credits: 2

Lectures/studio: 2 hours per week

Continuous Assessment: 2 tests

Final examination: 2 hours

CA/exam ratio: 2:3

### **Year 3**

#### **Semester 5**

#### **Level 300**

#### **Core Courses**

#### **URP 301 Urbanisation And Planning**

The Course explores the linkages between the urbanization processes and urban planning. Emphasis is on different interpretations of the urbanization process and how these interpretations shape planning interventions and the focus is on sub-Saharan Africa. Topics covered include: Urbanisation, Development and urban planning, Definition, demographic trends and characteristics; Problems and opportunities; Theoretical approaches to urbanisation and implications to urban planning; modernization perspective and traditional urban master planning; political economy Marxist variant and world systems perspective – the search for radical planning practice; liberal-pluralist variant – the DPU school – the search for innovative planning practice.

pre-req.: None

Credits: 2

Lectures/studio: 2 hours per week

Continuous Assessment: 2 tests

Final examination: 2 hours

CA/exam ratio: 2:3

#### **URP 302 Neighbourhood Planning**

This course seeks to expand and enhance students' urban design skills and capabilities developed under URP208. While the first part of this course covers the definition, origin and other theoretical aspects of the 'neighbourhood concept', the second part focuses on the practical complexities of designing 'livable places' – places that meet users' everyday needs in an efficient, safe and convenient manner. It also covers site inventory and analysis techniques; traffic circulation and safety; and sizing and location of public, recreational and commercial facilities. At the end, each student is required to prepare a detailed plan for about 5000 – 10000 inhabitants.

pre-req.: URP208

Credits: 2

Lectures/studio: 6 hours per week

Continuous Assessment: 1 test, 2 practical exercises

Final examination: 2 hours

CA/exam ratio: 1:1

### **URP 303 Housing Studies**

The Course includes such topics as: the role of housing in local and national development, housing types, problems and transformations, factors affecting housing demand and supply; assessment of private and public sources of housing finance; issues of equity, quality, health and standards in housing, assessment of public and private housing delivery systems, rent control, subsidies, legislation, land servicing and cost recovery; self-help housing, the national housing policy.

pre-req.: None

Credits: 2

Lectures/studio: 2 hours per week

Continuous Assessment: 2 tests

Final examination: 2 hours

CA/exam ratio: 2:3

### **URP 304 Regional Planning**

This Course provides a synthesis of the science of spatial systems with the art of planning and management and focuses on the analysis of spaces, regions and locations. The Course teaches the concept of region, regional models such as growth pole theory and how to manage regional change. The Course discusses factors affecting settlement network such as: specialisation, interdependence and settlement hierarchy; environmental impacts, distribution of natural resources, jobs, populations and opportunities, as well as regional linkages, transport networks and regional infrastructure. The role of small towns in rural development and growth central pole theory and practices elaborated in Botswana National Settlement Policy, Regional Master Plans and District Settlement Strategies are also highlighted.

pre-req.: URP 203

Credits: 2

Lectures/studio: 2 hours per week

Continuous Assessment: 2 tests

Final examination: 2 hours

CA/exam ratio: 2:3

### **URP 305 Research Methods and Techniques**

The aim of the course is to introduce students to skills required in social science research in general and physical planning in particular. It covers definition and need for research; major research approaches (objectivity, positivism, empiricism, subjectivity and postmodernism; research ethics; the generic research process (problem identification, hypothesis, theoretical frame etc.); Quantitative and qualitative data and research approaches; data collection and analysis techniques, tools and processes; and references and bibliography.

pre-req.: None

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: 2 tests and 1 exercise

Final examination: 2 hours

CA/exam ratio: 2:3

**Optional Courses****URP 306 Remote Sensing for Planners**

This Course contains two parts. In part one it introduces the interpretation of aerial photographs, stereoscopic vision, parallax, scale in aerial photographs, classification systems, etc. In part two starts with the introduction to remote sensing where focuses on hands-on display and analysis of satellite images with computer pallets and symbols; methods of Image classification; histogram techniques on image enhancement; map algebra In satellite images; mufti channel study of satellite images and spectral signatures. In addition deals with techniques on satellite images correction; temporal changes in satellite images; overlaying vector to raster images; as well as principal component analysis applications in planning. Computer lab work included with available software (e.g. IDRISI, ERDAS or TM)

pre-req.: URP212

Credits: 3

Lectures/studio: 1 lecture + 3 hours practical exercises per week

Continuous Assessment: 1 test, 2 practical exercises

Final examination: 2 hours

CA/exam ratio: 1:1

**URP 307 Land and Property Valuation**

The Course starts with an introduction to the property market, the different types of property, the organisations and individuals that require and trade in property, and the dealing methods employed. The basic characteristics of real estate and the principal factors affecting value are then considered, followed by the concept of valuing a legal interest in land, and not the property itself. The Course also examines the appropriate valuation techniques employed in assessing the open market value of property, why valuations are required and the concept of intrinsic worth. The difference between open market value (property exchange price) and worth to the individual is finally introduced.

pre-req.: None

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: 2 tests

Final examination: 2 hours

CA/exam ratio: 2:3

**Semester 6****Core Courses****URP 308 Planning, Policy and Politics**

Planning and Politics is premised on the definition of the urban planning as state intervention in the urbanization processes. The Course explores how political configurations influence the planning process, institutions and procedures. Various theories of the state and their implications to urban planning are discussed, including post-Marxian concepts and inclusive democratic urban planning, specially in developing countries.

pre-req.: None

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: 2 tests

Final examination: 2 hours

CA/exam ratio: 2:3

**URP 309 Urban Land Use Planning**

The course explores both theoretical and practical underpinning of urban land use planning helping the students to understand urban planning movements, the nature of different types of urban plans, their elements and the process of their preparation. At the end of the course students will be able to understand: 1) the nature of urban land, land use & land cover, land information & land use planning; 2) the process of urban land use planning; 3) the types of urban plans in international urban planning arena; and 4) the types of urban plans in Botswana and South Africa.

pre-req.: None

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: tests and assignments

Final examination: 2 hours

CA/exam ratio: 2:3

**URP310 Planning and Environmental Law**

This Course is an introduction to the principles of land tenure and security; land and property transactions, customary land tenure and Tribal Land Act, freehold, lease and fixed time grants, the Town and Country Planning Act, rent control and the estate agent, the structure, power and functions of institutions such as SHHA, BHC, VDC, Land Boards, DLUPU etc. (2-hrs lecture per week).

pre-req.: None

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: 2 tests

Final examination: 2 hours

CA/exam ratio: 2:3

**URP 311 Settlement Upgrading**

The Course covers definitions of unplanned, spontaneous, traditional and squatter settlements, assessment of slum clearance versus upgrading, costs and benefits of incremental versus full scale redevelopment, retention households versus relocation, assessment of temporary, semi-permanent and permanent developments, needs assessment, public participation and consensus building; developing and building private sector, community and public partnership in land servicing and settlement redevelopment.

pre-req.: URP302

Credits: 2

Lectures/studio: 6 hours per week

Continuous Assessment: 1 test, 2 practical exercises

Final examination: 2 hours

CA/exam ratio: 1:1

**URP 312 Dissertation: Directed Readings**

Each student is required to identify a research topic which will ultimately result in a dissertation to be submitted in Semester Seven. The Course consists of guided reading on the literature and research techniques applicable and relevant to the student's research topic.

pre-req.: None

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: 2 assignments

Final examination: Final paper

CA/exam ratio: 2:3

**URP 313 Internship II**

As a result of close cooperation between the DAP and the various public and private offices of planning, an internship programme has been developed for all our undergraduate students in the BSc URP Programme. Its purpose is to provide opportunities for students to assist the transition from school to professional planner, by translating knowledge into effective action, through field placement. Students are expected to get a first-hand knowledge of how to relate land use planning and transportation planning. The Course is also expected to cover transport data collection, analysis, traffic forecasting, evaluation of transportation proposals and finally transport management.

pre-req.: URP211

Credits: 1

Duration: Minimum 6 weeks.

Assessment: Field Supervisor/Concept Paper/ Presentation =1/2/1

**Optional Courses****URP 314 Land and Property Management**

This Course develops the principles of land management through the consideration of the role of the commercial, residential and industrial property estate manager, the types of organizations that own and manage property, the practical understanding of the rent review process and lease renewal process, the examination of and practical consideration of commonly drawn lease terms and finally, an understanding of the use and application of information technology.

pre-req.: URP307

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: 2 tests

Final examination: 2 hours

CA/exam ratio: 2:3

**URP 315 Building Technologies and Material**

The course introduces planning students to basic techniques and issues in the construction of simple structures as well as factors that affect the quality and suitability of common building materials. It covers general requirements for 'appropriate' building materials; climatic considerations in house design, construction management; Botswana traditional building materials and techniques; 'modern' building materials and techniques; and building maintenance.

pre-req.: None

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: 2 tests

Final examination: 2 hours

CA/exam ratio: 2:3

**Year 4****Semester 7****Level 400**



## Core Courses

### URP 400 Philosophy and Planning

The Course explores the philosophical and methodological debates within urban planning. Topics discussed include positivism, structuralism, phenomenology etc. Philosophical basis of urban planning- positivism and derivative planning methodologies - hypothetical-deductive methodology and urban master planning: Phenomenology and urban planning - towards interpretive methodologies, Realism and urban planning- structural methodologies, post-modernity and urban planning.

pre-req.: None

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: 2 tests

Final examination: 2 hours

CA/exam ratio: 2:3

### URP 401 Rural Land Use Planning

This studio course instructs the planning students how to produce the Report of Survey (RoS), which is the first step in practical preparation of development plans for small settlements and rural territories. The course covers intensive field survey, data collection of primary and secondary data, data analysis and interpretation, and review of issues and opportunities. The final Report of Survey should be submitted in the form of technical report including analytical text, GIS maps, charts, planning and design drawings, tables, statistics, etc. A small group and team work, and liaison with community representatives, government officials and different stakeholders are the imperatives of this studio course.

pre-req.: UPR311

Credits: 2

Lectures/studio: 1+3 hours per week

Continuous Assessment: submission of draft RoS and interim assessment of individual RoS chapters

Final examination: submission and class presentation of the final RoS

### URP 402 Transport Engineering for Planners

The objective of the course is to introduce the student to common techniques for analysis and design in transportation engineering. The course covers transportations system objectives and constraints, physical design of transportation facilities, geometric design of road cross-sections, earthworks, traffic engineering studies and traffic flow principles.

pre-req.: None

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: 2 tests and 2 assignments

Final examination: 2 hours

CA/exam ratio: 2:3

### URP 403 Urban Management and Governance

The Course aims to bring awareness to the fact that good urban governance can lead to better-managed cities. It is argued that good urban governance is characterised by sustainability, decentralisation, equity, efficiency, transparency and accountability, civic engagement and

citizenship, and security, and that these norms are interdependent and mutually reinforcing

pre-req.: None

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: 1 assignment and 1 test

Final examination: 2 hours

CA/exam ratio: 2:3

### URP 404 Project: Research Methodology

The Course seeks to students in producing a dissertation in partial fulfilment of an award of a degree in urban and regional planning. Through the guidance of supervisors, the student will critically review the methodologies and data collection techniques that deal specifically with the topics they will have chosen for their dissertations.

pre-req.: None

Credits: 2

Lectures: 2 hours per week

Continuous Assessment:

Final examination:

CA/exam ratio: 2:3

## Optional Courses

### URP 405 Gender and Physical Planning

The aim of the course is to introduce students to the need to consider and integrate gender dimensions in physical planning and settlement management processes. Topics covered include: definition of gender; gender roles, contracts and relationships; gendered spaces; gender inequalities in traditional and modern settlements; approaches to gender planning; gender analysis, auditing, mainstreaming and proofing in physical planning processes.

pre-req.: None

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: 2 tests

Final examination: 2 hours

CA/exam ratio: 2:3

### URP 406 Public Participation in Physical Planning

The realization of successful physical planning depends on the levels of public participation by local communities. The Course explores various conceptualization of participation in physical planning. Students will be taken through Amstein classical ladder of citizen participation to more contemporary and radical views of participation as a self-empowerment and re-discovery project. Conditions necessary for participation as well as factors that impede participation will be explored. The Course draws on case studies from Sub-Saharan Africa and other developing areas.

pre-req.: None

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: 2 tests

Final examination: 2 hours

CA/exam ratio: 2:3

## Semester 8

### Core Courses

#### URP 407 Planning And Social Theory

The Course traces how debates in social theory

shape the urban planning discipline. Emphasis is on contemporary social issues. Topics covered include theories of social action, structural Marxism, post structuralism and critical theory.

pre-req.: None

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: 2 tests

Final examination: 2 hours

CA/exam ratio: 2:3

#### URP 408 Development Impact Assessments

This Course helps students to understand a Development Impact Analysis as a process of estimating and reporting the effects of future land developments and construction. This assessment applied to large and medium size urban growths projects. This Course covers different areas of development impact analysis including legal consideration, site analysis, market analysis, environmental impact analysis, social, economic and fiscal analysis, traffic analysis, as well as shared infrastructure costs. Each impact analysis includes methods for analysis, sources of data, a preview model, and tips for analysing critique. The Course also includes a computerized model that lets students try out hypothetical proposals to see in advance what effect they might have.

pre-req.: None

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: 2 tests

Final examination: 2 hours

CA/exam ratio: 2:3

#### URP 409 Settlement Development Planning

The course is focused on preparation of comprehensive physical plan for a small urban/rural settlement. Working in planning team students will continue to play the role of planning consultant assigned in URP 401. They are expected to refine goals and objectives; review planning standards; develop land use, socio-economic, environmental and engineering projections; review planning models; develop, evaluate and select preferable planning scenario; develop planning vision; prepare development proposals and policies; prepare detailed designs for priority action areas; prepare Impact Assessment Analysis; review plan implementation and financial requirements for the first five year of plan implementation; develop phasing, monitoring and review schedule. The expected outputs shall be in the form of the Draft and the Final planning reports.

pre-req.: URP401

Credits: 2

Lectures/studio: 1+3 hours per week

Continuous Assessment: submission of draft Planning Report and interim assessment of its chapters

Final examination: submission and class presentation of planning reports

#### URP 410 Project Planning and Management

To acquire practical knowledge on planning and management skills and how to apply them in complex planning situations. The lessons include project planning process and management



concepts. Project planning also exposes students to basic appraisal techniques. Practical knowledge on how to prepare spatial plans (structure plans and local plans), incorporating planning briefs and design guides is studied. The linkage has to be drawn between project planning and the implementation of the physical development plans. Methodology focusing on implementation and the management techniques are taught. Case studies are reviewed on how planning is being undertaken/approached particularly in the Sub-Saharan Africa.

pre-req.: URP 406

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: tests and practical assignments

Final examination: 2 hours

CA/exam ratio: 2:3

#### URP 411 Project Report

The Course seeks to assist students in producing a dissertation in partial fulfilment of an award of a degree in urban and regional planning. Using the proposal and methodology developed in URP 404 a student will analyse the data and do the final write up of a readable report based on problem investigated (1-hr per week).

pre-req.: URP 404

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: tests and practical assignments

Final examination: 2 hours

CA/exam ratio: 2:3

#### Optional Courses

##### URP 412 Planning Negotiation and Contracting

The aim of this course is to offer step-by-step instructions in contracting planning consultants and in organising successful public and professional negotiation meetings in situations where we have to resolve community planning related problems using mediating and facilitating skills to bring opposing parties together. The Course is essential for every private developer, planner, public official, or land use planning consultant who deals with the public, professional bodies, governmental, parastatal, private and non-governmental organisations. In addition it helps students to understand the needs for hiring of consultants in order to supplement central/local government planning agency staff time, expertise, to ensure objectivity and credibility and to obtain a variety of skills.

pre-req.: URP 406

Co-requisite: URP 410

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: tests and assignments

Final examination: 2 hours

CA/exam ratio: 2:3

##### URP 413 Urban Agriculture

A presentation of the various aspects of the concept and practice of urban and peri-agriculture. This is followed by an examination of the practice of urban agriculture; social, economic and environmental impacts of UA; food safety and health issues and lastly, enabling

strategies to take on board UA in city and municipal planning.

pre-req.: No

Credits: 2

Lectures: 2 hours per week

Continuous Assessment: 1 test and 1 assignment

Final examination: 2 hours

CA/exam ratio: 2:3

## DEPARTMENT OF CIVIL ENGINEERING

#### CBB311 Construction Echnology 1 (3)

Structure of the instruction industry, function of construction work, site organisation and investigation, basic construction techniques, framed structures, floors, roofing systems, and stairs.

#### CBB312 History of Buildings (2)

History of building; Study of key building structures in relevant historical stages; Significant works; Architectural heritage of Botswana.

#### CBB322 Measurement And Specification I (3)

The course deals with the measurement of materials and labour in simple building works. It also covers areas such bill preparation and the use of computer software in the preparation of bills of quantities. Principles of Measurement: Historical development of the quantity surveying profession; the standard method of measurement; measurement conventions; manual and electronic processing of project cost data. Measurement of Simple Buildings: Measurement of building elements including foundations, brickwork, partitions, roof, floors, doors, windows and internal finishes. Bill Preparation: Purpose of Bills of Quantities; various bill formats; preparation of Bills of Quantities.

#### CBB323 Construction Industry Economics (2)

Basic concepts covered include nature, role and market issues of the construction industry and construction project economics.

#### CBB325 Information Technology in Construction Industry (2)

Introduction: Technologies and trends; Information processing; Strategic use of information technology: E-commerce and Internet; IT in Project management; Use of GIS in facility management.

#### CBB411 Construction Economics 1 (3)

Construction design economics; Cost planning and control; Cost information; Introduction to engineering economics; Value engineering and management.

#### Construction Technology II (3)

This course covers the following: Site Works, External Enclosure, Internal Enclosure and External Works.

#### CBB413 Measurement & Specification II (3)

This course covers measurement of complex

building works and use of computer software in measurement

#### CBB414 Building Services (2)

Water supply systems, fundamentals of drinking water supply systems, hot water supply systems, sanitary appliances and installations, drainage systems, refuse disposal.

#### CBB415 Health And Safety Management In Construction (2)

Introduction to health and safety on construction sites, workplace safety, protective equipment, hazardous substances, accident reporting and investigation, first aid on the site.

#### CBB511 Construction Economics II (2)

Property markets, Development Economics, Development appraisal, Life Cycle Costing (LCC), Construction Industry Economics.

#### CBB512 Construction Management I (2)

Contract administration; Project estimating and cost control; Project management; Human resources; Construction planning; Managing health and safety at work.

#### CBB513 Measurements & Specifications - Cml Works (2)

Principles of measurement; Civil Engineering Quantities; Specialist Services and Equipment; Bill preparation.

#### CBB515 Estimating And Tendering (3)

Estimating processes; Methods of estimating; Cost estimation; Calculation of unit rates; Tender documents; Pre-tender functions; Methods of tendering; Selection of contractor; Bidding strategy.

#### CBB519 Building Economics

Nature, role and market issues of the construction industry, construction project economics; Design economics, Cost planning and control, Cost information; Value engineering and management: Construction industry - Nature and organisation the of construction industry; its role and contribution to the national economy, construction industry in Botswana; its products and the present status and future within the region and national economic growth and development; Construction project economics -Requirements of various clients and their impact on the construction process; relationship between cost, time, quality and value in development projects, Construction Design economics; cost implications of design factors, construction methods and site factors, Cost information: sources and reliability of cost data, cost limits, cost indices and cost analysis, Cost planning and control: elemental and comparative cost planning, practical applications and cost control techniques; Value engineering and management.

#### CBB521 Contract Administration (2)

Tendering and procurement systems; Preparation of interim certificates and set-off; Variations; Final account; Delays; Claims; Insurance; Insolvency; Risk management.





### **CCB522 Construction Management II (2)**

Contract planning; Work-study; Application of planning techniques; Project control; Benchmarking and partnering; Employment and industrial relations.

### **CCB523 Construction Technology III (2)**

Construction plant; Formwork and false work; Maintenance; Modular co-ordination.

### **CCB525 Property Management and Valuation (2)**

Property Valuation; Valuation Theory and Methods; Property Management Framework; Property management function.

### **CCB526 Construction Dispute Resolution (2)**

Nature and forms of construction dispute; Procedure for arbitration & dispute resolution; Alternative dispute resolution methods.

### **CCB527 Facilities Management (2)**

Operational Services; Assets management; Life Cycle Costing; Services; Maintenance and Feedback.

### **CCB211 Engineering Materials (2)**

This course covers the following: Types of materials; Atomic structure; and imperfections; Mechanical and physical properties of materials; Principles of solidification and phase diagrams; Ferrous and non-ferrous alloys; Ceramic materials; Polymers; Composite materials; Wood; The environmental stability of materials; The failure in materials in stress.

### **CCB212 Statics (2)**

This course covers the following: Introduction to statics; Force vectors; Force systems; Equilibrium; Structures; Distributed forces and moment of inertia; Friction; Virtual work.

### **CCB217 Theory Of Structures I**

Types of structural systems - trusses, beams, frames, arches, cable roofs, plate and shell structures, masonry structures; Supports and connections: types of supports and connections of structural components; Actions, reactions and equilibrium; Loads, force systems and equilibrium. Stresses and strains: Hooke's law, state of stress and strain at a point, principal stresses: Stress resultants, free body diagram and types of internal forces; Section properties: centroid of area, moment of inertia, parallel-axis theorem, sectional principal axes; Trusses: axial tensile and compressive forces in plane trusses; Beams: bending moments and shear forces, diagrams; Frames: bending moments, shear forces and axial forces; Stability: initial stability, instability under loads, buckling of compression members, local buckling of member thin walls.

### **CCB221 Strength of Materials (2)**

This course covers the following basic principles: Beams; Stresses and strains; Bending; Torsion; Composite sections; Buckling.

### **CCB227 Theory of Structures II**

Basic principles of limit states design of steel, reinforced concrete, steel-concrete composite and timber elements according to present codes and standards. Reinforced concrete

structures - form shaping and materials used. Basic assumptions and principles of reinforced concrete design. Simply supported and continuous beams. One way and two way slabs. Columns. Foundations. Basic principles of limit states design: ultimate limit state criteria (strength, stability) and serviceability criteria (deflections, vibration, fatigue, cracking) for elements made of different materials. Limit states design standards: reference to steel, reinforced concrete, steel-composite and timber. Reinforced concrete design: reinforced concrete structures, types of structural elements, materials. Section design for moment: types of beam sections, behaviour of beam sections. Deflection and cracking: cracking limits and control. Simply supported and continuous beams: typical reinforcement layouts, curtailment and anchorage of longitudinal reinforcing bars, examples of simple beam design. Slabs: One-way and two way spanning solid slabs, typical reinforcement layouts, examples of simple slab design. Design for shear: shear reinforcement in beams, shear resistance of solid slabs, shear due to concentrated loads on slabs. Columns and foundations: typical reinforcement layouts, simple design examples.

### **CCB311 Geomechanics I (3)**

This course is a general introduction to soil mechanics including soil formation, physical properties, soil classification, soil compaction and stress distribution.

### **CCB313 Surveying (3)**

Basic concepts covered in this course are as follows: Distances: Tape and optical square, optical distance measurement, Electronic distance measurement, GPS measurement; Levelling concepts and applications: Types of levelling surveys, types of instruments (including digital levels), error sources, corrections, checking and adjustment, field procedures; Areas and volumes: computation from plans, co-ordinates, measurement, intersections, gradients, indivisibility; Theodolite: concepts, error sources, checking, temporary and permanent adjustment, observation procedures, booking and calculation; Use of angles: single point determination, multiple point determination, triangulation, trilateration, traversing; Tachometry: polar radiation, instrument types, free set up, plotting, total stations, demonstration of software for manipulating survey data; Setting out: buildings, sewer lines, roads. This course consists of field practicals.

### **CCB315 Environmental Engineering (2)**

Ecology, surface water pollution and control, groundwater pollution and control, air pollution, noise pollution and environmental regulations.

### **CCB312 Cad for Cml Engineers (2)**

Creating and maintaining cost and specification database; Design of prototypes; Mini projects in designs.

### **CCB314 Engineering Geology (2)**

This course gives an introduction to planet Earth, including but not limited to Minerals, Rocks, Structural geology, Surface processes and soils, Groundwater systems, Natural resources,

Engineering geology and environmental geology.

### **CCB316 Principles of Mining Engineering (2)**

Mineral resources; Life-of-mine and mining cycles; Mining production optimisation; Mine design fundamentals; Ore preparation; Ancillary engineering services.

### **CCB317 Theory Of Structures III**

The course begins with the basic principles of limit state design of steelwork connections, and tensile and compression structural elements to BS5950. The application of those principles to design of roof trusses and spatial grid systems constitutes the main course content. Other types of long span structures, and tensile and shell like structures are also covered. The course stresses reference to case studies in existing and historical buildings, and combines critical analysis of such solutions with the students' work comprising a partial computer-aided design of large span structural system. Steelwork design to BS5950: types of connections and joints, design of bolted and welded joints with an emphasis put special grid structures, design of steel tension and compression members. Roof trusses: types and uses, design of truss members and joints. Large span spatial grid structures: flat (plate like) and curved (shell like), form-finding and design principles. Tensile, textile and hybrid structures: basic concepts and examples of existing structures.

### **CCB321 Structural Analysis (3)**

Determinate frames; Force displacement relations; Influence lines of determinate beams; Analysis of indeterminate beams; Influence diagrams and critical load conditions; Approximate methods of frame analysis.

### **CCB322 Fluid Mechanics & Hydraulics (3)**

Concept of real and ideal fluid; Fluid properties; Measurement instruments; Fluid at rest; Kinematics of fluid flow; Hydrodynamics; Flow through pipes; Flow through open channels; Reciprocating pumps; Centrifugal pumps.

### **CCB323 Construction Principles (3)**

Structure of the construction industry, site organisation and investigation, basic construction techniques, ground treatment methods, framed structures, construction plant, maintenance, repair and alteration.

### **CCB324 Construction Materials (3)**

Cement. Aggregates. Concrete. Metals. Timber. Bricks. Bituminous materials. Composite materials.

### **CCB325 Geomechanics II (2)**

Soil permeability and seepage analysis; Seepage pressures on structures; Piping in soils; Soil Stabilization; Soil Exploration.

### **CCB329 Architectural Design (2)**

Architectural design principles; Design program; Site planning; Functional organisation; Room Planning; Massing.

### **CCB411 Structural Design (3)**

Basic principles of reinforced concrete design;

Section design for moment; Shear; Deflection and cracking; Simply supported and continuous beams; Slabs; Columns; Foundations; Retaining walls; Examples of design of reinforced concrete structures.

#### CCB412 Water Engineering (3)

Fundamentals to drinking water supply; Water demand; Water quality assessment; Water treatment.

#### CCB413 Traffic and Highway Engineering (3)

Geometric design; Design of off-street parking facilities; Road safety; Traffic management; Road construction materials; Earthworks and earthworks equipment; Drainage; Road construction technology; Pavement design; Highway construction; Highway maintenance and road reconstruction and rehabilitation procedures; Use of computer software.

#### CCB414 Geotechnics (2)

Consolidation; Shear strength; Stability of slopes; Earth pressure; Earth retaining structures; Reinforced earth.

#### CCB415 CML Engineering Construction (2)

Land reclamation techniques; Tunnel construction; Offshore Construction; Construction of concrete structures; Managing construction equipment.

#### CCB416 Structural Steelwork (2)

Steel connections; Design of steel beams; Design of steel compression members; Design of steel tension members; Steel trusses; Examples of structural steelwork design.

#### CCB418 Hydrology and Water Resources (2)

Simplified hydrologic cycle; Precipitation; Surface waters; Dams and reservoirs; Underground waters. Evapotranspiration; Water resources.

#### CCB419 Engineering Surveying (2)

Principles of setting out; Definitions; Curve Ranging.

#### CCB511 Foundation Structural Engineering (2)

Soil Formation; Index Properties of Soils, Engineering Characteristics of Soils; Various Types of Foundations. Soil Formation, Residual and Transported Soils, Void Ratio, Porosity, Water Content, Degree of Saturation and Unit Weights of Soils; Classification Tests and Classification of Soils; Compaction and Consolidation Characteristics of Soils; Shear Strength of Soils; Bearing Capacity of Soils; Various types of Shallow and Deep Foundations. This course consists of a project proposal, written progress report and presentation.

#### CCB515 Transportation Engineering (3)

Introduction to traffic flow theory; Traffic surveys; Principles of transport analysis and forecasting; Transport planning strategies; Public transport; Transportation systems management.

#### CCB516 Foundation Design (2)

Bearing capacity of soils; Types of foundations; Shallow foundation; Deep foundation;

Improving site soil for foundation use; Field tests.

#### CCB517 Structural Dynamics (2)

Oscillatory motion; Single-degree of-freedom system; Resonance and related matters; Introduction to multi-degree of freedom systems; Normal mode vibration.

#### CCB518 Public Health Engineering (2)

Environmental sanitation, solid waste management and public health practice.

#### CCB521~AST~ATER Engineering (2)

Wastewater characteristics, primary treatment, secondary treatment, sludge treatment and disposal, advanced treatment and wastewater effluent disposal and reuse.

#### CCB523 Timber And Pre-stressed Concrete Structures (2)

Timber Design; Design of Beams; Wood Columns; Trusses; Building design examples; Pre-stressed concrete; Basic principles; Design of members; Loss of pre-stress; DeRections and shear.

#### CCB524 Project II (3)

This course consists of collecting, compiling, analysing data and interpreting results to write and orally present the report.

#### CCB525 Advanced Transportation Engineering (2)

Design principles of pedestrian and bicycle facilities; planning for disabled people; Geometric design of railways; Airport layout and runway design; Belt conveyor design; Transportation forecast and modelling; Transportation systems impact assessment.

#### CCB526 Foundation on Problematic Soils (2)

Expansive soils; Foundation design on expansive soils; Collapsible Soils; Foundation design in collapsible soils; Laboratory tests.

#### CCB527 Construction Costs And Financial Control (2)

Characteristics and classification of construction costs; Financial costs and expenditures; Preparation, analysis and interpretation of management information.

#### CCB528 Estimating and Tendering (2)

Estimating purposes and functions; Cost estimation; Types of estimates; Calculation of unit rates for civil engineering works, day works and prorata rates; Tendering procedures, Tender documents, Pre-tender Functions and Methods of Tendering; Selection of contractor; Bidding strategy.

#### Bachelor Of Geomatics

#### CGB111 Geomatics I (4)

Introduction to Geomatics and review of the necessary mathematics; measurements of land: plane surveying; geodesy: the scientific foundation; measurements from space: satellite positioning and navigation. Mapping and managing geographic information.

#### CGB122 Survey Camp I (2)

The survey camp covers fundamental principles of field methods; errors and field checks; optical distance measurement; trig heighting; taping; adjusting angles; levelling; traverses; horizontal circular curves; vertical curves; measuring longitudinal and cross-sections, and report writing. Emphasis is placed on practical experience. Students will be divided into groups of four or five persons.

#### CGB121 Geomatics II (4)

Introduction to survey standards and specifications; survey network design and adjustment; operational and quality control aspects of electronic distance measurement (EDM), angle measurement, trig heighting and precise levelling; introduction to satellite positioning, observation techniques and data processing; advanced positioning techniques including automated field surveying, laser levels and reflectorless total stations to capture topographic data; data processing and analysis; setting out.

#### CGB211 Elements of Photogrammetry (3)

The course aims at introducing the student to the geometry of aerial photographs, stereo photogrammetry, mapping with analogue photogrammetric instruments, analytical and digital photogrammetry.

#### CGB213 Principles of Cartography (3)

The course aims at introducing the student to the basic concepts of cartography such as reference surfaces, coordinate systems and map projections, map design and layout, topographic and thematic cartography.

#### CGB221 Digital Photogrammetry (3)

This course deals with concepts and applications of analytical photogrammetry, digital photogrammetry and satellite photogrammetry.

#### CGB222 Theory of Survey Adjustment (3)

The course aims at introducing the student to methods of survey adjustment, linearization of equations, propagation of errors in survey measurements, least square methods, observation equations, condition equations and statistical analysis.

#### CGB223 Digital Cartography (3)

This course deals with digital coordinates, digital representation of cartographic data, map digitisation, coordinate systems and datums, coordinate transformation, digital elevation models, geographic data acquisition, computer-aided statistical and thematic mapping

#### CGB224 Programming for Geomatics (3)

The course aims at introducing the student to object-oriented programming, activeX, networks & World Wide Web, spatial data structures, geographic software components: Open GIS specifications, MapObjects and ArcObjects.

#### ITB200 Industrial Training (4)

During the course of industrial training, students shall undergo 8 weeks of supervised industrial training. Students shall be subjected to such



codes, procedures, laws, rules and regulations as applicable to the industry.

#### **CGB311 Engineering Surveying (3)**

The course aims at introducing the student to methods of data collection in engineering projects. It covers curves, route surveys, and earthworks, DTMs in engineering surveys, construction surveying, deformation surveys and application of Lasers

#### **CGB312 Geodesy I (3)**

This course covers an introduction to geodesy, Coordinate transformations, Geodetic Astronomy, Geodetic computations and the geodetic control network in Botswana.

#### **LAW354 Land Law for Geomatics (3)**

The course aims at presenting the various laws that impact on land administration. It covers concepts of Property law, Landownership, Rights in land, Conveyancing and introducing the Various Acts on land in Botswana

#### **CGB321 Introduction to Land Administration (3)**

The course introduces the concepts of land; spatial organization; evolution of land tenure systems and concept of property; the cadastre concept and land information systems; land tenure systems in Botswana; land registration systems; cadastral surveying systems: boundary delimitation processes; survey systems; writing legal descriptions; retracement surveys; subdivision surveys; boundary evidence and possessory rights; land reform: land redistribution, land tenure reform, and land restitution in southern Africa.

#### **CGB322 Principles of GIS (3)**

The course aims to familiarize the students with the basic concepts of GIS. It covers the basic Concepts, Data Sources, Data Capture Methods, Data Structure and models, Hardware and software Configuration, Spatial relationships, GIS Analysis Functions, GIS and Remote Sensing, and a review of GIS software.

#### **CGB323 Satellite Positioning Systems (3)**

The objective of the course is to teach the basic principles of GPS, GLONASS and Galileo as means of position using satellite methods. It introduces the historical development of the three systems, the Signal Structure, GPS positioning concepts of resection from space, Point positioning, Relative positioning, Static positioning, Kinematic positioning RTK. Surveying and other mapping applications are also introduced

#### **CGB324 Geodesy II (3)**

This course deals with the theoretical concepts of Satellite Geodesy and their use in positioning. It introduces students to concepts of Physical Geodesy leading to geopotential models, Orthometric and Geodetic Heights

#### **CGB325 Survey Camp II (2)**

This is a field course covering planning and logistics of survey operations, horizontal control network, cadastral survey design; DTM modelling, precise engineering surveys, GPS surveys; production of final plan(s) using

Geomatics software and report writing.

#### **ITB300 Industrial Training (4)**

After level 300, students shall further undergo 8 weeks of supervised industrial training. Students shall also be subjected to such codes, procedures, laws, rules and regulations as applicable to the industry.

#### **CGB413 Advanced Land Administration (3)**

The course introduces modern issues in land tenure, land policy, land management and administration; survey law and practice: a profession for the 21st century; land information management: principles and applications. The role of property systems in land management, natural resource management, and parcel-based information systems. Comparative analysis of land tenure, land reform, and land administration systems

#### **CGB415 Advanced Cartographic Visualisation (3)**

The course aims at introducing cartographic visualisation techniques. The course content will include cartographic visualisation processes; different visualisation strategies in Geospatial Data infrastructures; exploratory cartography using the intranet and WWW; Web Map Design and Multimedia

#### **CGB416 GIS Design and Implementation (3)**

The course aims at teaching student how to design and implement a GIS system. The course content includes analysis of requirement; system planning and specifications; implementation of system; Legal and Policy issues.

#### **CGB417 – Digital Image Processing (3)**

The course is designed to introduce digital image processing concepts with specific reference to Remote Sensing data. It covers the basic concepts of Digital Image, Source of data, Data formats; Image Pre-processing; Image Enhancement; Information Extraction; Image Processing System Considerations.

#### **CGB418 Principles and Practice of SDI Development (3)**

This course introduces the principles and practice of implementing national spatial data infrastructures, challenges and opportunities for developing NSDI.

#### **CGB 422 Cadastral Surveying Practice (3)**

The course aims at preparing the students to have sound knowledge of the legal and technical requirements for making a cadastral survey. The course content includes cadastral surveying; methods of performing cadastral surveys; role of a land surveyor in resolving boundary disputes and as an expert witness; cadastral surveying computations; cadastral layout design and implementation; Land Survey Act and regulations; Sectional Titles Act and regulations; Tribal Land Act and regulations; Town and Country Planning Act and regulations; Deeds Registry Act and regulations; Survey of mining leases.

#### **CGB423 GIS Applications (3)**

The course aims at familiarizing the students with various real life applications of GIS. The content includes guided study topics in the following fields Topographic Mapping, Environment, Forestry; Biology; Geology; Mining; Utilities, AM/FM Systems, LIS; GIS in developing countries. Other relevant application areas can be discussed here and will depend on student interest.

#### **CGB424 Special Studies in Land Administration (3)**

The course introduces the concepts of land management and land administration from economic and institutional perspectives; evolving concepts of property and land tenure systems; Design, implementation, monitoring and evaluation of land reforms; Post-settlement support interventions.

#### **CGB414 Remote Sensing Applications (3)**

The course aims at familiarizing the students with various mapping applications of remote sensing. The course content will include guided study of various applications of remote sensing such as earth science, agriculture and land use and water resources.

#### **CGB425 Location Based Services (3)**

The objective of the course is to present the use of mobile technology to the students as possible utility in both field and office automation in a survey practice. The course synopsis covers Introduction to LBS, Databases, Linear referencing, and Data transmission.

(Mining Engineering courses offered in the junior years at UB)

#### **MINN 211 Introduction to Mining Engineering**

Historical perspective of mining: main stages in the development of mining technologies. Social, economic and environmental impacts of mining: a review of the mining and minerals sector. The mining cycle: prospecting, exploration, feasibility studies, construction, development and exploitation, decommissioning, rehabilitation and mine closure. The production cycle: rock breakage and materials handling. Mining equipment.

#### **MINN 221 – Introduction to Mine Safety & Health**

Health and safety issues in mining: common mining hazards relating to machinery, electricity, explosives and non-explosive gas and dust, radiation, heat and humidity; diesel exhausts; mine ventilation; noise; illumination; elements of safe working environment; hazardous materials. Hazards, accidents & emergencies: hazard control. Fires: Fire types, causes and effects, fire-fighting techniques.

#### **MIN311 Introduction to Mine Surveying**

Basic point positioning methods. Errors in measurements: types, error propagation. Distance measurement: tape, Electronic distance measurement. Levelling: levelling instruments, levelling methods field note preparation. Angular measurement: angular measurement

instrumentation, field note preparation, plane surveying coordinate systems, map projections and traversing. Introduction to Surpac survey and other related CAD software packages.

### MIN 312 Introduction to Geology

Introduction to the planet Earth: earth's structure, the role of plate tectonics in geological systems and processes, the evolution of continental and oceanic basins, geological time. Minerals, rocks and soils: crystallography, crystal chemistry and crystal properties of the main rock forming minerals; characteristics, formation, identification and classification of igneous, sedimentary and metamorphic rocks; weathering processes. Structural geology: primary structures, mechanical principles of brittle and ductile rock deformation; the recognition, characterisation and interpretation of common structural types.

### MIN 313 Introduction to Mineral Processing

Review of physical and chemical principles: review of the properties of minerals that are of use in mineral processing unit operations; Principles of liberation, concentration and separation: Comminution methods, crushing and grinding. Ore handling and sampling: Screening and particle size analysis. Classification: separation by gravity concentration (including dense medium separation), flotation, electrostatic and magnetic methods; Coal preparation technology: washing, briquetting. Slimes: the production, effect and treatment of slimes including thickeners and filters. Water use and recovery in mineral processing: Calculations of plant efficiency.

### MIN 314 Computer Applications in Mining

Specialist computing skills: software installation, transferring data. Obtaining information from the internet: searching strategies. Advanced spreadsheet techniques: what-if analysis; data analysis tools; the graphical presentation of information; importing and exporting data. Mining geology problems: analysis of structural data; assay and grade calculation; treatment of exploration data; geostatistical methods. Mining problems: scheduling, production statistics, performance measurement, mass balance, safety statistics, ventilation networks.

### MIN315 Small Scale Mining

Botswana Mining Law: provisions of the Mines and Minerals Act as it relates to mineral rights acquisitions and the various permits and licences will be introduced. Appropriate technologies for the artisanal miner; The business plan: The basic concept and development of the business plan; elements of a bankable feasibility study. Mine financing and the time value of money: Safety and health in small-scale mining: issues of safety and health facing the small-scale miner, special problems and possible solutions. Specific applications: panning, quarrying; basic metallurgical treatment, including leaching.

### MIN 316 Elements of Mining Environmental Management

Principal environmental impacts of mining activities: review of pollution, hazardous substances, mine waste and residues, noise, dust..

Environmental health risks: characterisation and management of the common mining-induced impacts on human health. Mine closure: rehabilitation, reclamation, decommissioning and aftercare; closure planning; long-term liabilities; end-of-life certificates; orphaned and abandoned mine sites. Environmental control systems: principals of the Environmental Impact Assessment (EIA) process; Quality control mechanisms: international standards, including ISO 14000; benchmarking and auditing processes.

### MIN 321 Elements of Mining Methods

Deciding on a mining method: geological factors, economic factors; advantages and disadvantages of surface and underground mining. Surface mining methods: open pit operations, open cast coal mining; comparison of surface mining methods. Underground mining methods: unsupported and supported mining; back-fill methods; caving methods; comparison of underground mining methods. Quarrying methods: sand and aggregate production; dimension stone extraction.

### MIN 322 Elements of Mine Safety and Health

General hazards in the mining industry: identification and control of hazards; safe handling, transportation and storage of hazardous materials. Mine safety and health: mine rescue, emergency evacuation procedures and escape routes; emergency management; machine guarding; the types of protective equipment, their usage and limitations. Accidents: theory and principles of accident prevention; accident reporting, investigation and analysis. Inspection procedures: review of standard auditing systems, e.g. NOSA. Emergency preparedness: causes and effects of emergencies; escape routes; drills; teams. Fire: fires types, causes and effects; special instances of underground fires; fire-fighting techniques.

### MIN 323 Elements of Mine Ventilation

The fundamentals of airflow: introduction to fluid dynamics as it relates to ventilation, total pressure components and pressure losses; pressure measurement and surveying techniques; gas laws; airflow measurement. Basic fan engineering: fan construction, characteristics and selection; regulation and control of ventilation. Atmospheric contaminants: the properties, origins and effect of dust and gases in mines; radiation; concepts of threshold values for hazardous substances; basic treatment procedures for exposure to contaminants; sampling methods; statutory requirements. Air conditioning: fundamentals of heat transfer; heat measurement and human heat stress; refrigeration technology; physiological effects of heat and humidity.

### MIN 324 Botswana Mining Legislation

Mines and Minerals Act and Regulations: mineral rights, surface rights, acquisition of rights; licences and permits, obligations of holders, arbitration. Explosives Act and Regulations: manufacture, importation, transport, storage and use. Mines, Quarries, Works & Machinery Act and Regulations: management control, safety of employees, abandoning mines, provisions for fiery mines. Waste Management Act and

Regulations: permits and licences, obligations of holder; types of mine waste, waste classification, reclamation and rehabilitation. Water Act and Regulations: Licences and permits, duties of a mineral concession holder with regard effluent discharges, effluent discharge guidelines, surface and groundwater monitoring and remediation.

### MIN 325 - Introduction to Mine Supervision & Management

Effective communication in the workplace: basic communication theory; effective communication including meetings; communication technologies. Human resource management: selection and placement of staff, job analysis and performance appraisal; training and human resource development. Principles of supervision and management: characteristics of an effective supervisor, leadership styles and organisational control. Project management skills: defining, planning, implementing and completing projects; time management. Industrial relations: stakeholders including unions, employers, employer associations and the role of the State; employer-employee relations; worker compensation; industrial action; conflict management, delegation, motivation.

### MIN 326 Mine Surveying

Review of plane surveying methods. Operational surveying: characteristics of surface and underground mine surveying tasks, horizontal and vertical curves, area and volume calculation, stockpile measurement, survey requirements of civil construction including dams, roads, transportation systems and service positioning. Surface and Underground traversing: double angle, azimuth and compass traverses, distance measurement in traversing, detailing boundaries of mine workings, steeply incline lines, side telescope calculations, traverse calculation, corrections and reduction. Preparation of Maps and Sections: field notes, manual and computer calculations, drawing plans and sections, working plans.

## DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING

### Level 300

#### Semester 5

#### EEEB311 Network Theory

Review of Circuit laws and theorems; Network topology; Time and frequency domain analysis; Three phase circuits; Computer simulation; Two-port networks; Application of Fourier Analysis to electrical networks; Application of Laplace transforms methods in electrical networks; Network functions; Active and passive filter theory and design; Synthesis of two-element type one port networks; State-variable analysis.

#### EEB 315 Computer Programming

Algorithms and Flowcharting, Program Structure, Data types, Data Input and Output,





Control constructs, Subprograms, User-Defined data and Arrays, Records, Files, Introduction to Object-oriented programming.

#### **EEB 316 Electrical Measurements & Instrumentation I**

Standards, Units and Measurement Errors, Deflection Instruments, Measurement Methods, DC Potentiometer and Bridge Measurements, AC Potentiometer and Bridge Measurements.

#### **EEB317 Principles of Telecommunications**

Receivers, Transmitters, Noise in Analogue Communications Systems.

#### **MAT 391 Engineering Mathematics III**

Vector Analysis, numerical solution of differential equations, Fourier series representation of periodic functions.

#### **Level 300 Courses**

##### **Semester 6**

#### **MAT392 Engineering Mathematics IV**

Laplace transforms, Partial differential equations and Complex analysis.

#### **EEB322 Digital Electronics I**

The basic logic functions; Derived logic functions; Boolean Algebra; Minimization techniques; NAND and NOR gates Universal function; Number Systems; Signed numbers; Arithmetic circuits; Combinational Circuits with MSI devices; Integrated Circuit Technologies; Digital to Analogue and Analogue to Digital Converters; Sequential Circuits.

#### **EEB323 Analogue Electronics**

Diode semiconductor theory; Diode applications & circuits; Bipolar Junction Transistor (BJT); Field Effect Transistors (FET); Transistor Small Signal Amplifiers; Amplifier Frequency Response; Feedback.

#### **EEB326 Electrical Machines I**

Magnetic Circuits. Transforms. D.C. Machines. Three phase Induction Motors. Heating and Cooling of Electrical Machines.

#### **EEB327 Electromagnetic Field Theory**

Introductory Vector Analysis; Electrostatics; Magnetostatics; Waves and Applications

#### **Level 400**

##### **Semester 7**

#### **EEB418 Control Theory 1**

Introduction to control systems; System analogies; Mathematical representation; Controllers; Time domain analysis; System stability

#### **MMB414 Engineering Management**

This is an introductory course to management science and engineering economics covering management theory, social responsibility of an industrial engineer, health safety, engineering project appraisal, financial control systems, and impact of information technology on organisations.

#### **EEB411 Electronic Devices and Circuits**

Operational Amplifiers theory; Op-amp circuits; Positive feedback; Power Amplifiers; Power

devices; converters and inverters, Optoelectronic devices, analogue filters.

#### **EEB412 Digital Electronics II**

Combinational circuits; Sequential circuits; Shift Register circuits and operation; Application Specific Integrated Circuits (ASICs).

#### **EEB413 Power Generation and Distribution**

Transmission Lines; Power generation; Power control; Distributors; Distribution equipment; Supply irregularities.

#### **EEB414 Electrical Machines II**

Three Phase Transformers. Three-Phase Synchronous Generators. Three-Phase Synchronous Motors. Single-Phase Motors. Micro-machines. Levitated machines.

#### **EEB415 Digital Communications and Telephony**

Principles of Digital Data Transmission, Noise in Digital Communications Systems, Information Theory, Coding Theory, Telephone Traffic, Switching and Signalling, Telephone Network.

#### **EEB416 Electrical Measurements and Instrumentation II**

Electronic Instruments, Oscilloscope measurements, Calibration of Instruments, Transducers, Signal Conditioning

#### **EEB417 Microprocessor Based Systems**

Microprocessor based system components; Microprocessor Instruction and Programming; Microprocessor Applications

#### **Level 400**

##### **Semester 8**

#### **ITB420 Industrial Training II**

Structure and layout of the organization; All/selected topics from: Office/site organisation and layout; purchasing and warehousing; manufacture, fabrication and assembly; building and construction; costing, estimating and tendering; operations; maintenance; plant erection, installation and testing, information system/design studio, involvement in small design assignments and projects.

#### **Level 500**

##### **Semester 9**

#### **EEB511 Control Theory II**

State-space models of linear systems; Solution of state equations; Digital control systems; Discrete-time systems stability analysis; Non-linear systems

#### **EEB512 Digital Signal Processing I**

Types of Signals; Time Domain Analysis; Frequency Domain Analysis; Z-Transform; Design of Non-recursive Digital Filter; Design of Recursive Digital Filter.

#### **EEB513 Analogue Electronic System Design**

Approximate Diode Models; BJT Small-Signal Amplifiers; Large-Signal Amplifiers; Operational Amplifiers; Compensation Amplifier Systems; Oscillator and Timing Circuits; Power Supply Circuits; Electronic Equipment Reliability and Fault Diagnosis.

#### **EEB514 Process Instrumentation**

Analog/digital signal conditioning and transmission; Optical measurements; Measurements of process parameters; Analytical Measurements; Control valves and actuators; Instrumentation systems; Smart/intelligent transducer systems

#### **EEB515 Power Systems Analysis**

Representation of power systems. Fault studies. Load flow studies. Control of power and frequency. Economic dispatch. Power system stability studies. Protective schemes.

#### **EEB516 Power Electronics**

Rectifier circuits; Thyristor circuits and controls; Converters; Inverters. Filters.

#### **EEB517 Computer-Aided Electrical Machine Analysis**

Modeling of Electrical Machines. Multi-machine System Analysis. Simulation and Applications.

#### **EEB518 Guided Electromagnetic Waves**

Microwave Transmission Lines; Microwave Waveguides; Passive Microwave Devices; Active Microwave Devices; Introduction to Optical Fibres.

#### **EEB519 Computer Architecture and Design**

Design methodology; ALU design; Memory organization and design; Control organization and design; RISC processing and pipelining.

#### **EEB510 Project (Stage 1)**

Selection of project type, its area and scope. Defining the problem and working out a scheduled action plan. Knowledge and technical data retrieval from relevant literature and other information sources, data analysis. Working out project methodology. Project pre-design. Acquiring the required materials, software and instrumentation (for experimental studies). Alternatively it may include preliminary data collection at an industrial plant. Writing a literature overview and a progress report. Project presentation.

#### **Level 500**

##### **Semester 10**

#### **EEB520 Project (Stage II)**

This is the continuation of the course EEB510

#### **EEB522 Digital Signal Processing II**

Filters derived from analogue designs; Fourier Transform; FFT Processing; Adaptive Filtering; Hardware Implementation of Digital Filters; DSP applications to Communications; DSP applications in Multi-Media

#### **EEB523 Digital Electronic System Design Course Synopsis:**

Programmable Devices; Finite State Machines; System Design Using Programmable devices. Asynchronous Circuits. Reed-Muller algebraic description.

#### **EEB524 Process Control Systems**

Process control principles; Techniques for process control; Controllers; Computer Control



systems; Control Communications; Statistical process and quality control systems (SPC-SPQ); Expert Systems

#### EEB525 Power Systems Analysis

Overhead lines. Insulators. Performance of long transmission lines. Underground cables. Circuit breakers. Power transients

#### EEB526 Electrical Machines and Drives

Selection of drive components. D.C. motor drives. Adjustable Dc motor drives. Induction motor drives. Adjustable speed A.C. Motor drives. Synchronous motor drives.

#### EEB527 Computer-Aided Power Systems Analysis

Modeling Power System Components. Power Flow Studies. Fault calculations. Stability. Energy Control Centre.

#### EEB528 Antennas and Propagation

Fundamental parameters of Antennas; Radiation Integrals and Potential Functions; Linear Wire Antennas; Loop Antennas; Array Antennas; Horn Antennas; Reflector Antennas; Propagation of Electromagnetic waves in Infinite Media. Radar Systems.

#### EEB529 Computer Networks

Network architecture and topology, ISO reference model, Network layer for point-to-point networks, Wide Area Network, Internetworking concept and architecture model, Internet.

In addition to the above, the department of Electrical and Electronic Engineering also offers the following General Education Courses (GEC)

GEC255	Electrical Energy and Rural Development (2 credits)
GEC354	Domestic Use of Electrical Energy (2 Credits)
GEC355	Telecommunications and Society (2 Credits)

## DEPARTMENT OF INDUSTRIAL DESIGN AND TECHNOLOGY

#### DTB210 Elements Of Design (3)

This course covers the following: Design processes; Methods of searching ideas; Analysing and designing simple elements; Marketing and design – qualitative and quantitative market surveys; Manufacturing and design; Purchasing and design; Product evaluation. (2-hrs lecture, 2-hrs tutorial per week)

#### DTB211 Workshop Technology I (2)

This course covers the following: Structure of materials; Plastics: thermoplastics and thermosetting; Wood: natural and man-made; Metals: pure and alloys; Testing, Measuring and Marking out; Common hand tools and their use for wasting processes; Finishing processes. (1-hr lecture, 2-hrs practical per week)

#### DTB220 Designing Artefacts (3)

This course covers the following: Market research; Analysis of existing designs: Critical appraisals; Value addition; Graphical, mathematical and physical modelling; Design brief; Brainstorming: group discussion and overcoming mind blocks; Alternative solutions; Design folio and diary; Employing manufacturing techniques; Evaluating the artefact. (1-hr lecture, 1-hr tutorial, 4-hrs practical per week)

#### DTB221 Workshop Technology II(2)

Joining processes: Welding, soldering and brazing; Plastic welding; Fasteners; Casting processes; Forming processes: forge working, extrusion, drawing and rolling, vacuum forming, bending, injection moulding and blow moulding; Machining: Heat Treatment Processes; Finishing. (1-hr lecture, 2-hr practical per week)

#### DTB222 Graphics (2)

This course covers the following: Materials and equipment; freehand sketching; three-dimensional drawing; perspective drawing; rendering colour; working drawings; presenting information; shape and form; colour; Advertising: logos and trademarks, packaging, display and exhibition design; Computer inputs and outputs: computer art, computer aided modelling: (1-hr lecture, 4-hrs practical per week)

#### DTB300 Industrial Training (3)

This course covers the following: Relationship between education, industry and society; Types of industries and production systems; Organisation and management strategies; Impact of mass production on society and environment: Culture, work ethics and discipline in industries; Role of labour organisation; Effects of technology changes on employment; Students will also complete a 7-week Industrial Training. (Vacation Course)

#### DTB311 Design, Technology and Society (2)

This course covers the following: Cultural Influences; Environmental Issues – pollution, waste disposal, recycling; Economic influences on design and manufacturing; Case Studies; Contemporary Design Issues. Conservation of natural resources: Obsolescence; The role of the designer in industry: (2-hrs lecture per week)

#### DTB312 Aesthetics (2)

This course covers the following: Philosophical basis of aesthetics: Visual and tactical impact; Styling products; Balance and symmetry; Colour combinations and appeal: Harmonious and complementary colours; The Golden Mean and the Fibonacci series; Environmental synergy; Analysis of existing products vis-à-vis aesthetics: (1-hr lecture, 2-hrs practical per week)

#### DTB313 Ergonomics (2)

This course covers the following: General principles and dimensions of ergonomics; Anthropometrics: Body size and human diversity, human reach and use of anthropometric data, and the need for personal space; Muscular work, occupational stress and fatigue: Means of ensuring stress free environment; Time and motion study for some tasks; Mental activity,

boredom and efficiency considerations; Design of workplace and utilization of space; Workstations for computers, driving, office, industry and domestic purposes. (1-hr lecture, 2-hrs practical per week)

#### DTB314 Materials Processing (3)

This course is a comparative study of different wasting techniques, covering the following: fabrication techniques for wooden structures; tolerances and fits for assemblies; selection of joints; Silver Soldering; Forming techniques; Plastics fabrication processes; Die casting; Model making techniques and tools for different materials. (1-hr lecture, 4-hrs practical per week)

#### DTB315 Internet For Designers (2)

This course is an introduction to Internet and Intranets structures. Course contents include: Setting up Internet; Search engines; Surfing the web; Use of multimedia tools; Interactive web sites and exchange of information; Creating and editing HTML documents; Creation of web sites; Alternative web designs; Design on an interactive web site. (1-hr lecture, 2-hrs practical per week)

#### DTB317 Textile and Leather Technology (2)

This course covers the following: Properties of textile materials; Classification; Selection; Properties of leathers; Dying and tanning. Design of articles; Cutting, joining and finishing processes; Use of computers in textile and leather design; Field visits and studies: (1-hr lecture, 2-hrs practical per week)

#### DTB321 Computer Aided Design (3)

This course covers the following: Different software for modelling and design; Two-dimensional drafting; Three-dimensional modelling with isometric, oblique and axonometric views; Software packages for design; Use of packages for several selected applications; Innovations in the use of computers for designing: (1-hr lecture, 4-hrs practical per week)

#### DTB323 Pneumatic Controls (2)

This course covers the following: Input process-output for pneumatics systems; Closed-loop control and feedback; Basic Fluid mechanics: Incompressible flow; Pressure transmission and types of pneumatic systems: Elements of pneumatic systems and circuit controls: Compressed air-supply; Steps in conditioning filters, moisture removal, and lubricant addition; Operation and application of pneumatic components. (1-hr lecture, 2-hrs practical per week)

#### DTB324 Product Analysis (3)

This course covers the following: Analysing the need and functions of a variety of products and critique on their design; Value analysis; Identifying the component/function relationship and material characteristics; Product function analysis; Studies on several existing industrial and domestic designs; Field visits and studies. (1-hr lecture, 1-hr tutorial, 4-hrs practical per week)

#### DTB410 Computer Based Manufacturing (2)

This course covers fundamental concepts of computerised manufacturing: Computer



modelling for manufacture; CNC machine tools including lathes, multi axis machines and special machines; Programming semi industrial CNC machines and manufacturing simple components; Introduction to computer integrated manufacture for mass production. (1-hr lecture, 2-hrs practical per week)

#### **DTB411 Hydraulic Controls (2)**

This course covers the following: Basic hydrostatics; Forces on submerged bodies; Piezometric head; Manometers; Applications of hydrostatics: Bernoulli's equation applied to incompressible flow; Reaction forces; Momentum and moment of momentum principles; Fluid control circuits and systems; Fluid logic devices: Principles of hydraulic devices. (1-hr lecture, 2-hrs practical per week)

#### **DTB412 Product Design 1 (3)**

This course covers the following: Types of products with alternative structures: Structures, equilibrium and Pin-jointed structures; Types of mechanisms: Products with transmission of motion and forces; Change of type of motion; Lifting machines and their efficiency; Factor of safety in design. (1-hr lecture, 1-hr tutorial, 2-hrs practical per week)

#### **DTB413 Special Human Needs (2)**

This course covers the following: Maslow's hierarchy of needs; Design in the context of special human need; Basic principles of ergonomics and anthropometrics for special human needs; Anthropometrics data collection, analysis and application; Design, detail, make, test and evaluate the Product Design. Client involvement and evaluation: (1-hr lecture, 2-hrs practical per week)

#### **DTB414 School D&T Projects (2)**

This course covers the following: Factors to be considered and classification of projects by levels and difficulty index; Formulation of project tasks and detailing of learning events; Alternative methods of project supervision and their comparison; Role-playing; Motivation and incentives. (1-hr lecture, 2-hrs practical per week)

#### **DTB415 Design For Sustainable Development (2)**

The course covers the following: the relation between Design and Sustainable Development, various models of Development, and the relation between Design, Technology, Development and Economics. Community products in the rural context: Field visits; Design for durability; Use of indigenous materials; appropriate technology; Sound social and ecological design; Design for lifelong use and serviceability; Design for recycling and evolution; Miniaturisation; Dematerialisation; Design for re-use and re-manufacture, new theories on Design for Sustainable Development. (1-hr lecture, 2-hrs practical per week)

#### **DTB416 Interior Design (2)**

This course covers the following: Physiological, psychological, sociological, aesthetic and ecological aspects of person-interior environment interaction; Conceptual design and

documentation; classification of interior spaces; Primary and secondary functions of different interiors; Alternative design solutions: (1-hr lecture, 2-hrs practical per week)

#### **DTB421 Ceramics, Glass and Stone Technology (2)**

This course covers the following: Equipment and tools: Clay and its properties; Natural ceramics: Working properties of ceramics; Shaping clay, Firing, and Glazing; Making glass: Working properties of glass; Engraving. Painting. Heat forming. Staining. Working properties of stone. Carving. Masonry. (1-hr lecture, 1-hr tutorial, 2-hrs practical per week)

#### **DTB422 Product Design 2 (2)**

Value analysis. Material characteristics for new products: Product life cycle. Product function analysis: competitor analysis, quality function deployment. Introduction to theories of failure: Safety factors. Materials specifications. Manufacturing considerations. Packaging and presentation techniques: (1-hr lecture, 1-hr tutorial, 2-hrs practical per week)

#### **DTB423 Minor Design-and-Make Project (2)**

This course guides students through the process of a design and make project from the initial stage of choosing an appropriate, through selection of what research to undertake, selection of appropriate forms of modelling ideas, selection of appropriate means of realisation and objective product evaluation: (1-hr lecture, 1-hr tutorial, 2-hrs practical per week)

#### **DTB424 Safety and First Aid (2)**

This course covers the following: Safety rules; Safety practices; Safety symbols and their interpretations; Causes and types of accidents in the workplace; Methods of giving First Aid to different cases of accident/injuries; First Aid and personal safety; First aid demonstrations and certification by the Red Cross Society of Botswana. (1-hr lecture, 1-hr tutorial, 2-hrs practical per week)

#### **DTB511 Major Design Project (3)**

Students will proceed by way of their preferred design methodologies by conceiving alternative solutions, designing, selection of appropriate process, research, data analysis, etc. Students will select appropriate forms of modelling ideas and present a design folio at the completion of the course. (1-hr lecture, 4-hrs practical per week)

#### **DTB513 Product Design 3 (2)**

This course covers the following: Psychology of creativity: Brain maps and lateral thinking for alternative solutions; Properties of newer materials, processes and advantages in terms of cost, etc.; Design Protection: Patent law, Design registration. Copyright, Design right, Trademarks, Brand names, Company symbols, logotypes and 'Passing off' (2-hrs lecture, 1-hr tutorial per week)

#### **DTB514 Industrial Product Design (2)**

This course covers the following: Product and process design, Product development, Integrated product development, Product development teams, quality control, Production system design,

Design for mass production, Mass-customisation, Performance design, Technical parameters of products. (2-hr lecture, 1-hr tutorial per week)

#### **DTB515 Microcomputer Control (2)**

This course covers the following: Computer systems and control (e.g. control sensors); motorised control system (e.g. Stepper and DC electric motors); Pneumatics as control system; analogue to digital conversion; microprocessor and micro controller systems (e.g. PIC 16F84 or STAMP controller); system design and development tools. (1-hr lecture, 2-hrs practical per week)

#### **DTB521 Major 'Make and Evaluate' Project (3)**

Realisation of the designed artefact: Selection of appropriate means of manufacturing and finishing; Incorporating necessary design modifications; Product evaluation by revisiting the need and the consumer; Completion of the 'Design folio' to include manufacturing aspects and product evaluation. (6-hrs practical per week)

#### **DTB522 Case Studies in Designing (2)**

Critique of several cases with design problems: Problems encountered in manufacturing; Maintainability and meeting the desired functional; Safety and quality standards; Improving designs and conceiving newer designs. (1-hr lecture, 2-hrs practical per week)

#### **DTB524 Environmental Factors In Design (2)**

This course covers the following: Human environment, Factors influencing environment, the nature of pollution: Population growth with automation and new materials. Human waste and disposal: Industrial pollution and control: Effects of new materials and processes on environment. Global aspects and control of environment. Designing for environment friendliness: (2-hr lecture)

#### **IDB311 Industrial Design: Concept and Practice (2)**

Origins of Industrial Design, Practicing Industrial Design, Design Consultancy, Freelance Design, In-house Designer, Industrial Design theory and practice, Industrial Design in relation to other professions, Industrial Design in relation to other bodies of knowledge. A critique of the role of Industrial Design in the following type of companies: home appliances, home-ware, toys, recreational products, interior products, medical and health care, furniture, transport, computers, product package, exhibition design, signage systems, product graphics, presentation techniques and applied photography. Strategies for successful design practice. (2-hr lecture per week)

#### **IDB312 Design of Mechanism and Structures**

Analysis and design of products with regard to different types of pin-jointed plane and space structures and equilibrium. Types of loading and forces in members. Factor of safety in design and its selection criteria. Types of motion and basic mechanisms for products.

Function and design aspects of different

elements in products, e.g., levers, shafts, pulleys, threaded elements, helical springs, belt and rope drive, coupling, slider, chain, ratchet, brake and clutch. Design of bell crank lever and toggle mechanism. Design of linear, rotary and rocking motion linkages. Cam and follower mechanisms. Design of simple lifting machines and their characteristics. (1-hr lecture, 2-hr practical per week)

### **IDB313 History of Industrial Design (2)**

This course explores, intellectual and philosophical framework that have shaped design, the relationship of design to the wider patterns of production and consumption, the effects of changes in materials and technology on the form and material culture, development of the design profession and design education, and the major design styles in history, design paradigms, The Bauhaus Movement, Modernism, Post-modernism, relation between design and technological and socio-economic change, Industrial design as a mirror of social and economic changes. (1-hr lecture per week)

### **IDB 321 Computer Aided 3-D Design (2)**

Role of CAD in Industrial Design. Fundamentals of CAD, CAD software and operating systems, workstation environment, data storage and input devices, data exchange standards, graphic processors, graphic terminals, 2D and 3D graphic elements, 2D and 3D translation, hidden line algorithms, mass property algorithm. Wireframe modelling, solid modelling, constructive solid geometry, surface modelling, methods of surface construction, surface of revolution. Overview of rapid prototyping, virtual reality. (1-hr lecture, 2-hr practical per week)

### **IDB 322 Product Design (2)**

Product Design models; total design method versus partial design method, concurrent versus linear and cyclic methods, techniques of decoding the brief, concept generation, concept selection procedures, concept refinement, product architecture, concept synthesis techniques, product systemisation, quality control, determinants of design specification, production system design, performance design, Designing ornamental products versus designing technical products, functionalist design versus form dominated design, form follows function dictum, product styling techniques, product semantics theory. Man-machine interface design, product interactivity, design for the client versus design for users, design for mass production, design for manual assembly, design for automatic assembly. (1-hr lecture, 2-hr practical per week)

### **IDB 323 Basic Control Systems (2)**

System concept. Control systems with Input process- output elements. Closed-loop control and feedback. Air supply and conditioning of air for pneumatic controls. e.g., filters, moisture removal and lubricant addition. Details of elements of pneumatic systems and circuit controls with multiple valves. Basic hydrostatics and pressure measurement. Measurement of velocity and discharge. Design of simple measuring devices. Fluid logic devices including bi-stable amplifiers. Construction of

simple machines. Design of simple electronic control devices and their usage. Introduction to microcomputer controls. (1-hr lecture, 2-hr practical per week)

### **IDB 324 Ceramics, Glass and Stone Technology (2)**

Equipment and tools, Clay and its properties, Natural ceramics, Working properties of ceramics, Shaping clay, Firing, Glazing, Equipment and tools, Making glass, Working properties of glass, Engraving, Painting, Heat forming, Staining, Equipment and tools, Working properties of stone, Carving. Masonry, Computers in ceramics, glass and stone technology, Design and manufacture of articles appropriate to ceramics, glass and stone. (1-hr lecture, 2-hr practical per week)

### **IDB 411 Computer Aided Manufacturing (2)**

Fundamental concepts of computerized manufacturing and simulation. Computer modelling for manufacture: Numerical control. CNC machine tools including lathes, multi axis machines and special machines. Programming semi industrial CNC machines and manufacturing simple components. G-Codes, canned cycles, subprograms, simulation program, machining curved surfaces, matching of tool and surface geometry. Customised design and advanced manufacturing, flexible manufacturing, mass customisation. Introduction to Computer Integrated Manufacture. Applying artificial intelligence to CAM. (1-hr lecture, 4-hr practical per week)

### **IDB 412 Research Methods in Industrial Design (2)**

Research Methodology, choosing a topic, fact finding, assessment of information, problem definition and bounding, problem solving, project planning, forecasting and report writing, major research library and especially its resources such as abstracts, indices, computer databases, problem solving (synetics, brainstorming). Research methods for practical design problems, users needs analysis, focus groups, experimental research, observation techniques, product usability evaluation techniques, practice-based research, research through design. (1-hr lecture, 2-hr Tutorials per week)

### **IDB 413 Minor Project (3)**

Selection of the process which is appropriate to the type of project, selection of what research to undertake, selection of appropriate forms of modelling ideas, selection of appropriate means of realisation, objective product evaluation. Application of design concepts to identified problems and rationalisation and justification of selected design intervention approach vis-à-vis various possible alternatives. (1-hr lecture, 4-hr practical per week)

### **IDB 414 Eco-product Design (2)**

Waste and environment, Product design and environmental degradation, consumption patterns and the environment, Eco-Design Principles, Life Cycle Assessment (LCA), Life Cycle Analysis, LCA Inventory, Impact Analysis, Factor 4, Factor X, Eco-efficiency Theory, material selection tools. Eco Indicator, Sustainable Development,

Eco-design strategies and methods, Sustainable Service Design, Design for End of Life, Design for Recycling, Design for Remanufacture, Dematerialisation, Miniaturism. Design for Disassembly, Design for Serviceability, Design for Evolution (Birth, Death and Rebirth), Design for Re-use, Green Design, Green Technology, Eco-labelling, sustainable future and society. (2-hr lecture per week)

### **IDB 415 Universal Design (2)**

Universal Design Principles, Universal Design and inclusiveness, usability, equitable use, design for people of all ages and abilities, barrier free design, Design for flexibility in use, simple and intuitive use, perceptible information, tolerance for error, design for low physical effort, size and space for approach and use, trans-generational design strategies, design for the ageing methods, design for the disabled strategies, usability principles. Universal design assessment and checklist, usability assessment methods and checklist, analysis of products that meet the universal design criteria. Problems and limitations of universal design. Universal access legislation (1-hr lecture, 2-hr practical per week)

### **IDB 400 Industrial Training (3)**

Types of industries- primary and secondary industries. Production systems – single item, batch, mass production. Organisation and management strategies used in industries. The impact of mass production on society and environment. Culture, work ethics and discipline in industries. The role of labour organisation in industries. The effect of technology changes on employment in industries. Briefing on industrial attachment. (7 weeks)

### **IDB 511 Major Project-design (3)**

Students will proceed by way of their preferred design methodologies by conceiving alternative solutions, designing, selection of appropriate process, research, data analysis etc. Selection of appropriate forms of modelling ideas and presentation of design with a design folio. (1-hr lecture, 4-hr practical per week)

### **IDB 512 Contemporary Issues in Industrial Design (2)**

Controversies surrounding industrial design includes; Social Responsibility, Environmental Responsibility, gender, equity and equality, Poverty alleviation, Ethics, Industrial Design in the Post-Material Society, Universal Access of Products and Facilities, Design and the Ageing population, Problems of Developing Countries, North-South Divide, Botswana's problems, the form and function debate, consumerism, electronic-futures (e-futures), National Economy, Globalisation as a determinant of discourse, Cultural considerations in design, Nano-technology, mass-customisation, Virtual Reality, Virtual Product Design, Remote Design. (2-hr lecture, 1-hr practical, 1-hr tutorial per week)

### **IDB 513 Advanced Product Design (2)**

Product Development, Product Development Teams, Innovation Process, mass personalisation, product differentiation, flexible product development, advanced paradigms for



Product Development, mass customisation process, the reactive process, best practice in design of customised products, part commonality approach, optimizing product architecture, standardisation, order fulfilment, customisation and configuration costs, design for manufacturability, mistake proof design, modular design strategy, concurrent product design, co-designing. Customisation of products for advanced manufacturing, product line architecture, process infrastructures, Technology Push products, Market-pull products, platform products, design for niche' markets. Invention databases, collaborative technologies, Limitations, problems and challenges of customisation. (1-hr lecture, 3-hr practical per week)

#### **IDB 514 Design Management (2)**

Design Management in companies, Managing the design process, managing the corporate identity, managing company environmental graphics, managing new product development, managing design teams, design as strategic corporate tool, role of design management in turning a company to a Design-Driven business, managing design resources, managers and designers, managing design across organisational boundaries, managing the product innovation process, design and product evaluation, cultivating information and idea network. Design management tools and strategies. (2-hr lecture per week)

#### **IDB 515 Occupational Health and Safety (2)**

Ergonomics of work, Occupational hazards and preventative measures, Legal considerations, Health and Safety standards, Safety symbols and colours, Protective equipment and work practice controls, Design of hand tools, Construction activities, Fire prevention and protection, Seating and seat design, Workstation design, Lighting, colour and vision, Noise and vibration, Heat and ventilation, Manual material handling, Applied human kinematics and anthropometrics, Hazardous processes, Environmental pollution. (1-hr lecture, 2-hr practical per week)

#### **IDB 516 Design Studies (2)**

Cultural influences in design, Political and economic implications on design, Philosophical debates in design, Design and its impact on development, Social analyses of design, Identification of core issues that are significant to the area of design studies being investigated, Application of research methods to design studies, Application of design studies to related areas such as technology, engineering, art, architecture and photography. (1-hr lecture, 2-hr practical per week)

#### **IDB 517 Optimisation in Design (2)**

Systems approach to design. Optimisation and synergy of subsystems and components for materials, costs, quality, time, manufacturability, maintenance and energy conservation. Need-technology-customer matrix and diversification-capability matrix; optimisation of diversification. Failure modes and effects analysis for optimisation. Quality function deployment aspect of optimisation. QFD model formulation and optimiser analysis. Value

analysis and optimisation. Case studies of design optimisation. (2-hr lecture per week)

#### **IDB 521 Major Project-production (3)**

Realisation of the designed artefact. Selection of appropriate means of manufacturing and finishing. Incorporating necessary design modifications. Product evaluation by revisiting the need and the consumer. Completion of the 'Design folio' to include manufacturing aspects and product evaluation. (1-hr lecture, 4-hr practical per week)

#### **IDB 523 Professional Practice (2)**

Various models of design practice, reflective practioner, developing a corporate approach, managing product design and development process, strategic planning, time and people management, computer-based time schedules, presentation and communication skills, writing skills for design-related discourses such as; briefs, rationales, reports and resumes. Tendering for jobs, authority approvals, publicity, techniques for improving productivity. Pricing and costing of design projects, quality assurance, staff resource allocation, staff salaries and associated costs. Legal classifications of industrial designs, design protection, ownership of designs, contract and administration, sub-contracting, design registration, patenting designs, copyright, product liability, franchise, design protection in Botswana. Design ethics, moral obligations, analysis of design practice firms around the world, problems of design practice. (1-hr lecture, 2-hr practical per week)

#### **IDB 522 Design for Automation (3)**

Elements of automation. Need and rationale for time and motion study and its applications in automation. Different types of jigs and fixtures and their relative merits. Jigs and fixtures design for precision and their indexing. Tool design for automation. Tool geometry, ie, dimensions, angles and clearances and tolerances. Tool materials selection. Modular tooling system, tool holders and adapters. Tool locating and clamping, fasteners, etc. Use of dies; elements of die design. Tooling for numerical controls. Integrated computer aided design and manufacture with examples. Design of artefacts for integrated design and manufacture. Introduction to robotics and simple applications in design for automation. (2-hr lecture, 2-hr practical per week)

#### **IDB 524 Multimedia for Industrial Designers (3)**

Need for multimedia in Industrial design and dissemination. Role of multimedia in effective communication and presentations. Range of multimedia hardware and software. Digital electronics and use in still and video cameras. Digital recording and editing. Computer Animation, Interactivity and computer generated digital movies. Industry-standard multimedia-authoring tools to develop design presentations. Integration of media objects, including: edited scanned images, rendered images (produced using CAD technology), line drawings, animation, video (captured off VHS) and sound. Production and application of multimedia in portfolio and

major design presentation. (1-hr lecture, 4-hr practical per week)

#### **IDB 525 Packaging Design (3)**

Packaging principles and practices in design, Materials handling and distribution, Production, Testing and evaluation, Printing and labelling, Regulatory practices, and environmental concerns, Paper, metal and wood packaging, Plastics, composites and glass packaging, Pharmaceutical, medical and cosmetics packaging, Packaging and the environment, Packaging production systems, Engineering of protective packaging, Distribution packaging and materials handling, Packaging development and management. (1-hr lecture, 4-hr practical per week)

#### **GEC 258 Art and Science of Design (2)**

Origin of Design. Nature of Design. Design cycle and steps in designing. Preferred design methodologies. Design concepts and movements, cycle of innovation, Principles of creativity in design: first insight, brainstorming, gallery method, brain writing, problem decomposition, Barriers to creative thinking, Role of scientific principles, technological advances and their applications in design. Miniaturisation, Role of aesthetics, ergonomics and anthropometrics in design, Issues of culture, moral values, ethics and the environment, Product semantics, Case studies on analysing existing designs of objects – quantification of a successful design.

#### **GEC 357 Advances in Technology (2)**

Advent of technology in society. Societal needs for survival, comfort and quality of life. Technology Innovations. Technology and economic development. Design and manufacture of newer products. 'Science and Technology Policy' and 'Vision 2016' and technological advancements in Botswana. Technology Transfer. Environmental issues and sustainable technological development. Role of emerging media and the Internet in global communication. Impact of information technology in the workplace. Impact of technology on environment and eco-friendly designs and technologies.

## **DEPARTMENT OF MECHANICAL ENGINEERING**

#### **MMB211 Engineering Drawing (2)**

Introduction to basic constructions and mechanisms. Orthographic Projection is taught with examples from all fields of engineering. Students will also have some practice on engineering drawings with reference to the appropriate standards.

#### **MMB221 Computer Aided Drafting (2)**

The course introduces students to basic Computer Aided Drafting: Two dimensional and three-dimensional drafting systems; Use of CAD to generate Assembly and Detail engineering drawings; Title Block and plotting.

#### **MMB222 Dynamics (2)**



Kinematics of particles; Newton's Laws; Kinetics of particles; Kinetics of rigid body; Impulse and momentum; Work, power and energy.

#### **MMB311 Solid Mechanics (3)**

Deflection of beams; combined stresses; buckling; metal fatigue; creep; stress & strain analysis; strain rosettes; strain energy; failure criteria; torsion of non-circular sections; plastic deformation.

#### **MMB312 Materials (2)**

This course is a study of engineering materials; this includes heat treatment, behaviour in service, evaluation of materials and designing.

#### **MMB313 Mechanics Of Machines (3)**

Crank-effort diagram; General plane motion; Kinematics of machines; Balancing; Lagrange's equation; Gyroscopic motion; Vibration.

#### **MMB314 Measurement and Instrumentation (2)**

This course covers the following: Basis of measurement and international standards; Electronics used in instrumentation systems; Methods of measurement; Calibration.

#### **MMB322 Machine Component Design (2)**

Phases of Design; Uniaxial and biaxial stress conditions; Deflection and Stiffness considerations; Design for static strength; Design for fatigue strength; Design of threaded elements; Rolling contact bearings; Flexible elements; Shaft and associated parts; Design of helical springs.

#### **MMB323 Thermodynamics (3)**

1st and 2nd laws of thermodynamics; thermodynamic processes with ideal gas; cycles of heat engines; energy systems.

#### **MMB324 Fluid Mechanics (3)**

Fluids and their properties; fluid statics; Basic fluid kinematics and fluid dynamics; viscous flow in pipes; flow in pipes and duct systems; flow around a body; open channel flow; and fluid machinery.

#### **MMB325 Manufacturing (2)**

Introduction to manufacturing technologies, hot manufacturing processes, cold manufacturing processes, measurements and quality control.

#### **MMB410 Advanced Manufacturing (2)**

Difference between conventional manufacturing and software driven manufacturing; CNC Technology and Part programming; Group technology; Computer aided process planning; Industrial robots; Discrete Control.

#### **MMB411 Machine and Industrial Design (2)**

Lubrication and journal bearings; Spur, helical, worm and bevel gears design; Industrial design: assessing the need for industrial design; The impact of industrial design; Product: risk and reliability, probability concepts, interaction of materials, processing and design.

#### **MMB421 Heat Transfer (3)**

Thermal properties, the Fourier's law, heat diffusion equation, Newton's Law of cooling, External and external flow forced convection, heat exchangers, thermal radiation

#### **MMB413 Systems and Control Engineering I (3)**

Linearised dynamic system models; applications of Laplace transforms; transfer function models; s-plane, transient performance and inverse Laplace transforms; frequency response analysis: Bode, Nyquist, etc.

#### **MMB414 Engineering Management (3)**

This is an introductory course to management science and engineering economics covering management theory, social responsibility of an industrial engineer, health safety, engineering project appraisal, financial control systems, and impact of information technology on organizations.

#### **MMB415 Materials Technology (2)**

Study of theoretical and practical aspects of materials processing; Further consideration of casting, forming, powder processing, joining processes and surface treatments.

#### **MMB416 Mechatronics (2)**

An introduction to mechatronic systems, including uses and simple design; Simple microprocessor programming; Mechanical aspects of mechatronic systems .

#### **MMB417 Thermodynamics II (2)**

Cycles and principles of operation; cycles and analysis; combustion and emission control; fuel process; wear, lubrication, steam, nozzles, heat transfer and refrigeration.

#### **MMB418 Pneumatics & Hydraulics (2)**

Provides an introduction to the basic principles and control of pneumatic and hydraulic systems including electro-pneumatic and electro-hydraulic systems; Circuit and system design for function and capacity; Function sequencing diagrams; Introduction to control of such systems using programmable logic controllers.

#### **MMB419 Vibrations (2)**

Vibration of multi-degree of freedom systems; modal testing; noise control.

#### **MMB511 Project (Stage I) (3)**

Defining the project problem; working out an action plan and project methodology; information retrieval and analysis; project pre-design; writing a literature overview and a progress report.

#### **MMB512 Plant Engineering (3)**

This course covers design, selection, operation, maintenance and control of engineering plant; Power plant, combined heat and power, process plants; Planned maintenance; Safety, costs, energy conservation, pollution and environmental factors.

#### **MMB513 Manufacturing Systems (4)**

Introduction to manufacturing systems,

Single station manufacturing cells, Cellular manufacturing, Flexible Manufacturing systems, Transfer lines.

#### **MMB514 Systems and Control Engineering II (4)**

Modelling and analysis of system dynamics; continuous and digital control system design; elements of non-linear control.

#### **MMB515 Energy Systems (4)**

Energy resources; Conventional and renewable energy systems; Energy system design; Energy management and rational energy utilisation.

#### **MMB516 Building and Factory Services (4)**

Design, layout, installation, efficient operation and maintenance of building and factory services, such as heating, ventilation and air conditioning, water, steam compressed air, fire-fighting, lifts and escalators, electricity and lighting systems for buildings and factories as well as efficient utilisation and provision of these services.

#### **MMB521 Project (Stage II) (3)**

This is the continuation of the course MMB511.

#### **MMB522 Production and Operations Management (3)**

Forecasting, production control, plant location, maintenance costing, personnel and productivity, work study and operations management tools.

#### **MMB523 Industrial Engineering (4)**

Total systems intervention; System dynamics modelling; Cybernetics; Viable Systems Modelling; Interactive management; Productivity; Quality.

#### **MMB524 Refrigeration And Air Conditioning (4)**

This course covers the theories and practice of refrigeration and air conditioning. This includes application of thermodynamics, fluid flow, heat and mass transfer to refrigeration processes; Plant components, controls, plant layout, air conditioning processes, psychometric design, and acoustics; Installation, commissioning and operation of a refrigeration plant.

#### **MMB527 Thermal Fluid System Design**

Thermal design systems, system components aspects of design, exergetic analysis, heat transfer, economic analysis, optimization

#### **MMB526 Computational Mechanics (4)**

Numerical solution of linear equations and differential equations; Numerical solutions using Matlab; The Finite Element Method in Engineering Mechanics; Programming in Matlab.



# Faculty of **HEALTH SCIENCES**

ENVIRONMENTAL HEALTH

SCHOOL OF MEDICINE

SCHOOL OF NURSING

MEDICAL LABORATORY SCIENCES

## **ACTING DEAN**

Prof. Y. J. S. Mashalla MD, PhD (University of Dar es Salaam)

## **DEPUTY DEAN**

K. D. Mogobe, RN, RM, BEd (UB), MEd, MSc (Columbia University),  
PhD (University of Washington, Seattle)

## **FACULTY MANAGER (ACADEMIC)**

H. Tihabano, DARM (U.B), BA (UB), MPA (HRM) (UB)

## **HUMAN RESOURCES MANAGER**

M. Segaetsho, BA, (UB) MSC (HRM) (Salford University, UK)



## Introduction

The University Council decided in November 2005 to establish a Faculty of Health Sciences with effect from 01 April 2006. This decision stemmed from the University having resolved in academic year 2003/04 that during NDP9 it would engage in programme development that would be aimed at the long-term objective of establishing a Faculty of Health Sciences.

Effective 01 June 2007, the Faculty of Health Sciences was formally established and an Acting Dean appointed.

## Academic Organizational Structure

Organisationally, the Faculty is a "work in progress" and currently comprises the following entities:

- The Office of the Dean of Health Sciences
- Department of Environmental Health (the seed of a future School of Public Health);
- The School of Nursing (formerly the Department of Nursing Education);
- The School of Medicine
- The Department of Medical Laboratory Sciences in the School of Allied Health Professions

The plan is to set up a School of Pharmacy and to add departments of Nutritional Sciences and Rehabilitation Sciences to the School of Allied Health Professions in the near future with the recruitment of core founding staff.

## Recent and Future Developments

The principal activity of the Faculty in the next few years will be to engage in strategic planning that will embrace:

- affirmation/re-affirmation of the kind(s) and number(s) of university-trained and educated human resources for health that Botswana will need and the role(s) they are to play in the health system of the future;
- working with all stakeholders to arrive at a Faculty strategic plan that includes a statement of the vision, mission, values, goals and objectives of the Faculty as part of a national teaching health system;
- design, development, approval and international accreditation of high quality international curricula that are appropriate to the Botswana and African context, are aligned with the University Learning and Teaching policy, promote intra-faculty teaching and learning and articulate with programme offerings within Botswana and SADC;
- identification of relevant and high-priority areas of research and research training in the health sciences that will contribute to improved national and regional human health and welfare;
- ensuring that the faculty spearheads the drive for excellence in health professional service delivery.

This agenda will call for an holistic and innovative approach to the review of the learning and teaching, research and research training and professional service existing programmes of the faculty.

To do this within an appropriate governance framework, consultation with all interested parties is expected to result in the University approving the establishment of interim arrangements to ensure a smooth transition from the current structures, within and outside the University, to those that shall obtain under the aegis of a Faculty of Health Sciences that is embedded in a national teaching health system.

## DEPARTMENT OF ENVIRONMENTAL HEALTH

Head: R.B. Matchaba – Hove, MB, ChB (UZ), MSc Occup Med (London), DLSHTM

### Departmental Regulations for the Undergraduate Program

#### General Provisions

Subject to the provisions of the General Academic Regulations, the following Departmental Regulations shall apply:

#### Programs and Titles of Degrees:

The Department currently offers one program in Environmental Health leading to the following qualification:

#### Bachelor of Science

(Environmental Health or BSc- EH degree)

#### Entrance requirements

Prospective students must:

- If entering the program through the direct entry route, satisfy the University of Botswana General Academic Regulation 20.21 and the Faculty of Science Special Regulation 23.2 of the Faculty of Science. If already registered under the Faculty of Science under the General BSc Program, must have obtained at least a grade C in BIO 111 & 112; CHE 101&102; MAT 111&122;PHY111,119,121&129 at first year level.

If possessing a Diploma, satisfy General Academic Regulation 20.24 and appropriate Special Regulations of the Faculty of Science.

Applicants with a Diploma in Environmental Health shall be admitted into level 200 or 300 of the degree programme on the basis of accumulated credits in the area of environmental health.

- If possessing other entry qualifications deemed relevant by the Department, satisfy General Academic Regulation 20.22 or General Academic Regulation 20.23 and any other appropriate Special Regulations of the Faculty of Science.

## Semester 1

### Core Courses

CHE101	General Chemistry I (4)
BIO 111	Principles of Biology (4)
PHY112	Geometrical Optics, Mechanics, Vibrations and Waves (4)
MAT111	Introductory Mathematics I (4)
COM101	Introduction to Communications and computer Literacy Skills I (2)
ICT121	Computer Skills Fundamentals

## Semester 2

### Core Courses

CHE102	General Chemistry II (4)
BIO112	Diversity of Animals and Plants (4)
PHY122	Electricity and Magnetism,
MAT122	Introductory Mathematics II (4)
COM102	Health Communication (2)
ICT122	Computer Skills Fundamentals 2
	Information skills 11 (2)

## Semester 3

### Core Courses

BIO120	Introductory Biochemistry (3)
ENH211	Introduction to Environmental Health (3)
BIO301	Quantitative Biology (3)
CHE211	Introduction to Analytical Chemistry (3)
CHE213	Analytical Chemistry Laboratory I (1)
	GEC/Optional (4)

## Semester 4

### Core Courses

ENH221	Principles and Practice of Health Education (3)
ENH222	Epidemiology (3)
BIO216	General Microbiology (3)
ENH223	Control of Communicable diseases (3)
LAW203	Environmental Laws of Botswana (3)
BIO225	Human Physiology and the Environment (3)

## Semester 5

### Core Courses

ENH313	Basic Toxicology (3)
CCB315	Environmental Engineering (3)
CCB318	Liquid Waste Management (3)
CCB319	Solid Waste Management (3)
ASB 321	Meat Science (3)
CCB331	Environmental Health and Building Services (3)

## Semester 6

### Core Courses

BIO305	Insect Pest/ Vector Control (3)
ENH321	Environmental Health Sampling and Analysis (4)
ENH322	Food Safety and Hygiene (3)
ENH323	Occupational Health, Safety and Hygiene (3)
PHY360	Atmospheric Pollution Control I (2)
ASB321	Meat Science (3)

## Winter Semester

ENH331	Internship (4)
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## Semester 7

### Core Courses



- ENH411 Environmental Risk Assessment (3)
- ENH412 Environmental Health Seminar (3)
- PHY460 Atmospheric Pollution Control II (2)
- GEC/ Optional (7)

### Semester 8

#### Core Courses

- ENH413 Inspection and Report Writing (2)
- ENH422 Research Project in Environmental Health (3)
- GEC/ Optional (10)

#### Optional Courses

- CHE211 Introduction to Analytical Chemistry (2)
- CHE213 Analytical Chemistry Laboratory (1)
- ENV10 Medical Geography (2)
- ENV382 Analytical Methods for Specific Hazards (3)
- ENV440 Geographic Information Systems (3)
- ENV462 Environmental Quality Management- Land & Air (3)
- ENV418 Environmental Policy (2)
- ENV412 Environmental Impact Assessment (3)
- ENV463 Environmental Quality Management- Water & Waste (3)
- CHE416 Environmental Chemistry (2)
- CHE418 Special Topics in Analytical Chemistry (2)
- BIO418 Food Microbiology (3)
- LAW441 Law and Health Care (3)

## SCHOOL OF MEDICINE

### Founding Dean

T. A. Massaro, SB(MIT)  
MS(Stanford), PhD(University of California, Berkeley), MD (Wisconsin, Madison)

### Entry Requirements to the pre-medical programme

(a) BGCSE/equivalent with a minimum of grade E in English Language and a grade of C or better in any two courses from Biology, Chemistry, Physics or a minimum of grade BB in Science Double Award or equivalent and a minimum of A in Physical Science and a C in Biology or equivalent.

(b) A-Level (Advanced Level) holders can enter at the second year provided that they have completed the clinical exposure track that of the first year. (N.B. Top A' Level students may apply for direct entry to many medical schools including UB, bypassing the University's premedical programme entirely).

(c) First year students in Level 100 of the BSc degree may apply to transfer to Level 200 of the Premedical programme if they have performed well academically (i.e., achieved GPAs of at least 3.5 in all three Level 100 Sciences, 3.0 in Level 100 Mathematics and 3.0 in at least one of the General Education Courses), have been performed satisfactorily (a grade of at least "very good"); in the clinical exposure course that takes place between year one and two, and have succeeded in being designated for a career in medicine by the Ministry of Education (if a

citizen of Botswana).

### Admission to the School of Medicine

The University of Botswana selects students to enter the new medical degree programme in August, over May and June. Students seeking admission must apply by 1st April. These students will be selected on the basis of their year one results in Pre-Med, BSc or A' level results, followed by assessment of their application form short essay and interviews. Personal and professional behaviours, academic performance and communication skills will be considered in the process. Successful candidates will be immediately enrolled in the School of Medicine to begin the Phase One Problem Based Learning (PBL) Curriculum.

It should be noted that for students not admitted to UB Medical School from the Pre-Med programme, the application process may vary with the different medical schools. Those who gain admission to those other medical schools with which the Botswana Government has partnerships will generally report after successful completion of the level 200 Pre-Med programme.

Those who qualify for the University's South African and Australian partner medical schools may transfer there after three semesters to accommodate the academic schedules of those schools.

### Undergraduate Degree Programme

The undergraduate programme is six years in length and divided into three parts. The first part is the first year of the current pre- medical programme, with some clinical exposure. Part two (Phase 1 of the MBBS program) will require 2 years in a fully integrated curriculum of basic medical sciences within clinical PBL cases and clinical skills teaching with regular clinical attachments. A 10 week Winter Semester has been added to allow for the greater intensity of medical education and an external rural clinical attachment. The teaching methodology is based on body systems and includes plenary lectures, PBL within small groups, workshops, with laboratories and clinical skills for practical learning. The curriculum is intended to have a strong focus on the community. It is flexible to meet the needs of both faculty and students, and respond to changing health care demands of the country. Design of the PBL content reflects the health problems and resources of the community. The third part, or the three subsequent Phase 2 years will have required hospital and clinic rotations in the major disciplines. These experiences will be enhanced with an opportunity to follow patients longitudinally and explore community services and public health efforts. Some time will be spent in distant parts of the country to gain experience in rural medical practice This Phase 2 Implementation is still under planning consideration. The initial 36 students who entered the MBBS programme in August 2009 are expected to graduate from the University of Botswana, School of Medicine in May 2014.

### Internship

The period of out-of country training varies from one medical school to another. It is usually five or six years. On completion of their medical training, doctors are expected to do a one-year internship in Botswana before being registered by the Botswana Health Professions Council (BHPC) to practice independently as a doctor.

### Semester 1

- SOM201 Foundations of Medicine (5)
- SOM202 Cardiovascular and Respiratory Systems (5)
- SOM203 Gastro intestinal and Urinary systems (6)

### Semester 2

- SOM204 Growth, Reproduction and Endocrine system (6)
- SOM205 Blood and Immune system (4)
- SOM206 Muscular Skeletal, Nervous System and Special Senses (6)

### FIRST WINTER SEMESTER

- SOM207 Psychological Health (5)
- SOM208 Community Attachment – Public Health (4)

### Semester 3

- SOM301 Skin pathology, Atherosclerosis and Cancer (5)
- SOM302 Infection, Viral, Bacterial and Parasitic Disease (6)
- SOM 303 Pregnancy, Birth and Child Health (5)

### Semester 4

- SOM 303 Urinary System 11 (2)
- SOM305 Cardio Vascular and Respiratory System 11 (5)
- SOM 306 Muscular Skeletal System 11 (5)
- SOM 307 Nervous System and Senses 11 (4)

### SECOND WINTER SEMESTER

- SOM 308 Community Attachment, Public Health Project 11 (4)
- SOM309 Gastro Intestinal Disease (5)

3.2.3 PHASE 2 PROGRAMME – THREE YEARS (Provisional)

### Semester (20 weeks)

- MED 401 Introduction to Clinical Practice (2)
- MED 412 Clinical Applications of Basic Science (2)
- MED 402 Internal Medicine (2)
- MED 404 General Surgery (1- 3 weeks) (2)
- MED 406 Paediatrics (1 – 3 weeks) (2)
- MED 407 Obstetrics/Gynaecology (1 –3 weeks) (2)
- MED 409 Emergency (1 –3 weeks) (2)
- MED 410 Family (1 –3 weeks)

### Semester 6 (24 weeks)

- MED411 Ambulatory Care and Community Health
- MED403 Internal Medicine 11 (8 weeks)
- MED405 General Surgery 11 (8 weeks)
- MED408 Obstetrics/ Gynecology 11 (8 weeks)

## FACULTY OF HEALTH SCIENCES

### Semester 7 (24 weeks)

<b>MED501</b>	Ambulatory Care and Community Health 11 (2)
<b>MED502</b>	Community Health Project 11 (4 weeks) (3)
<b>MED506</b>	Paediatrics 11 (8 weeks) (6)
<b>MED509</b>	Family 11 (4 weeks) (3)
<b>MED510</b>	Emergency 11 (4 weeks) (3)
<b>MED512</b>	Psychiatry 11 (4 weeks) (3)

### Semester 8 (24 weeks)

<b>MED511</b>	Ambulatory Care and Community Health 111 (2)
<b>MED503</b>	Neurology (4 weeks) (2)
<b>MED504</b>	Anaesthesiology (4 weeks) (2)
<b>MED505</b>	Orthopaedics (4 weeks) (2)
<b>MED507</b>	Dermatology (2 weeks) (2)
<b>MED509</b>	ENT (2 weeks) (2)
<b>MED513</b>	Ophthalmology (2 weeks) (2)
<b>MED514</b>	Urology (2 weeks) (2)
<b>MED515</b>	Plastic Surgery (2 weeks) (2)
<b>MED516</b>	Neurosurgery (2 weeks) (2)

### Semester 9 (24 weeks)

<b>MED 601</b>	Ambulatory Care and Community Health IV (2)
<b>MED 603</b>	Internal Medicine 111 (8 weeks) (6)
<b>MED 605</b>	General Surgery 111 (8 weeks) (6)
<b>MED 609</b>	Emergency 111 (4 weeks) (3)
<b>MED 612</b>	Psychiatry 11 (4 weeks) (3)

### Semester 10

<b>MED602</b>	Capstone course (4)
<b>MED606</b>	Paediatrics 111 (8 weeks) (5)
<b>MED608</b>	Obstetrics/ Gynaecology (8 weeks) (5)
<b>MED610</b>	Family 111 (4 weeks) (3)

## SCHOOL OF NURSING

**Head: M.B. Sabone, RN, RM, Bed (UB), MSc, PhD (Case Western Reserve University)**

1.0 Special Regulations for the Bachelor of Nursing Science Degree Programme

Subject to the provisions of the General Academic Regulations and the Faculty of Health Sciences Special Regulations, the following Departmental Special Regulations shall apply:

1.1 Entrance Requirements for the Bachelor of Nursing Science

#### Generic Degree Programme

1.1.1 Admission to Level 100 of the Bachelor of Nursing Science Generic Degree Programme shall be on the basis of performance in the Botswana General Certificate of Secondary Education (BGCSE) examination, or its equivalent, in Science subjects. There shall be cut-off points, which shall be determined by the Directorate of Academic Services.

1.1.2 Applicants who register for the Bachelor of Nursing Science (Generic) Programmes shall be required:

a) To have taken at least 5 subjects, including

English Language and Mathematics, at the Botswana General Certificate of Secondary Education (BGCSE) examination or at one sitting of its equivalent;

b) To have obtained a minimum grade of Pass in English Language;

c) To have obtained a minimum grade of credit, or its equivalent, in Mathematics.

1.1.3 In addition to the above basic requirements, applicants must have a minimum grade of C, or its equivalent, in at least 2 of the following subjects: Physics, Chemistry and Biology; and a minimum grade of B, or its equivalent, in Science. A double award or its equivalent is required. The other qualifying subject must be one of the following:

- a) Development Studies
- b) Literature in English
- c) Design and Technology
- d) Agriculture
- e) Art
- f) Food and Nutrition
- g) Computer Studies
- h) Fashion and Fabrics
- i) Business Studies
- j) Home Management
- k) Any other subject deemed appropriate by the Faculty of Health Sciences.

1.1.4 An applicant who has taken relevant Advanced (A)-level or equivalent examinations and who has attained a minimum of one E and two O's in the relevant subjects may be admitted to a Bachelor of Nursing Science Degree Programme.

1.1.5 If an applicant has grade E or better at Advanced (A)-level or equivalent qualifications in Science subjects, he/she may be awarded credits and exempted from equivalent course(s) prescribed for a Degree Programme, subject to the recommendation of the relevant Head of Department and approval of the Deputy Dean.

1.2 Course Listings for the Bachelor of Nursing Science

#### Generic Stream

##### Level 100

##### Semester 1

##### General Education Courses

<b>COM101</b>	Introduction to Communication and literacy Skills (2)
<b>ICT121</b>	Computing Skills Fundamentals 1

##### Core Courses

<b>BIO111</b>	Principles of Biology (4)
<b>CHE101</b>	Chemistry (4)
<b>MAT111</b>	Mathematics (4)
<b>BNS209</b>	HIV/AIDS Education, Prevention and Control in Botswana (2)

##### Semester 2

##### GEC Courses

<b>COM102</b>	Health Communication (2)
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<b>ICT121</b>	Computing Skills Fundamentals 2
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##### Core Courses

<b>CHE102</b>	Chemistry (4)
<b>MAT122</b>	Mathematics (4)
<b>BIO112</b>	Diversity of Plants and Animals (4)
Students can choose to take Physics at Level 100 or Level 200 of their study.	
<b>PHY119</b>	Physics (3)
<b>PHY111</b>	Physics (3)
<b>PHY121</b>	Physics (3)
<b>PHY129</b>	Physics (1)

##### Level 200

##### Semester 3

##### Core Courses

<b>BIO231</b>	Human Anatomy (3)
<b>BIO223</b>	Parasitology for Health Sciences (3)
<b>STA111</b>	Elementary Statistics (3)
<b>PHY161</b>	Physics for Nurses (3)
<b>BNS201</b>	Introduction to Professional Nursing (3)
<b>BNS203</b>	Basic Nursing Concepts and Skills in Health and Wellness (3)
<b>BNS205</b>	Primary Health Care: Individuals, Groups and the Community (3)

##### Semester 4

##### Core Courses

<b>BNS211</b>	Cell Biology (3)
<b>BIO216</b>	Microbiology (3)
<b>BIO232</b>	Human Biology (3)
<b>BNS202</b>	Basic Nursing Concepts and Skills in Health and Illness (3)

##### Optional Courses (3 credits)

All students shall take 1 optional course and one elective course

##### Level 300

##### Semester 5

##### Core Courses

<b>BNS301</b>	Pathophysiology (3)
<b>BNS302</b>	Nursing Management of Low Risk Childbearing Families (2)
<b>BNS303</b>	Introduction to Community Health Nursing (2)
<b>BNS305</b>	Basic Nursing Knowledge and Skills in Care of Well and Ill Adults (3)
<b>BIO307</b>	Biochemistry (3)
<b>BNS309</b>	Community-Based Nursing Care Practicum (3)

##### FSC102

##### Elective Course (3 credits)

Students shall select 1 elective course, not already taken,

##### General Education Course (2 credits)

All students shall select a course not already taken from the list of General Education Courses.

##### Semester 6

##### Core Courses

<b>BNS200</b>	Pharmacology (3)
<b>BNS300</b>	Health Assessment (3)
<b>BNS304</b>	Community Mental Health Nursing (2)
<b>BNS306</b>	Intro to Nursing Research (3)
<b>BNS310</b>	Institution-Based Nursing Care



	Practicum (2)
<b>SOC332</b>	Traditional and Alternative Medical Systems (3)
<b>BNS311</b>	Internship (4)

#### General Education Courses (2 credits)

All students shall select a course not already taken from the list of General Education Courses.

#### Optional Courses

Students shall choose 1 of the optional courses listed in the optional course menu.

#### Level 400

##### Semester 7

###### Core Courses

<b>BNS401</b>	Principles of Management and Education in Nursing (2)
<b>BNS402</b>	Parent and Child Practicum (2)
<b>BNS405</b>	Advanced Knowledge and Skill in Adult Health (2)
<b>BNS407</b>	Nursing Management of High Risk Childbearing Families (2)
<b>BNS410</b>	Adult Health Nursing Practicum (2)

#### General Education Courses (6 credits)

In addition, all students shall select 3 courses not already taken from the list of General Education Courses.

##### Semester 8

###### Core Courses

<b>BNS403</b>	Principles and Practice of Community Health Nursing (2)
<b>BNS404</b>	Psychiatric Mental Health Nursing Theory (2)
<b>BNS406</b>	Adolescent Health and Development (2)
<b>BNS408</b>	Community Health Nursing Practicum (2)
<b>BNS409</b>	Psychiatric Mental Health Nursing Practicum (2)

#### General Education Courses (4 credits)

In addition, all students shall select 2 courses not already taken from the listed General Education Courses. Students shall also take one elective course, and one optional course chosen from the following list:

#### Optional Courses Menu

<b>BSW201</b>	Introduction to Group Work (3)
<b>BSW202</b>	Introduction to Working with Families and Individuals (3)
<b>BSW309</b>	Social Policy (3)
<b>EFH201</b>	Counselling over the Lifespan (3)
<b>EFH202</b>	Theories and Techniques of Counselling (3)
<b>EFH402</b>	Counselling Persons with Special Needs (3)
<b>EFP100</b>	Introduction to Educational Psychology (3)
<b>HEE444</b>	Issues in Food and Nutrition (3)
<b>LAW441</b>	Ethics and Law in Health Care (3)
<b>POP220</b>	History of Fertility, Mortality and Migration (3)
<b>POP221</b>	Theories of Fertility, Mortality and Migration (3)
<b>POP225</b>	Demographic Aspects of the HIV/ AIDS Epidemic (3)

<b>POP303</b>	Urbanisation, Migration and Development (3)
<b>POP404</b>	Gender, Reproductive Health and Development (3)
<b>POP405</b>	Demographic Dimensions of Poverty (3)
<b>SOC234</b>	Social Problems in Southern Africa (3)

1.3 Entrance Requirements for Bachelor of Nursing Science RN Completion.

Candidates for the Bachelor of Nursing Science Completion will fulfill the following requirements:

a) A Diploma in General Nursing or its equivalent;

b) A minimum of 2 years Nursing experience after completion of a Diploma in a General Nursing Programme;

c) Current registration with the Nursing and Midwifery Council of Botswana or its equivalent;

d) BGCSE or its equivalent with either a credit in Combined Science or a pass in any one of Biology, Chemistry or Physics and a pass in any other 4 subjects.

1.4 Course Listings for the Bachelor of Nursing Science

#### Completion Stream

#### Level 200

##### Semester 3

###### Core Courses

<b>BIO231</b>	Human Anatomy (3)
<b>CHE109</b>	Introductory Chemistry for Nursing Science (3)
<b>PHY161</b>	Physics (3)
<b>STA111</b>	Elementary Statistics (3)
<b>BNS201</b>	Introduction to Professional Nursing (3)

#### General Education Course

<b>ICT121</b>	Computing Skills Fundamentals 1
<b>COM101</b>	Introduction to Communication and Literacy skills (3)

##### Semester 4

#### General Education Course

<b>ICT122</b>	Computing Skills Fundamentals 2
<b>COM102</b>	Health Communication (3)

#### Core Courses

<b>BIO232</b>	Human Physiology (3)
<b>BIO216</b>	Introductory Microbiology (3)
<b>BIO120</b>	Introductory Biochemistry (3)

#### Optional Courses (6 credits)

Students shall also choose two of the 3-credit optional courses listed at the end of this section.

#### Level 300

##### Semester 5

###### Core Courses

<b>BNS301</b>	Pathophysiology (3)
<b>BNS307</b>	The Individual in Health Illness (3)
<b>BNS309</b>	Community-Based Nursing Care

	Practicum (3)
<b>EFP213</b>	Introductory Psychology (3)

In addition, all students shall take 1 elective course.

##### Semester 6

###### Core Courses

<b>BNS300</b>	Health Assessment (3)
<b>BNS304</b>	Community Mental Health Nursing (3)
<b>BNS306</b>	Introduction to Nursing Research (3)
<b>BNS308</b>	The Nursing Process in Family Health (3)
<b>BNS310</b>	Institution Based Nursing Care Practicum (3)
<b>SOC332</b>	Traditional and Alternative Medical Systems (3)
<b>BNS311</b>	Internship (4)

#### General Education Course (4 credits)

Students shall select 2 GEC courses from the University-wide listing. Students shall also choose one optional course.

#### Level 400

##### Semester 7

###### Core Courses

<b>BNS401</b>	Principles of Management and Education in Nursing (2)
<b>BNS402</b>	Parent and Child Health Nursing Practicum (2)
<b>BNS405</b>	Advanced Knowledge and Skills in Adult Health Nursing (2)
<b>BNS407</b>	Nursing Management of high Risk Childbearing Families (2)
<b>BNS410</b>	Adult Health Nursing Practicum (2)

#### General Education Courses (6 credits)

In addition, all students shall select 3 General Education Courses not already taken.

##### Semester 8

###### Core Courses

<b>BNS403</b>	Principles and Practice of Community Health Nursing (2)
<b>BNS404</b>	Psychiatric Mental Health Nursing Theory (2)
<b>BNS406</b>	Adolescent Health and Development (2)
<b>BNS408</b>	Community Health Nursing Practicum (2)
<b>BNS409</b>	Psychiatric Mental Health Nursing Practicum (2)

#### General Education Courses (6 credits)

In addition, students shall select 3 General Education Courses not already taken. Students shall also choose one elective course and one optional course from the following listing:

#### Optional Course Menu

<b>BSW201</b>	Introduction to Group Work (3)
<b>BSW202</b>	Introduction to Working with Families and Individuals (3)
<b>BSW309</b>	Social Policy (3)
<b>EFH201</b>	Counselling Over Lifespan (3)
<b>EFH202</b>	Theories and Techniques of Counselling (3)
<b>EFH402</b>	Counselling Persons with Special



	Needs (3)
EFP100	Introduction to Educational Psychology (3)
HEE444	Issues in Food Nutrition (3)
LAW441	Ethics and Law in Health Care (3)
POP220	History of Fertility, Mortality and Migration (3)
POP221	Theories of Fertility, Mortality and Migration (3)
POP225	Demographic Aspects of the HIV/AIDS Epidemic (3)
POP303	Urbanisation, Migration and Development (3)
POP405	Demographic Dimensions of Poverty (3)
SOC234	Social Problems in Southern Africa (3)
POP404	Gender, Reproductive Health and Development (3)

### 1.5 Assessment

1.5.1 Continuous assessment in Levels 200, 300 and 400 shall be based on tests and/or assignments, and where applicable, clinical practice.

1.5.2 The ratio of continuous assessment to an end of semester examination shall be 1:1, unless otherwise specified in the Departmental Special Regulations.

1.5.3 The above Regulations shall apply to both Generic and In-service Bachelor of Nursing Science Streams.

1.5.4 General Regulations 00.811 to 00.826 and 00.842 shall apply to the Bachelor of Nursing Science Degree.

### 1.6 Progression from Year to Year

To proceed from one semester to the next, a student must pass all courses and have a cumulative GPA of 2.0 or above as specified in General Regulation 00.842.

### 1.7 Award of Degree

To be awarded a Degree, a student must satisfy the relevant General Academic Regulations 00.851 and 00.852. The Degree shall be classified in accordance with the provisions of General Academic Regulations 20.4, with the cumulative GPA of 2.0 or above completed in accordance with General Regulation 00.86. Faculty of Education

## DEPARTMENT OF MEDICAL LABORATORY SCIENCES

Founding Head: I. Kasvosve DMLT, MSc (UZ, Zimbabwe), PhD (Ghent University, Belgium)

### BSc (Medical Laboratory Sciences) Completion Programme

The Department offers a one-year BSc (Medical Laboratory Sciences) "completion" degree to qualifying holders of the Diploma In Medical Laboratory Technology of the Institute of

Health Sciences or equivalent qualification. The programme is designed to develop skills in clinical laboratory management, immunology and molecular diagnostics. The principal aim of the 'completion' programme is to upgrade experienced medical laboratory technicians to become laboratory scientists who will be able to:

- provide leadership in medical laboratory sciences;
- serve the diagnostic needs of physicians and patients;
- carry out research to improve and expand diagnostic laboratory services in the country.

1.0 Entrance Requirements for the BSc (Medical Laboratory Sciences) completion degree

1.1 Applicants intending to enrol into the programme shall normally possess a Medical Laboratory Technology diploma obtained from the Institute of Health Sciences (IHS) with a minimum of merit classification overall and a minimum of two years relevant post-qualification experience.

1.2 Applicants with qualifications other than 1.1 above shall be required to submit their qualifications to the University of Botswana to be evaluated for equivalence to the IHS medical laboratory technology diploma. As a general principle, applicants intending to study for the BSc (Medical Laboratory Sciences) degree should have completed a minimum of 90 credits in a medical laboratory technology programme from a recognised institution.

### 2.0 Program Structure

#### Semester 1

##### Core Courses

BIO211	Cell Biology (3)
BIO212	Genetics (3)
BIO216	General Microbiology (3)
BIO453	Research Proposal writing (2)
MLS461	Medical Laboratory Practicum 1 (3)

#### Semester 2

##### Core courses

BIO308	Molecular Biology (3)
BIO312	Virology (3)
BIO416	Immunology (3)
BIO454	Research Project (4)
MLS462	Medical Laboratory Practicum 11 (includes 5 weeks Clinical Laboratory Rotation (6)

### 3.0 Assessment

3.1 Continuous assessment shall be according to GAR 00.81 and 00.82 shall be based on tests and/or assignments, and where applicable, clinical practice.

3.2 The ratio of continuous assessment to an end of semester examination shall be 2:3, unless otherwise specified in the Departmental Special Regulations.

### 4.0 Progression from Semester to Semester

To proceed from one semester to the next, a

student must pass at least 50% of the attempted credits and have a cumulative GPA of 1.23 or above as specified in General Regulation 00.842.

### 5.0 Award of Degree

To be awarded a Degree, a student must satisfy the relevant General Academic Regulations 00.851 and 00.852. The Degree shall be classified in accordance with the provisions of General Academic Regulations 20.4, with the cumulative GPA of 2.0 or above completed in accordance with General Regulation 00.86.

### BSc (Medical Laboratory Sciences) generic Programme

From August 2012 the Department of Medical Laboratory Sciences will offer a 4-year BSc (Medical Laboratory Sciences) degree to applicants with Botswana General Certificate of Secondary Education (BGCSE) examination or its equivalent.

# Faculty of HUMANITIES

AFRICAN LANGUAGES & LITERATURE

ENGLISH

CHINESE STUDIES

FRENCH

HISTORY

LIBRARY & INFORMATION STUDIES

MEDIA STUDIES

THEOLOGY & RELIGIOUS STUDIES

CONFUCIUS INSTITUTE

VISUAL & PERFORMING ARTS

## DEAN

Moahi, K.H.N, BA (UBS), MSc (Sheffield), PhD (Pittsburgh)

## DEPUTY DEAN

Mwikisa, P.W, BA (Zambia), MA, D.Phil (Sussex)

## FACULTY ADMINISTRATOR

L. Monei, DABS (UB), CIS Intermediate (South Africa), BSc HRM (Cyprus)

## HUMAN RESOURCES MANAGER

M. K. Tshoganetso, BASS (UB), CPIR (Witwatersrand), MSc HRM (Cardiff)



Although for administrative purposes the Departments of Environmental Science and of Sociology are located in other Faculties, they are considered academically to be part of the Faculty of Humanities. In fact, a considerable number of students who major in Environmental Science and Sociology are Humanities students. With the flexibility that is afforded by semesterised courses, more departments in the Faculties of Business and Science will become accessible to Humanities students, especially through cross-faculty programmes. With the new focus on educating specialists in a generalist way, the Faculty values a well-rounded education with the requisite ICT and numeracy skills. The Faculty of Humanities concentrates mainly on those studies that specialise in understanding human ideas, behaviour, culture and its mediation, with a particular emphasis on humanity in Africa in relation to the rest of the world. This Faculty thus has a prime role to play in the discovery and the appreciation of the heritage and liberal arts of the societies of Africa in general and of southern Africa and Botswana in particular. In this regard, the Faculty of Humanities, through research and teaching in its academic departments, is in a privileged position to effectively contribute to the realization of the Vision and Mission of the University. In addition, the Faculty of Humanities contributes to human resource development by assisting in the training of teachers. The departments in the Faculty provide the content base for secondary school and tertiary level teachers of English, Setswana, French, History/Social Studies, Geography and Religious/Moral Education by offering majors in the Bachelor of Arts, Bachelor of Education and the Masters of Education Degrees in these disciplines. As the Faculty continues to implement the provisions of the Tenth National Development Plan (NDP 10), the semesterised academic programmes, and also plans new programmes within the plan period, it shall simultaneously address the requirements of the Revised National Policy on Education as well as the aspirations of the National Vision 2016. It will also position itself strategically within the plan period processes to face the challenges brought about by diminishing budget allocations and competition for fewer resources.

## 22.0 Special Regulations for the Faculty of Humanities

### 22.1 Preamble

22.11 The following are the Faculty's Special Regulations and shall apply subject to the General Academic Regulations

22.12 In addition to these Special Regulations, relevant Special Departmental Regulations shall also apply.

### 22.2 Entrance Requirements

22.21 Admission into the Humanities Degree Programmes shall be on the basis of performance in the Botswana General Certificate of Secondary Education (BGCSE) examination, or its equivalent, in humanities (languages, geography, social studies, history, moral/religious education, and science (cf.22.22a), and also See Regulation 22.22a for other qualifying subjects)

22.22 Applicants who register for Bachelors Degree programmes in Humanities shall be required

a) To have taken at least five subjects, including English Language, at the Botswana General Certificate of Secondary Education (BGCSE) examination or its equivalent;

b) To have obtained a credit in the English language.

22.23 An applicant who has taken relevant Advanced (A) – level or equivalent examinations and attained a minimum of one E and two C's in the relevant subjects may be admitted to a Bachelor degree in Humanities programmes.

22.24 If an applicant has grade E or better at Advanced (A)-Level or equivalent qualifications in relevant subjects s/he may, subject to the recommendation of the relevant Head of Department and the approval of the Dean's Office, be awarded credits and exempted from equivalent course/s prescribed for a degree programme.

22.25 A student who may transfer from a recognized university, or any other institution of higher learning, and on the submission of a transcript of his/her academic records may, subject to the recommendation of the relevant Head of Department and the approval of the Dean's Office, be awarded credits and exempted from equivalent course/s prescribed for a degree programme.

### 22.3 General Provisions

22.31 A course may consist entirely of fieldwork, project work, practical-work, seminar or tutorials or any combination of these components. In addition to work during the semester, a course may include prescribed fieldwork or assignments during university vacation periods.

22.32 Unless otherwise provided in the departmental regulations, all courses are semester long.

22.33 For ease of reference, the use of course codes shall provide information as follows: the first digit refers to the level of study, the second to the status and orientation of the course, and the last digit to the number of course in each category.

### 22.4 Degree Structure

22.41 In accordance with General Academic Regulation 00.211, Departments in the Faculty of Humanities shall offer courses which shall be prescribed in Departmental Special Regulations. 22.42 The Faculty of Humanities shall, depending on the core course in the subject area offer the following degree programmes:

a) Bachelor of Arts which is composed of core and optional courses from African languages and Literature, English, French, History, Archaeology, Environmental Science, Sociology, Psychology and Theology and Religious Studies subjects.

b) Bachelor of Fine Arts

c) Bachelor of Chinese Studies

d) Bachelor of Library and Information Studies which is composed of core and optional courses from the department of Library and Information Studies

e) Bachelor of Arts in Library and Information Studies which is composed of core and optional courses from Library and Information Studies and another subject available as a major to Humanities students

f) Bachelor of Information Systems (Information Management) which is composed of core and optional courses from the Faculty of Business, Department of Computer Science and Department of Library and Information Studies.

g) Bachelor of Media Studies which is composed of core and optional courses from the Department of Media Studies.

22.43 A combined degree (major/major) shall be a programme composed of core and optional courses from two equally-weighted subjects which are concurrently studied. In order to partially satisfy the requirement for a degree, a student must take and pass a minimum of 40 credits from each of the two subjects.

22.44 A combined degree (major/minor) shall be a programme composed of core and optional courses from two subjects. In order to partially satisfy the requirements for a degree, a student must take and pass a minimum of 56 credits from the major subject and a minimum of 24 credits from the minor subject.

22.45 In Semesters 1 and 2 (Level 1) of a degree programme, each student shall take Courses in English as well as courses from at least two of the following subjects: African Languages and Literature, French, Environmental Science, History, Sociology, Theology and Religious Studies, Psychology.

22.46 In addition to core and optional courses, and in compliance with the General Regulation 00.2124d, each student shall, unless exempted, take two credits of General Education Courses in each of Area 1, Communication and Academy Literacy Skills and Area 2, Computer Skills Fundamentals, in each of Semesters 1 and 2 of his/her programme. In addition, a student shall register for a minimum of twelve credits of General Education Courses offered outside the Faculty of Humanities before completing his/her programme of study.

22.47 Departments may specify projects that each student shall carry out as partial fulfilment of the requirements for the award a degree, based on an investigation of some original theme in his/her major subject under the supervision of an academic member of staff. This study shall be for one semester and normally take place during



the course of the programme. The mode of assessment shall be as prescribed under Special Departmental Regulations. There shall only be one such project per programme.

## 22.5 Assessment

22.51 Continuous Assessment (CA) shall be as prescribed in General Academic Regulations.  
22.52 The examination in a course, whenever required, shall normally be held during the examination period at the end of the semester in which the course is taught.

22.53 Performance in each course shall normally be evaluated according to stipulated departmental requirements. Any departure from indicated ratios shall require the approval of the Faculty Board.

22.54 Overall performance in a course shall be assessed on a Percentage Scale, a Letter Grade and a Grade Point in accordance with General Regulations.

## 2.7 Award of Degree

22.71 To be awarded a degree, a student must satisfy the appropriate provision of General Academic Regulations from core and optional/elective/general education courses.

# DEPARTMENT OF AFRICAN LANGUAGES & LITERATURE

## Bachelor of Arts Degree in African Languages and Literature

### General Provisions

Subject to the provisions of General Academic Regulations and the Faculty of Humanities Special Regulations, the following Departmental Regulations shall apply for the Bachelor of Arts Degree in the Department of African Languages and Literature.

### Programme Structure

#### Level 100

At Level 100 (Semesters 1 and 2), the Programme shall consist of a total of 6 credits made up of 2 core courses per semester.

#### Level 200

At Level 100 (Semesters 1 and 2), the Programme shall consist of a total of 6 credits made up of 2 core courses per semester.

#### Levels 300 and 400

At Levels 300 and 400 (Semesters 5 to 8), the Programme shall comprise a Single Major, a Combined Major, a Major/Minor, Minor/Major and Multi-disciplinary Streams.

### a)Single Major in African Languages and Literature

The Single Major Programme shall consist of a total of 15 credits made up of 3 core courses and 2 optional courses per semester.

### b) Combined Major/Major in African Languages and Literature

The Combined Major/Major Programme shall consist of a total of 9 credits made up of 2 core courses and 1 optional course per semester.

### c)Combined Major/Minor with African Languages and Literature as a Major

The Combined Major/Minor with African Languages and Literature as a Major shall consist of 9 credits made up of 2 core courses and 1 optional course per semester.

### d)Combined Minor/Major with African Languages and Literature as a Minor

The Combined Minor/Major Programme with African Languages and Literature as a Minor shall consist of a total of 6 credits made up of 1 core course and 1 optional course per semester.

### e) Multi-disciplinary Combined Degree Programme

The Multi-disciplinary Combined Degree Programme in African Languages and Literature shall consist of a minimum of 6 credits in accordance with Departmental Regulation 07.3.5 and General Regulation 00.62.

### General Education Courses

The Department of African Languages and Literature offers three (3) General Education Courses (GECs), one (1) under Area 1 and two (2) under Area 6: World Civilisations.

### Assessment and Examination

1.3.1 Performance in each course shall be evaluated by a combination of continuous assessment and final examination marks.

1.3.2 Continuous assessment shall normally constitute at least two pieces of work or one long paper per semester.

1.3.3 The duration of the final examination shall be two hours.

### Progression

In order to proceed from one semester to the next, a student must maintain a cumulative GPA in accordance with General Regulation 00.9.

#### Level 100

##### Semester 1

##### Core Courses

ALL122 The Characteristics of Human Language (3)

ALL141 Introduction to African Oral and Written Literature (3)

##### Optional Courses

ALL131 Language and Communication in Africa (3)

ALL132 Language Instruction I: (Beginners Course in one of the Botswana Languages) (3)

ALL151 Short Story Theory and Practice (3)

ALL152 Style in Writing (3)

##### Semester 2

##### Core Course

ALL121 Introduction to the Study of Language and Linguistics (3)

ALL142 The Study of Drama in Indigenous Languages (3)

##### Optional Courses

ALL134 Language Instruction II (Elementary course in one of the Botswana Languages) Pre: ALL132 (3)

ALL153 Introduction to the African Novel (3)

ALL154 Theory of Humour in Africa (3)

##### Level 200

##### Semester 3

##### Core Courses

ALL221 Sound Systems in African Languages (3)

ALL241 History and Structure of the Setswana Novel (3)

##### Optional Courses

ALL231 The Perception and Transcription of African Language Sounds (3)

ALL232 Language Instruction III (Intermediate Level course in one of the Botswana languages) Pre: ALL132 & ALL134 (3)

ALL251 Folk Speech in Africa (3)

ALL252 Rites of Passage: A Study of Social Dramas (3)

##### Semester 4

##### Core Courses

ALL222 Structure of Words in African Languages (3)

ALL242 African Written Poetry (3)

##### Optional Courses

ALL233 Generative Phonology in African Languages Pre: (ALL221) (3)

ALL234 Language Instruction IV (Intermediate Advanced Level course in one of the Botswana languages) Pre: ALL132, ALL134 & ALL 232 (3)

ALL253 The Sociology of Literature (3)

##### Level 300

##### Semester 5

##### Core Courses

ALL321 The Structure of the Sentence (3)

ALL322 The Structure of Meaning (3)

ALL341 Introduction to Literary Theory (3)

##### Optional Courses

ALL331 Introduction to Translation (3)

ALL332 Language Instruction V (Beginners' Level course in one of the major languages of Africa, Part I) (3)

ALL333 Introduction to Research Methods (3)

ALL351 Politics and Southern African Poetry (3)

ALL352 Epic Performance in Africa (3)

##### Semester 6

##### Core Courses

ALL323 Introduction to Stylistics and



- Discourse Analysis (3)  
**ALL342** African Oral Narratives (3)  
**ALL343** Introduction to African Popular Theatre (3)

#### Optional Courses

- ALL334** Introduction to Modern Theories in Grammatical Analysis (3)  
**ALL335** Language Instruction Course VI (Beginners' Level course in one of the major languages of Africa, Part II) Pre: ALL332 (3)  
**ALL336** Field Research Preparation and Proposal Writing Pre: ALL333 (3)  
**ALL353** African Oral Literature and the Media (3)  
**ALL354** The Contemporary Setswana Novel (3)

#### Level 400

##### Semester 7

#### Core Courses

- ALL421** Introduction to Historical and Comparative Linguistics Based on Africa (2)  
**ALL422** A Sociolinguistic Study of Southern Africa (2)  
**ALL441** World Literature in Setswana Translation (2)

#### Optional Courses

- ALL431** Introduction to Psycholinguistics (2)  
**ALL432** Language Instruction VII (Intermediate Level course in one of the major African languages) Pre: ALL332 & ALL335 (2)  
**ALL433** Research Project: Data Collection Pre: ALL333 & ALL336 (2)  
**ALL451** Studies in African Aesthetics (2)  
**ALL452** Popular Culture in Africa (2)  
**ALL453** Women's Literature in Botswana (2)

##### Semester 8

#### Core Courses

- ALL423** The Bantu and Khoesan Languages of Southern Africa (2)  
**ALL442** Creative Writing, Theory and Practice (2)  
**ALL443** Oral Poetry in Botswana (2)

#### Optional Courses

- ALL434** Introduction to Applied Linguistics (2)  
**ALL435** Language Instruction VIII (Intermediate/Advanced Level course in one of the major African languages) Pre: ALL332, ALL335 & ALL432 (2)  
**ALL436** Research Project: Data Analysis and Interpretation Pre: ALL333, ALL336 & ALL433 (2)  
**ALL454** Children's Traditions and Dramatics (2)  
**ALL455** Postcolonial Theory and African Literature (2)  
**ALL456** Introduction to African Thought (2)

General Education Courses (GECs)

##### Semester 1

- GEC261** Languages of Botswana (2)

##### Semester 2

- GEC262** Introduction to Cultural Studies (2)  
**GEC361** Introduction to Rhetoric and Public Speaking (2)

#### AFRICAN LANGUAGES & LITERATURE COURSE DESCRIPTIONS

##### ALL121 Introduction to the Study of Language and Linguistics (3)

The content of the course will cover the study of human language and its significance in human life. It will also deal with linguistics as the scientific approach to language study, the branches of linguistics, how it is related to other disciplines and how linguistics can be applied to certain professions.

##### ALL122 The Characteristics of Human Language (3)

The content of this course will include an overview of the various theories about the origin of language and the relationship between language origin, the development of society and the structure of the brain. The course will also examine the difference between human language and animal communication as well as the unique characteristics of human language.

##### ALL131 Language and Communication in Africa (3)

The content of the course will include a study of the communication devices among human beings, with special reference to Africa. The course will also cover speech acts, writing systems as well as language acquisition phases and functions of language.

##### ALL132 Language Instruction I (Beginners Course in one of the Botswana Languages) (3)

The content will include an introduction to the culture and history of one of the Botswana Languages and training in the basic use of the language such as essential expressions and self-expression. The course will also introduce the students to some of the basic structures of the language.

##### ALL134 Language Instruction II (Elementary Level) (3)

The content of the course will include a study of the current state of one of the Botswana languages as well as a study of some selected areas of usage such as reporting, expressing one's feelings or seeking attention. The course will also introduce the students to the description of the language's morphology and syntax.

##### ALL141 Introduction to African Oral and Written Literature (3)

The content will include a study of sub-genres of African oral and written literatures such as oral and written stories (novel inclusive), oral and written poetry, traditional drama and written plays and their form and functions in society as well as how content and meaning

is such literatures are manipulated in order to differentiate insider/writer from outsider/ reader as well as men from women.

##### ALL142 The Study of Drama in Indigenous Languages (3)

The course deals with intrinsic and extrinsic aspects of drama with emphasis on the fact that plays are not primarily intended for reading but to be performed.

##### ALL151 Short Story Theory and Practice (3)

The course deals with theories of the short story but much of the time will be spent on reading short stories, critically analyzing them at the same time appreciatively enjoying and getting involved in their production.

##### ALL152 Style in Writing (3)

The course will deal mainly with the relationship between the author, the text and the readers with emphasis on aspects of style that enable messages to reach the addressees.

##### ALL153 Introduction to the African Novel (3)

The course will basically introduce students to genre classification, textual analysis of the novel and the socio-political as well as the gender and cultural history from which it emerged.

##### ALL154 Theory of Humor in Africa (3)

The course will focus on the structure and function of various types of the joke genre in Africa with a special focus on the text, context and performance aspects. The issue of gender and the influence of modern technology and the media on the genre will also be scrutinized.

##### ALL221 Sound Systems in African Languages (3)

The course content will include the definition of phonology, phonemic analysis and the function of distinctive features. The course will also consider the structure of the syllable and other prosodic phenomena.

##### ALL222 Structure of Words in African Languages (3)

The content of the course will include the definition and scope of morphology, the morpheme and its various types as well as allomorphic variation. The course will then focus on the various types of morphemes and apply the principles underlying word formation, analysis to an African language; discuss the processes of term development in Setswana.

##### ALL231 The Perception and Transcription of African Language Sounds (3)

The content of the course will include practice in identifying, describing and transcribing speech sounds. Also students will be trained in classifying the sounds according to shared phonetic features.

##### ALL232 Language Instruction III (Intermediate Level) (3)

The course content will include a discussion of the current state of one of the Botswana languages and then train the students in oral and aural





skills, texts comprehension and an introduction to the literature created in the language. It will also provide skills in the description of the structure of the target language.

#### **ALL233 Generative Phonology in African Language Analysis (3)**

The course content will include an introduction to generative phonology followed by the study of segmental, auto-segmental and metrical phonology. Setswana and one other African language will be used as case studies.

#### **ALL234 Language Instruction IV (Intermediate/advanced Level) (3)**

The course content will include the discussion of the salient issues concerning the current and future situation of one of the Botswana languages. The course will enhance the students' oral and aural skills, text comprehension and a good understanding of the literature created in the language.

#### **ALL241 History and Structure of the Setswana Novel (3)**

The course will include an exploration of the evolution of the novel genre over time among the Setswana speaking peoples of Southern Africa and how it has been influenced by the social, cultural and political environment of the epoch of its composition and production, especially in terms of structure, artistic style and themes.

#### **ALL242 African Written Poetry (3)**

The course will include a holistic theoretical approach to African written poetry utilizing the Reader response, New Historicism and Feminist theories. Included will be the structure of poetry and the influences of various epochs on the form and content of African written poetry.

#### **ALL251 Folk Speech in Africa (3)**

The content of the course will cover aspects of performance, aesthetics, form and function of the various communicative speech acts such as proverbs, riddles, epithets, euphemisms and dysphemisms. The focus of the study will be on both literary texts and everyday discourse.

#### **ALL252 Rites of Passage: A Study of Social Dramas (3)**

The course content will cover performance, structural patterns and functions of the calendar and life cycle ritual ceremonies that affect the individual and the community. Also the importance of symbolism, role-play and reversal of roles will be explored from various theoretical perspectives.

#### **ALL253 The Sociology of Literature (3)**

Basically, the course will include the importance of sociological considerations in understanding literature. These encompass the writer's social situation, the production and the consumption of written literature and the impact of the historical, cultural and political environment on the production and consumption.

#### **ALL321 The Structure of the Sentence (3)**

The course content will include the discussion of the principles and methods of sentence analysis focusing on the basic structure of the sentence. The standard generative grammar model will be used in sentence analysis, based on Setswana.

#### **ALL322 The Structure of Meaning (3)**

The course content will include the definition of meaning, types of meaning, semantic features and lexical relations. It will also consider the modes of meaning interpretation, context, deictic expressions, presuppositions and speech acts.

#### **ALL323 Introduction to Stylistics and Discourse Analysis (3)**

The content of the course will include the study of register, stylistic variation, discourse devices, discourse appropriateness and conversation structure.

#### **ALL331 Introduction to Translation (3)**

The course content will comprise the theory of translation; types, modes and problems of translation; the role of semantics, pragmatics and discourse analysis in translation and structural adaptation. Case studies will be taken from the Botswana languages as well as international languages spoken in Botswana.

#### **ALL332 Language Instruction V (Beginners' Level) (3)**

The content of the course will include an introduction to the culture and history of one of the major languages of Africa and training in the basic use of the language such as essential expressions and self-expression. The course will also introduce the students to some of the basic structures of the language.

#### **ALL333 Introduction to Research Methods (3)**

The course will introduce students to both quantitative and qualitative research paradigms in African Languages and Literature. Also the content will include objectivity in scientific research, topic selection, definition of the problem, significance of a research study, formulation of hypotheses, research methodology, literature review and research proposal framework.

#### **ALL334 Introduction to Modern Theories in Grammatical Analysis (3)**

The course content will include a study of the current conception of a grammar, the modern grammatical theories, and their application to African language description.

#### **ALL335 Language Instruction Course VI (Elementary Level) (3)**

The course content will include the study of the current state of one of the major languages of Africa as well as a study of some selected areas of usage such as reporting, expressing one's feelings or seeking attention etc. Also, the course will introduce the students to the description of the language's morphology and syntax.

#### **ALL336 Field Research Preparation and Proposal Writing (3)**

The course will include techniques of fieldwork, data collection as well as archival research, resource planning, ethical issues and how to write a research proposal.

#### **ALL337 Introduction to Computational Linguistics (3)**

The course will introduce the students to a variety of topics in computer-based language analysis and processing among which three will be examined in a given semester. These topics will include: computational syntax, computational phonology, computational semantics, computational lexicography, speech synthesis, and machine translation.

#### **ALL341 Introduction to Literary Theory (3)**

The course content will include five literary theories (mainly Structuralism, Psychoanalysis, Reception, Marxism and Deconstruction) from which at least three will be selected for discussion in a particular semester.

#### **ALL342 African Oral Narratives (3)**

The course will cover various sub-genres of institutionalized sub-Saharan African oral narratives such as myths, folktales and legends that will be studied, analyzed and interpreted from various theoretical viewpoints.

#### **ALL343 Introduction to African Popular Theatre (3)**

The course content will include the history of Popular Theatre in Africa from the pre-colonial to the postcolonial era with reference to socioeconomic problems facing Africa. Emphasis will be on practical drama and performances in schools and villages within the concept of intervention-participation- conscientisation.

#### **ALL351 Politics and Southern African Poetry (3)**

The course content will include an analysis and interpretation of translated or transcribed oral poetry that deals with socio-political criticism and the influence thereof of oral traditions on political poetry in general. Also included will be the influence of Negritude and African-American poetry on Southern African protest and resistance poetry.

#### **ALL352 Epic Performance in Africa (3)**

The content of the course will include basic characteristics of African epics, their historical contexts, and the mode of delivery to the audience.

#### **ALL353 African Oral Literature and the Media (3)**

The content will include a study of the multiple ways in which the mass media influence oral literature and how oral literature permeates media-manipulated texts and contexts as well as how it is portrayed by the media in its various forms.

**ALL354 The Contemporary Setswana Novel (3)**

The course will include a critical analysis of artistic styles, thematic trends, inter-textual relationships and literary quality of the Setswana novels recently written and published in Botswana and South Africa.

**ALL421 Introduction to Historical and Comparative Linguistics based on Africa (2)**

The course will include an introduction to historical and comparative linguistics as a discipline and then look at how this approach has been used in the comparison, classification and accounting for patterns of change in the languages of Africa.

**ALL422 A Sociolinguistic Study of Southern Africa (2)**

The course will include the patterns of language use in Botswana, the factors that influence language change and maintenance and the various efforts, both formal and informal, which are being made in order to preserve, promote and empower languages.

**ALL423 The Bantu and Khoesan Languages of Southern Africa (2)**

The course content will consist of the origin and migration of the Bantu and Khoe-San language speakers, the settling of the Bantu languages in the Southern African region, the classification of the Bantu and Khoe-San languages and their major characteristics.

**ALL431 Introduction to Psycholinguistics (2)**

The course will include the various approaches to psycholinguistics, language production and comprehension, the biological foundations of language and language pathology.

**ALL432 Language Instruction VII (Intermediate Level) (2)**

The course content will include discussion of the current state of one of the major languages of Africa, comprehension texts and an introduction to the literature created in the language, oral and aural skills and structural analysis.

**ALL433 Research Project: Data Collection (2)**

The research project will be carried out through regular consultation with the relevant lecturer and will lead to the collection of data on the chosen research topic and documentation of the research findings.

**ALL434 Introduction to Applied Linguistics (2)**

The course content will include the study of mental representation of grammar, the child's processing of grammar, the psycholinguistic approach to mental process and the language learning processes.

**ALL435 Language Instruction VIII (Advanced Level) (2)**

The course synopsis will include a discussion of the salient issues concerning the current state and future situation of one of the major

languages of Africa, advanced comprehension texts and a good understanding of the literature created in the language, advanced oral and aural skills and an in-depth descriptive knowledge of the language.

**ALL436 Research Project: Data Analysis and Interpretation (2)**

The course will consist of supervised work on hands-on data analysis, interpretation and research report write-up.

**ALL441 World Literature in Setswana Translation (2)**

The content of the course will include primarily literary texts translated into Setswana from other African languages, and secondly those translated from foreign/non-African languages. A study of how (and why) cultures are constructed, inter-textualized and manipulated through translation will also be done.

**ALL442 Creative Writing, Theory and Practice (2)**

The content of this course includes techniques of writing in three genres: short stories, plays (drama) and poems (poetry).

**ALL443 Oral Poetry in Botswana (2)**

The course will cover the performance and significance of the various forms of indigenous oral poetry that are composed and rendered by oral artists under different cultural and situational contexts in Botswana.

**ALL451 Studies in African Aesthetics (2)**

The course content will include theories of aesthetic judgment and arguments propounded by philosophers, artists, literary critics and consumers of objects of aesthetic value.

**ALL452 Popular Culture in Africa (2)**

The course will include a study of culture, subcultures and visual culture with emphasis on music, dance, films/videos, television, computer and their inter-textual relationship. It will also include the ideology of mass culture, theories of consumption and its confrontation with politics, religion and the spirit of conservatism.

**ALL453 Women's Literature in Botswana (2)**

The course will include a study on various literary texts created by women in Botswana from oral to written, how they handle relations of power, sexuality and gender issues, their vision and communicative strategies.

**ALL454 Children's Traditions and Dramatics (2)**

The content of the course will include research on children's traditional games, storytelling, songs, and methods of dramatic improvisation and creative writing for children's books.

**ALL455 Postcolonial Theory and African Literature (2)**

The course examines from a historical perspective the national, transnational and translational boundaries of culture with reference to colonial and post-colonial literature.

**ALL456 Introduction to African Thought (2)**

The course content will include philosophical treatise that exist within the discipline of African philosophy and thought on various topics that by their very nature raise questions of philosophical discussion.

**GEC261 Languages of Botswana (2)**

The content of the course will include the study of the various language groups that settled in what is now Botswana and how they have interacted over the years to give rise to the current language situation. The course will also discuss the role of Setswana as national and English as official language.

**GEC262 Introduction to Cultural Studies (2)**

The content of the course includes theories of cultural production, practices and values in Africa. Sensitive questions of ethnicity and multiculturalism are also discussed.

**GEC361 Introduction to Rhetoric and Public Speaking (2)**

The content of the course will include aspects of African literature, language and philosophy with reference to interpersonal communication.

## DEPARTMENT OF ENGLISH

**Departmental Regulations**

Subject to the provisions of the Academic General Regulations and the Faculty of Humanities Special Regulations, the following Departmental Regulations shall apply:

**Programmes and Titles of Degrees**

The Department of English offers the following programmes leading to the award of a Degree:

- a) Single Major Programme leading to the award of a Bachelor of Arts Degree as per Departmental Regulations;
- b) Combined Major/Minor Programme with English as the Major leading to the award of a Bachelor of Arts Degree as per Departmental Regulations;
- c) Combined Major/Major Programme with English and a second subject other than English as Majors leading to the award of a Bachelor of Arts Degree as per Departmental Regulations;
- d) Combined Major/Minor with English as the Minor leading to the award of a Bachelor of Arts Degree as per Departmental Regulations, if the student is registered in the Faculty of Humanities;
- e) Multi-disciplinary Programme leading to the award of a Bachelor of Arts Degree as per Departmental Regulations.

**Entry Requirements**

Admission requirements to the Programmes in the Department of English are specified in the Faculty of Humanities Regulation 22.2.

**Award of Degree**

A student must satisfy the appropriate provisions of General Academic Regulation 20.4 to be awarded a Degree.



### Career Opportunities for Graduates of the Department of English

1.5.1 Career prospects for Bachelor's and Master's Degree holders in English include professional employment in the fields of:

- a) Education, teaching at secondary and tertiary levels or in the field of curriculum development in the Ministry of Education;
- b) Print and Electronic Media;
- c) Publishing;
- d) Public Relations;
- e) The Civil Service.

1.5.2 Training in English studies provides the recipient with the kind of adaptable mind that enables him/her to fit, with some additional training, into a wide range of managerial and administrative positions, including posts in financial and business institutions.

### Course Structure

1.6.1 Courses in the Department of English shall be offered at Levels 100 to 400 for the undergraduate programmes as outlined below.

1.6.2 In addition to the Department's courses, an undergraduate candidate majoring in English shall take General Education Courses (GECs) and electives in accordance with General Regulation 00.2124.

### Level 100

#### Semester 1

##### Core Courses

#### ENG121 Introduction to English Language Description and Usage (3)

This course provides an overview of basic grammatical concepts and terms that students can apply to particular examples and difficulties of usage.

#### ENG113 Introduction to Literature: Prose (3)

This course is designed to introduce first-year students to the literary aspects of the essay and the (auto) biography, and to the structure and components of the novel and short story.

### Semester 2

#### Core Courses

#### ENG131 Writing in English (3)

The course familiarises students with various rhetorical principles and examines various features of discourse types specific to particular genres.

#### ENG123 Introduction to Literature: Drama and Poetry (3)

This course is designed to introduce students to the literary and theatrical aspects of drama, and to the structure and literary strategies of poetry.

### Level 200

#### Semester 3

##### Core Course

##### Band A: Language

#### ENG211 The Pronunciation of English (3)

This course introduces students to articulatory processes and the description of English sounds.

### Optional Courses

#### Band B: English Literature

#### ENG212 Introduction to English Literature: The Novel (3)

The course seeks to introduce students to the development of the English Novel from its infancy in the 18th Century to modern times. The course broadly examines the emergence of the English Novel and the conditions under which it emerged.

#### Band C: African Literature

#### ENG213 Prose Literature of Southern Africa (3)

This course introduces students to the prose literature of the Southern African region, covering various historical, political and social topics as they are written about in the literature of the region.

#### ENG223 The Drama of Southern Africa (3)

This course introduces students to the drama of Southern Africa, covering the genesis and development of Southern African drama, identifying a dramatic form that is Southern African, and relating, comparing and contrasting such dramatic forms to those from other parts of Africa.

### Semester 4

#### Core Course

##### Band A: Language

#### ENG221 Introduction to English Linguistics (3)

An introductory over-view of Descriptive Linguistics, viewed as a foundation for the study of English Language and Linguistics courses.

### Optional Courses

#### Band B: English Literature

#### ENG222 Introduction to English Literature: Poetry and Drama (3)

The course seeks to introduce students to some of the major poets and dramatists in English Literature. It examines the works of some of the major poets and dramatists in English Literature from Chaucer up to the present time

#### Band C: African Literature

#### ENG233 The Poetry of Southern Africa (3)

This course introduces students to the poetry of Southern Africa. While focusing on the modern written forms, it also points to the living, everyday experience of oral traditions of poetry. The course is broadly representative of the countries, themes and forms of poetic expression in the region.

### Band G: Theatre Studies

#### ENG217 Theatre History (3)

This course introduces students to the study of Theatre, from a historical perspective. The course traces developments in Theatre across the world, highlighting circumstances that have either helped develop theatre or stifle it.

### Level 300

#### Semester 5

##### Core Course

##### Band A: Language

#### ENG351 Phonology of English (3)

The course introduces students to some of the phonological theories on the pronunciation of English and other languages known to them. In addition, it gives students the opportunity to apply this knowledge to some data to enhance their understanding of the theories.

### Optional Courses

#### Band A: Language

#### ENG341 Introduction to Sociolinguistics (3)

The course introduces students to the relationship between language and society. It focuses in particular on the description of varieties of English and their use in various contexts, and on the analysis of and solutions to language problems, especially in developing countries

#### ENG441 Introduction to Pragmatics (3)

This course introduces students to Pragmatics, a discipline which studies various factors involved in appropriate use and understanding of language. It looks at such factors as the speaker's intentions and how they are surmised by the addressee, the speaker's and addressee's background attitudes and beliefs, their understanding of the context in which the utterance is made, and their knowledge of how language can be used for a variety of purposes.

### Band B: English Literature

#### ENG352 The Metaphysical Poets (3)

This course will chart the development during the 16th-17th Centuries of Metaphysical poetry through its chief practitioners: Donne, Herbert, Vaughan and Marvell. It will study the poetic devices, styles and subjects that link together these writers as Metaphysical poets.

#### ENG332 English Romantic Poetry: The Early Romantics (3)

This course deals with the early part of the literature that came to be known as English Romantic Poetry. Focus will be on Blake, Wordsworth and Coleridge.

#### ENG342 Elizabethan and Jacobean Literature: Drama (3)

A study of Elizabethan and Jacobean Drama as a significant literary, cultural, political and religious expression of the Age.

#### ENG412 Introduction to Shakespeare (3)

This course deals with the achievement of Shakespeare as the hallmark of the English literary tradition through an exploration of three of his more famous plays and a selection of his most popular poems.

### Band C: African Literature

#### ENG333 Critical Issues in Modern African Literature (3)

An examination of the major critical issues and trends in Modern African literature using both creative materials and critical works of African authors.

**ENG353 Currents of Thought in the Literature of the African Diaspora: African-American Literature (3)**

A survey of African-American literature from slave narratives to contemporary works.

**ENG363 Oral Literature (3)**

This course acquaints students with orality as a cultural process. It develops an appreciation of verbal art and examines the fundamental sources and basis of the forms and structures of African and European literature.

**ENG373 Botswana Literature (3)**

The course is a critical study of the novel, poetry, short story and drama of Botswana. It will also trace the development of the literature. The course will focus on stylistic, thematic and generic differences and similarities in the works.

**Band D: World Literature****ENG334 Commonwealth Literature (3)**

A selection of works of prose, fiction, drama, poetry and essays drawn from a number of literacy traditions in The Commonwealth. The choice of texts for study will help students to reflect on the problematic use of the English language as a medium of literary expression in all Commonwealth societies.

**Band E: Theory****ENG415 Readings in Literary Theory 1 (3)**

The course surveys the changing conceptions of the nature and function of literature in the Western tradition from Plato and Aristotle in the Classical period to Tolstoy and Marx in the nineteenth century.

**Band G: Theatre Studies****ENG317 African Drama (3)**

The course offers students an opportunity to critically look at a representative selection of African dramatic literature. The course helps students to identify and appreciate the various themes explored in drama, its various styles and techniques and its role in society.

**ENG327 Practical Theatre (6, 2 Semesters)**

This course is an introduction to the practice of theatre such as the processes of script analysis, research, rehearsal, stagecraft and performance. The course will offer students an opportunity to approach theatre holistically and to understand the relationships between the various arts that go into its making.

**Semester 6****Core Course****Band A: Language****ENG311 Modern English Grammar (3)**

This course is a detailed description and analysis of modern English grammar: meaning of grammar, word classes in English, English phrase types and English sentence structure.

**Optional Courses****Band A: Language****ENG321 Usage in English (3)**

The course examines common problems associated with word class usage (noun/pronoun

agreement, tense and voice in verbs, comparative and superlative forms in adjectives and adverbs) and sentence usage including modification, coordination, subordination and fragmentation.

**ENG361 Morphology of English (3)**

The course provides students with an understanding of the morphological structure of English and their own languages. It also teaches students how to analyse any language morphologically.

**Band B: English Literature****ENG312 Milton (3)**

A detailed study of the seminal poetical writings of John Milton. It will place Milton in the context of the tradition of world Epic poetry and of English 17th Century poetry, and systematically explore Miltonic ideas about literary genre, politics, religion and philosophy.

**ENG362 The Later Romantics (3)**

This course attempts to establish the relationship between the Early Romantics and the Later Romantics in terms of theme and style. Focusing on Keats, Shelley and Byron, it will attempt to place the Later Romantics in their proper literary and socio-political context.

**ENG372 Elizabethan and Jacobean Poetry (3)**

The course examines how Elizabethan and Jacobean writers employed the poetic mode to express views on private and personal feelings, and on social and public issues.

**Band C: African Literature****ENG383 Critical Issues in Modern African Literature: Critical Debates in African Literature (3)**

This course continues the discussion of the major issues and trends in Modern African Literature using both creative works and critical writings of African authors.

**ENG343 Modern African Poetry (3)**

This course deals with the modes, styles and themes of modern African poetry, and the socio-political and cultural influences that have shaped it. The traditions of modern African poetry are studied across periods and regions.

**ENG393 Currents of Thought in the Literature of the African Diaspora: African-Caribbean Literature (3)**

A critical study of Caribbean literature within the context of the forces and conditions that occasioned its advent, and continues to impact its survival and future.

**Band D: World Literature****ENG324 Twentieth Century American Literature (3)**

A critical examination of twentieth-century American literature using representative texts of various genre-types: fiction, drama, and poetry.

**Band G: Theatre Studies****ENG327 Practical Drama (6, 2 Semesters)**

This course is an introduction to the practice of theatre such as the processes of script analysis,

research, rehearsal, stagecraft and performance. The course will offer students an opportunity to approach theatre holistically and to understand the relationships between the various arts that go into its making.

**Level 400****Semester 7****Core Course****Band A: Language****ENG421 Approaches to Syntax (3)**

This course provides students with knowledge of various approaches to syntax with specific emphasis on functional approaches.

**Optional Courses****Band A: Language****ENG331 Language Acquisition (3)**

The course introduces students to the principles governing how humans acquire a first language, and a second or additional language. Important aspects of the course include the role of the brain and other speech organs in language processing, and learner strategies in Second Language Acquisition.

**ENG471 Introduction to Literary Stylistics (3)**

Students will be introduced to a range of linguistic theories on which they will draw in their analysis of selected texts.

**Band B: English Literature****ENG422 The Development of the English Novel: The Early English Novel (3)**

A chronological study of the development of the English Novel from its 18th Century inception by Defoe through to Romantic conceptions of the form. It will consider the novel's evolution as a form of social commentary and its response to diverse social and political pressures.

**ENG432 Victorian Poetry (3)**

A Study of 19th Century English Victorian poetry identifying the important themes and the characteristic poetic features of the age. It will consider the Victorian concerns about death, love, religious faith, marriage, the position of women, and the great growth and optimism of the age.

**ENG442 Modern English Prose Fiction 1900-1930 (3)**

The course is an intensive study of a major work by each of the following writers: Joseph Conrad, E.M. Forster, D.H. Lawrence, Virginia Woolf and James Joyce. Students will explore and analyse the way these works relate to the intellectual, cultural and social concerns of the period.

**ENG452 Shakespearean Drama (3)**

This course considers a selection of Shakespearean tragic, comedic and historical texts, as well as their cultural setting, historical context and literary environment.

**Band C: African Literature****ENG413 The African Novel I (3)**

A study of the African novel written in English or translated into English from indigenous and other languages of the continent of Africa. This





study concentrates on the characteristic themes and concerns of the African novel.

#### **ENG433 Introduction to Gender Issues (3)**

This course will combine theoretical and practical approaches to literature in order to clarify how, and the extent to which, feminist criticism can be applied to analyse literary texts.

#### **Band D: World Literature**

##### **ENG424 The Novel in the Modern World (3)**

Focusing on major novels published since 1950, this course provides an overview of how novelists from different parts of the world have developed the form as a means to address important social, cultural and political issues.

#### **Band F: Project/Long Essay**

##### **ENG416 Research Essay (6, 2 Semesters)**

The course offers the student the opportunity to conduct supervised research which should result in the submission of an essay of 5000 – 7000 words.

#### **Band G: Theatre Studies**

##### **ENG417 Theory and Practice of Drama (6, 2 Semesters)**

This is a course designed for students with an interest in the practice of theatre. It is intended to deepen students' practical theatre skills and some important theories underlying the skills of acting, directing for the stage, set design, lighting, script-writing.

##### **ENG427 Dramatic Literature (3)**

The course explores the importance of play texts in the development of theatre traditions around the world. It is designed to help students appreciate the difference between drama as literature and drama as theatre.

#### **Semester 8**

##### **Core Course**

##### **Band A: Language**

##### **ENG451 Introduction to Semantics (3)**

An introductory course to semantics which promotes an understanding of a framework for conceptualising meaning leading to clear and logical thinking.

##### **Optional Courses**

##### **Band A: Language**

##### **ENG411 Form, Function, and Variation in English (3)**

The course focuses on the practical analysis of texts against a background of various theoretical approaches to stylistics.

##### **ENG431 Introduction to Discourse**

##### **Analysis (3)**

This course introduces students to Discourse Analysis, a discipline which is concerned with how language users produce and interpret language in situated contexts and how these constructions relate to social and cultural norms, preferences, and expectations. Among other things, the course focuses on the nature and structure of written and spoken discourse and attempts to link the characterization of

speaker/writer meaning and its explanation in the context of use.

##### **ENG481 Language and Gender (3)**

This course introduces students to a range of gender-related theoretical and analytical issues in the structure and use of English, and examines the current trends in gender-related language reform.

#### **Band B: English Literature**

##### **ENG462 Shakespearean Poetry (3)**

This course will explore a selection of Shakespeare's sonnets and excerpts from the longer poems, focusing on major themes of Elizabethan poetry such as love, time, death, religion, and politics.

##### **ENG472 The Development of the English Novel: The Victorian English Novel (3)**

A chronological study of the traditional English Novel from the Romantic Movement to the end of the reign of Queen Victoria. Problems the novel address include the decline in religious faith due to Darwinism, and the social pressures of the increase of urbanisation and industrialisation.

##### **ENG482 Modern English Drama (3)**

An exploration of the stylistic and thematic advances made by British playwrights at the beginning of the 20th century and their imprint on the development of drama during the rest of the century.

##### **ENG492 Modern English Poetry (3)**

The poets of the period explore the material and spiritual dislocations that were signs of the break-up of Western Civilisation. The course studies the poetry of Hopkins, W.B. Yeats, T.S. Eliot and the poetry of WW1.

#### **Band C: African Literature**

##### **ENG443 The African Novel II (3)**

A study of the design and technical innovations to be seen in the African novel written in English or translated into English from indigenous and other languages of the continent of Africa.

##### **ENG463 Gender Issues in African Literature (3)**

Requiring a comprehensive reading of feminist theory and some literary texts, the course encourages students to draw on different disciplines to explore representations of motherhood and fatherhood in nationalist politics and literature; visual representations of female and male sexuality, mainstream feminist criticism and "womanism."

##### **ENG453 Bessie Head (3)**

This course focuses on Bessie Head as one of the major writers to emerge from Botswana and Africa.

#### **Band D: World Literature**

##### **ENG434 Non-European World Literature (3)**

This course provides an overview of the literatures of unfamiliar cultures, covering topics such as

classical Asian poetry, the novel in China and Japan, magical realism in Latin America, identity and social status in multi-ethnic and multi-lingual societies, the problems of translation.

#### **Band E: Theory**

##### **ENG435 Readings in Literary Theory II (3)**

The course surveys the various and sometimes conflicting twentieth-century approaches to literature from Russian Formalism to the more recent Feminist and Postcolonial arguments.

##### **ENG425 Seminar on Feminist Literary Theory (3)**

Although the course demands an in-depth reading of feminist theory, emphasis will also be placed on interdisciplinary approaches. Students will be encouraged to consider how theoretical statements affect their own thinking and ideologies.

#### **Band F: Project/Long Essay**

##### **ENG416 Project/Essay in either Language or Literature (6, 2 Semesters)**

The course offers the student the opportunity to conduct supervised research which should result in the submission of an essay of 5000 – 7000 words.

#### **Band G: Theatre Studies**

##### **ENG417 Theory and Practice of Drama (6, 2 Semesters)**

This is a course designed for students with an interest in the practice of theatre. It is intended to deepen students' practical theatre skills and some important theories underlying the skills of acting, directing for the stage, set design, lighting, script-writing.

#### **Programme Structure**

1.7.1 In each semester at Level 100 English shall comprise 6 credits made up of 1 core course in Language (3 credits) and 1 core course in Literature (3 credits).

1.7.2 In each semester at Level 200 English shall comprise 6 credits made up of the following:

- a) A core course in Language and;
- b) A Literature course selected from the available options.

##### **1.7.3 In a Combined Degree (Major/Major)**

Programme, English shall comprise the following at Level 300: In each semester, 6 credits made up of the core Language course and one Literature course selected from any of the bands.

##### **1.7.4 In a Combined Degree (Major/Major)**

Programme, English shall comprise the following at Level 400: In each semester, 6 credits made up of the core Language course and one Literature course selected from any of the bands.

##### **1.7.5 In a Combined Degree (Major/Minor)**

Programme, where English is the Major subject, English shall comprise the following at Level 300: a) In each semester, 9 credits made up of the core Language course, one Literature course, and either another language course or another Literature course from a different band; b) Over the two semesters, a student may only



take a maximum of 9 credits in Language.

#### 1.7.6 In a Combined Degree (Major/Minor)

Programme, where English is the Major subject, English shall comprise the following at Level 400:

- In each semester, a minimum of 9 credits made up of the core Language course, one Literature course and another Language or another Literature, provided it is from a different band;
- Over the two semesters, a student may only take a maximum 9 credits in Language.

#### 1.7.7 In a Combined Degree (Major/ Minor)

where English is the Minor subject at Level 300: In each semester English shall comprise 3 credits selected in consultation with the Head of Department from the Department's course offerings from Level 300 and above.

#### 1.7.8 In a Combined Degree (Major/Minor)

where English is the Minor subject at Level 400: In each semester, English shall comprise 3 credits selected in consultation with the Head of Department from the Department's course offerings from Level 300 and above.

#### 1.7.9 In a Single Major Programme at Level 300,

English shall comprise the following in each semester: 15 credits made up of: a) The core Language course, one optional Language course, two Literature courses selected from different bands and another Language or Literature course also from a different band.

b) Over the two semesters, a student must take at least 12 credits, the equivalent of 4 courses, in Language.

#### 1.7.10 In a Single Major Programme at Level 400:

In each semester, English shall comprise 15 credits made up of the following:

- A core Language course;
- One optional Language course;
- Two optional Literature courses provided that each course is from a different band;
- A project or long essay in either Language or Literature (6 credits over two semesters).

1.7.11 In a Multidisciplinary Programme at Levels 300 and 400, the student shall, in consultation with his/her tutor and the Head of Department, select for credit relevant courses from the Departmental offerings. Such courses shall normally be at Level 300 and above.

#### Assessment and Examination

Student performance in each course shall be evaluated by taking into account continuous assessment and final examination, except in the case of ENG416: Research Essay, where the completed essay will take the place of a final examination.

#### Progression from Semester to Semester

In order to proceed from one semester to the next, a student must maintain a cumulative GPA in accordance with General Regulation 00.9.

#### Programme Regulations for the Bachelor of Arts Degree in Chinese Studies

#### General provisions

The General Academic Regulations and the Faculty of Humanities Special Regulations shall apply.

#### Entrance Requirements

Eligibility for admission to the programme shall be in accordance with the General Academic Regulations and the Faculty of Humanities Special Regulations 22.2.

#### Programme Structure

Chinese studies at the University of Botswana shall consist of the following programmes:

- Single major
- Minor either in a Language only option or Language and cultural studies option.

#### SINGLE MAJOR:

3.1 The Chinese Studies programme is a concentrated Single Major leading to a Bachelor of Arts degree. This concentration is necessary in view of the high language standard to be mastered in four years.

3.2 In the Third Year, Single Major Students will spend a compulsory year in China at a partner institution. This year is an indispensable feature in order to produce graduates with sufficient fluency in Chinese and familiarity with the society. It will however be expensive, and it is therefore necessary that students' sponsors should be aware of the full cost, and able to guarantee it, for any student to be admitted to the Single Major. (In this regard the programme is similar to some existing high-cost programmes such as medicine.)

3.3 Teaching will be in English at lower levels. This is in accordance with international best practice and is necessary because of the relative difficulty of beginning Chinese.

3.4 To successfully complete the programme, students will be required to obtain 122 credits, of which 39 will be from core language courses, 30 from a compulsory year abroad in China, 30 from optional social/historical courses, 15 from electives and 8 from GEC courses.

3.5 The following will be the core courses:—

CHN101:	Basic Mandarin 1	6 credits
CHN102:	Basic Mandarin 2	6 credits
CHN 103:	Introduction to China	3 credits
CHN 104	Understanding China	3 credits
CHN 201:	Pre-intermediate Mandarin Chinese 1	6 credits
CHN 202:	Pre-intermediate Mandarin Chinese 2	6 credits
CHN 203:	Ancient and Imperial History of China [to1911]	3 credits
CHN 204:	Modern History of China [Since 1911]	3 credits
CHN 205:	Chinese Philosophy and Religion	3 credits
CHN 206:	Political Economy of Contemporary	

China 3 credits

CHN 207: Introduction to Chinese Literature in Translation 3 credits

CHN 300+: Semester and Year Abroad 30 credits

CHN 401: Advanced Mandarin Chinese 1 6 credits

CHN 402: Advanced Mandarin Chinese 2 6 credits

CHN 403: Africa's Relations with China 3 credits

CHN 404: China, Globalization & Changing Power Relations 3 credits

CHN 405: Chinese Literature and Culture 3 credits

CHN 406: Business Chinese 3 credits

3.6: Five options will be selected from a list of approved optional courses from other departments.

3.6.1 It should be noted that due to the special nature of this programme, all the Chinese Studies courses (both language and non-language) are core. The optional courses are approved courses which may be taken from other subjects. The programme does not include any electives.

3.6.2 The following list is provided for this year (2011–12); however, the Faculty may alter the list at discretion to take account of circumstances. (See regulations.) The list below has been arranged by broad categories so as to indicate areas of particular relevance.

#### Business

MGT 100	Principles of Management 1	(3)
MKT 100	Principles of Marketing 2	(3)
THM 101	Principles of Tourism1	(3)
MGT 200	Organizational Design and Development (Pre MGT 100)2	(3)
MKT 303	Sales Management 2	(3)
MKT 309	Internet Marketing 1	(3)

#### History and Politics

ARC 102	World Prehistory 1	(3)
HIS 102	Introduction to the Study of History 2	(3)
POL 113:	Foreign Policy and Diplomacy	(3)
HIS 201	African Cultures and Civilisations to c.1500	1(3)
HIS 214	Agriculture & Industrialisation in the World Economy to 19452	(3)
HIS 333	Intro to Foreign Policy, Diplomacy & International Relations	1(3)
HIS 334	Superpowers in the 20th Century 2	(3)
HIS 446	Growth, Policy and Poverty in Africa, L. America, S & SE Asia 2	(3)
POL 401:	International relations	1 (3)

#### Language and Literature

ENG 213	Prose Literature of Southern Africa	1(3)
ENG 223	The Drama of Southern Africa	1(3)
ENG 233	The Poetry of Southern Africa	2(3)
ALL 353:	African Oral Literature and the Media	(3)
ENG 317	African Drama	1(3)



- ENG 373 Botswana Literature  
(can be taken in year 4) 1(3)
- ALL 453: Women's Literature in  
Botswana 1(3)
- ENG 433 Introduction to Gender issues 1(3)
- ENG 453 Bessie Head  
(can be taken in year 4) 2(3)
- ENG 463: Gender Issues in African  
Literature 2(3)

#### Media Studies

- BMS 320 Media and Society  
(from 2011-12) 1 (3)
- BMS 329 Development Communication  
(from 2011-12) 2 (3)
- BMS 421: Current Issues in African Media  
(from 2012-13) 1(3)

#### Philosophy and Religion

- TRS 107 African Traditional Religions 2(3)
- TRS 304 African Philosophy and Culture 1(3)
- TRS 409 African Christian Theologies 1(3)
- TRS 413 Hinduism 1(3)
- TRS 418 Contemporary African  
Philosophy 2(3)
- TRS 424 Buddhism 2(3)

#### Society

- SOC 123 Introduction to Social and Cultural  
anthropology 1(3)
- SOC 236 Social Inequality 2(3)
- SOC 324 Sociology of Gender 2(3)
- SOC 424 African Social Thought 1(3)

3.7: The programme structure is as follows:—

#### Year 1

##### Semester One

##### CORE

- CHN 101: Basic Mandarin 1 (6)
- CHN 103: Introduction to China (3)

##### 1 OPTIONAL

Choose One (1) from the following:

- MGT 100: Principles of Management
- THM 101: Principles of Tourism
- ARC 102: World Prehistory
- SOC123: Introduction to Social & Cultural  
Anthropology (3)
- GECCOM 111(3)
- ICT 121 (2)
- Total credits 17

#### Semester Two

##### CORE

- CHN 102: Basic Mandarin 2(6)
- CHN 104 Understanding China(2)

##### 1 OPTIONAL Choose one (1) from the following:

- MKT 100: Principles of Marketing
- HIS 102: Introduction to the Study of History
- TRS 107: African Traditional Religion(3)
- GEC COM112(3)
- ICT 122(2)
- Total credits 17

#### Year 2

##### Semester One

##### CORE

- CHN 201: Pre-intermediate Mandarin  
Chinese 1(6)
- CHN 203: Ancient and Imperial History of  
China (3)
- CHN 205: Chinese Philosophy and Religion(3)
- CHN 207 Introduction to Chinese Literature in  
Translation (3)

Total credits 15

#### Semester Two

##### CORE

- CHN 202: Pre-intermediate Mandarin  
Chinese 2 (6)
- CHN 204: Modern History of China (3)
- CHN 206: Political Economy of Contemporary  
China (3)

##### 1 OPTIONAL (3)

Total credits 15

#### Year 3

YEAR AT CHINESE UNIVERSITY 3 0  
1 & 2

#### Year 4

##### Semester One

##### CORE

- CHN 401: Advanced Mandarin Chinese 1 (6)
- CHN 403: Africa's Relations with China(3)
- CHN 405: Chinese Literature and Culture(3)

##### 1 OPTIONAL Choose one (1) from the following:

- HIS 201: African Cultures and Civilization  
to c.1500
- HIS 333: Intro to Foreign Policy, Diplomacy &  
International Relations
- POL 401: International Relations
- ENG 373: Botswana Literature (3)
- ALL 453: Women's Literature in Botswana
- ENG 433: Introduction to Gender Studies
- TRS 304: African Philosophy & Culture
- TRS 409: African Christian Theologies
- SOC 424: African Social Thought
- Total credits 15

#### Semester Two

##### CORE

- CHN 402: Advanced Mandarin Chinese 2 (6)
- CHN 404: China, Globalization & Changing  
Power Relations (3)
- CHN 406: Business Chinese(3)

##### 1 OPTIONAL

##### Choose one (1) from the following:

- MGT 200: Organizational Design &  
Development (Prereq MGT 100)
- MKT 303: Sales Management
- HIS 214 Agriculture & Industrialization in  
the World Economy to 1954
- HIS 334: Superpowers in the 20th Century
- HIS446: Growth, Policy, Diplomacy &  
International Relations (3)
- ENG 233: The Poetry of Southern Africa
- ENG 453: Bessie Head
- ENG 463: Gender Issues in African Literature
- BMS 329: Development Communication  
(from 2011-12)
- TRS 418: Contemporary African Philosophy
- TRS 424: Buddhism
- SOC 236: Social Inequality

SOC 324: Sociology of Gender  
Total credits 15

### 3.8 MINORS:

A Minor in Chinese Studies will be available for students in other programmes. Apart from its general educational value, a qualification in Chinese would improve employability for e.g. an engineering, tourism or business graduate.

Three possible types of secondary qualification are available:

(i) Minor in Chinese Studies (Language option) with study in China

(ii) Minor in Chinese Studies (Language option) with supplementary language study with the Confucius Institute, etc.

(iii) Minor in Chinese Studies (cultural option)

For Years One and Two, Minor students will take the same language courses as the Major students. Minor students will take a reduced language component at Year Three, either in China or in Botswana, and take some non-language courses at Year Four.

### 3.9 Minors in the Chinese Studies Programme

Students wishing to graduate with a Minor in Chinese Studies can select either a language option or an option including language and cultural studies. For the language option, there is a further subdivision according to whether a semester of study in China is included, or whether this is substituted by approved courses and attachments locally. All these options require 51 credits.

#### Minor in Chinese Studies, Language-only option.

3.10 This Minor would be suitable for a student specializing in some other subject but wishing to acquire some degree of competence in Chinese language, thus increasing employability for e.g. an engineering, tourism or business graduate.

#### 3.10.1 Language only Option with study in China

##### The requirements for this option are

- 24 core credits from all the language courses at first and second year,
- 15 core credits from a winter session in China.
- 6 credits from GEC courses.
- 6 credits from electives

However, the requirement for a winter session in China may at the discretion of the Faculty be replaced by a shortened study session in China and/or alternative language courses such as Confucius Institute classes, an attachment to a Chinese company, etc.

#### 3.10.2 Language only Option with supplementary language study in Botswana.

The requirements for this option are

- 24 core credits from all the language courses at first and second year,
- 15 core credits from alternative language

courses such as Confucius Institute classes, an attachment to a Chinese company, etc.

- 6 credits from GEC courses.
- 6 credits from electives

4 Minor in Chinese Studies, Language and Cultural Studies Option

This Minor would be suitable for a student specializing in some other subject but wishing to acquire basic Chinese, together with a good understanding of Chinese society.

The requirements for this programme are

- 24 core credits from all language courses at first and second year
- 9 core credits from a shortened study session in China or alternative language courses
- 18 optional credits from six of the following courses:-

**CHN 103:** Introduction to China 3 credits

**CHN 104** Understanding China 3 credits

**CHN 203:** Ancient and Imperial History of China [to1911] 3 credits

**CHN 204:** Modern History of China [Since 1911] 3 credits

**CHN 205:** Chinese Philosophy and Religion 3 credits

**CHN 206:** Political Economy of Contemporary China 3 credits

**CHN 207:** Introduction to Chinese Literature in Translation 3 credits

**CHN 403:** Africa's Relations with China 3 credits

**CHN 404:** China, Globalization & Changing Power Relations 3 credits

**CHN 405:** Chinese Literature and Culture 3 credits

4.1.To graduate with the Minor in Chinese Studies (Language and cultural studies Option) a student shall be required to obtain 51 credits, including 24 core credits from Basic Mandarin 1, Basic Mandarin 2, Pre-intermediate Mandarin Chinese 1, and Pre-intermediate Mandarin Chinese 2, 9 core credits from a shortened study session in China or at the discretion of the Faculty approved alternative language courses, attachments with Chinese companies and agencies, etc., and 18 optional credits from six of the following courses:

**CHN 102:** Introduction to China

**CHN 103** Understanding China

**CHN 203:** Ancient and Imperial History of China [to 1911]

**CHN 204:** Modern History of China [Since 1911]

**CHN 205:** Chinese Philosophy and Religion

**CHN 206:** Political Economy of Contemporary China

**CHN 207:** Introduction to Chinese Literature in Translation

**CHN 402:** Africa's Relations with China

**CHN 403:** China, Globalization & Changing Power Relations

**CHN 404:** Chinese Literature and Culture

4.2 Students with prior HSK qualifications in Chinese language may at the discretion of the Faculty be given credit for these as substituting

for language courses.

4.3.The list of approved optional courses from other departments shall be determined and published as appropriate from time to time.

### 5. Assessment

Assessment shall normally include course assessment as provided for in General Regulations, including essays, tests, presentations, project assignments, group exercises, practical exercises, and other forms of assessment appropriate to the particular course, and final examinations, but the assessment requirements may vary between courses according to the approved course prescriptions.

### 6. Awards in Chinese Studies

Bachelor of Arts Degree:

To graduate as Bachelor of Arts in Chinese Studies, students must qualify for a BA under the General Regulations of the Faculty of Humanities, and satisfy the requirements for the Major in Chinese Studies.

To graduate with the Major in Chinese Studies, a student shall be required to obtain 122 credits, of which 39 will be from core language courses, 30 from a compulsory year of study in China, 30 from core social/historical courses, 15 from electives and options and 8 from GEC courses.

### Minors:

To graduate with the Minor in Chinese Studies (Language option), a student shall be required to obtain 51 credits, including 24 core credits from Basic Mandarin 1, Basic Mandarin 2, Pre-intermediate Mandarin Chinese 1, and Pre-intermediate Mandarin Chinese 2, 15 core credits from a winter session in China, 6 credits from GEC courses, and 6 credits from electives. At the discretion of Faculty, the requirement for a winter session in China may be replaced by other appropriate language study, which may include a shortened study session in China, approved alternative language courses, attachments with Chinese companies and agencies, etc.

## DEPARTMENT OF FRENCH

### Entry Requirements

1.1. Only candidates who have passed French in the Botswana General Certificate of Secondary Education (BGCSE) or its equivalent may be admitted to Level 100 Group A

### Advanced Programme.

1.2. Candidates without the above requirements may be admitted to Level 100 Group B Beginners Programme.

### Level 100

Group A: Advanced Students (pre-requisite: BGCSE in French or equivalent).

### Semester 1

#### Core Course

**FRE111** Practical French Language (3)

### Optional Courses

**FRE112** Spoken and Written French (2)

**FRE113** French for Specific purposes 1 (2)

### Semester 2

#### Core Course

**FRE121** Communication Skills in French (3)

### Optional Courses

**FRE122** Techniques of Oral and Written Expression (2)

**FRE123** French for Specific Purposes II (2)  
Group B: Beginners (pre-requisite: None)

### Semester 1

#### Core Courses

**FRE114** Basic French Language (3)

**FRE115** Oral and Written Comprehension (3)

### Semester 2

#### Core Course

**FRE124** Oral and Written Expression (3)

**FRE125** Elementary French Language (3)

### Level 200

#### Semester 3

#### Core Course

**FRE211** Intermediate French Language (3)

### Optional Courses

**FRE212** Business, Scientific and Technical French (2)

**FRE213** Introduction to French Literature (2)

**FRE214** Introduction to the Culture and Civilization of the French-Speaking World (2)

**FRE217** French language I (2)

### Semester 4

#### Core Course

**FRE221** Advanced French Language (3)

### Optional Courses

**FRE222** French for International Relations, Tourism and Hotel Industry (2)

**FRE223** Intro. to African Literature in French (2)

**FRE224** Conversation (2)

**FRE227** French language II (2)

### Level 300

#### Semester 5

#### Core Course

**FRE311** Proficiency in French Language (3)

### Optional Courses

**FRE312** French Novel and Poetry of the 19th Century (2)

**FRE313** Introduction to French Linguistics (2)

**FRE314** French Culture and Civilization (2)

**FRE315** Introduction to Text Analysis (2)

**FRE317** French for Tourism and Hospitality I (2)

### Semester 6

#### Core Course

**FRE325** Advanced Communicative French (3)



### Optional Courses

- FRE321** African Caribbean Literature in French (2)  
**FRE322** Culture and Civilization of French-Speaking Africa Countries (2)  
**FRE323** French Linguistics and Orthography (2)  
**FRE324** French Essay Writing  
**FRE327** French for Tourism and Hospitality II (2)

### Level 400

#### Semester 7

##### Core Course

- FRE411** French Language in Use (3)

### Optional Courses

- FRE412** Currents of Thought in the French-Speaking Black African Countries.  
**FRE413** Theory of Translation (2)  
**FRE414** Modern French Literature: Study of a Genre, an Author (2)  
**FRE415** Research Essay (2)

#### Semester 8

##### Core Course

- FRE426** Advanced Comm. Skills in French (3)

### Optional Courses

- FRE421** French Language through Drama (2)  
**FRE422** Advanced French Linguistics (2)  
**FRE 423** Translation (2)  
**FRE424** African Literature: Study of a Genre, an Author (2)  
**FRE425** Aspects of French Thought (2)  
**FRE427** Caribbean Literature in French (2)

### Assessment

1. Performance in each course, with the exception of core courses and the Conversation course **FRE224**, shall be evaluated by the combination of continuous assessment and the final examination in the ratio of 2.3. The final examination shall consist of a written paper of two hours duration.

2. In levels 100 to 400, the final examination for all core courses shall comprise a written paper of two hours' duration and an oral examination of 15 minutes in the ratio of 2.1.

3. The continuous assessment of each course shall comprise a minimum of two oral and written assignments and/or two tests.

4. The ratio between continuous assessment, oral examination and written examination shall be 2.1.2.

5. At Levels 100 400, a three hour Language Laboratory class shall be regarded as equivalent to one lecture hour.

### Progression

1. In order to proceed from one semester to the next, a student must obtain a cumulative GPA, which is in accordance with General Regulation 00.9.

2. A minimum of credit in French in the Botswana General Certificate of Secondary Education (BGCSE) or its equivalent is required in order to be admitted to Levels 200, 300 and 400 courses.

### Course Descriptions

#### **FRE111 Practical French Language (3)**

This course will reinforce students' competence in oral and written French so that they have a more spontaneous use of the French Language. Emphasis will be laid on mastering basic language functions and linguistic structures learnt by students at secondary level for effective expression in French both written and verbal.

#### **FRE112 Spoken and Written French (2)**

This course aims at rapidly developing students' fluency and accuracy in spoken and written French by equipping them with listening and reading skills and strategies. The content of the course will cover practical exercises both oral and written in the classroom and in the Language Laboratory.

#### **FRE113 French For Specific Purposes I (2)**

This French Language course aims at equipping students with reading techniques so as to understand and interpret texts of their area of specialization (economics, law and social sciences) written in French. The content comprises analysis and description of different types of the French discourse used in various disciplines offered to students at this level.

#### **FRE114 Basic French Language (3)**

This is an intensive French Language course intended to develop the student's ability to communicate in French both orally and in writing. Emphasis is placed on elementary linguistic structures with emphasis on free expression (spoken and written), oral exercises in the Language Laboratory to consolidate communicative and linguistic competencies.

#### **FRE115 Oral and Written Comprehension (3)**

The aim of this course is to develop the students' comprehension of spoken and written French by equipping them with some reading techniques and listening strategies and strengthening their ability to express ideas in French by means of both oral and written speech. The course will be based on oral and written comprehension of descriptive and narrative passages for essay writing.

#### **FRE121 Communication Skills in French (3)**

This course aims at developing the ability to use the French language efficiently in a practical way. It incorporates language activities related to all four skills that will enable learners to understand and communicate in spoken and written language.

#### **FRE122 Techniques of Oral and Written Expression (2)**

The aim of this course is to develop fluency and accuracy in spoken and written French. Students will be trained to introduce nuance in their oral expression through some communicative activities. Emphasis will be placed on techniques

and strategies relevant to the planning and organization of writing tasks (writing reports, summaries, formal and informal letters, expressing opinions etc.)

#### **FRE123 French for Specific Purposes II (2)**

This French Language course aims at equipping students with reading techniques so as to understand and interpret texts of their area of specialization (Library and Information Studies, History etc.) written in French. The content comprises analysis and description of different types of the French discourse used in various disciplines

#### **FRE124 Oral and Written Expression (3)**

This course aims at helping students use acquired communication skills so as to express themselves freely in accurate spoken as well as written French. Communication activities will be performed in both spoken and written French in order to give students self-confidence in the use of the French language.

#### **FRE125 Elementary French Language (3)**

This course will further develop communicative skills and introduce new speech acts and grammatical structures, and building up vocabulary on new topics in order for them to achieve proficiency in spoken and written French. The content includes the consolidation of language functions and grammatical structures already acquired and the introduction of new ones.

#### **FRE211 Intermediate French Language (3)**

This course aims at consolidating communicative fluency and grammatical accuracy in order to help students achieve proficiency in spoken French. Students will acquire useful oral and writing skills for setting up efficient communication in French within standard situations. Focus will be placed on the study of new language forms and functions. Classroom activities comprise oral and written exercises.

#### **FRE212 Business, Scientific and Technical French (2)**

This course aims at giving students an opportunity to learn the French language that can be used in professional situations of communication. A study of the French language mechanisms and structures that is necessary for understanding scientific and technical texts written in French. Study of the common and important commercial vocabulary related to the economic field.

#### **FRE213 Introduction to French Literature (2)**

This course is offered to introduce students to a variety of basic literary genres of particular authors from France: novels, short stories, and poems, of intermediate difficulty. The main objective will be to introduce students to a basic vocabulary of literary discourse in French, to make them aware of literary style and help them improve communicative competence in French.



**FRE214 Introduction to Culture and Civilisation of the French Speaking World (2)**

This course intends to examine aspects of the culture and civilization of the French-speaking world. A survey will be made of civilization of French-speaking countries through authentic materials based on economy, social life and politics. Students will have the opportunity to compare aspects of culture and civilization of the French-speaking world with their own culture.

**FRE217 French Language I (2)**

This course is designed to develop students' competence in spoken and written French so that they may have a more spontaneous use of the French language. Emphasis will be laid on mastering basic language functions and linguistic structures for effective expression in both written and spoken French. The content of this course will cover practical exercises, both oral and written, in the classroom and the language laboratory.

**FRE221 Advanced French Language (3)**

This course aims to help students express themselves as clearly as possible with more confidence and accuracy. Emphasis is on exercises reflecting real-life language use and leading to better pronunciation and grammatical control. It is based on oral and written exercises aimed at broadening vocabulary and improving style. Composition will cover the following areas: description, portrait and narration.

**FRE222 French for International Relations, Tourism and the Hotel Industry (2)**

This course aims at giving students an opportunity to learn the register of French typically used in a professional situation of communication. Study of vocabulary and savoir-faire related to international relations or to tourism and the hotel trade. Students are to choose one of the following two topics: French for International Relations or French for Tourism and the Hotel Industry.

**FRE223 Introduction to African Literature (2)**

This course is offered to introduce students to a variety of basic literary genres of particular authors from francophone Africa: novels, short stories, and poems, of intermediate difficulty. The main objective will be to introduce students to a basic vocabulary of literary discourse in French, to make them aware of literary style and help them improve communicative competence in French.

**FRE224 Conversation (2)**

This course aims to develop students' ability to understand and produce general notions (basic concepts) and help them improve their command of spoken French. Real-life documents as well as communicative activities will be used to strengthen the students' ability to communicate in French. Conversation from a topic, a text, a film, a documentary etc. will lead to written exercises.

**FRE227 French Language II (2)**

The content of this course includes the

consolidation of language functions and grammatical structures already acquired by students and the introduction of new ones. It will focus on essential linguistic (oral and written) communication skills so as to be able to use French effectively for the purpose of practical communication. This course will develop students' ability to use the French language in a practical way.

**FRE311 French Novel and Poetry of the 19th Century (2)**

This course aims at helping students achieve proficiency in spoken French and improve their written language skills. Students will obtain a deeper knowledge of the structure and functioning of the French language in order to write and speak better in French.

**FRE312 French Novel and Poetry of the 19th Century (2)**

The aim of this course is to introduce students to the major schools and movements of French literature through the works of some of the leading writers of the French tradition and to familiarize them with particular expressions and stylistic features used by selected authors in their work. Students will become familiar with major writers and schools of the French tradition and through them improve their language skills and familiarity with French culture. Students will read major works of French literature from selected movements of the 19th century.

**FRE313 Introduction to French Linguistics (2)**

This course will provide a general knowledge base for scientific study of the French language and equip students with facts and skills to enable them to describe the French language, and account for its internal changes. The course entails an elaborate description of phonetics, phonology/ morphology, semantics and syntax of French.

**FRE314 French Culture and Civilisation (2)**

This course examines aspects of French culture and civilization that are relevant to the study of literature and language and constitutes an introduction to ways of life, social organization, law, politics, attitudes and mentalities, etc. Students will learn to appreciate better the civilization of France and be able to pursue studies of French language and literature.

**FRE315 Introduction to Text Analysis (2)**

This course intends to give students a basic familiarity with the genres of literature in French and with different ways of approaching texts: thematic studies, use of language, relationship between form and content, characterization and to familiarize them with the vocabulary used in French literary studies. This will include study of some schools and methods of literary criticism.

**FRE 317 French for Tourism and Hospitality I (2)**

This is a practical course meant for students who want to acquire relevant language skills so as to

communicate in a professional situation. The aim of the course is to help students acquire a basic knowledge of the type of French commonly used in the fields of the Hotel and Tourism Industry. It consists of the study of vocabulary and linguistic skills related to the profession of tourism and the hotel industry. This topic-based language course will cover real-life contexts and situations. Focus will be on oral and written communication related to the situations and practices in the area of hotel and tourism management. The course will also examine aspects of the culture and civilization of the French-speaking world.

**FRE321 African and Caribbean Literature in French (2)**

This course aims at introducing students to the main currents in Black African and Caribbean Francophone literature and to familiarize them with the history, culture, experiences and aspirations of Black African people and people of African descent in the Caribbean through the study of selected works of prose and poetry by major writers.

**FRE322 Culture and Civilisation of French Speaking African Countries (2)**

This course aims at giving students an opportunity to gain a basic familiarity with the civilization of French-speaking Black Africa and the ability to understand their own culture better by a comparison of the two. Aspects of the culture and civilization of French Speaking Black Africa will be examined.

**FRE323 French Linguistics and Orthography (2)**

This course introduces students to the understanding of the fundamental basis of the study of the French language and the application of the scientific knowledge of the French language to the understanding of transcription and of the writing systems of the language. It provides students with skills to manage possible language errors related to pronunciation and writing.

**FRE324 French Essay Writing (2)**

The course aims at improving students' performance and competence in objective reading and writing. Students will learn and put into practice reading and writing techniques. The content will cover practical exercises such as: note-taking, summarizing, letter writing, writing paragraphs and compositions, reading and writing different types of texts.

**FRE325 Advanced Communicative French (3)**

The aim of this course is to help students use acquired communication skills so as to express themselves freely and accurately in spoken and written French. The course content will cover practical exercises that will help learners to use French in simulated communicative situations.

**FRE 327 French for Tourism and Hospitality II (2)**

This course aims at developing students' communicative skills relevant to the profession of tourism, hotel management and the catering





industry. More precisely, it aims at reinforcing all basic grammatical structures and vocabulary acquired through language functions in order to equip students with the necessary oral and writing skills for setting up an efficient communication in French within professional situations linked to Tourism and the Hotel Industry.

#### **FRE411 French Language in Use (3)**

The aim of this course is to develop particular communicative skills and strategies and to carry out some communicative activities as well as to familiarize students with the grammatical, stylistic, and linguistic problems in spoken versus written French. Students will study form and structure of the French language to improve their skills in conversation and writing.

#### **FRE412 Currents of Thought in the French Speaking Africa (2)**

The aim of this course is to familiarize students with currents of thought in the French-Speaking African and Caribbean countries. A study of selected philosophers and thinkers in Africa and the Caribbean: S. Signora, Césaire, F.Fanon, J.Roumain, Rabemananjara, S. Adotevi, V.Y. Mudimbe, A.Memmi etc.

#### **FRE413 Theory of Translation (2)**

This course provides students with skills to handle translation problems between French and English, Setswana and vice versa as well as an overview of theoretical problems of translation. It will also examine the role played by the vocabulary, structure and meaning in the theory of translation from French to English and vice versa.

#### **FRE414 Modern French Literature: Study Of a Genre or an Author (2)**

The aim of this course is to give students an in-depth knowledge of a particular author, genre, literary movement, or subject in Modern French literature. Students will read several works of the chosen author, genre, or subject.

#### **FRE415 Research Essay (2)**

This course provides students with the opportunity to conduct research and use their linguistic skills to write on a chosen topic of linguistic, literary, or cultural interest. Students will be trained in research methods and carry out such research under staff supervision that will result in submission of a finished dissertation. Admission to this course is subject to Departmental approval.

#### **FRE421 French Language Through Drama (2)**

The aim of this course is to develop particular communicative skills and strategies through the use of some theatrical techniques. Students will have an opportunity to learn the French language while writing their own plots, which they will perform subsequently. This course includes the use of some theatrical techniques and practical exercises and discussions of students' work.

#### **FRE422 Advanced French Linguistics (2)**

The course introduces students to the scientific

description of the French language with special emphasis on the phonetics/phonology, morphology/syntax and semantics. The approach is descriptive. Theoretical approaches (generativist, structuralist, transformationalist, etc.) will be referred to without being taken as the explicit basis of the language analysis.

#### **FRE423 Translation (2)**

This is a practical course that will give students skills to handle the translation of French into accurate English and vice versa using simple texts and writings, real-life documents and interpretation of speech.

#### **FRE424 African Literature: Study of a Genre or an Author (2)**

This course gives students more in-depth knowledge of particular authors, genres, literary movements, or subjects in Francophone African literature. Students will read several works of selected authors, and gain an ability to apply what they have learnt to their other studies. Readings on the chosen topic assigned by the staff member. Possible topics include Negritude, women in Africa, tradition and modernity.

#### **FRE425 Aspects of French Thought (2)**

The aim of this course is to familiarize students with currents of thought in France on social, economic, political, and cultural problems, as well as their philosophical underpinnings, as seen by influential French writers since the 1930s. Students will read selections from major French intellectuals of the post-war period and from current journals.

#### **FRE426 Advanced Communication Skills in French (3)**

This course aims at reinforcing students' competence in oral and written expression and comprehension so as to give them more confidence in speaking and discussing a variety of topics.

#### **FRE427 Caribbean Literature in French (2)**

The objective of this course is to introduce students to the history, culture, experience and aspirations of people of African descent in the French speaking Caribbean. Coursework includes a study from a selected period, theme, and piece of the work of an author.

## **DEPARTMENT OF HISTORY**

### **Degree Programmes**

#### **Bachelor of Arts in Archeology**

#### **Bachelor of Arts in History**

### **Entry Requirements**

The normal Entry Requirements are as stipulated in General Regulation 20.20 and in Departmental Regulation 1.4

### **(A) Archaeology Course Descriptions**

#### **ARC101 Introduction to World Prehistory**

The course aims to provide students with a basic

understanding of world history, and provides students with an opportunity to appreciate prehistory on a global scale. 2 lecture hours per week.

#### **ARC102 Introduction to Archaeology**

Introduction to the nature of archaeological data its analysis and the state of knowledge of the subject in Botswana through, and discussion of case studies from Botswana in particular and southern and eastern Africa in general. 2 lecture hours per week.

#### **ARC201 Introduction to Archaeological Theory**

The course presents to students archaeological theories, and analytical techniques general employed in the study of archaeological phenomena, and also discusses the history of the discipline, its aims, goals, and development as a discipline. 3 lecture hours per week.

#### **ARC202 Introduction to Archaeological Method**

The course is an introduction to archaeological/prehistoric research methods, organisation, curation and interpretation- including reconnaissance, environmental reconstruction, excavation, principles of stratigraphy, and analysis of finds. 3 lecture hours per week.

#### **ARC203 Introduction to African Archaeology**

Seminar course introducing issues and debates in African archaeology, including palaeontology and key figures in the development of African archaeology, and requiring a long essay on the prehistory of the continent. 3 seminar hours per week.

#### **ARC204 Introduction to Environmental Archaeology (previous number: ARC 207)**

This course provides theoretical background in ecology, geology and related fields, especially those of the earth sciences used in conjunction with archaeology. Includes 5-day field trip during the short-break to Ngamiland and Makgadikgadi. 3 lecture hours per week.

#### **ARC301 Archaeological Heritage Management**

##### **(Previous Title: History of Archaeology)**

Philosophy, policy and practice, to enable students to choose appropriate techniques for cultural and natural resources, and to comprehend the theoretical aspects of Cultural Resource Management. 3 lecture hours per week.

#### **ARC302 Quantitative Techniques**

This course equips students for working with varied archaeological samples, and introduces basic quantitative or statistical principles and techniques applied in the field and laboratory practices as well as in research data analysis. 3 lecture hours per week.

#### **ARC304 Research Project Proposal**

To test student initiative in choosing and preparing a Research Project Proposal based on analysis of previous research reports and publications. (pre-requisite for ARC 471 and

compulsory for Single Major) 3 lecture/ tutorial hour per week.

**ARC313 Stone Tools (Lithics)**

This course introduces students to the basics of stone tool technology and typology-- including learning how to make stone tools, how to identify and describe them, and how others in the region have classified stone tools into various types. 3 lecture hours

**ARC 314 Ceramic Analysis**

This course introduces students to the basics of ceramic technology and typology-- including how to make pots, how to identify and describe whole vessels and potsherds, and how others in the region have classified ceramics into various types. 3 lecture hours per week.

**ARC315 Field Techniques**

This course introduces students to basic archaeological field skills--including map reading, orienteering, map-making, survey, excavation, sorting and cataloguing finds. Students spend two weeks intensive fieldwork training conditions under supervision. 3 credits per 2 weeks.

**ARC316 Archaeological Interpretation**

This course teaches students how archaeologists go about interpreting the past through a series of simulated archaeological problems that the students solve. The problems closely resemble actual archaeological evidence. 3 lecture hours per week.

**ARC 317 Bioarchaeology I**

Study of the relationship between human beings and their natural and social environments, integrating data from botanical and faunal remains. 3 lecture hours per week.

**ARC321 Ethnoarchaeology**

This course introduces learners to basic concepts in ethnoarchaeology, the study of contemporary societies/ cultures and their relevance to archaeology. It focuses on the principles and development of the subdiscipline. 3 lecture hours per week.

**ARC322 Special Subject (Previous Title: Case Studies in Ethnoarchaeology)**

Study of a subject of current research and debate and/ or topical issues in Botswana and Southern African archaeology, based on current staff expertise--e.g. a study of Rock Art. 3 lecture hours per week.

**ARC323 Research Methods in Archaeology (Previous Title: Reading Material Culture in Archaeology)**

Equipping students with basic knowledge and skills to conceptualize, plan and carry out archaeological research and data analysis. 3 lecture/ tutorial hours per week.

**ARC401 Archaeology of Botswana**

The course traces the history of archaeological research in Botswana and highlights major influences in and contributions to scholarship, and the impact of archaeology on the

reconstruction of Botswana's history and museum development. 3 lecture hours per week.

**ARC 402 Advanced Archaeological Theory**

This course focuses on the 'New Archaeology' from the 1960s, including the influence of Euro-American researchers on theoretical archaeology and reviewing contributions of researchers in other parts of the world. 3 lecture hours per week.

**ARC 412 Human Origins**

This course presents the naturalist's point of view of evolution and human origins, from around 5 million years ago until farming began about 10,000 years ago--discussing the origins of upright posture, tools, languages, and our extraordinary brains. 3 lecture hours per week.

**ARC 413 Complex Societies (Previous Title: Farmers And State Formation)**

This course examines why people turned to food production after more than a million years of successful hunting and gathering. Case studies cover food production, sedentary life, and complex societies in the Near East, Africa and Central America. 3 lecture hours per week.

**ARC 421 Geoarchaeology**

The course focuses on spatial and temporal distributions of archaeological sites, landscape topography, geomorphology and subsurface stratigraphy, and site context formation theory. Practical classes include terrain unit evaluation. 3 lecture hours per week.

**ARC422 Bioarchaeology II (Previous Title: Faunal And Floral Analysis)**

This course explores processes leading to the formation of fossil records and examines methodologies and techniques of extracting, analysing and interpreting plant and animal micro and macrofossil material from the archaeological record. 3 lecture hours per week.

**ARC471** Research Project: Fieldwork & Preliminary Reports. 3 Credits

**ARC472** Research Proposal: Intermediate & Final Reports. 9 Credits

**GEC462** Reconstructing African Heritage through Multimedia

The course uses specially designed audiovisual multimedia materials to study the major achievements of African prehistory evidenced by the remains of material cultures, the representation of material heritage by archaeologists, and how African heritage can be maintained and marketed. 2 lecture hours

**(A) BA in Archaeology**

**Level 100**

**Semester 1**

**Core Courses**

**ARC 101** Introduction to Archaeology (2)

**Semester 2**

**Core Courses**

**ARC102** Introduction to World Prehistory (2)

**Level 200**

**Semester 1**

**Core Courses**

**ARC201** Introduction to Archaeological Theory (3)

**ARC203** Introduction to African Archaeology

**Semester 2**

**Core Courses**

**ARC202** Introduction to Archaeological Methods (3)

**ARC204** Introduction to Environmental Archaeology

**Level 300**

**Semester 1**

**Core Courses**

**ARC301** Archaeological Heritage Management (3)

**ARC323** Research Methods in Archaeology (3)

**Semester 2**

**Core Courses**

**ARC302** Quantitative Techniques (3)

**ARC304** Research Project Proposal (3) (core for Single Major Only)

**ARC315** Field Techniques (optional)

**Level 400**

**Semester 1**

**Core Courses**

**ARC401** Archaeology of Botswana (3)

**ARC417** Heritage Management (3)

**ARC471** Research Project Fieldwork & Preliminary Report (3 credits core for Single Major Only)

**Semester 2**

**Core Courses**

**ARC402** Advanced Archaeological Theory (3)

**ARC472** Research Project Intermediate & Final Reports (9 credits core for Single Major Only)

**(B) BA in History**

**HISTORY COURSES DESCRIPTIONS**

**HIS102 Introduction to the Study of History**

The course applies the skills and methods of university historians to selected aspects of the history of Botswana and neighbouring areas, raising questions of individual identity, gender, class, language and ethnicity, inheritance and heritage. 2 lecture hours per week.

**HIS201 African Cultures & Civilisations to C.1500**

Selected themes in prehistory, state formation, trade, and small-scale societies--from the origin and spread of modern humans, via Ancient Egypt, Ethiopia and West African kingdoms, to the rise and fall of Great Zimbabwe. 3 lecture hours per week.

**HIS202 Africa in the Era of the Atlantic Slave Trade C.1500-c.1800**

From later Islamic and Christian history in North



Africa, via the growth of coastal and interior trading states, slave trading in the Atlantic and Indian Oceans, with greater depth on south-eastern Africa. 3 lecture hours per week.

#### **HIS211 The Rise of Europe to World Dominance**

Rise of Europe from the Middle Ages to its position of world dominance in the late 19th century, including religion, social and cultural change, science and technology, witchcraft and deviance, and changing relations with other civilizations. 3 lecture hours per week.

#### **HIS212 Catastrophe & Survival in 20th Century Europe**

From world dominance to near self-destruction, and then recovery in three major cycles: the two world wars; the era of Fascism; and the era of Communism--including extremism, economic collapse and the Nazi Holocaust, with use of if lm. 3 lecture hours per week.

#### **HIS213 Poverty, Economic Growth and Affluence in Western Europe and America**

Examining the transformation of Western European and American economies through the development of trade in medieval Europe, feudal economies, markets during the renaissance, and the industrialization of Western Europe and North America. 3 lecture hours per week.

#### **HIS214 Agriculture and Industrialisation in the World Economy to 1945**

Comparing the rise of capitalism in Britain, France, Germany, Russia and parts of southern and eastern Europe, with Japan and North America--with emphasis on agrarian transition, commercial revolutions, economic crisis and recovery. 3 lecture hours per week.

#### **HIS305 Historical Research Methods & Historiography of Botswana**

Stages and processes in the research and writing of history--including topic selection, data collection, evaluation, dating analysis and interpretation of data, and systematic presentation of data as coherent meaningful accounts of the past. Debates and research lacunae on historical study of Botswana ecology and environment, culture, family life, migration and settlement, trade and production, technological change, elite formation, labour relations, political institutions, religion, education, etc 4 lecture/ tutorial hours per week.

#### **HIS306 Introduction to the Philosophy of History & Research Project Proposal**

The course discusses the issues relating to the scientific or non-scientific, objective or non-objective nature of historical knowledge, and the various theories advanced to explain the entire course of the human past. Each individual student writes a Research Project proposal for consideration by the History Department Board (pre-requisite for entering HIS 471 Research Project course). 4 lecture/ tutorial hours per week.

#### **HIS331 African Diaspora in the Islamic World & Asia**

In the context of the Saharan and Indian Ocean slave trades, contrasting mining and plantation labour with domestic labour and military employment in the Mediterranean and the Near East, Arabia and Persia, and the islands of the Oceans. 3 lecture hours per week.

#### **HIS332 African Diaspora in the Caribbean & The Americas**

Why Africans rather than natives became slaves, African cultural survivals, slavery within mercantile and industrial economies, debates about emancipation, subsequent racial segregation, black political and intellectual movements. 3 lecture hours per week.

#### **HIS333 Introduction to Foreign Policy, Diplomacy and International Relations, 1800 to 1945**

The concepts of diplomacy, foreign policy and international relations, and their historical evolution; operation of the international system and role of big powers therein. 3 lecture hours per week.

#### **HIS334 Superpowers in the 20th Century**

Conceptual frameworks for analysing the international system; main historiographical issues concerning the role of the big powers and the survival of small states. 3 lecture hours per week.

#### **HIS335 Colonial Latin America to 1830**

Conquest and establishment of colonial rule by Spain and Portugal; the indigenous people of Latin America, impact of conquest, the establishment of colonial rule, and anticolonial struggles. 3 lecture hours per week.

#### **HIS336 Modern Latin America**

Independence and the failure of Pan Americanism; military dictatorships to bureaucratic-authoritarianism; revolutions in Mexico, Cuba and Nicaragua and the rise of modern Latin American democratic states. 3 lecture hours per week.

#### **HIS341 From Slavery to Colonialism in West Africa**

Contact with Islam, growth of states, impact of slave trade and Scramble for colonisation, similarities and differences between French and British colonial conquest and systems of rule and changes within them. 3 lecture hours per week.

#### **HIS342 Modern Anglophone, Francophone & Lusophone West Africa**

Political and socioeconomic changes since the outbreak of the Second World War: late colonial constitutions; early independence and popular betterment; military-bureaucratic coups; structural adjustment and multiparty democracy. 3 lecture hours per week.

#### **HIS343 Trade & Politics in Central African Kingdoms**

Socio-economic and political organization before contact with Europeans, contact with

Europeans and its impact, imposition of colonial rule, and African reaction to colonial policies up to the early 20th century. 3 lecture hours per week.

#### **HIS344 The Roots of Crisis in Modern Central Africa**

Colonial administrations and settler economies, resistance to colonialism, industrial workers, modern forms of nationalism in Zambia and Malawi, armed struggles in Angola and Congo; 'structural adjustment' and multiparty democratisation, SADC. 3 lecture hours per week.

#### **HIS401 Mfecane & the Settler Scramble for Southern Africa**

Historical debates on coastal frontiers in the 18th century, interior states and Mfecane/ Difaqane wars, settlers and missionaries; diamond and gold mining, migrant labour; African states, Boer republics, British, German and Portuguese colonies. 3 lecture hours per week.

#### **HIS412 Twentieth Century South Africa**

Confrontations between white Afrikaner nationalism and black African nationalism; racial segregation and apartheid; worker resistance, native reserves and 'Bantustans'; liberation struggles up to 1994 and achievements since then. 3 lecture hours per week.

#### **HIS414 Chiefs, Commoners & the Impact of Colonial Rule in Botswana, Lesotho and Swaziland**

Forms of 'parallel rule' through paramount chiefs; economic and political relations with the South Africa and Southern Rhodesia; contrasting political development into kingdoms and a republic; post-colonial internal and regional developments. 3 lecture hours per week.

#### **HIS416 Land, Labour & Liberation in Mozambique, Namibia & Zimbabwe**

Contrasting colonial conquests and heritages within the context of South African regional domination, white settler and company land and labour alienation; armed liberation movements, post-colonial insurgency and land reclamation. 3 lecture hours per week.

#### **HIS421 Political Ideas during the Ancient and Medieval Periods**

Concepts and definitions, and the development of the philosophy and theory of the State from the Ancient to Medieval periods, to understand the origins and historical background to later political thoughts, cultures and theories. 3 lecture hours per week.

#### **HIS422 Political Ideas during the Modern and Contemporary Periods**

Further developments in the philosophy and theory of the State and the organisation of societies to those students can understand political theory and ideas and participate effectively in modern societies and the world system. 3 lecture hours per week.

#### **HIS431 Natives & Settlers in Early North America**

The dispossession of native North Americans by European settlers between the Arctic and the Caribbean; frontier penetration and settlement by free Europeans and slave Africans, native-settler contact, and land alienation through the 19th century. 3 lecture hours per week.

#### **HIS432 Industrialisation & Expansion in Modern North America**

Themes from the American Revolution to the present day: expansionism/ imperialism and isolationism; extensive use of intensive agriculture; rapid development of extractive and manufacturing industries; markets, settlement and urbanisation; origins of the Information Age. 3 lecture hours per week.

#### **HIS433 Civilization and Modernization in China & Japan**

Contrasting two ancient cultures and paths to modernization: Japan's conversion into a world power with consumer-based capitalism, and China's convulsions, socialist experimentation, and subsequent political and economic developments. 3 lecture hours per week.

#### **HIS434 Ancient, Colonial & Independent India & South Asia**

Ancient civilisations, Muslim and early European coastal trade; British colonial rule and transformations during the colonial period; nationalism, independence and partition; different trajectories of India, Pakistan, etc. since independence. 3 lecture hours per week.

#### **HIS435 Modern Britain: Nation, Class, Gender, Race, Religion, Culture, Power**

Creation of the 'imagined community' of Britain out of disparate cultures and 'nations'; elites and power structures, class conflict, gender assertion and ideas of 'race'; postimperial crisis of identity and European Union membership. 3 lecture hours per week.

#### **HIS436 The British Empire & Commonwealth in World History**

From 16th century rise to 20th century decline of British world power: constitutional development of settler colonies into Dominions, contrasted with non-settler colonies; Commonwealth issues and membership crises since the 1950s. 3 lecture hours per week.

#### **HIS437 Civilisations of the Ancient Near East & Mediterranean**

Science and technology, ancient slavery, identifying major achievements, of the 'hydraulic societies' of ancient Iraq and Egypt, through the real or supposed 'democracy' of ancient Greece, to the end of the Roman and Byzantine empires. 3 lecture hours per week.

#### **HIS441 Slave Trade & Colonial Conquest in East Africa**

Environmental, cultural and chronological survey of hunting-gathering and pastoralism on the plains to settled agricultural kingdoms; trading in ivory and slaves by Portuguese, French, and Swahili; British and German intervention and colonial partition. 3 lecture hours per week.

#### **HIS442 Ecology & Empire, Conservation & Politics in Eastern Africa**

Human settlement in relation to natural environment, and effects of political intervention and land partition—including tsetse-fly and malaria, peasant farmers and white settlers, wildlife conservation and peasant 'betterment' schemes. 3 lecture hours per week.

#### **HIS445 Globalisation and Third World Economies in Africa, Latin America and South-east Asia**

How Africa found its modern development path compared with Latin America and South-East Asia: 'African capitalism', agrarian transition, technology and productivity, incorporation into the international economy, and debates in economic history. 3 lecture hours per week.

#### **HIS446 Growth, Policy and Poverty in Africa, Latin America, South & South-East Asia**

Comparing pre-colonial, colonial and postcolonial world regions: institutional settings, rise of capitalist development, contending rationalities in the agricultural sector, famines, hunger, and starvation; persistence of poverty and social exclusion. 3 lecture hours per week.

#### **HIS443 Islam, Imperialism & the Military in the Making Of Modern Egypt**

Islamization and Arabization of the Nile valley and the coast; Ottoman imperial rule; France and Britain; rise of Egyptian nationalism; Sudan condominium; Nasser and Nasserism in the Arab world; Egypt's role in Palestine, Islamic fundamentalism. 3 lecture hours per week.

#### **HIS444 French Colonialism & Its Aftermath in North Africa**

Ottoman imperial rule but Morocco independent; imposition of French colonial rule, alienation of land, white settlement; rise of nationalism and socialism, anti-colonial insurgency; post-colonial developments and contemporary problems. 3 lecture hours per week.

#### **HIS471 Research Project: Fieldwork & Preliminary Report**

If the HIS 304 proposal has been accepted by the History Department Board, the student is allocated a supervisor and conducts fieldwork during the winter period. The preliminary draft report is presented at a seminar during Semester I. 2 seminar hours (3 credits) per week.

#### **HIS472 Research Project: Intermediate & Final Reports**

If the HIS 472 proposal has been judged satisfactory by the History Department Board, the student presents a preliminary draft report to a seminar and then submits a final report at the end of Semester II. 2 seminar hours (6 credits) per week.

#### **HIS473 Special Seminar I**

Special seminars are based on reading and resources recommended by the expert staff member in a chosen topic. Each seminar consists of an essay presentation by one student and a brief critique of by another student, followed by

discussion. 3 seminar hours per week.

#### **HIS474 Special Seminar II (Description as for HIS 474)HIS601 History Research Methodology**

The nature of History and the techniques utilized for research and writing in the discipline--collection evaluation analysis and interpretation of data, and the presentation of the data in a coherent meaningful account in support of a point of view. 3 seminar hours per week

#### **HIS602 Philosophy of History**

The course deals with the theoretical and philosophical aspects of historical studies. It focuses on theory of knowledge or epistemology of history as a discipline, and the reflections of scholars on the course of human history as a whole. 3 seminar hours per week

#### **HIS603 Historiographical Issues in Pre-colonial Southern Africa**

The course commences by considering the major "schools" of historical writing about Southern Africa, and then examines debates among historians, mainly in the 19th century, ending with colonization and African responses to it. 3 seminar hours per week

#### **HIS604 Historiographical Issues in Modern Southern Africa Add "Ern"**

The focus is on continual discourse and debate among historians concerning topics mainly in the 20th century, to give students a good grasp of the main historiographical trends and enable them to be more analytical and critical in their own research. 3 seminar hours per week

#### **HIS611 Introduction to the Economic History of Africa**

The course takes a topical approach to economic development in Africa, focusing on the origins of "African capitalism" and industrialization in North and Sub-Saharan Africa, and on controversies and debates in the economic history literature. 3 seminar hours per week

#### **HIS612 Case Studies in the Economic History of Africa**

Topics range from the economy of precolonial Africa, through critical examination of contending rationalities in agriculture, institutional rigidities and the political economy of famines, hunger, and starvation, persistence of poverty and economics of social exclusion. 3 seminar hours per week

#### **HIS613 Political and Economic Aspects of Imperialism**

European imperialism has had a profound impact on recent world history, and yet it is surprisingly hard to explain satisfactorily. This course reviews the main political and economic explanations for the phenomenon. 3 seminar hours per week

#### **HIS614 Cultural and Environmental Approaches to the History of Imperialism**

The course considers scholarly issues and approaches in the relationship between culture and imperialism, including "postcolonial" theory,





on the topics of empire, race and gender; the Orientalism debate; and environmental and scientific imperialism. 3 seminar hours per week

#### **HIS615 History of Religion in Africa**

An overview of the historical study of religion in Africa, including introduction to the main theoretical issues. Students completing this course should be familiar with and able to discuss the main ideas current in the historical study of African religion. 3 seminar hours per week.

#### **HIS616 Religion and Power in Botswana**

The course surveys relations between religion and power, including "traditional religion" and chieftainship, impact of missionaries and traders, "church and state", conflicts over medicine, rise of independent churches, and impact of post-colonial secularism. 3 seminar hours per week

#### **HIS627 Archaeology for Teachers**

Designed for secondary school teachers to update and expand their knowledge of three archaeological modules: human evolution, the origins of food production, and the origins of civilization, including current theories and case studies. 3 seminar hours per week HIS651, HIS 652, HIS 653, & HIS 654 Special Topics I, II, III, & IV

Topics vary from year to year, but are designed to immerse students in recent advanced scholarship in areas of expertise of current staff. The course begins with a historiographical introduction by the staff member, and proceeds as a seminar under his/her guidance. 3 seminar hours per week

#### **HIS662 Research Proposal for Dissertation**

This course provides a structure in which students prepare their research proposals. Students will meet regularly with assigned staff members, and will be required to make periodic reports. 2 credits/ tutorial hours per week

#### **GEC265 Two World Wars on Film**

The course introduces students to public discourse on the two World Wars of the 20th century--how Europe, America and Japan, and their colonial empires, underwent war and genocide; the impact of warfare on their economies and societies; and how visual media have reported, represented, interpreted and manipulated events. 2 lecture hours

#### **GEC362 Africa and its Past on Film**

Introducing students to the creation and recreation of the history and imagery of Africa in cinema and television, how the African past has been represented in major television series, and how Southern Africa people, particularly Zulu and Xhosa and San, have been represented in drama and documentary films. 2 lecture hours

#### **GEC462 Reconstructing African Heritage through Multimedia**

The course uses specially designed audiovisual multimedia materials to study the major achievements of African prehistory evidenced

by the remains of material cultures, the representation of material heritage by archaeologists, and how African heritage can be maintained and marketed. 2 lecture hours

#### **(B) BA in History**

##### **Level 100**

##### **Semester 1**

**ARC101** Intro. World to Pre-History (core) (2)

##### **Semester 2**

**HIS102** Intro. to the Study of History (core) (2)

##### **Level 200**

##### **Semester 1**

**HIS201** African Cultures and Civilisations to c. 1500(core) (3)

##### **Semester 2**

**HIS202** Africa in the Era of the Atlantic Slave Trade c.1500 -1800 (core) (3)

##### **Level 300**

##### **Semester 1**

**HIS305** Historical Research Methods and Histography of Botswana (core)(3)

##### **Semester 2**

**HIS 306** Philosophy of History and Research Project Proposal (core) (4)

##### **Level 400**

##### **Semester 1**

##### **Core Courses**

**HIS401** Mfecane and the Settler Scramble for Southern Africa (3)(core)

##### **Semester 2**

##### **Alternate Core Courses**

**HIS412** Segregation, Apartheid & African Nationalism in South Africa (3)  
**HIS414** Chiefs, Commoners & the Impact of Colonial Rule in Botswana, Lesotho & Swaziland (3)  
**HIS416** Land, Labour & Liberation in Mozambique, Namibia & Zimbabwe (3)

##### **Level 600**

##### **Semester 1**

##### **Core Courses**

**HIS601** History Research Methodology (3)  
**HIS603** Historiographical Issues in Precolonial Southern Africa (3)

##### **Semester 2**

##### **Core Courses**

**HIS602** Philosophy of History (3 credits)  
**HIS604** Historiographical Issues in Modern Southern Africa (3)

##### **Assessment**

Assessment shall be as per Academic Regulations 00.8

##### **Award of Degree**

The award of the Degree shall be as per General Regulations 00.852

## **DEPARTMENT OF LIBRARY & INFORMATION STUDIES**

#### **CAR100 Special Regulations for the Certificate in Archives and Records Management**

Subject to the provisions of the General Academic Regulations and Faculty of Humanities Regulations, the following Departmental Regulations shall apply:

##### **Entrance Requirements**

The normal requirements for entrance to the certificate in Archives and Records Management Program shall be: Botswana General Certificate of Secondary Education or equivalent with at least passes in three subjects including English. Applicants with at least one year work experience in a registry or related institutions will be preferred.

##### **Programme Structure**

The Certificate in Archives and Records Management extends over two semesters for full-time study or four semesters for part-time (distance learning/sandwich) study in the single subject Archives and Records Management leading to the award of the Certificate in Archives and Records Management. Students can take a minimum of 6 credits of optional courses or elective courses. The Program shall consist of a minimum of 30 credits. All core courses must be passed.

##### **Level 100**

##### **Semester 1**

##### **Core Courses**

**LIS110** Administration and Management of Information Centres (3)  
**REC011** Introduction to Records Management (3)  
**REC012** Introduction to Archives (3).  
**REC015** Introduction to Office Skills (3)  
**REC017** Introduction to Information Technology (3)

##### **General Education Courses**

**COM111** Communication and Academic Literacy Skills I (2)  
**ICT121** Computer Skills Fundamentals 1 (2)

##### **Semester 2**

##### **Core Courses**

**REC013** Intro to Principles of Archival Arrangement (3)  
**REC014** Search Room Operations (3)  
**REC016** Practicum (3)

##### **Optional Courses**

**LIS104** Introduction to the Internet and Web Design (3)  
**LIS106** Information Resources Management (3)

##### **Progression from Semester to Semester**

Progression from semester to semester shall apply according to Regulation 00.9.

##### **Assessment and Examinations**

Evaluation of students' performance in the



Certificate in Archives and Records Management Program shall be based on continuous assessment and a formal examination at the end of each semester. The weighting between continuous assessment and formal examination shall be 2:3.

## DIS110 Special Regulations for the Diploma in Library and Information Studies

Subject to the provisions of the General Academic Regulations and the Faculty of Humanities, the following Departmental Regulations shall apply:

### Entrance Requirements

The normal requirement for entrance to the Diploma in Library and Information Studies Program shall be :  
Botswana General Certificate of Secondary Education or equivalent with a credit in English;  
Certificate in Library and Information Studies from this University or its equivalent from any other recognized institution.

Candidates with a Certificate in Library and Information Studies from this University shall be admitted directly to Level 2 of the Diploma Program.

All candidates for admission must have a minimum of credit in English Language in Botswana General Certificate of Secondary Education or equivalent.

### Programme Structure

The Diploma in Library and Information Studies Programme extends over four semesters for full-time study or six semesters for part-time (distance learning) study in the single subject Library and Information Studies leading to the award of the Diploma in Library and Information Studies.

### Level 100

#### Semester 1

##### Core Courses

- LIS100 The Information Environment (3)
- LIS101 Introduction to Organising Information (3)
- LIS103 Basic Reference Sources and Services (3)
- LIS110 Administration and Management of Information Centres (3)
- BIM100 Introduction to Information Management (3)

### General Education Courses

- COM 111 Communication and Academic Literacy Skills I (3)
- ICT121 Computer Skills Fundamentals 1 (2)

### Semester 2

#### Core Courses

- BIM101 Introduction to Information Science (3)
- LIS114 Collection Development and Management (3)

### Optional Courses

- LIS104 Introduction to the Internet and Web Design (3)

- LIS106 Information Resources Management (3)

- LIS112 Introduction to Publishing and the Book Trade (2)

### Level 200

#### Semester 3

##### Core Courses

- LIS202 IT Tools and Applications (3)
- LIS223 Digital Libraries (3)
- LIS206 Introduction to Infopreneurship (3)  
General Education Courses should not exceed 6 credits for both semesters

### Optional Courses

- LIS203 African Information Environment (3)
- LIS211 Information and Society (3)
- BIM200 Information Management Systems Development (3)

### Semester 4

#### Core Courses

- LIS200 Organising Information (3)
- LIS205 Library Practice and Attachment (3)
- LIS227 Introduction to Knowledge Management (3)
- BIM202 Introduction to Databases and Information Retrieval (3)

General Education Courses should not exceed 6 credits for both semesters

### Optional Courses

- LIS212 Information Resources in Business (3)
- LIS230 Legal Aspects in Information (3)

### Progression from Semester to Semester

Progression from semester to semester shall apply according to Regulation 00.9.

### Assessment and Examinations

Evaluation of students' performance in the Diploma in Library and Information Studies shall be based on continuous assessment and a formal examination at the end of each semester. The weighting between continuous assessment and formal examination shall be 2:3.

## DAR110 Special Regulations for the Diploma in Archives and Records Management

Subject to the provisions of the General Academic Regulations and the Faculty of Humanities Regulations, the following Departmental Regulations shall apply:

### Entrance Requirements

The normal requirements for entrance to the Diploma in Archives and Records Management Programme shall be:

a) Certificate in Archives and Records Management from this University or its equivalent from any other recognized institution;

b) Botswana General Certificate of Secondary Education or equivalent with a credit in English;

c) Candidates with a credit in the Certificate in Archives and Records Management from this

University shall be admitted directly to Year Two of the Diploma Programme. Those with a pass in the Certificate in Archives and Records Management of this University plus two years post qualification experience will be admitted directly to Year Two.

### Programme Structure

The Diploma in Archives and Records Management Programme extends over four semesters for full-time study or six semesters for part-time (distance learning/ sandwich) study in the single subject Archives and Records Management leading to the award of the Diploma in Archives and Records Management. The Programme shall consist of a minimum of 30 credits per year. All core courses must be passed.

### Level 100

#### Semester 1

##### Core Courses

- LIS110 Admin. and Management of Information Centres (3)
- REC011 Introduction to Records Management (3)
- REC012 Introduction to Archives (3)
- REC015 Introduction to Office Skills (3)
- REC017 Introduction to Information Technology (3)

### General Education Courses

- COM 111 Communication and Academic Literacy Skills (3)
- ICT 121 Computer Skills Fundamentals 1 (2)

### Semester 2

#### Core Courses

- REC013 Intro to Principles of Archival Arrangement (3)
- REC014 Search Room Operations (3)
- REC016 Practicum (3)

### Optional Courses

- LIS104 Introduction to the Internet & Web Design (3)
- LIS106 Information Resources Management (3)

### Level 200

#### Semester 3

##### Core Courses

- REC212 Managing Media Archives (3)
- REC213 Introduction to Preservation and Conservation (3)
- REC218 Computer Applications in Archives and Records Management (3)
- LIS101 Introduction to Organizing Information (3) (pre-requisite for LIS 200)

### General Education Courses

#### Semester 4

##### Core Courses

- LIS200 Organising Information (3) pre-requisite, LIS101)
- REC211 Administrative History (3)
- REC215 Microphotography & Reprographics (3)
- REC216 Records Centre Management (3)



### Optional Courses

<b>BMS207</b>	Public Relations, Writing and Reporting (3)
<b>LIS212</b>	Information Resources in Business (3)
<b>LIS230</b>	Legal Aspects in Information (3)
<b>LIS227</b>	Introduction to Knowledge Management (3)

### Progression from Semester to Semester

Progression from semester to semester shall apply according to Regulation 00.9.

### Assessment and Examinations

Evaluation of students' performance for the Diploma in Archives and Records Management shall be based on continuous assessment and a formal examination at the end of each semester. The weighting between continuous assessment and formal examination shall be 2:3.

BIS220 Special Regulations for the Bachelor of Library and Information Studies (BLIS) – Single Major Subject to the provisions of the General Academic Regulations and the Faculty of Humanities Regulations, the following Departmental Regulations shall apply:

### Entrance Qualifications

The normal requirements for entrance to the BLIS single major degree shall be:

- A pass in the Diploma in Library and Information Studies from this university or its equivalent from any other recognized institution
- Botswana General Certificate of Secondary Education or equivalent. All candidates for admission must have a minimum of credit in English Language.
- Candidates with at least one year's experience in a library or related institution will be given preference.
- Candidates with a Diploma in Library and Information Studies of this university or its equivalent from any other recognized institution may be admitted directly to Level 3 of the program.
- Candidates with a Certificate in Library and Information Studies of this university or its equivalent from any other recognized institution may be admitted directly at Level 2 of the program.

### Programme Structure

The BLIS is a full-time Programme extending over eight semesters in the single subject Library and Information Studies leading to the award of the Bachelors Degree in Library and Information Studies.

### Level 100

#### Semester 1

##### Core Courses

<b>LIS100</b>	The Information Environment (3)
<b>LIS101</b>	Introduction to Organising Information (3) (pre-requisite for LIS200)

<b>LIS103</b>	Basic Reference Sources and Services (3)
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<b>LIS110</b>	Admin. and Management of Information Centres (3)
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<b>BIM100</b>	Introduction to Information Management (3)
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### General Education Courses

<b>COM 111</b>	Communication and Academic Literacy Skills I (3)
<b>ICT121</b>	Computer Skills Fundamentals 1 (2)

### Semester 2

#### Core Courses

<b>BIM101</b>	Introduction to Information Science (3)
<b>LIS114</b>	Collection Development and Management (3)

### Optional Courses

<b>LIS104</b>	Intro. to the Internet and Web Design (3)
<b>LIS106</b>	Information Resources Management (3)
<b>LIS112</b>	Intro. to Publishing and the Book Trade (3)

### Level 200

#### Semester 3

##### Core Courses

<b>LIS202</b>	IT Tools and Applications (3) (pre-requisite for LIS303)
<b>LIS223</b>	Digital Libraries (3)
<b>LIS206</b>	Introduction to Infopreneurship (3) (pre-requisite for LIS404)

### General Education Courses

Should not exceed 6 credits for both semesters.

### Optional Courses

<b>LIS203</b>	African Information Environment (3)
<b>LIS211</b>	Information and Society (3)
<b>LIS230</b>	Legal Issues of Information (3)
<b>BIM200</b>	Information Management Systems Development (3)

### Semester 4

#### Core Courses

<b>LIS200</b>	Organising Information (3) (pre-requisite, LIS101)
<b>LIS208</b>	Principles of Data Communications (3)
<b>BIM202</b>	Introduction to Databases and Information Retrieval (3)
<b>LIS227</b>	Introduction to Knowledge Management (3) (pre-requisite for LIS403)

### General Education Courses

Should not exceed 6 credits for both semesters.

### Optional Courses

<b>LIS212</b>	Information Resources in Business (3)
<b>LIS230</b>	Legal Issues in Information (3)

### Level 300

#### Semester 5

##### Core Courses

<b>LIS300</b>	Online Information Retrieval (3)
<b>LIS304</b>	Understanding the User (3)
<b>LIS303</b>	Advanced IT Applications (3) (pre-

requisite LIS202)

### General Education Courses

Should not exceed 6 credits for both semesters.

### Optional Courses

<b>LIS309</b>	School Librarianship (3)
<b>LIS310</b>	Health Information Systems (3)

### Semester 6

#### Core Courses

<b>LIS305</b>	Advanced Organization of Information (3) (pre-requisite LIS200)
<b>LIS 306</b>	Professional Attachment (3)

### General Education Courses

Should not exceed 6 credits for both semesters.

### Optional Courses

<b>LIS311</b>	Business Information Systems (3)
<b>LIS312</b>	Legal Information Systems (3)
<b>LIS313</b>	Gender and Information Management (3)
<b>LIS314</b>	Agricultural Information Systems (3)

### Level 400

#### Semester 7

##### Core Courses

<b>LIS401</b>	Organising Internet Resources (3)
<b>LIS402</b>	Marketing of Information Services (3)
<b>LIS403</b>	Knowledge Management (3) (pre-requisite, LIS227)
<b>BIM402</b>	Research in Information Management (3)

### Optional Courses

<b>CSI461</b>	Computer Communications Network Management (3)
<b>LIS407</b>	Emerging Technologies (3)
<b>LIS412</b>	Information Policies (3)
<b>ENV440</b>	Geographic Information Systems (2)

### Semester 8

#### Core Courses

<b>LIS404</b>	Advanced Infopreneurship (3) (pre-requisite LIS206)
<b>LIS406</b>	Database Management Systems Design (3)
<b>LIS408</b>	Project Work (3) (Must have taken BIM402)
General Education Courses (4 credits)	

### Optional Courses

<b>LIS425</b>	Global Information System (3)
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### Progression from Semester to Semester

Progression from semester to semester shall apply according to Regulation 00.9.

### Assessment and Examinations

Evaluation of students' performance in BLIS shall be based on continuous assessment and a formal examination at the end of each semester. The weighting between continuous assessment and formal examination shall be 2:3.

### Award of the BLIS Single Major Degree

Candidates must obtain a minimum of 120 credits including all core courses and optional courses or elective courses, and twenty General Education Courses. In addition, Regulation 00.85

shall apply.

BIS230 Special Regulations for the Bachelor of Arts, Library and Information Studies

### **(BALIS) Combined Major**

Subject to the provisions of the General Academic Regulations and the Faculty of Humanities Regulations, the following Departmental Regulations shall apply:

### **Entrance Requirements**

The normal requirements for entrance to the BALIS Combined Major Degree Programme are that applicants shall have the Botswana General Certificate of Secondary Education or equivalent, with a credit in English. Those applicants who will major in Social Science or Science Subjects must obtain a minimum of credit in Mathematics or Computer Science.

### **Programme Structure**

The BALIS is a full-time programme extending over eight semesters in the single subject Library and Information Studies and another subject leading to the award of a BALIS Combined Major with another subject. The Programme shall consist of a minimum of 30 credits per year. All core courses must be passed.

### **Level 100**

General Education Courses (4 to 6)  
Other Subject Core Courses (12)

### **Semester 1**

#### **Core Courses**

- LIS100** The Information Environment (3)  
**LIS101** Introduction to Organising Information (3) (pre-requisite for LIS200)  
**BIM100** Introduction to Information Management (3)

### **Semester 2**

#### **Core Courses**

- BIM101** Introduction to Information Science (3)  
**LIS114** Collection Development and Management (3)

### **Level 200**

#### **Semester 3**

General Education Courses (4 to 6)  
Other Subject Core Courses (12)

#### **Core Courses**

- LIS223** Digital Libraries (3)  
**LIS202** IT Tools and Applications (3) (pre-requisite site for LIS303)  
**LIS211** Information and Society (3)

### **Semester 4**

#### **Core Courses**

- LIS200** Organising Information (3) (pre-requisite, LIS101)  
**LIS208** Principles of Computer Communication (3)  
**BIM202** Introduction to Databases and Information Retrieval (3)

### **Level 300**

General Education Courses (4 to 6)

Other Subject Core Courses (12)

### **Semester 5**

#### **Core Courses**

- LIS300** Online Information Retrieval (3)  
**LIS303** Advanced IT Applications (3) (pre-requisite, LIS202)  
**LIS304** Understanding the User (3)

### **Semester 6**

#### **Core Courses**

- LIS305** Advanced Organisation of Information (3) (pre-req. LIS200)  
**LIS306** Professional Attachment (3)

### **Level 400**

General Education Courses (4 to 6)  
Other Subject Core Courses (12)

### **Semester 7**

#### **LIS Core Courses**

- LIS401** Organising Internet Resources (3)  
**LIS402** Marketing of Information Services (3)  
**LIS403** Knowledge Management (3)  
**BIM402** Research in Information Management (3)

### **Semester 8**

#### **LIS Core Courses**

- LIS425** Global Information Systems (3)  
**LIS406** Database Management Systems Design (3)  
**LIS408** Project Work (3)

### **Progression from Semester to Semester**

Progression from semester to semester shall apply according to Regulation 00.9.

### **Assessment and Examinations**

Evaluation of student performance in BALIS shall be based on continuous assessment and formal examination at the end of each semester. The weighting between continuous assessment and formal examination shall be 2:3.

### **Award of BALIS**

Candidates must obtain a minimum of 120 credits, including all core courses in both subjects. In addition, Regulation 00.85 shall apply.

BIS210 Bachelor of Information Systems (Information Management) (BIS) Degree

### **Entrance Requirements**

The normal requirements for entrance to the Bachelor of Information Systems (Information Management) Degree Programme shall be the Botswana General Certificate of Secondary Education or equivalent with a credit in English Language and Mathematics.

### **Programme Structure**

The BIS Degree is a full-time programme extending over eight semesters in the subject of Information Management, leading to the award of a Bachelor of Information Systems Degree.

### **Level 100**

#### **Semester 1**

### **Core Courses**

- LIS100** The Information Environment (3)  
**BIM100** Introduction to Information Management (3)  
**STA101** Maths for Business and Social Sciences I (3)  
**STA116** Business Statistics I (4)

### **General Education Courses**

- COM 111** Communication and Academic Literacy Skills (3)  
**ICT 121** Computer Skills Fundamentals (2)

### **Semester 2**

#### **Core Courses**

- BIM101** Introduction to Information Science (3)  
**STA102** Maths for Business and Social Sciences II (3)  
**STA114** Statistical Tools for Business (3)

### **General Education Courses**

- COM112** Communication and Academic Literacy Skills (3)  
**ICT 122** Computer Skills Fundamentals 2 (2)

### **Level 200**

#### **Semester 3**

#### **Core Courses**

- BIM200** Information Management Systems Development (3)  
**CSI241** Structured Programming (4)  
**CSI292** Information Systems Fundamentals (3)

### **Optional Courses**

- BIM201** Web Information Management (3)  
**LIS206** Introduction to Infopreneurship (3) (pre-requisite for LIS404)  
**LIS211** Information and Society (3)

### **GECs and Electives**

General Education Courses and electives to be chosen by the student from any discipline throughout the University.

### **Semester 4**

#### **Core Courses**

- BIM202** Introduction to Databases and Information Retrieval (3)  
**CSI272** Computer Communication Network Fundamentals (3)  
**CSI252** Operating System Concepts (3)  
**BIM204** Designing and Implementing Intranets (3)

### **Optional Courses**

- BIM205** Business Process Modelling (3)  
**LIS227** Introduction to Knowledge Management (3) (pre-requisite for LIS403)

### **GECs and Electives**

General Education Courses and electives to be chosen by the student from any discipline throughout the University.

### **Level 300**

#### **Semester 5**

#### **Core Courses**

- BIM300** Distributed Systems (3)  
**BIS302** Decision Support Systems I (3)



CSI315 Web Technology and Applications (3)  
LIS304 Understanding the User (3)

#### Optional Courses

LIS300 Online Information Retrieval (3)  
BIM301 Information Security (3)  
BIS308 Marketing Information Systems (3)

General Education Courses and electives to be chosen by the student.

#### Semester 6

##### Core Courses

CSI342 Systems Analysis and Design (3)  
BIM303 Industrial Attachment (3)  
BIS307 Project Management of Information Systems (3)

##### Optional Courses

BIS303 Electronic Commerce (3)  
CSI314 Decision Support Systems II (3)  
CSI392 Ergonomics and Human Computer Interaction (3)  
CSI362 Database Concepts (3)

General Education Courses and electives to be chosen by the student.

#### Level 400

##### Semester 7

##### Core Courses

BIM400 Individual Project (3)  
BIM402 Research in Information Management (3)  
CSI471 Object Oriented Systems Development (3)  
CSI461 Computer Communications Networks Management (3)

##### Optional Courses

LIS403 Knowledge Management (3) (pre-requisite LIS227)  
LIS407 Emerging Technologies (3)  
LIS412 Information Policies (3)  
CSI414 Information Interfaces and Presentation (3)  
BIS405 Legal and Ethical Issues of Information Systems (3) (pre-requisite BIS100)

General Education Courses and electives to be chosen by the student.

#### Semester 8

##### Core Courses

BIS420 Strategic Information Systems (3)  
CSI472 Social Issues of Information Technology (3)

##### Optional Courses

LIS404 Advanced Infopreneurship (3) (pre-requisite, LIS206)  
LIS425 Global Information Systems (3)

General Education Courses and electives to be chosen by the student.

#### Progression from Semester to Semester

Progression from semester to semester shall apply according to Regulation 00.9.

#### Assessment and Examination

Evaluation of students' performance shall be based on continuous assessment and a formal examination at the end of each semester. The weighting between continuous assessment and examinations shall be determined in each course.

#### Award of the Degree

Candidates must obtain a minimum of 120 credits including all core courses and optional or elective courses, and 20 General Education Courses. In addition, Regulation 00.85 shall apply

#### Frequently Asked questions

##### 1. What is semesterization?

Semesterization is the process that UB is undertaking through changing its yearlong courses into courses that only run through one semester.

##### 2. What is a semester?

A semester comprises 14 teaching weeks, a week of mid-semester break, and a 1-week period of study/revision time and finally a week for examinations.

##### 3. What is a core course?

This is a course that must be taken in order to meet the requirements of an award, that is, it is mandatory or compulsory.

##### 4. What is an optional course?

This is a course that may be selected from a list of courses within a subject of study and which counts towards the requirements of an award.

##### 5. What is an elective course?

This is a course that may be selected from a list of courses outside a subject of study and which counts towards the requirements of an award.

##### 6. What is a prerequisite course?

This is a course that must be taken in preparation for another course.

##### 7. What is a co-requisite course?

This is a course that must be taken concurrently with other courses to enhance learning in the program.

##### 8. What is an audit course?

This is a course that may be taken by student but for which no credit is awarded. It can only be taken upon received assent from the Director, Academic Services and the relevant Heads of Department(s).

##### 9. What is a General Education course?

This is a course that is taken for the purpose of broadening the knowledge of a student and count towards the overall credit requirement for an award. The courses are placed in 7 large groups as shown in the table below.

#### Area Course group

1. Communication and Study skills
2. Computer and Information Skills
3. Modes of inquiry and critical thinking
4. Physical education, health and wellness
5. Science and technology
6. World civilization
7. World economy and business skills.

10. How do I know whether I have taken the correct GEC courses for my program?

For all students, the total credits for GECs/ Electives must not exceed a third of the total credits for a programme:

Certificate students may have no more than 10 credits from GEC/Elective courses. This will be one third of the minimum 30 credits required over 2 semesters to earn the award.

Diploma students may have no more than 20 credits GEC/Elective courses. This will be one third of the minimum 60 credits required over levels 1 and 2 to earn the award. Holders of Certificates who are exempted from Diploma level 100 must take up to 6 credits of GEC/elective courses.

Degree students may have no more than 40 credits GEC/Elective courses. This will be one third of the minimum 120 credits required over levels 1, 2, 3 and 4 to earn the award. Holders of Diplomas who are exempted from Degree levels 1 and 2 must take at least 12 credits of GEC/ elective courses including at least credits from Area 3.

Students are required to take GEC/Elective credits as follows:

#### Certificate and Diploma Students

At least 6 credits in Area 1 (COM 111 and 112)  
At least 4 credits in Area 2 (ICT 121 and 122)

#### Degree students

At least 6 credits in Area 1 (COM 111 and 112)  
At least 4 credits in Area 2 (ICT 121 and 122)  
At least 2 credits in Area 3  
At least 10 credits from Areas 4, 5, 6 and 7

#### 11. How many credits could I take in a semester?

A full-time student undertaking a certificate, diploma, degree, post graduate diploma or masters program should carry a minimum workload of 15 credits per semester. Students may also carry up to 18 credits maximum, and beyond that, would have to seek permission from the deputy Dean's office. A part-time student undertaking a certificate, diploma, degree, post graduate diploma or masters program should carry a workload of between 6 to 14 credits per semester, unless officially exempted.

It is possible to carry a higher workload within each semester as a strategy of completing the requirements of a students program. However, there is always the risk of carrying too many credits

#### 12. How many credits should I take in order to graduate?

Program Minimum number of credits from core, optional and elective courses for purposes of graduation  
Certificate 30 (including 4 credits from General Education courses)  
Diploma 60 (including 8-10 credits from General Education courses)  
Bachelors 120 (including 20 credits from General Education courses)

Masters 54 (including 24 credits from dissertation and 6 credits from practical attachment)

### 13. What is the grading system for assignments, term papers and exams?

The overall performance in a subject shall be assessed on a percentage scale divided as follows

A	80% and above	Excellent
B	70-79%	Very good
C	60-69%	Good
D	50-59%	Pass
E	40-49%	Marginal Fail
F	39-and below	Clear fail

### 14. What is the grading system for assignments, term papers and exams?

The overall performance in a subject shall be assessed on a percentage scale divided as follows

A+	90 – 100%	Outstanding
A	85-89.9%	Excellent
A-	80-84.9%	Excellent
B+	75-79.9%	Very good
B	70-74.9%	Very good
B-	65-69.9%	Good
C+	60-64.9%	Good
C	55-59.9%	Satisfactory
C-	50-54.9%	Satisfactory
D+	45-49.9%	Poor-Fail
D	40-44.9%	Poor-Fail
D-	35-39.9%	Poor-Fail
E	0-34.9%	Very Poor-Fail

## DEPARTMENT OF MEDIA STUDIES

### BACHELOR OF MEDIA STUDIES (BMS) (Revised)

The Bachelor of Media Studies (BMS) that has been taught since 2002 is now being phased out and replaced with a revised BMS, a BA (Media Studies) and a minor programme in Media Studies. By 2012 all students (apart from those taking repeats) will be enrolled in the revised programme. What follows is the revised BMS and BA (Media Studies). For students taking the old BMS, the programme is unchanged from previous years, and such students should consult their old calendars.

#### 1.0 Entrance Requirements

1.0.1 The normal minimum entrance requirement shall be the Botswana BGCSE or the equivalent with credit in English and in three other subjects.

1.0.2 Candidates who fulfill Regulation 1.0.1, have a credit in English and work experience in Media are preferred.

1.0.3 Candidates who do not meet Regulation 1.0.1 but have the BGCSE or equivalent and the CMS from a recognised institution may be admitted directly to Level 100 of the Programme.

1.0.4 Candidates with a Diploma in Media Studies or its equivalent may be admitted directly to Level 300 of the Programme.

#### 1.1 Programme Structure

1.1.1 The Bachelor in Media Studies is a full-time

programme extending over eight semesters. The programme should contain a minimum of 76 and a maximum of 88 credits. Part-time study for the Degree is also possible. It is expected that part-time students would finish their coursework in not more than ten semesters.

1.1.2 In Levels 2 (2nd semester) 3 and 4 of the Degree Programme, five specialised streams will be offered:

- a) Print Media
- b) Radio broadcasting
- c) Television broadcasting
- d) Public Relations
- e) Film and Video

#### Level 1 Semester 1

**BMS110** History of World Media, 3 credits CORE

**BMS111** Media in Botswana, 3 credits CORE

**ENG 121** Intro to English Language, Description and Usage: 3 credits

CORE

**ENG 113** Introduction to Literature and Prose: 3 credits CORE

**COM111** Communication and Academic Literacy Skills (1): 3 credits CORE

**ICT 121** Computer Skills Fundamentals 1: 2 credits CORE

17 CREDITS

#### Level 1 Semester 2

**BMS112** Introduction to Media Technology, 3 credits CORE

**BMS113** Theories of Mass Communication 3 credits, CORE

**ENG 111** Studies in Prose: 3 credits CORE

**ENG 123** Introduction to Literature, Drama and Poetry: 3 credits CORE

**COM 112** Communication and Academic Literacy Study Skills (2): 3 credits CORE

**ICT 122** Computer Skills Fundamentals 2 2 credits CORE

17 CREDITS

#### Level 2 Semester 3

**BMS220** Introduction to Techniques of Digital Media 3 credits CORE

**BMS221** Introduction to Journalism 3 credits CORE

**BMS222** Introduction to Broadcasting 3 credits CORE

**BMS223** Introduction to PR & Advertising 3 credits CORE

**BMS224** Introduction to Film and Video 3 credits CORE

15 CREDITS

#### Level 2 Semester 4

**BMS225** Media Attachment 1 credit CORE

**BMS226** Ethics for Media Professionals 3 credits CORE

**BMS227** Print Journalism Reporting & Writing 3 credits OPTIONAL

**BMS228** Broadcast Interviewing & Presentation Techniques 3 credits

OPTIONAL

**BMS229** Basics of Video Production 3 credits OPTIONAL

**BMS230** Writing for PR & Copy-writing 3 credits OPTIONAL

**BMS231** Major Film & Video Genres 3 credits OPTIONAL

2 CORE, 1 OPTIONAL, 7 credits 3 GECs or ELECTIVES 9 Credits 16 CREDITS

#### Level 3 Semester 5

**BMS320** Media & Society 3 credits CORE

**BMS 321** Media Law 3 credits CORE

**BMS322** Audio Technology 3 credits OPTIONAL

**BMS323** Photojournalism 3 credits OPTIONAL

**BMS324** Broadcast News Writing & Production 3 credits OPTIONAL

**BMS325** Basics of TV Production 3 credits OPTIONAL

**BMS326** Research for PR & Advertising 3 credits OPTIONAL

**BMS327** History of Film & Video documentary 3 credits OPTIONAL

2 CORE, 1 OR 2 OPTIONAL 9 or 12 credits, 1 or 2 GECS or ELECTIVES 3 or 6 Credits

15 CREDITS

#### Level 3 Semester 6

**BMS328** Communication Research Methods 3 credits CORE

**BMS329** Developmental Communication 3 credits CORE

**BMS330** Media attachment 3 credits CORE

**BMS331** Print Journalism Editing 3 credits OPTIONAL

**BMS332** Beat Reporting 3 credits OPTIONAL

**BMS333** Radio Documentary writing & Production 3 credits OPTIONAL

**BMS334** TV & Video Documentary Writing & Production 3 credits OPTIONAL

**BMS335** Motion Graphics 3 credits OPTIONAL

**BMS336** PR & Advertising Campaigns 3 credits OPTIONAL

**BMS337** Cinema Language in World Film 3 credits OPTIONAL

3 CORE, 1 OPTIONAL 12 credits 1 GEC or ELECTIVE3 credits

15 CREDITS

#### Level 4 Semester 7

**BMS420** Media project or Dossier (1) 2 credits CORE

**BMS421** Current Issues in African media 3 credits CORE

**BMS422** Broadcast Programming 3 credits OPTIONAL

**BMS423** Investigative Journalism 3 credits OPTIONAL

**BMS424** Radio Drama Script-writing & Productions 3 credits OPTIONAL

**BMS425** TV & Video Drama 3 credits OPTIONAL

**BMS426** Economic & Social Issues in PR & Advertising 3 credits OPTIONAL

**BMS427** African Cinemas 3 credits OPTIONAL

2 CORE, 1 or 2 OPTIONAL 1 OR

2 GECs or ELECTIVES





15 CREDITS

#### Level 4 Semester 8

- BMS428** Media Project or Dossier (2)  
4 credits CORE
- BMS429** Media Management & Entrepreneurship  
3 credits CORE
- BMS430** On-Line Media Production  
3 credits OPTIONAL
- BMS431** Health & Scientific Reporting  
3 credits OPTIONAL
- BMS432** Live Radio Broadcasting  
3 credits OPTIONAL
- BMS433** TV Entertainment Shows  
3 credits OPTIONAL
- BMS 434** Public Communication Campaign  
3 credits OPTIONAL
- BMS 435** Current Cinema 3 credits OPTIONAL  
2 CORE 1 or 2 OPTIONALS 1 or 2  
GECs or ELECTIVES  
15 CREDITS

### BA (MEDIA STUDIES)

1.0 Entrance Requirements  
As for BMS

#### 1.1 Programme Structure

1.1.1 The B.A. (Media Studies) is a full-time programme extending over eight semesters, as the Major part of a Combined Major/Minor programme. The Media Studies programme should contain a minimum of 54 and a maximum of 56 credits. Part-time study for the Degree is also possible. It is expected that part-time students would finish their coursework in not more than ten semesters.

#### Level 1 Semester 1

- BMS110** History of World Media,  
3 Credits CORE OR
- BMS111** Media in Botswana,  
3 credits CORE
- ENG 121** Intro to English  
Language, Description and Usage: 3  
credits CORE
- ENG 113** Introduction to Literature and Prose:  
3 credits CORE
- COM 111** Communication and Academic  
Literacy Skills (1): 2 credits CORE
- ICT 121** Computer Skills Fundamentals1  
2 credits CORE
- 1 ELECTIVE or COURSE FROM MINOR  
PROGRAMME 3 credits  
16 CREDITS

#### Level 1 Semester 2

- BMS112** Introduction to Media Technology,  
3 credits CORE  
OR
- BMS113** Theories of Mass Communication  
3 credits, CORE
- ENG 111** Studies in Prose: 3 credits CORE
- ENG 123** Introduction to Literature, Drama  
and Poetry: 3 credits CORE
- COM 112** Communication and Academic  
Literacy Skills (2): 3 credits CORE
- ICT 122** Computer Skills Fundamentals 2  
2 credits CORE
- 1 ELECTIVE or COURSE FROM MINOR

PROGRAMME 3 credits

17 CREDITS

#### Level 2 Semester 3

ANY TWO OF THE FOLLOWING

- BMS222** Introduction to Broadcasting,  
3 credits OPTIONAL
- BMS220** Introduction to Techniques of Digital  
Media, 3 credits, OPTIONAL
- BMS221** Introduction to Journalism, 3 credits  
OPTIONAL
- BMS223** Introduction to PR & Advertising,  
3 credits, OPTIONAL
- BMS224** Introduction to Film and Video,  
3 credits, OPTIONAL
- 6 CREDITS (Media)

#### Level 2 Semester 4

- BMS226** Ethics for Media Professionals,  
3 credits, CORE

AND ONE OF THE FOLLOWING

- BMS227** Print Journalism Reporting &  
Writing, 3 credits, OPTIONAL
- BMS228** Broadcast Interview &  
Presentation Techniques  
3 credits, OPTIONAL
- BMS229** Basics of Video Production,  
3 credits, OPTIONAL
- BMS230** Writing for PR & Copy-writing,  
3 credits, OPTIONAL
- BMS231** Major Film & Video Genres,  
3 credits, OPTIONAL
- 6 CREDITS (Media)

#### Level 3 Semester 5

EITHER

- BMS320** Media & Society 3 credits OPTIONAL  
OR
- BMS 321** Media Law 3 credits OPTIONAL  
AND 1, 2, OR 3 OUT OF
- BMS322** Audio Technology 3 credits  
OPTIONAL
- BMS323** Photojournalism 3 credits OPTIONAL
- BMS324** Broadcast News Writing &  
Production  
3 credits OPTIONAL
- BMS325** Basics of TV Production  
3 credits OPTIONAL
- BMS326** Research for PR & Advertising  
3 credits OPTIONAL
- BMS327** History of Film & Video  
documentary  
3 credits OPTIONAL

6 OR 9 CREDITS (Media)

#### Level 3 Semester 6

1, 2 OR 3 OUT OF:

- BMS329** Developmental Communication  
3 credits OPTIONAL
- BMS331** Print Journalism Editing  
3 credits OPTIONAL
- BMS332** Beat Reporting 3 credits OPTIONAL
- BMS333** Radio Documentary Writing &  
Production 3 credits OPTIONAL
- BMS334** TV & Video Documentary Writing &  
Production 3 credits OPTIONAL
- BMS335** Motion Graphics  
3 credits OPTIONAL
- BMS336** PR & Advertising Campaigns  
3 credits OPTIONAL
- BMS337** Cinema Language in World Film

3 credits OPTIONAL

6 OR 9 CREDITS (Media)

#### Level 4 Semester 7

1, 2 OR 3 OUT OF:

- BMS421** Current Issues in African media  
3 credits CORE
- BMS422** Broadcast Programming  
3 credits OPTIONAL
- BMS423** Investigative Journalism  
3 credits OPTIONAL
- BMS424** Radio Drama Script-writing &  
Production 3 credits OPTIONAL
- BMS425** TV & Video Drama 3 credits OPTIONAL
- BMS426** Economic & Social Issues in PR &  
Advertising 3 credits OPTIONAL
- BMS427** African Cinemas 3 credits OPTIONAL

6 OR 9 CREDITS (Media)

#### Level 4 Semester 8

1, 2 OR 3 OUT OF:

- BMS429** Media Management &  
Entrepreneurship  
3 credits CORE
- BMS430** On-Line Media Production  
3 credits OPTIONAL
- BMS431** Health & Scientific Reporting  
3 credits OPTIONAL
- BMS432** Live Radio Broadcasting  
3 credits OPTIONAL
- BMS433** TV Entertainment Shows  
3 credits OPTIONAL
- BMS434** Public Communication Campaign  
3 credits OPTIONAL
- BMS435** Current Cinema

3 credits OPTIONAL

6 OR 9 CREDITS (Media)

### Minor Programme in Media Studies

1.0 Entrance Requirements

As for BMS

#### 1.1 Programme Structure

1.1.1 The Minor programme in Media Studies is a full-time programme extending over eight semesters, as the Minor part of a Combined Major/Minor programme. The Media Studies programme should contain a minimum of 30 credits. Part-time study for the Programme is also possible. It is expected that part-time students would finish their coursework in not more than ten semesters. Streams are available in Journalism, Public Relations or Mediated Drama

#### Level 1 Semester 1

- BMS 110** History of World Media,  
3 credits OPTIONAL  
OR
- BMS 111** Media in Botswana,  
3 credits OPTIONAL  
3 CREDITS

#### Level 1 Semester 2

- BMS 112** Introduction to Media Technology,  
3 credits OPTIONAL OR
- BMS 113** Theories of Mass Communication,  
3 credits, OPTIONAL 3 CREDITS

### Level 2 Semester 3

ONE OF:

- BMS 221** Introduction to Journalism, 3 credits, OPTIONAL
- BMS223** Introduction to PR & Advertising, 3 credits, OPTIONAL
- BMS 222** Introduction to Broadcasting, 3 credits, OPTIONAL
- BMS 224** Introduction to Video & Film, 3 credits, OPTIONAL  
3 CREDITS

### Level 2 Semester 4

ONE OF:

- BMS227** Print Journalism Reporting & Writing, 3 credits, OPTIONAL
- BMS 229** Basics of Video Production, 3 credits, OPTIONAL
- BMS 230** Writing for Public Relations, 3 credits, OPTIONAL
- BMS 231** Major Cinema Genres, 3 credits  
OPTIONAL 3 CREDITS

### Level 3 Semester 5

ONE OF:

- BMS 321** Media Law, 3 credits OPTIONAL
- BMS 325** Basics of TV Production, 3 credits OPTIONAL
- BMS 320** Media and Society, 3 credits OPTIONAL
- BMS326** Research for PR & Advertising, 3 credits OPTIONAL  
3 CREDITS

### Level 3 Semester 6

TWO OF:

- BMS 329** Development Communication, 3 credits OPTIONAL
- BMS 331** Print Journalism Editing, 3 credits OPTIONAL
- BMS332** Beat Reporting, 3 credits OPTIONAL
- BMS333** Radio Documentary Writing & production, 3 credits OPTIONAL
- BMS334** TV/Video Documentary Writing & Production, 3 credits OPTIONAL
- BMS336** PR & Advertising Campaigns, 3 credits, OPTIONAL  
6 CREDITS

### Level 4 Semester 7

ONE OR TWO OF:

- BMS 423** Investigative Journalism, 3 credits OPTIONAL
- BMS424** Radio Drama Scriptwriting & Production, 3 credits OPTIONAL
- BMS 425** TV & Video Drama Script & production, 3 credits OPTIONAL
- BMS426** Economic & Social Issues in PR & Advertising, 3 credits OPTIONAL  
3 or 6 CREDITS

### Level 4 Semester 8

ONE OR TWO OF:

- BMS 429** Media Management & Entrepreneurship, 3 credits OPTIONAL
- BMS431** Health and Scientific Reporting, 3 credits OPTIONAL
- BMS433** TV/Video entertainment Shows, 3 credits OPTIONAL

**BMS 435** Current Cinema,

3 credits OPTIONAL

**BMS 434** Public Communication Campaign 3 credits OPTIONAL  
3 or 6 CREDITS

### Assessment

Assessment shall be as per General Academic Regulation 00.8

### Progression from one Semester to the next

Progression from one Semester to the next shall be as per General Regulations 00.9

### Award of Degree

The award of the Degree shall be as per General Regulations 00.8

## COURSE LISTINGS

### BMS 110 HISTORY OF WORLD MEDIA (3)

A brief history of world media from the invention of writing through to the internet and other 21st century developments. The course will also look at some of the major social impacts of media developments through the ages.

### BMS 111 MEDIA IN BOTSWANA (3)

A brief history of media in Botswana, including indigenous communication techniques, and showing links to media in the region and the wider world. A survey of current media houses, trends and genres in Botswana is included.

### BMS 112 INTRODUCTION TO MEDIA TECHNOLOGY (3)

An introduction to communication principles followed by a survey and simple explanation of the major technologies used by 20th and 21st century media.

### BMS 113 THEORIES OF MASS COMMUNICATION (3)

A survey of some major theories of Mass Communication, including their applications in communication practice (both mediated and non-mediated)

### BMS 232 INTRODUCTION TO TECHNIQUES OF DIGITAL MEDIA (3)

An introduction to principles and practice of design for digital media (desk-top publishing, digital imaging and web design).

### BMS 221 INTRODUCTION TO JOURNALISM (3)

A survey of print and on-line journalism industries, including a description of the whole production process and the main requirements of a journalist, including the basic elements of story writing. Course and assessment linked to UB Horizon.

### BMS 222 INTRODUCTION TO BROADCASTING (3)

A survey of radio and television industries, including a description of the whole production process and the main requirements of a broadcaster.

### BMS 223 INTRODUCTION TO PR &

### ADVERTISING (3)

A survey of the Public Relations and advertising industries, including a description of the whole production process and the main requirements of a worker in the Public Relations and Advertising industries. Course and assessment linked to UB Horizon.

### BMS 224 INTRODUCTION TO FILM & VIDEO (3)

A survey of the history of world film, from silent movies through to the digital age, including the major production methods.

### BMS 225 MEDIA ATTACHMENT (1)

A one month internship in a media company during which the student observes and becomes familiar with media organization and participates in work practices

### BMS 226 MEDIA ETHICS (3)

An analysis of theoretical issues concerning media ethics and their practical application in various case studies of media within Botswana and beyond.

### BMS 227 PRINT JOURNALISM REPORTING AND WRITING (3)

A practical course in how to report and write stories for print media journalism. The course will be closely linked to UB Horizon, with students expected to write stories for the newspaper, for which they will be assessed.

### BMS 228 BROADCAST INTERVIEWING & PRESENTATION TECHNIQUES (3)

Techniques of interviewing and presentation for radio and television (course split into radio or television after mid-semester break).

### BMS 229 BASICS OF VIDEO PRODUCTION (3)

A mainly practical course on the basic requirements of pre-production, production and post-production in the making of video films.

### BMS 230 WRITING FOR PUBLIC RELATIONS & COPY WRITING (3)

A mainly practical course on the basic requirements of copy-writing for both print and broadcast media in the field of Public Relations and Advertising. Course and assessment linked to UB Horizon.

### BMS 231 MAJOR CINEMA & VIDEO GENRES (3)

A survey of the major genres, such as comedy, adventures, blockbusters, thrillers, art films, dramas and animated films.

### BMS 320 MEDIA & SOCIETY (3)

A theoretical course analyzing the way media represent various social groups and the way the media impact upon society.

### BMS 321 MEDIA LAW (3)

A survey of laws relevant to journalism, broadcasting and telecommunications, with case studies to illustrate their application.

### BMS 322 AUDIO TECHNOLOGY (3)

A mostly technical course training students in the correct use of various types of microphones, mixers and other examples of audio technology.



### **BMS 323 PHOTOJOURNALISM (3)**

The fundamentals of taking and editing both digital and non-digital photographs for print, television and on-line journalism. Course and assessment linked to UB Horizon.

### **BMS 324 BROADCAST NEWS WRITING & PRODUCTION (3)**

Electronic news gathering, news writing and production for both radio and television.

### **BMS 325 BASICS OF TV PRODUCTION (3)**

The techniques of planning, writing and production of television programmes both in the studio and outside.

### **BMS 326 RESEARCH FOR PUBLIC RELATIONS & ADVERTISING (3)**

Market and product research in order to motivate campaigns in the fields of Public Relations and Advertising.

### **BMS 327 HISTORY OF FILM & VIDEO DOCUMENTARY (3)**

The history and genres of Film and Video documentary, linked to practical work in documentary and feature script-writing.

### **BMS 328 COMMUNICATION RESEARCH METHODS (3)**

An intensive course explaining the principles of research and useful quantitative and qualitative media research methodologies.

### **BMS 329 DEVELOPMENT COMMUNICATION (3)**

A survey of major development communication theories and their application in different media projects as part of total communications strategies.

### **BMS 330 MEDIA ATTACHMENT II (3)**

A three month internship in a media company during which the student observes and becomes familiar with media organization and participates in work practices.

### **BMS 331 PRINT JOURNALISM EDITING (3)**

A course that grounds students in the principles and practices of editing for print journalists and editors. Course and assessment linked to UB Horizon.

### **BMS 332 BEAT REPORTING (3)**

A course that prepares students for reporting in specialized fields such as crime, sport, environment, health and entertainment.

### **BMS 333 RADIO DOCUMENTARY WRITING & PRODUCTION (3)**

Skills for script-writing (and other pre-production work), production and post-production for radio documentaries and features.

### **BMS 334 TV AND VIDEO DOCUMENTARY WRITING & PRODUCTION (3)**

Skills for pre-production work, production and post-production for TV/Video documentaries and features.

### **BMS 335 MOTION GRAPHICS (3)**

A mainly practical course in special visual effects and animation for television and video.

### **BMS 336 PR & ADVERTISING CAMPAIGNS (3)**

Skills for planning, designing, writing and implementing total campaigns for Public Relations and Advertising. Course and assessment linked to UB Horizon.

### **BMS 337 CINEMA LANGUAGE IN WORLD FILM (3)**

A survey of important cinematography and editing styles (such as montage, neo-realism, cinema noire and magic realism), along with mini video projects to apply the theories in practice.

### **BMS 420 MEDIA PROJECT & DOSSIER I (2)**

The course will allocate students to individual tutors who will take students through the research process up to the completion of the project proposal for their chosen topics.

### **BMS 421 CURRENT ISSUES IN AFRICAN MEDIA (3)**

The course will provide an overview of current issues affecting African media including the press or broadcast organizations that influence the media.

### **BMS 422 BROADCAST PROGRAMMING (3)**

How to design short and long term programme schedules for radio and television broadcasting. The 2nd half of the semester may be split into radio & television.

### **BMS 423 INVESTIGATIVE JOURNALISM (3)**

In depth, carefully researched, critical journalism for print or broadcast media. For students taking the print pathway; the course and assessment are linked to UB Horizon.

### **BMS 424 RADIO DRAMA SCRIPT-WRITING & PRODUCTION (3)**

Writing drama scripts and producing them for radio broadcasts, including casting, rehearsing, recording and post-production editing.

### **BMS 425 TV & VIDEO DRAMA (3)**

Writing drama scripts and producing them for TV and Video drama, including casting, rehearsing, recording and post-production editing

### **BMS 426 ECONOMIC & SOCIAL ISSUES IN PR & ADVERTISING (3)**

The impact of economic and social issues on Public Relations and Advertising campaigns including issues of ethics and corporate responsibility.

### **BMS 427 AFRICAN CINEMAS (3)**

The course will include skills in film reviewing.

### **BMS 428 MEDIA PROJECT & DOSSIER II (3)**

A research project involving any one or any combination of media to show the student has acquired the skills of using media techniques for communication.

### **BMS429 MEDIA MANAGEMENT & ENTREPRENEURSHIP (3)**

A practical and theoretical course on how to set

up and grow a small media company, and how management/organizational issues relate to the wider economic landscape.

### **BMS 430 ON-LINE MEDIA PRODUCTION (3)**

Preparation of material for online publishing; this includes streaming of video and audio content, formatting images and text, and web-programming. Course and assessment linked to Media Studies and UB Horizon web-sites.

### **BMS 431 HEALTH & SCIENTIFIC REPORTING (3)**

A journalism course on the special skills needed for researching and writing stories on issues of Health and Science. The course and assessment are linked to UB Horizon.

### **BMS 432 LIVE RADIO BROADCASTING (3)**

Techniques of radio for Studio and Outside live Broadcast shows in News, Educational and Entertainment fields.

### **BMS 433 TV/VIDEO ENTERTAINMENT SHOWS (3)**

Production of entertainment programmes such as game shows, talk shows, and music shows for television or video

### **BMS 434 PUBLIC COMMUNICATION CAMPAIGNS (3)**

Planning, designing and implementation of public media communication campaigns for government or NGO social change agencies

### **BMS 435 CURRENT CINEMA (3)**

Current issues in film and video production, distribution, exhibition, reception and aesthetics.

## **DEPARTMENT OF THEOLOGY AND RELIGIOUS STUDIES**

### **Bachelor of Arts in Humanities and Degree Programme**

#### **Special Regulations for the BA Programme**

1. Theology and Religious Studies is offered as a Single Major Subject, a Major Subject in a Combined Major programme, a Major and Minor Subject and as a multidisciplinary degree as stipulated in General Regulations 22.37 and 00.2114 and departmental regulations.

2. A multidisciplinary degree including Theology and Religious Studies may, in accordance with General Regulation 00.2114 be approved in special cases, but only at the discretion of the TRS Department.

3. All courses offered in the TRS Department will be semester long. However, students taking TRS 326 Directed Research I will also be required to take TRS 420 Directed Research II.

4. Unless indicated otherwise all courses will carry 3 credits.

5. Not all courses listed may be offered in any

one semester.

6. Students pursuing a Single Major in TRS are required to take a total of 96 credits in TRS consisting of 48 credits from the core courses and additional credits from optional and other courses.

7. Students pursuing a Major in TRS as part of a combined Major/Minor are required to take a total of 84 credits in TRS consisting of 48 credits from the core courses and additional credits from optional and other courses.

8. Students pursuing a Major in TRS as part of a combined Major/Major are required to take a total of 60 credits in TRS consisting of 24 credits from the core courses and additional credits from optional and other courses.

9. Students pursuing a Minor in TRS as part of a combined Minor/Major are required to take a total of 36 credits in TRS consisting of 24 credits from the core courses and additional credits from optional and other courses.

10. Unless otherwise specified in the published course description or in a written syllabus distributed by the instructor to the students during the first week of class lectures, course assessment will be by a standard (750-1,000 word) written assignment, a mid-term test, and a final examination, weighted 1: 1: 2 respectively.

11. Students from other departments and other faculties, who wish to take TRS courses as electives, may take any course for which they have the pre-requisites.

12. Students pursuing a Single Major with concentration in Biblical studies are recommended to include Biblical languages either Hebrew (for Old Testament) or Greek (for New Testament).

### Programme Structure

#### SINGLE MAJOR PROGRAMME

In a Single Major Degree, a student shall take the following:

##### Level: 100

Semester 1: 1 core course, any one optional course.

Semester 2: 1 core course, any one optional course.

##### Level: 200

Semester 3: 1 core course, any one optional course.

Semester 4: 1 core course, any one optional course.

##### Level: 300

Semester 5: Three core courses and any three optional courses.

Semester 6: Three core courses and any three optional courses.

##### Level: 400

Semester 7:Three core courses and any three optional courses.

Semester 8:Three core courses and any three optional courses.

#### MAJOR (TRS)/ MINOR

In a Major/Minor Degree a student shall take the following courses:

##### Level: 100

Semester 1:1 core course, any one optional course.

Semester 2:1 core course, any one optional course.

##### Level: 200

Semester 3:1 core course, any one optional course.

Semester 4: 1 core course, any one optional course.

##### Level: 300

Semester 5:2 core courses in the area of specialisation (TRS 301 for Theology, TRS 304 for Biblical Studies, TRS 302 for Religious Studies and TRS 305 for Philosophy), other area and two optional courses.

Semester 6:2 core courses in the area of specialisation (TRS 315 for Theology, TRS 316 for Religious Studies, TRS 317 for Biblical Studies and TRS 318 for Philosophy), any two optional courses.

##### Level: 400

Semester 7:2 core course in the area of specialisation (TRS 401 for Theology, TRS 402 for Religious Studies, TRS 403 for Biblical Studies and TRS 404 for Philosophy), and two optional courses.

Semester 8:2 core course from the area of specialisation (TRS 415 for Theology, TRS 416 for Religious Studies, TRS 417 for Biblical Studies and TRS 418 for Philosophy), and any two optional courses.

#### MAJOR (TRS)/ MAJOR

In a Major/Major Degree a student shall take the following courses:

##### Level: 100

Semester 1:1 core course and any one optional course.

Semester 2: 1 core course and any one optional course.

##### Level: 200

Semester 3:1 core course and any one optional course.

Semester 4:1 core course and any one optional course.

##### Level: 300

Semester 5:1 core course in the area of specialisation (TRS 301 for Theology, TRS 302 for Religious Studies, TRS 303 for Biblical Studies and TRS 304 for Philosophy), and any two optional courses.

Semester 6: 1 core course in the area of specialisation (TRS 314 for theology, TRS 315 for Religious Studies, TRS 316 for Biblical Studies and TRS 317 for Philosophy) and any two

optional courses.

##### Level: 400

Semester 7: 1 core course in the area of specialisation (TRS 401 for Theology, TRS 402 for Religious Studies, TRS 403 for Biblical Studies and TRS 404 for Philosophy) and any two optional courses.

Semester 8:1 core course in the area of specialisation (TRS 415 for Theology, TRS 416 for Religious Studies, TRS 417 for Biblical Studies and TRS 418 for Philosophy) any two optional courses.

#### MINOR (TRS) /MAJOR

In a Minor/ Major Degree the student shall take the following courses:

##### Level: 100

Semester 1: 1 core course.

Semester 2: 1 core course.

##### Level: 200

Semester 3: 1 core course.

Semester 4: 1 core course.

##### Level: 300

Semester 5:1 core course in the area of specialisation (TRS 301 for Theology, TRS 302 for Religious Studies, TRS 303 for Biblical Studies and TRS 304 for Philosophy) and any one optional course.

Semester 6:1 core course in the area of specialisation (TRS 314 for Theology, TRS 315 for Religious Studies, TRS 316 for Biblical Studies and TRS 317 for Philosophy) and any one optional course.

##### Level: 400

Semester 7:1 core course in the area of specialisation (TRS 401 for Theology, TRS 402 for Religious Studies, TRS 403 for Biblical Studies and TRS 404 for Philosophy) and any one optional course.

Semester 8:1 core course in the area of specialisation (TRS 415 for Theology, TRS 416 for Religious Studies, TRS 417 for Biblical Studies and TRS 418 for Philosophy) and any one optional course.

#### Entry Requirements

The normal entry requirements shall be as stipulated in General 20.2 and Departmental Regulations.

##### Level 100

##### Semester 1

##### Core courses

TRS101 Introduction to Biblical Studies (3)

##### Optional Courses

TRS102 Religion and Science (3)

TRS103 Religions of Botswana (3)

TRS104 Christianity and the rise of New Religious Movements in Botswana (3)

TRS105 Asian Religions: A Survey (3)

TRS106 Ethics: Classical Theories (3)

##### Semester 2





#### Core Courses

TRS107 African Traditional Religions (3)

#### Optional Courses

TRS108 History of Philosophy I: Classical Greek Philosophy (3)  
TRS109 Biblical Interpretation (3)  
TRS110 God in the Hebrew Bible (3)  
TRS111 Epistemology I: Theory of Knowledge (3)  
TRS112 Bible and Gender (3)

#### Level 200

##### Semester 3

#### Core Courses

TRS201 Logic I: Introduction to Logic (3)

#### Optional Courses

TRS202 Hebrew Bible Narratives (3)  
TRS203 African Traditional Religions in Botswana (3)  
TRS204 Theologies of Gender (3)  
TRS205 History of Philosophy II: Post-Aristotle to Medieval (3)  
TRS206 Beginning Biblical Greek I: New Testament Greek (3)  
TRS207 Introduction to Christian Theology (3)  
TRS208 The Hebrew Bible as History & Story (3)

##### Semester 4

#### Core Courses

TRS209 History of Christian Thought (3)

#### Optional Courses

TRS210 Gospel Narratives (3)  
TRS211 Ecclesiology (3)  
TRS212 Beginning Biblical Greek II: New Testament Greek (3)  
TRS213 Johannine corpus (3)  
TRS214 Beginning Arabic I: Intro. to the basic Arabic (3)  
TRS215 Metaphysics I: Appearance and Reality (3)  
TRS216 History of Philosophy III: Post-Medieval to 19th Century (3)  
TRS220 Critical Thinking (3)  
TRS221 Politics of Gender (3)  
TRS222 Religion and Development (3)

#### Level 300

##### Semester 5

#### Core Courses

TRS301 Christology (3)  
TRS302 Missionaries in 19th Century South Africa (3)  
TRS303 Creation and the Bible (3)  
TRS304 African Philosophy and Culture (3)

#### Optional Courses

TRS305 Judaism (3)  
TRS306 Intermediate Greek I: Exam. of selected texts (3)  
TRS307 Beginning Arabic II: Arabic construction (3)  
TRS308 Beginning Biblical Hebrew I: Introduction to Hebrew Script (3)  
TRS309 Psychology of Religion (3)  
TRS310 Professional Ethics (3)  
TRS311 Metaphysics II: Idealism (3)  
TRS312 Logic II: Logic and the Sciences (3)

TRS313 History of Christianity: Medieval to the Reformation (3)

##### Semester 6

#### Core Courses

TRS314 Christian Moral Theology (3)  
TRS315 Sociology of Religion (3)  
TRS316 History and Mythology of Jesus (3)  
TRS317 Theodicy: The Co-existence of God and Evil (3)

#### Optional Courses

TRS318 Beginning Biblical Hebrew II: Translation of Hebrew Texts (3)  
TRS319 Philosophy of Religion (3)  
TRS320 Epistemology II: Theories of Truth (3)  
TRS321 Metaphysics III: Body/mind Problem (3)  
TRS322 History of Christianity in Southern Africa (3)  
TRS323 Intermediate Greek II: Translation of selected texts (3)  
TRS324 Intermediate Arabic I: Arabic grammar (3)  
TRS325 Foundational Structures of Islam (3)  
TRS326 Directed Research I: Research Methods (3)

#### Level 400

##### Semester 7

#### Core Courses

TRS401 New Religious Movements (3)  
TRS402 Religion and Politics (3)  
TRS403 The Doctrine of Sin in the Bible (3)  
TRS404 Metaphysics IV: Personal Identity (3)

#### Optional Courses

TRS405 Intermediate Hebrew I: Examination of selected Hebrew texts (3)  
TRS406 Intermediate Arabic II: Translation of Arabic texts (3)  
TRS407 Islam's socio-cultural, legal and political structures (3)  
TRS408 Directed Research I: Research Methods (3)  
TRS409 African Christian Theologies (3)  
TRS410 Theory of Government (3)  
TRS411 Politics and Development of Biblical Thought (3)  
TRS412 Ecumenical Theology (3)  
TRS413 Hinduism (3)  
TRS414 Metaphysics V: Materialism (3)

##### Semester 8

#### Core Courses

TRS415 Twentieth Century Theologians (3)  
TRS416 Religion and Modernity (3)  
TRS417 Paul's Epistles (3)  
TRS418 Contemporary African Philosophy (3)

#### Optional Courses

TRS419 Intermediate Hebrew II: Hebrew Texts and Dead Sea Scrolls (3)  
TRS420 Directed Research II: Research Project (3)  
TRS421 History of Christianity: Modern and contemporary (3)  
TRS422 Epistemology III: Rationalism & Empiricism (3)  
TRS423 History of Philosophy IV: Contemporary (3)  
TRS424 Buddhism (3)

TRS425 The theology of the Reformation (3)  
TRS426 Religious Rituals and Sacred Places (3)

TRS427 Applied Ethics (3)

TRS428 Religious Pluralism (3)

## THEOLOGY AND RELIGIOUS STUDIES COURSE DESCRIPTIONS

### TRS101 Introduction to Biblical Studies (3)

This course will present a general overview of the contexts in which the Old Testament and the New Testament came into being and a survey of the contents of both testaments. It will consider various ways in which the Bible is used in Judaism and Christianity.

### TRS102 Religion and Science (3)

This course will study the assumptions, practices, and methodologies of what is commonly called "religion" and what is commonly called "Science". It will ascertain the similarities and differences, continuities and discontinuities between the two domains.

### TRS103 Religions of Botswana (3)

This course will study the different religious traditions that exist in Botswana with the view towards a better understanding of their beliefs, rituals and practices. It will survey ATR, Christianity, Islam, Hinduism, Bahá'í, Sikhism and Buddhism as they have developed and are currently practiced in Botswana.

### TRS104 Christianity and the Rise of New Religious Movements in Botswana (3)

This course will study changes that have taken place in the Christian churches of Botswana since independence. It will examine the rise of New Religious Movements and the integration of Christian belief and practice with cultural tradition.

### TRS105 Asian Religions A Survey (3)

This course will present a comprehensive survey of Asian religions, namely Jainism, Sikhism, Zoroastrianism, Confucianism, Bahá'í, Shinto and Taoism.

### TRS106 Ethics: Classical Theories (3)

This course will offer an introduction to moral philosophy particularly by exploring the origins of ethical reflection among the classical Greek philosophers, including the Sophists, Socrates, Plato and Aristotle.

### TRS107 African Traditional Religions (3)

This course will study the beliefs and practices of African traditional religions from a phenomenological point of view. It will focus in particular on the traditional religions of Southern Africa.

### TRS108 History of Philosophy I: Classical Greek Philosophy (3)

This course will study the thought of major Greek Philosophers of the classical period, including the pre-Socratics (e.g. Parmenides, Heraclitus, Pythagoras and Protagoras), Socrates, Plato, and Aristotle, and the post-Aristotle schools of Stoicism, Epicureanism and Skepticism.



**TRS109 Biblical Interpretation (3)**

This course will study different methods, both modern and contemporary, of reading the Bible. It will explore modern historical critical methods like textual, form, compositional and redactional criticisms.

**TRS110 God in the Hebrew Bible (3)**

This course will study the diverse depictions of God in the Hebrew Bible, including the identities of the surrounding cultures. In particular, it will explore such themes as anthropomorphism, creation, monotheism and mythology, the justice of God, the figure of Wisdom, female imagery and God.

**TRS111 Epistemology I: Theory of Knowledge (3)**

This course will introduce students to the theory of knowledge. Students will explore how Plato, René Descartes, Baruch de Spinoza and Gottfried von Leibniz approached the theory of knowledge from a rationalist point of view.

**TRS112 Bible and Gender (3)**

This course will explore the construction of gender and identity in the Hebrew and Christian Testaments. It will examine how different types of biblical literature constructed gender over various times and circumstances.

**TRS201 Logic I: Introduction to Logic (3)**

This course will define "Philosophy" and "Logic", and examine in detail informal fallacies and deductive methods of reasoning. It will explore the nature of definitions, decisions, and classifications.

**TRS202 Hebrew Bible Narratives (3)**

This course will study several short narratives from the Hebrew Bible selected from different books. Focus will be on the literary dimension of the story, narrative technique, effect on a reader, ideology and social location implied in the narrative.

**TRS203 African Traditional Religions in Botswana (3)**

This course will study the beliefs and practices of traditional religions in Botswana. It will survey a large number of the ethnic groups in the country, with emphasis on continuity and change in their mutual relationships and in their development.

**TRS204 Theologies of Gender (3)**

This course will explore theological questions surrounding the issues of gender and gender identity. It will examine traditional theological positions as well as those of feminist/womanist theologians

**TRS205 History of Philosophy II: Postaristotle to Medieval (3)**

This course will study the development of philosophy from the time following the classical Greek Philosophers until the Middle Ages. In particular it will examine the interaction of philosophy and religious thought, both Christians and Islamic.

**TRS206 Beginning Greek I: New Testament Greek (3)**

This course will introduce students to the basic elements of New Testament Greek (Koine) and teach them how to write it. It will focus on basic Koine grammar and how to read some prescribed texts.

**TRS207 Introduction to Christian Theology (3)**

This course will study the nature of theology, its different branches and its relevance to society. It will focus on the different methods used in doing theology, its sources, its relationships with other sciences and its application.

**TRS208 The Hebrew Bible as History and Story (3)**

This course will study both the historical texts in the Hebrew Bible and the eternal historical factors that have shaped the formation of the Hebrew Bible. It will examine in detail the theological focus and agenda of Hebrew Bible historical texts.

**TRS209 History of Christian Thought (3)**

This course will study the development of Christianity and Christian thought from the New Testament period to its establishment as the state religion of the Roman Empire under Constantine. It will emphasize relations between the Church and the state and how these affected the life of the Church and of Christian believers.

**TRS210 Gospel Narratives (3)**

This course will study gospels of the New Testament, Mark, Matthew, Luke and John. Students will study the gospels through employing different perspectives such as historical, literary, sociological and liberation methods.

**TRS 211 Ecclesiology (3)**

This course will study the doctrine of the Christian Church, its nature and functions in relation to other doctrines, such as the doctrine of God, Christology, and sacraments. It will examine the scriptural, historical and systematic dimensions of the doctrine of the Church from its origin in New Testament times through the patristic period, the Reformation, and the post-Reformation period.

**TRS212 Beginning Greek II: New Testament (3)**

This course is a continuation of Beginning Koine Greek I.

**TRS213 Johannine Corpus (3)**

This course will study the Johannine Corpus both the Gospel of John and the Epistles of John. It will examine the historical, philosophical and political factors that shaped its theology in the apostolic period.

**TRS214 Beginning Arabic I: Introduction to Basic Arabic (3)**

This course will introduce students to the Arabic script and teach them how to write it. It will study basic Arabic grammar and how to read basic prescribed texts.

**TRS215 Metaphysics I: Appearance and Reality (3)**

This course will introduce student to basic and fundamental concepts of metaphysics. Students will examine why the Platonic theory assigns reality to the "forms" and appearance to the sensible objects.

**TRS216 History of Philosophy III: Post-Medieval of 19th Century (3)**

This course will survey the main strands of philosophy from the Renaissance to modern times. It will consider Renaissance philosophy, the critical examination of reason and pragmatism.

**TRS 220 Critical Thinking (Optional 3 Credits)**

This course will train students not to take anything they hear, read, write and do for granted without first critically assessing and analyzing them. In order to do these students will examine key logical concepts and principles such as laws of identity, non contradiction and exclude middle. Some logical formal and informal will also be dealt with.

**TRS 221 The Politics of Gender (Optional 3 Credits)**

This course will discuss the roles and contributions of men and women in nation building. It will examine in particular the disadvantaged position women hold in most societies.

**TRS 222 Religion and Development (Optional 3 Credits)**

This course undertakes a study of religion amidst social transformation in different countries with special reference to sub-Saharan Africa. In the process of assessing the role of religion, taking into account the theories of development, secularization and modernization, it also looks at the paradigms in conflict in the socio-political and economic spheres.

**TRS301 Christology (3)**

This course will study the meaning and significance of the person of Jesus Christ. It will examine critically the life of Jesus from the time of his conception to his resurrection and the developing understanding of Christology through the first five years of Christian thought.

**TRS302 Missionaries in Nineteenth Century Southern Africa (3)**

This course will investigate early missionaries' attitudes toward African culture, beliefs and practices. It will draw much of its information from primary sources.

**TRS303 Creation and the Bible (3)**

This course will focus on the creation texts of the Hebrew Bible. They will be compared and contrasted with other ancient Near Eastern creation accounts. This will also examine creation in the New Testament.

**TRS304 African Philosophy and Culture (3)**

This course will examine how philosophy and culture have interacted in an African context. It will investigate the thought of several African thinkers.



### **TRS305 Judaism (3)**

This course will present an introduction to the main beliefs and practices of the several forms of post-biblical Judaism. The course will cover some of the milestones of the history of the Jewish people.

### **TRS306 Intermediate Greek I: Examination of Selected Texts (3)**

This course will build on the knowledge of New Testament vocabulary, grammar and syntax acquired in Beginning Koine Greek I and II.

### **TRS307 Beginning Arabic II: Arabic Construction (3)**

This course is a continuation of Beginning Arabic I.

### **TRS308 Beginning Biblical Hebrew I: Introduction to Hebrew Script (3)**

This course will introduce the student to the Hebrew script and teach them how to write it. It studies basic Hebrew grammar and how to read basic prescribed texts.

### **TRS309 Psychology of Religion (3)**

This course will critically discuss the relationship between religion and psychology. It will study and examine the various theories, principles, and methods spruced by the psychologists of religion.

### **TRS310 Professional Ethics (3)**

This course will examine the question of whether professional morality is independent of and separate from ordinary morality. It will look at business, medicine, law and political ethics.

### **TRS311 Metaphysics II: Idealism (3)**

This course will study issues of particular importance in the philosophy of the metaphysical idealists George Berkeley, Immanuel Kant, George W. F. Hegel and others. Concepts such as existence, being causality, change, time and other shall be examined.

### **TRS312 Logic II: Logic and the Sciences (3)**

This course will examine the place of logic in philosophy, the sciences, and other human activities and relations. It will study the concepts (in) validity and soundness of arguments, and the different patterns that arguments can follow. It will consider the benefits of symbols and will introduce students to the use of elementary symbolic language.

### **TRS313 History of Christianity: Medieval To Reformation (3)**

This course will study the development of the church from the Middle Ages to the Reformation. It will examine the separation between Eastern and Western Christianity, scholasticism, sacramentalism and opposition to monarchic papacy.

### **TRS314 Christian Moral Theology (3)**

This course will examine the moral implications of being a Christian in a secular society in the context of the teachings of the Christian church. It will focus on issues related to Christian behaviour in regard to marriage and other

ethical issues.

### **TRS315 Sociology of Religion (3)**

This course will study the influence of religion in society. It will examine sociological theories of religion and the concrete interaction of religion and particular societies.

### **TRS 316 History of Mythology (3)**

This course will study the presentation of Jesus in the four gospels. It will investigate how each gospel characterizes Jesus and the significance of such characterisation, as well as the character of Jesus that emerges in Paul's writings.

### **TRS 317 Theology: The Co-existence of God and Evil (3)**

This course will examine various philosophical arguments for the existence of God. It will discuss the various proofs that have been proposed concerning the existence of God and will examine the problem of Evil and the difficulties it poses for arguments for the existence of God.

### **TRS318 Beginning Biblical Hebrew II: Translation of Biblical Texts (3)**

This course is a continuation of Beginning Biblical Hebrew I.

### **TRS319 Philosophy of Religion (3)**

This course will study some fundamental issues connected with the human activity called "religion". It will use rational, critical analysis to investigate the nature of belief, worship, and sacrifice, the question of the existence of a supernatural being, and the roles that religion plays in the lives of human beings.

### **TRS320 Epistemology II: Theories of Truth (3)**

This course will examine the concepts of knowledge and belief and relate them to theories of truth. It will discuss theories such as the "correspondence theory", the "coherence theory", and the "pragmatist theory".

### **TRS321 Metaphysics III: Body/mind Problem (3)**

This course looks at the mind and body problem. It will examine different theories that arose as an attempt to answer the questions concerning dualism, behaviourism, functionalism, epiphenomenalism and others.

### **TRS322 History of Christianity in Southern Africa (3)**

This course will study the origin and development of the Christian Church in Southern Africa from its inception to the present. It will examine the cultural context in which the Church was introduced and the role of foreign missionary societies in that process.

### **TRS323 Intermediate Greek II: Translation of Selected Texts (3)**

This course will build on the knowledge of New Testament vocabulary, grammar and syntax acquired in Beginning Koine Greek I and II and intermediate Koine Greek I. Students will translate and study closely selected passages from one book of the New Testament.

### **TRS324 Intermediaries Arabic I: Arabic**

### **Grammar (3)**

This course will study intermediate Arabic grammar and examine classical and contemporary Arabic texts. It will also expose the student to standard Arabic oral drills.

### **TRS325 Foundation Structures of Islam (3)**

This course will study the basic doctrines and practices of Islam. It will introduce the primary sources of Islam and survey the social history of the Muslim community from its emergence through its early years.

### **TRS326 Directed Readings: Research Methods (3)**

In this course the student will undertake independent study under the guidance of a supervisor who will be responsible for advising and instructing the student in matters of research method as well as content.

### **TRS401 New Religious Movements (3)**

This course will examine new Christian theologies from new Christian movements emerging today in various regional, social and intellectual settings across the world. It will pay special attention to theological and social developments in Africa.

### **TRS402 Religion And Politics (3)**

This course will foster a rethinking of the relationship between religion and politics and analyze the changing dimensions of society, religion, and the state.

### **TRS403 The Doctrine of Sin In The Bible (3)**

This course examines the concepts of "Sin" and "evil" in the Hebrew Bible and the Christian New Testament. It will investigate related concepts such as law and commandment, purity/impurity, judgement, punishment, and forgiveness.

### **TRS404 Metaphysics IV: Personal Identity (3)**

This course will examine the question of personhood. The course will look at different criteria of personal identity. It will also look at divided minds and consciousness.

### **TRS405 Intermediate Hebrew: Examination of Selected Texts (3)**

This course will build on the knowledge of Biblical Hebrew vocabulary, grammar and syntax acquired in Beginning Biblical Hebrew I and II. The student will study closely set texts from all three main divisions of the Hebrew Bible.

### **TRS406 Intermediate Arabic II: Translation of Arabic Texts (3)**

This course is continuation of Intermediate Arabic I yet students who have not successfully completed that course may take TRS 406.

### **TRS407 Socio-Cultural, Legal and Political Structures of Islam (3)**

This course will study the growth of the early Muslim community. It will trace and reflect critically upon the development and evolution of the theological, jurisprudential and mystical schools. It will explore the thoughts and practices of individual representatives of these schools.

**TRS409 African Christianity Theologies (3)**

This course will comprise readings from African theologians that focus on important theological issues facing the African Church today. It will examine the question of the enculturation of the Church in Africa, taking into account the cultural, social, economic and political factors in both colonial and postcolonial Africa.

**TRS410 Theories of Government (3)**

This course will discuss the theory of the state, such thinkers as Plato, Thomas Hobbes, John Locke, Jean-Jacques Rousseau and Karl Marx have presented it.

**TRS411 Politics and the Development of Biblical Thought (3)**

This course will foreground the idea that the texts of the Bible were written, collected, edited and read in political environments. Political agendas, in turn, have left discernible traces in biblical literature.

**TRS412 Ecumenical Theology (3)**

This course will study the theological foundations of the ecumenical movement, whose aim is to achieve organic church unity. It will investigate the New Testament, especially the Johannine and Pauline writings, to discern the scriptural basis for ecumenical theory and practice.

**TRS413 Hinduism (3)**

This course will study Hinduism from the Harrappan culture to contemporary period. The approach will be thematic including themes such as creation, sacrifice, polytheism and others.

**TRS414 Metaphysics V: Materialism (3)**

This course will examine the main tenets of materialism: the uniformity of law, the denial of teleology, the denial of any form of existence beyond that envisaged by the natural sciences. Particularly attention will be given to the thought of Karl Marx, William James and John Dewey.

**TRS415 Twentieth Century Theologians (3)**

This course will study several major theologians, Protestant and Roman Catholic, of the twentieth century, and the contributions their thought has made to the development of contemporary systematic theology.

**TRS416 Religion and Modernity (3)**

This course will study the relationship and interaction between religion and popular culture. It will explore the significance and importance of religious expressions contained in various media such as films, theatre, music and others.

**TRS417 Paul's Epistle (3)**

This course will cover the Pauline and Deutero-Pauline letters of the New Testament. It will use different methods to analyze the socio historical context that gave rise to Pauline letters.

**TRS418 Contemporary African Philosophy (3)**

This course will study some of the major issues that have shaped, and continue to shape, African's social, economic and political landscape. It will examine the development and application of such theories as humanism,

African socialism and others.

**TRS419 Intermediate Hebrew II: Hebrew Texts and Dead Sea Scrolls (3)**

This course will build on the knowledge of Biblical Hebrew vocabulary, grammar and syntax acquired in Beginning Biblical Hebrew I and II. Set texts from the Hebrew Bible and the Dead Sea Scrolls will be studied closely.

**TRS420 Directed Research (3)**

In this course the student will undertake independent study under the guidance of a supervisor who will be responsible for advising and instructing the student in matters of research method as well as content.

**TRS421History of Christianity: Modern and Contemporary (3)**

This course will study the expansion of the church from Europe and America to other parts of the world during the missionary era of the nineteenth and twentieth centuries. It will discuss issues such as colonialism and missiology.

**TRS422 Epistemology: Rationalism and Empiricism (3)**

The student will study the philosophy position that knowledge is only attained through the senses, and that truth must conform to the rules of logic and of material science.

**TRS423 History of Contemporary Philosophy (3)**

This course will study the basic tenets of logical positivism and ordinary language philosophy. It will also explore philosophical questions that arise from contemporary concerns such as war and peace and others.

**TRS424 Buddhism (3)**

This course will study the origin, development and basic concepts of Buddhism. It will trace ways in which different "Buddhisms" developed.

**TRS42 The Theology of the Reformation (3)**

This course will study the religious, social economic and political factors that led to the Reformation and counter –Reformation in the sixteenth century Europe. It will consider some of the important theological themes that dominated the thinking of the Reformers.

**TRS426 Religious Rituals and Sacred Places (3)**

This course will study the role of sacred sites, shrines, rivers, mountains, worship centers and other sacred places in several religious traditions.

**TRS427 Applied Ethics (3)**

This course will study the concept of human rights, the nature and origin of human rights, and some specific contemporary ethical issues that arise from the question of human rights, such as abortion, infanticide and others

**TRS428 Religion and Pluralism (3)**

This course will discuss the relationship between religion and religious pluralism. It will explore the theories pertaining to religious pluralism, and probe the related notions or religious language, religious dialogue and inter-religious

cooperation.

DEPARTMENT OF VISUAL AND PERFORMING ARTS

BACHELOR OF FINE ARTS COURSES

Level 100

- BFA100** Introduction to the Theatre100  
Core 14 weeks 3 Theory
- BFA121** Workshop Theatre I (3)
- BFA200** Theatre History I\*\* 200  
Core 14 weeks 3 Theory
- BFA202** Theatre in Botswana I  
[Popular Theatre] 200  
Core 14 weeks 3 Theory
- BFA204** Playwriting\*\*\* 200  
Core 14 weeks 3 Practical
- BFA221** Production Workshop I (3)

Level 200

- BFA102** Theatre in Botswana II (Origins)
- BFA122** Workshop Theatre I (3)
- BFA203** Acting, Movement & Mime I 200  
Core 14 weeks 3 Practical
- BFA 205** Design & Technical Theatre I 200  
Core 14 weeks 3 Practical
- BFA 206** Theatre in Africa I\*\* 200  
Core 14 weeks 3 Theory
- BFA222** Production Workshop II (3)

Level 300

- BFA 309** Directing I 300  
Core 14 weeks 3 Practical
- BFA 310** Dramatic Literature I [Africa] 300  
Core 14 weeks 3 Theory
- BFA 312** Stage Management 300  
Core 14 weeks 3 Theory/Practical
- BFA 313** Theatre Ethics 300 Core 14 weeks 3 Theory
- BFA 302** Theatre in Botswana  
[Theatre & Mass Media] 300  
Optional 14 weeks 3 Theory
- BFA 303** Acting, Movement & Mime II 300  
Optional 14 weeks 3 Practical
- BFA 304** Playwriting II 300  
Optional 14 weeks 3 Practical
- BFA 305** Design & Technical Theatre II 300  
Optional 14 weeks 3 Practical
- BFA 306** Theatre in Africa II\*\* 300  
Optional 14 weeks 3 Theory
- BFA 308** American Theatre 300  
Optional 14 weeks 3 Theory
- BFA 311** Playback Theatre 300  
Optional 6 weeks 3 Practical
- BFA 314** Theatre History [Europe]\*\* 300  
Optional 14 weeks 3 Theory
- BFA 318** Theatre Attachment 300  
Core 4 weeks 3 Practical

Level 400

- BFA 400** Theatre History: Asia\*\* 400  
Optional 14 weeks 3 Theory
- BFA 403** Acting, Movement & Mime III 400  
Optional 14 weeks 3 Practical



<b>BFA 404</b>	Playwriting III*** 400
	Optional 14 weeks 3 Practical
<b>BFA 405</b>	Design & Technical Theatre III 400
	Optional 14 weeks 3 Practical
<b>BFA 406</b>	Theatre & Society in Africa [Special Author] 400
	Optional 14 weeks 3 Theory
<b>BFA 409</b>	Advanced Directing 400
	Optional 28 weeks 6 Practical
<b>BFA 410</b>	Dramatic literature II [Europe]**400
	Optional 14 weeks 3 Theory
<b>BFA411</b>	Theories of Modern Drama [1920-Present] 400
	Optional 14 weeks 3 Theory
<b>BFA 412</b>	Theatre Administration 400
	Optional 14 weeks 3 Theory/Practical
<b>BFA 415</b>	Drama-in-Education [DIE]400
	Optional 14 weeks 3 Theory/Practical
<b>BFA 416</b>	Senior Project 400
	Core 28 weeks 6 Theory/Practical
<b>BFA 417</b>	Theatre-for-Development 400
	Optional 28 weeks 6 Theory/Practical
<b>BFA 418</b>	Theatre & Tourism 400
	Optional 14 weeks 3 Theory/Practice

#### NOTE:

- Emboldened courses are newly created courses for the proposed programme.
- All Practical courses are assessed on a 70% [practical exam] and 30% [CA] format. The practical examination is a semester-long/year-long extensive work on a theatre project that culminates in a performance.
- \* This course will assessed on a 60% [ensemble production] and 40% [CA] format
- \*\* These are existing courses in the Department of English
- \*\*\*These courses are part of ENG327 [Practical Theatre] and ENG417 [Theory and Practice of Drama] currently being offered in the Department of English
- All practical courses shall, to a large degree, employ a hands-on, out-of-class experience by going on attachments/apprenticeships to relevant theatre organizations.

#### OPTIONAL COURSES FROM OTHER DEPARTMENTS\*\*\*\*

<b>ALL142:</b>	The Study of Drama in Indigenous Languages 100	Optional 3
<b>ARB 121:</b>	Design Communication 100	Optional 3
<b>ARB 123:</b>	History of Art 100	Optional 3
<b>COM111</b>	Communication and Academic Literacy Skill 100	GEC 3
<b>COM112</b>	Communication and Academic Literacy Skills 100	GEC 3
<b>ICT121</b>	Computer Skills Fundamentals 1 100	GEC 2
<b>ICT122</b>	Computer Skills Fundamentals 2 100	GEC 2

<b>MTK100:</b>	Principles of Marketing 100	Optional 3
<b>DSW207</b>	Culture, Change and Social Work in Botswana 200	Optional 3
<b>DTB 222:</b>	Graphics 200	Optional 3
<b>EPP 201:</b>	Art Introduction 200	Optional 3
<b>EPP 202:</b>	Practical Arts Skills for the Teacher 200	Optional 3
<b>GEC 200</b>	GEC 2	
<b>GEC200</b>	GEC 2	
<b>MTK200:</b>	Integrated Communications 200	Optional 3
<b>ALL343:</b>	Introduction to African Popular Theatre 300	Optional 3
<b>ALL 352:</b>	Epic Performance in Africa 300	Optional 3
<b>BMS 301:</b>	Scripting for the Electronic Media [3 Credits] 300	Optional 3
<b>BMS 310:</b>	Popular Culture in Society & the Media 300	Optional 3
<b>BMS 314</b>	Public Relations II 300	Optional 3
<b>BMS 329</b>	Developmental Communication 300	Optional 3
<b>BMS 333</b>	Radio Documentary Writing & production 300	Optional 3
<b>BMS 334</b>	TV and Video Documentary Writing & Production 300	Optional 3
<b>DTB 312:</b>	Aesthetics. 300	Optional 3
<b>EPP302:</b>	Practical Skills in Teaching of Art 300	Optional 3
<b>GEC300</b>	GEC 2	
<b>GEC300</b>	GEC 2	
<b>HEE 358:</b>	Fashion and Society 300	Optional 3
<b>HEE 359:</b>	Design Fundamentals 300	Optional 3
<b>MKT304</b>	Advertising (Prerequisite: MKT200) 300	Optional 3
<b>POP302</b>	Research Methods 300	Optional 3
<b>ALL 454:</b>	Children's Traditions and Dramatics 400	Optional 3
<b>BMS 401:</b>	Image in Africa 400	Optional 3
<b>BM S 405</b>	Public Relations III 400	Optional 3
<b>BMS409:</b>	TV & Video Production IV [includes TV/Video drama] 400	Optional 3
<b>BMS 410</b>	Radio Production IV [includes Radio drama] 400	Optional 3
<b>BMS424</b>	Radio Drama Script-writing & Production 400	Optional 3

<b>GEC 400</b>	GEC2
<b>GEC400</b>	GEC 2
<b>HEE 457:</b>	History and Conservation of Textiles 400
	Optional 3
<b>PHR424:</b>	Movement & Creative Dance Technique 400
	Optional 3

#### NOTE

- \*\*\*\*All optional courses from other Departments are existing courses.

#### APPENDIX 1: THEATRE PROGRAMME [ABBREVIATED COURSE DESCRIPTIONS] INTRODUCTION TO THE THEATRE LEVEL 1 [CORE] 3 CREDITS

This course offers a theoretical panoramic coverage of important theoretical foundations from the ancient Greek period to the modern period. Course spread touches on most arms of the arts of Theatre, ranging from stage movement to costume, scene design and construction, acting and directing. This course helps to familiarize students with the traditions, components and development of Theatre and dramatic arts from the earliest times to the 21st century.

Outcomes: Information and communication technology knowledge and skills; Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Entrepreneurship and employability skills; Research skills and information literacy; Cross-cultural fluency; Accountability and ethical standards.

Mode of Assessment 40% coursework  
60% Written exam

#### THEATRE IN BOTSWANA LEVEL 1 [CORE] 3 CREDITS

This introductory course offers a composite coverage of the socio-historical contexts and philosophical bases of drama, performance and Theatre practices and traditions in Botswana looking at indigenous performances and Theatre practices, colonial and postcolonial literary drama and Theatre in Botswana.

Outcomes: Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Research skills and information literacy; and Cross-cultural fluency.

Mode of Assessment 40% coursework  
60% Written exam

#### WORKSHOP THEATRE LEVEL 1 [OPTIONAL] 6 CREDITS

An introduction to the paradigm shifts from conventional to the actor, dancer and musician's Theatre. The course is geared towards nurturing the talents of emerging Theatre practitioners and to focus the students' natural sense of play on the creative process of Theatre. This course will enable students to understand the concepts techniques used in the devising plays, and facilitation of community-Theatre. Students will acquire workshoping skills in creating independent plays, while providing them with



fresh insights into collaborative and ensemble playing.

Outcomes: Information and communication technology knowledge and skills; Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Communication skills; Entrepreneurship and employability skills; Organizational and teamwork skills; Research skills and information literacy; Social responsibility and leadership skills; Interpersonal skills; Cross-cultural fluency; Accountability and ethical standards.

Mode of Assessment 30% coursework  
70% exam

### **ACTING, MOVEMENT AND MIME I LEVEL 2 [OPTIONAL] 3 CREDITS**

This course offers a critical and creative introduction to acting, movement and mime for the stage. The course, devoted to the development of the physical instrument of the actor [the body], will include basic physical, vocal, imaginative skills, miming skills, and development of general stage movement for the beginning actor.

Outcomes: Information and communication technology knowledge and skills; Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Communication skills; Entrepreneurship and employability skills; Organizational and teamwork skills; Research skills and information literacy; Cross-cultural fluency; Accountability and ethical standards.

Mode of Assessment 30% coursework  
70% Practical exam

### **DESIGN AND TECHNICAL THEATRE I LEVEL 2 [OPTIONAL] 3 CREDITS**

An introduction to the techniques involved in costume, light, set, and sound designing for the Theatre. Productions currently being presented at the University will serve as the sources for study.

Outcomes: Information and communication technology knowledge and skills; Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Entrepreneurship and employability skills; Organizational and teamwork skills; Research skills and information literacy; Interpersonal skills; Cross-cultural fluency.

Mode of Assessment 30% coursework  
70% Practical exam.

**PLAYWRITING LEVEL 2 [OPTIONAL] 3 CREDITS**  
Principles of playwriting will be taught through practices. Development of techniques required for dramatic stage scripts include original writing and adaptations with emphasis on play construction, character development, dialogue, and mood.

Outcomes: Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Communication skills; Entrepreneurship and employability skills; skills and information literacy; Cross-cultural fluency;

Accountability and ethical standards.

Mode of Assessment 30% coursework  
70% Exam [original one-act play]

### **PRODUCTION WORKSHOP I LEVEL 2 [OPTIONAL] 6 CREDITS**

This intensive workshop course introduces students to the processes of working with scripted a play and preparing the play for performance. Students will engage in text analysis, social research, creative interpretation, rehearsals and then performance. This is a course for performers, designers, and directors.

Outcomes: Information and communication technology knowledge and skills; Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Communication skills; Entrepreneurship and employability skills; Organizational and teamwork skills; Research skills and information literacy; Social responsibility and leadership skills; Interpersonal skills; Cross-cultural fluency; Accountability and ethical standards.

Mode of Assessment 30% coursework  
70% Practical exam

### **THEATRE HISTORY I [1642-1800] LEVEL 2 [OPTIONAL] 3 CREDITS**

This is a follow-up on the Theatre History course in Level I. this course specifically tracks the historical development of British Theatre and drama from the Middle Ages to 1800, the Spanish Theatre to 1700, and Theatre in France 1500-1700.

Outcomes: Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Communication skills; Entrepreneurship and employability skills; Research skills and information literacy; Cross-cultural fluency; Accountability and ethical standards.

Mode of Assessment 40% coursework  
60% Written exam

### **THEATRE IN AFRICA LEVEL 2 [CORE] 3 CREDITS**

This course explores the nexus between history, culture and identity in African performance. The course raises questions about representation and the production of theatrical knowledge within and across African cultures. While play-texts dealing with cultural practices, history, politics, religion and social problems plaguing the African continent will be studied, in-depth historical and sociological studies of indigenous forms of drama in Africa will also be surveyed.

Outcomes: Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Communication skills; Entrepreneurship and employability skills; Research skills and information literacy; Interpersonal skills; and Cross-cultural fluency.

Mode of Assessment 40% coursework  
60% Written exam

### **THEATRE IN BOTSWANA [POPULAR THEATRE] LEVEL 2 [CORE] 3 CREDITS**

This course is a continuation of Theatre in Botswana at Level 1. The course will now take a more detailed look at popular performances and Theatre-for-Development in Botswana.

Outcomes: Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Communication skills; Research skills and information literacy; Interpersonal skills; and Cross-cultural fluency.

Mode of Assessment 40% coursework  
60% Written exam

### **ACTING, MOVEMENT AND MIME II LEVEL 3 [OPTIONAL] 3 CREDITS: PREREQUISITE: ACTING, MOVEMENT AND MIME I**

A more advanced course on acting, movement, and mime for the stage. This course continues development of skills acquired in Acting, Movement and Mime I. Helps students develop believable characters while working on acting, movement and mime exercises and duet scenes from contemporary dramatic literature. This is a course for actors, dancers and physical performers and as such will uncover a performer's physical personality and presence on stage, to prepare work using the body as an intuitive and symbolizing instrument. Students taking this course will also explore Physical Theatre forms and approaches.

Outcomes: Information and communication technology knowledge and skills; Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Communication skills; Entrepreneurship and employability skills; Organizational and teamwork skills; Research skills and information literacy; Interpersonal skills; and Cross-cultural fluency.

Mode of Assessment 30% coursework  
70% Practical exam

### **AMERICAN THEATRE [20-21st CENTURY] LEVEL 3 [CORE] 3 CREDITS**

This course focuses on the development of the American Theatre from the 20th to the 21st century, paying attention to the changing conditions of the Theatre in the United States and other American nations. Topics include black Theatre, women's Theatre, off-Broadway and Minority Theatre. It examines the plays as theatrical experiences to such aspects as staging, acting, lighting and music and the responses of American drama to changing social and political thought in the Americas.

Outcomes: Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Entrepreneurship and employability skills; Research skills and information Interpersonal skills; and Cross-cultural fluency.

Mode of Assessment 40% coursework  
60% Written exam

### **DESIGN AND TECHNICAL THEATRE II LEVEL 3 [OPTIONAL] 3 CREDITS**





This course is a follow-up to Design and Technical Theatre I. In this course the techniques involved in costume, light, set, and sound designing for the Theatre are taken to a higher level. Productions currently being presented at the University will serve as the sources for study. Outcomes: Information and communication technology knowledge and skills; Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Communication skills; Entrepreneurship and employability skills; Organizational and teamwork skills; Research skills and information literacy; Interpersonal skills; and Cross-cultural fluency.

Mode of Assessment 30% coursework  
70% Practical exam

### **DIRECTING I LEVEL 3 [CORE] 6 CREDITS**

This is an introductory practical course in directing plays and an analysis of skill and role of the director. The course will explore script analysis, casting, staging, space, composition, movement, picturization, rhythm and tempo of actors, and scripts. Special emphasis will be on directing the one-act play.

Outcomes: Information and communication technology knowledge and skills; Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Communication skills; Entrepreneurship and employability skills; Organizational and teamwork skills; Research skills and information literacy; Social responsibility and leadership skills; Interpersonal skills; Cross-cultural fluency; Accountability and ethical standards.

Mode of Assessment 30% coursework  
70% Practical exam

### **DRAMATIC LITERATURE [AFRICA] LEVEL 3 [OPTIONAL] 3 CREDITS**

This course focuses on the history and development of drama in Africa. Dramatic literature refers to the texts of plays that can be read, as distinct from being seen and heard in performance. Therefore, drama will be studied primarily as a literary form but attention will also be given to placing the drama in the Theatre and cultural milieu from which it developed. Authors to be studied will include, for instance, Soyinka, J.P. Clark, Wilde, Shaw, Aidoo, Fugard etc.

Outcomes: Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Entrepreneurship and employability skills; Research skills and information literacy; and Cross-cultural fluency.

Mode of Assessment 40% coursework  
60% Practical exam

### **PLAY BACK THEATRE LEVEL 3 [OPTIONAL] 3 CREDITS**

This course will place Playback Theatre in a literary and historical context as a modern development of oral traditional ceremonial ritual. Students will learn about stories and how they work; about the history of the approach and its

comparison to Theatre of the oppressed, Theatre for development, and other forms of interactive Theatre; and about the underlying theories of respect for persons and positive social change on which it is based. The basic forms of Playback Theatre will be taught experientially, and students will practice the roles of actor, musician, conductor, and teller. Also introduced will be the group dynamics necessary for successful encounters with community audiences.

Outcomes: Information and communication technology knowledge and skills; Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Communication skills; Entrepreneurship and employability skills; Organizational and teamwork skills; Research skills and information literacy; Social responsibility and leadership skills; Interpersonal skills; Cross-cultural fluency; Accountability and ethical standards.

Mode of Assessment 30% coursework  
70% Practical exam

### **PLAYWRITING II LEVEL 3 [OPTIONAL] 3 CREDITS**

This course continues, at an advanced level, the playwriting course in Level 2. At this level the techniques of writing other forms such as Film, Radio and TV scripts will be added to the course. Students will be expected to write a short play loosely based on an existing classic from which they write their own – fresh, relevant and personal – new, full-length play. The idea behind this approach is two-fold. Firstly, it gives the writers a sense of complete creative freedom, along with the security of a failsafe structure. Secondly, through the deep investigation of a classic work, the writers absorb an understanding of how all the elements of drama are effectively employed.

Outcomes: Information and communication technology knowledge and skills; Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Communication skills; Entrepreneurship and employability skills; Research skills and information literacy; and Cross-cultural fluency.

Mode of Assessment 30% coursework  
70% Exam [original multi-scene play]

### **STAGE MANAGEMENT LEVEL 3 [CORE] 3 CREDITS**

This course deals with the techniques and conventions commonly in use for staging the production, planning, rehearsals, coordinating, technical requirements, and professional standards expected in staging a production.

Outcomes: Information and communication technology knowledge and skills; Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Communication skills; Entrepreneurship and employability skills; Organizational and teamwork skills; Research skills and information literacy; Social responsibility and leadership skills; Interpersonal skills; Cross-cultural fluency; Accountability and ethical standards.

Mode of Assessment  
30% coursework 70% Practical exam

### **THEATRE ETHICS LEVEL 3 [CORE] 3 CREDITS**

This course will examine a series of contemporary plays and Theatre productions in relation to the ethics of representation. It will explore the writer's or the director's responsibilities in staging the self and the other in Theatre and the strategies they adopt to highlight and problematize this process. By combining theoretical, textual and performance analysis, the course will engage with debates surrounding, for instance, alterity, community research, consent, cultural and autobiographical memory, defamation, intellectual property rights, representation of violence, sexuality, and trauma in Theatre. The course will also look at concepts such as meta-Theatre and the role of the author in the Theatre text as well as practices that aim to embody ethical positions in and through performance. Theatre Ethics will combine the pleasure and excitement of attending live Theatre, with the challenge of exploring and discussing the principles that frame moral choice.

Outcomes: Critical and creative thinking skills; Problem-solving skills; Communication skills; Entrepreneurship and employability skills; Research skills and information literacy; Interpersonal skills; Cross-cultural fluency; Accountability and ethical standards

Mode of Assessment 70% coursework  
30% exam

### **THEATRE HISTORY: EUROPE LEVEL 3 [OPTIONAL] 3 CREDITS**

This course surveys the heritage and beginning of modern European drama, investigating significant movements and key personalities in Theatre practice from 1875-1915. This course will provide a theoretical base for the exploration, as well as providing a conceptual framework for Theatre research in modern European drama.

Outcomes: Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Communication skills; Entrepreneurship and employability skills; Research skills and information literacy; and Cross-cultural fluency.

Mode of Assessment 40% coursework  
60% Written exam

### **THEATRE IN AFRICA II LEVEL 3 [OPTIONAL] 3 CREDITS**

This course is an extension of Theatre in Africa I. The course seeks to imbue students with knowledge of drama, thematic concerns, and theatrical practices [performance mode and styles] as they obtain in West and East Africa from pre-colonial days to the present. Play-texts which explore African problems from the colonial period to the present will be studied.

Outcomes: Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Entrepreneurship and employability

skills; Research skills and information literacy; and Cross-cultural fluency.

Mode of Assessment 40% coursework  
60% Written exam

### **THEATRE IN BOTSWANA [THEATRE AND THE MASS MEDIA] LEVEL 3 [OPTIONAL] 3 CREDITS**

The focus of this course will be contemporary Theatre in Botswana, taking particular look at Botswana Theatre and the mass media - television drama; video drama/movie.

Outcomes: Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Entrepreneurship and employability skills; Research skills and information literacy; and Cross-cultural fluency.

Mode of Assessment 40% coursework  
60% Written exam

### **ACTING, MOVEMENT AND MIME III LEVEL 4 [OPTIONAL] 3 CREDITS: PREREQUISITE: ACTING, MOVEMENT AND MIME II**

A much more advanced course on acting, movement, and mime for the stage. This course continues development of skills acquired in Acting, Movement and Mime II. Helps students develop believable characters while working on acting, movement and mime exercises and duet scenes from contemporary dramatic literature. The students offering this course will form the core of actors for students offering Advanced Directing.

Outcomes: Information and communication technology knowledge and skills; Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Communication skills; Entrepreneurship and employability skills; Organizational and teamwork skills; Research skills and information literacy; Social responsibility and leadership skills; Interpersonal skills; Cross-cultural fluency; Accountability and ethical standards.

Mode of Assessment 30% coursework  
70% Practical exam

### **ADVANCED DIRECTING LEVEL 4 [OPTIONAL] 6 CREDITS**

This course is an advanced exploration of the directing process. This course is the principal training forum for the directing specialization. It is a rigorous practicum that hones the vision of each student-director. Each directing student will analyze a play script to uncover dramatic events, beats, dramatic structure, spine or through-line, and inciting incident which will culminate in the performance of a full-length play by each student offering this course.

Outcomes: Information and communication technology knowledge and skills; Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Communication skills; Entrepreneurship and employability skills; Organizational and

teamwork skills; Research skills and information literacy; Social responsibility and leadership skills; Interpersonal skills; Cross-cultural fluency; Accountability and ethical standards.

Mode of Assessment 30% coursework  
70% Practical exam

### **DESIGN AND TECHNICAL THEATRE III LEVEL 4 [OPTIONAL] 3 CREDITS**

A study of the technical aspects of Theatre including set, properties construction, scene designing and painting, costumes construction, lights and sound design at an much advanced level. This course will also include script analysis, the creation of floor plans, elevated drawings of stage sets, construction of a stage model, lighting plot, phases of costume design, analysis of characters, and period research. Students specialize in one of the following areas: costume/make-up, lighting, or set design. Each specialization offers students an opportunity to receive an advanced hands-on training and contribute to a range of staged theatrical productions.

Outcomes: Information and communication technology knowledge and skills; Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Communication skills; Entrepreneurship and employability skills; Organizational and teamwork skills; Research skills and information literacy; Social responsibility and leadership skills; Interpersonal skills; Cross-cultural fluency; Accountability and ethical standards.

Mode of Assessment 30% coursework  
70% Practical exam

### **DRAMA-IN-EDUCATION LEVEL 4 [OPTIONAL] 3 CREDITS**

This course introduces Drama-in-Education as a methodology for learning. It enables communication between individuals exploring person to person experiences. Drama brings people in touch with play, improvisation, group interaction, role play and creative problem solving. While the Drama-in-Education course will consist mainly of practical and experiential work, there will also be an important theoretical aspect included.

Outcomes: Information and communication technology knowledge and skills; Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Communication skills; Entrepreneurship and employability skills; Organizational and teamwork skills; Research skills and information literacy; Social responsibility and leadership skills; Interpersonal skills; Cross-cultural fluency; Accountability and ethical standards.

Mode of Assessment 30% coursework  
70% Practical exam

### **DRAMATIC LITERATURE II [EUROPE] LEVEL 4 [OPTIONAL] 3 CREDITS**

This course is a continuation of the introductory

work done in third year at an advanced level. This course will entail detailed study of dramatists and play texts. Among the dramatists to be studied will be Aeschylus, Sophocles, Euripides, Menander, Seneca, the Wakefield Master, Marlowe, Shakespeare, Ben Jonson, Lope de Vega, Moliere, Racine, Dryden, and Congreve.

Outcomes: Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Entrepreneurship and employability skills; Research skills and information literacy; and Cross-cultural fluency.

Mode of Assessment 40% coursework  
60% Practical exam

### **PLAYWRITING III LEVEL 4 [OPTIONAL] 3 CREDITS**

In Playwriting III [Advanced playwriting] each student is expected to produce a full-length play of any style. This course is for the student who has developed experience in creating a narrative presentation, this course will further the study of the dramatic structure of short and full length plays, screenplays, and teleplays. This course focuses on the writing of an original full-length play.

Outcomes: Information and communication technology knowledge and skills; Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Communication skills; Entrepreneurship and employability skills; Research skills and information literacy; and Cross-cultural fluency.

Mode of Assessment 30% coursework  
70% Exam [original multi-scene play]

### **SENIOR PROJECT LEVEL 4 [CORE] 6 CREDITS**

In this course each student majoring in Theatre will write a proposal on any chosen topic on any of the major areas of Theatre. After writing the proposal students can then either choose to carry out a practical project on the topic, or complete a full-length essay on the topic.

Outcomes: Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Information and communication technology knowledge and skills; Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Communication skills; Entrepreneurship and employability skills; Research skills and information literacy; Social responsibility and leadership skills; Interpersonal skills; Cross-cultural fluency; Accountability and ethical standards.

Mode of Assessment 100% coursework

### **THEATRE ADMINISTRATION LEVEL 4 [OPTIONAL] 3 CREDITS**

This course is designed to study the tools of Theatre management and producing, box office, price and percentages, publicity, pro-motion, and production costs, and dealing with publishers and agencies. Regional Theatre problems are analyzed. This course will, therefore, focus on the



business of Theatre, administration, budgeting, feasibility studies, funding, publicity/promotion, master scheduling, and event handling.

Outcomes: Information and communication technology knowledge and skills; Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Communication skills; Entrepreneurship and employability skills; Organizational and teamwork skills; Research skills and information literacy; Social responsibility and leadership skills; Interpersonal skills; Cross-cultural fluency; Accountability and ethical standards.

Mode of Assessment 30% coursework  
70% Practical exam

#### **THEATRE AND SOCIETY IN AFRICA [SPECIAL AUTHOR] LEVEL 4 [OPTIONAL] 3 CREDITS**

This course provides the students the opportunity of studying in depth the work of a particular African author. The author, content bibliography and mode of teaching this course will be determined from time to time as circumstances allow. The study of such an author affords the students the opportunity of also surveying the role of African Theatre and playwrights in their engagement with the nagging problems of the environment and cultural super-structures, including econo-political conditions in African societies. This course responds to the growing awareness of the contributions, and impact of Theatre on African societies and arms students with the tools of theatrical/dramatic criticism of society.

Outcomes: Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Communication skills; Entrepreneurship and employability skills; Research skills and information literacy; and Cross-cultural fluency.

Mode of Assessment 40% coursework  
60% Written exam

#### **THEATRE AND TOURISM LEVEL 4 [OPTIONAL] 3 CREDITS**

This course will focus on the role of Theatre in promoting tourism in Botswana by exploring ways of matching tourists' actual experiences of the destination with the image and expectations created by the Theatre. This course will also explore not only issues of basic satisfaction, but also of authenticity, changes in culture, heritage interpretation, and presentation. This course will involve the students working with communities to produce plays or devising plays for communities.

Outcomes: Information and communication technology knowledge and skills; Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Communication skills; Entrepreneurship and employability skills; Organizational and teamwork skills; Research skills and information literacy; Social responsibility and leadership

skills; Interpersonal skills; Cross-cultural fluency; Accountability and ethical standards.

Mode of Assessment 60% coursework  
40% Practical exam

#### **THEATRE ATTACHMENT LEVEL 3 [CORE] 3 CREDITS**

A one month internship in a Theatre company during which the student observes and becomes familiar with Theatre organization and participates in work practices.

Outcomes: Information and communication technology knowledge and skills; Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Communication skills; Entrepreneurship and employability skills; Organizational and teamwork skills; Research skills and information literacy; Social responsibility and leadership skills; Interpersonal skills; Cross-cultural fluency; Accountability and ethical standards.

Mode of Assessment 100% coursework

#### **THEATRE-FOR-DEVELOPMENT LEVEL 4 [OPTIONAL] 6 CREDITS**

This course introduces students to the concept of Theatre as an instrument of conscientization and empowerment for the socially deprived communities. In this course, Theatre will be approached an agent of integrated rural development used as a method for non-formal adult education in rural and marginalized areas. The course will enable students to perceive the relationship between popular Theatre and non-formal education as it will be anchored on the grassroots approach to education and development. The course will also train students to become catalysts and participants in rural development.

Outcomes: Information and communication technology knowledge and skills; Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Communication skills; Entrepreneurship and employability skills; Organizational and teamwork skills; Research skills and information literacy; Social responsibility and leadership skills; Interpersonal skills; Cross-cultural fluency; Accountability and ethical standards.

Mode of Assessment 30% coursework  
70% Practical exam

#### **THEATRE HISTORY: ASIA LEVEL 4 [OPTIONAL] 3 CREDITS**

This course will explore the history and origins of the major forms of Asian Theatre, performance and production style and practices of both the traditional Asian Theatre and the contemporary theatrical trends and influences with the objective of exposing students to, and broadening their appreciation of, the theatrical arts of Asia. This course will also identify the similarities and the differences between the various Asian theatrical forms, and explore the influences of western

style Theatre on Asian theatrical practices, and the significant influences of Asian Theatre on the west.

Outcomes: Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Communication skills; Entrepreneurship and employability skills; Research skills and information literacy; Social responsibility and leadership skills; Interpersonal skills; and Cross-cultural fluency.

Mode of Assessment 40% coursework  
60% Practical exam

#### **THEORIES OF MODERN DRAMA [1920-PRESENT] LEVEL 4 [OPTIONAL] 3 CREDITS**

The course involves the study of the major modern theories and developments that have shaped the Twentieth Century Theatre from 1920 to the present. Students will be trained to become familiar with modern and experimental developments of Theatre and drama.

Outcomes: Self-directed, lifelong learning skills; Critical and creative thinking skills; Problem-solving skills; Entrepreneurship and employability skills; Research skills and information literacy; and Cross-cultural fluency.

Mode of Assessment 40% coursework  
60% Written exam

# Faculty of SCIENCE

BIOLOGICAL SCIENCES

CHEMISTRY

COMPUTER SCIENCE

ENVIRONMENTAL SCIENCE

MATHEMATICS

## DEAN

Prof. M. P. Modisi, BSc (Ibadan), M.S. (South Dakota School of Mines and Tech.) PhD (McMaster)

## DEPUTY DEAN

Prof. B. Moseki, BSc (UB), MPhil (Aberdeen), PhD (Essex)

## FACULTY ADMINISTRATOR

L.M. Paledi, BA, MPA (UB)

## MANAGER, HR

P.G. Morapedi, BA + PGDE (UB), MSc (Hr+ER) (Brunel University)





## DEPARTMENT OF BIOLOGICAL SCIENCES

Bachelor of Science (Biological Sciences)

### General Provisions

Subject to the provisions of the General Academic Regulations and the Faculty of Science Special Regulations, the following Departmental Regulations shall apply.

### Programmes and Titles of Degrees

The Department of Biological Sciences offers the following programmes leading to the award of the mentioned degrees:

(i) Single Major programme leading to the award of the degree of Bachelor of Science (Biological Sciences, Single Major); B.Sc. (Biological Sciences).

(ii) Combined degree (Major/Minor) programme with Biological Sciences as the Major leading to the award of the degree of Bachelor of Science (B.Sc.).

(iii) Combined degree (Major/Major) programme with Biological Sciences and another Science subject leading to the award of the degree of Bachelor of Science (B.Sc.).

(iv) Combined degree (Minor/Major) programme with Biological Sciences as the Minor leading to the award of the degree of Bachelor of Science (B.Sc.).

### Entrance Requirements

Admission to the Biological Sciences shall be as specified in the Faculty of Science Special Regulations. Entrance requirements specific to particular programmes shall be as specified under the specific programmes below.

### Structure of the Programme

The Department of Biological Sciences shall:

(i) Offer courses at levels 100 to 400 for the undergraduate programme

(ii) From time to time, design and offer courses for specific needs of other Departments in the University provided there are no suitable courses already on offer.

(iii) Contribute to General Education Courses

offered through the Faculty of Science.

(iv) Offer a Single Major Degree programme as per Departmental Special Regulations 2.1.

(v) Offer a Combined Degree Major/Minor programme as per Departmental Special Regulations 2.2.

(vi) Offer a Combined Degree Major/Major programme as per Departmental Special Regulations 2.3.

(vii) Offer a Combined Degree Minor/Major programme as per Departmental Special Regulations 2.4.

### SINGLE MAJOR (Biological Sciences)

To be admitted into the Single Major (Biological Sciences) programme, a student must have obtained at least Grade C (GPA: 2.5) in both BIO111 and BIO112.

### Semesters 1 and 2

All students who wish to pursue the Biological Sciences programme as Single Major should, in addition to BIO111 and BIO112, take CHE101 and CHE102.

### Semesters 3 and 4

Students must take BIO211, BIO214, BIO217 and BIO218 in Semester 3. Students must take BIO212, BIO213, BIO215 and BIO216 in Semester 4. The following courses are offered in both semesters: BIO211, BIO212 & BIO216. Students are also advised to take as electives CHE211 & CHE213 (Analytical Chemistry), CHE232 & CHE234 (Organic Chemistry) and CHE242 & CHE244 (Physical Chemistry).

### Semesters 5 and 6

Students must take BIO301, BIO307 and at least two Optional Courses in Semester 5. Students must take BIO306, BIO308 and at least two Optional Courses in Semester 6.

### Semesters 7 and 8

Students must take BIO453 and at least 3 Optional Courses in semester 7. Students must take BIO454 and at least 3 Optional Courses in semester 8.

### Level, Semester & Core Courses

All courses are worth 3 credits each except BIO111, BIO112 and BIO454 (worth 4 credits each) and BIO453 (which is worth 2 credits). Students

who wish to pursue Single Major, Major/Minor or Major/Major in Biological Sciences must take and pass BIO111 & BIO112.

### Semester 1

**BIO111** Principles of Biology (pre-req. to Single Major, Major/Minor and Major/Major) (4)

**BIO122** Anatomy, Physiology and Biochemistry (3)

### Semester 2

**BIO112** Diversity of Animals and Plants (pre-req. to Single Major, Major/Minor and Major/Major) (4)

**BIO120** Introductory Biochemistry (3)

**BIO123** Introduction to Microbiology and Stored Products Entomology

### Semester 3

**BIO211** Cell Biology (pre-req. to BIO307) (3) (also offered in sem.4)

**BIO212** Genetics (pre-req. to BIO308) (3) (also offered in sem.4)

**BIO214** Intro. to Mammalian Physiology (pre-req. to BIO317) (3)

**BIO216** General Microbiology (pre-req. to BIO309, BIO310, BIO312, BIO416, BIO418, BIO419, BIO420, BIO436) (3) (also offered in sem.4)

**BIO217** Animal Diversity (pre-req. to BIO315) (3)

**BIO218** Biology of Flowering Plants (3)

**BIO223** Parasitology for Health Sciences (3)

**BIO231** Human Anatomy (3)

### Semester 4

**BIO211** Cell Biology (3) (also offered in sem.3)

**BIO212** Genetics (3) (also offered in sem.3)

**BIO213** Plant Structure and Function (pre-req. to BIO316) (3)

**BIO215** Principles of Ecology (pre-req. to BIO313, BIO314, BIO408, BIO409, BIO411, BIO412, BIO426, BIO429, BIO434) (3)

**BIO216** General Microbiology (pre-req. to BIO309, BIO310, BIO312, BIO416, BIO418, BIO419, BIO420, BIO436) (3) (also offered in sem.3)

**BIO225** Human Physiology and the Environment (3)

**BIO232** Human Physiology (3)



### Semester 5

<b>BIO301</b>	Quantitative Biology (3)
<b>BIO307</b>	Biochemistry (pre-req. to BIO417) (3)
<b>BIO309</b>	Mycology (pre-req. BIO216) (3)
<b>BIO313</b>	Dynamics of Savannah Ecosystems (pre-req. BIO215) (3)
<b>BIO315</b>	Invertebrate Zoology (3)
<b>BIO316</b>	Plant Physiology (pre-req. BIO213) (3)
<b>BIO317</b>	Comparative Vertebrate Physiology (pre-req. to BIO214) (3)

### Semester 6

<b>BIO305</b>	Insect Pest/Vector Control (3)
<b>BIO306</b>	Developmental Biology (3)
<b>BIO308</b>	Molecular Biology (pre-req. to BIO417) (3)
<b>BIO310</b>	Bacteriology (pre-req. BIO216) (3)
<b>BIO311</b>	Plant Systematics (3)
<b>BIO312</b>	Virology (pre-req. BIO216) (3)
<b>BIO314</b>	Conservation Biology (pre-req. BIO215) (3)
<b>BIO318</b>	Chordates (3)

### Semester 7

<b>BIO403</b>	Applied Botany (3)
<b>BIO409</b>	Life History Strategies (pre-req. BIO215) (3)
<b>BIO412</b>	Aquatic Biology (pre-req. BIO215) (3)
<b>BIO417</b>	Biotechnology (pre-req. BIO307 & BIO308) (3)
<b>BIO419</b>	Medical Microbiology (pre-req. BIO216) (3)
<b>BIO421</b>	Entomology (3)
<b>BIO423</b>	Exercise Physiology (3)
<b>BIO425</b>	Parasitology (3)
<b>BIO427</b>	Evolution (3)
<b>BIO431</b>	Plant Responses to Environmental Stress (3)
<b>BIO432</b>	Plant Tissue Culture (3)
<b>BIO436</b>	Environmental Microbiology (pre-req. BIO216) (3)
<b>BIO437</b>	Micro techniques in Biology (3)
<b>BIO453</b>	Research Proposal Writing BIO 453 (2)

### Semester 8

<b>BIO408</b>	Wildlife Biology of Southern Africa (pre-req. BIO215) (3)
<b>BIO411</b>	Wetlands Ecology and Management (pre-req. BIO215) (3)
<b>BIO416</b>	Immunology (pre-req. BIO216) (3)
<b>BIO418</b>	Food Microbiology (pre-req. BIO216) (3)

<b>BIO420</b>	Plant Pathology (pre-req. BIO216) (3)
<b>BIO422</b>	Applied Entomology (pre-req. BIO315 or BIO421) (3)
<b>BIO424</b>	Vertebrate Structure (3)
<b>BIO426</b>	Behavioural Ecology (pre-req. BIO215) (3)
<b>BIO429</b>	Ecological Impact Assessment (pre-req. BIO215) (3)
<b>BIO430</b>	Post-harvest Physiology (3)
<b>BIO434</b>	Plant Ecology (pre-req. BIO215) (3)
<b>BIO454</b>	Research Project BIO 454 (4)

### Bachelor of Education (B.Ed) Degree

B.Ed students can take any of the courses in Biological Sciences as prescribed by the Faculty of Education as long as they satisfy course pre-req.

### Service Courses

#### Bachelor of Environmental Health

<b>BIO225</b>	Human Physiology and the Environment (3)
<b>BIO305</b>	Insect Pest/Vector Control (3)

### Bachelor of Nursing Education

<b>BIO120</b>	Introductory Biochemistry (3)
<b>BIO223</b>	Parasitology for Health Sciences (3)
<b>BIO231</b>	Human Anatomy (3)
<b>BIO232</b>	Human Physiology (3)

### Home Economics Education

Courses for the Bachelor of Education in Home Economics Education shall be specified by the Department of Home Economics. Two such courses are:

<b>BIO122</b>	Anatomy, Physiology and Biochemistry (3)
<b>BIO123</b>	Introduction to Microbiology and Stored Products Entomology

### Assessment

(a) All courses except BIO453 & BIO454 shall normally (unless otherwise stated) be assessed on the basis of continuous assessment and one final examination in the ratio of 2:3 (CA:Exam). Continuous Assessment shall be comprised of at least one written test, one practical and one assignment.

(b) There shall be no written examination in BIO450. The course shall be assessed as follows: Project Proposal (including proposal seminar presentation) 20%, Experimental Work 10%, Final Seminar Presentation 15% and Final Report

55%.

### Progression from Semester to Semester

Progression from semester to semester shall be as specified in Faculty Regulations 23.6 and General Regulations 00.92.

### Award of a Degree

To be awarded a degree, a student must satisfy requirements set in Faculty Regulations 23.7 and General Academic Regulations 00.851

## DEPARTMENT OF CHEMISTRY

### Departmental Regulations for Undergraduate Courses

The Department has a curriculum that will enable undergraduates to qualify for a Bachelors Degree in the single subject of Chemistry, and a Bachelors Degree with a Major in Chemistry and a Major or a Minor in one other Science subject. The Department also offers a Minor programme in Chemistry. The Department offers the following programmes:

- Single Major programme leading to a Bachelor of Science Degree in Chemistry
- A Combined Degree with a Major in Chemistry and a Major or Minor in another Science subject leading to a Combined Bachelor of Science Degree

### 1.1 Entry Requirements

To enter into any of the Chemistry programmes, in addition to fulfilling the faculty requirements for progression from Year One to Year Two, students must also have the following:

(a) For entry into the SINGLE MAJOR PROGRAMME, a student must obtain a minimum of C+ average in the level 200 chemistry courses including lab courses with no less than a C grade in any of these courses.

(b) For entry into the CHEMISTRY MAJOR/MAJOR PROGRAMME, a student must obtain a minimum of C average in the level 200 chemistry courses including lab courses with no less than a C-grade in any of these courses.

### 1.2 Programme Outlines and Structures

#### (a) Common First Year Programme

Two general Chemistry courses, CHE101 and CHE102, each consisting of 3-credit lectures and a 1-credit lab, will be offered to the common



programme for first year Science students.

**(b) Single Major Programme ( Entry to single major programme is by application to HOD)**

In the Single Major programme, students take 85 credits of core courses, 20 credits of General Education courses, and will have opportunities to select more credits from a range of optional and elective courses. Eleven (11) credits of each of Mathematics and Physics courses, are included in the core credits.

**(c) Combined Degree Programme (Chemistry Major)**

Students in the Combined Degree programme with a Major in Chemistry, in addition to the 34 credits taken in Year One, must complete a minimum of 47 credits in Chemistry, a minimum of 3 credits each in Mathematics and Physics, and 12 credits in General Education courses. Students must also meet the requirements for the second Major or Minor as specified by the appropriate department.

**(d) Combined Degree (Major/ Minor) Programme (Chemistry Minor)**

Students in the Combined Degree (Major/ Minor) programme with a Minor in Chemistry, in addition to the 34 credits taken in Year One, must complete 18 credits in Chemistry core courses consisting of 12 core credits in Year Two, 4 core credits in Year Three, and 2 credits of Year Three practicals.

**COMMON FIRST YEAR PROGRAMME**

**Semester 1**

<b>CHE101</b>	General Chemistry I (4 credits)
<b>MAT111</b>	Introductory Mathematics I (4 credits)
<b>PHY112</b>	Geometrical optics and Mechanics, Vibrations and Waves (4 credits)
<b>GEC141</b>	Introduction to Communication and Academic Literacy Skills (Science) (3)
<b>ICT121</b>	Computing Skills Fundamentals 1 (2)

**Service Courses**

<b>CHE107</b>	Chemistry Applied to Home Economics (3 credits)
<b>CHE109</b>	Introductory Chemistry for BNS (3 credits)

**Recommended Electives**

<b>ECO111</b>	Basic Microeconomics (3 credits)
<b>MGT100</b>	Principles of Management (3 credits)

**Semester 2**

<b>CHE102</b>	General Chemistry II (4 credits) (Pre-req CHE101)
<b>MAT122</b>	Introductory Mathematics II (4 credits)
<b>PHY122</b>	Electricity, Magnetism and Elements of and Elements of Modern Physics (3 credits)
<b>GEC142</b>	Academic and Professional Communication (Science) (3)
<b>ICT122</b>	Computing Skills Fundamentals 2 (2)

**Recommended Electives**

<b>ACC100</b>	Introduction. to Accounting (3 credits)
<b>ECO112</b>	Basic Macroeconomics (3 credits)
<b>MKT100</b>	Principles of Marketing (3 credits)
<b>ICT122</b>	Computing Skills Fundamentals 2 (2)

**CHEMISTRY AS SINGLE MAJOR PROGRAMME**

**Semester 3**

**Core Courses**

<b>CHE211</b>	Introduction to Analytical Chemistry (2 credits) (Pre-req CHE 101 & CHE102)
<b>CHE213</b>	Analytical Chemistry Laboratory I (1 credit) (Pre - req CHE 101 & CHE 102 ; Co-req CHE211)
<b>CHE232</b>	Structure and Survey of Functional Groups I (2 credits) (Pre-req CHE 101 & CHE102)
<b>CHE234</b>	Organic Chem. Lab I (1 credit) (Pre-req CHE 232)
<b>MAT291</b>	Engineering Mathematics I (3 credits)
<b>PHY231</b>	Mechanics & Physical Optics (2 credits)
<b>PHY239</b>	Physics Practicals 2.1 (1 credit)

**Semester 4**

**Core Courses**

<b>CHE221</b>	Atomic Structure, Bonding and Main Group Chemistry (2 credits) (Pre-req CHE 101 & CHE102)
<b>CHE223</b>	Inorganic Chemistry Laboratory I (1 credit) (CHE 101 & CHE 102; Co-req CHE221)
<b>CHE242</b>	Introductory Physical Chemistry (2 credits) (Pre-req CHE 101 & CHE102, MAT122)
<b>CHE244</b>	Physical Chemistry Laboratory I (1 credit) (Pre-req CHE 101 & CHE 102 ; Co-req CHE242)

**Semester 5**

**Core Courses**

<b>CHE311</b>	Separation Techniques (3 credits) (Pre-req CHE211)
<b>CHE321</b>	Coordination Chemistry (2 credits) (Pre-req CHE221)
<b>CHE323</b>	Inorganic Chemistry Laboratory II (1 credit) (Pre req CHE 223 ; Co-req CHE321)
<b>CHE331</b>	Structure and Survey of Functional Groups II (3 credits) (Pre-req CHE232)
<b>CHE341</b>	Applications of Thermodynamic and Electrochemistry (2 credits) (Pre-req CHE 242)
<b>CHE343</b>	Physical Chemistry Laboratory II (1 credit) (Pre-req CHE242 & CHE 244)
<b>CHE351</b>	Chemical Informatics (1 credit)

**Recommended Electives**

<b>BIO307</b>	Biochemistry (3 credits)
<b>PHY353</b>	Mathematical Methods for Physical Sciences (3 credits)

**Semester 6**

<b>CHE312</b>	Analytic Spectroscopy (2 credits) (Pre-req CHE311)
<b>CHE314</b>	Analytical Chemistry Laboratory II (1 credit) (Pre-req CHE 311; Co req CHE 312)
<b>CHE322</b>	Group Theory and Organometallic Chemistry (3 credits) (Pre-req CHE321)
<b>CHE332</b>	Physical Organic Chemistry (2 credits) (Pre-req CHE232 & CHE 331)
<b>CHE334</b>	Organic Chemistry Laboratory II (1 credit) (Pre-req CHE234 & CHE 331)
<b>CHE342</b>	Quantum Chemistry & its Applications (3 credits) (Pre-req CHE242)
<b>CHE352</b>	Literature Project (1 credit) ((Pre-req CHE351+ all 200 level courses + at least one section at 300 level in which student intends to carry out the literature survey) (For Chemistry major only)

**Semester 7**

**Core Courses**

<b>CHE411</b>	Advanced Analytical Techniques (3 credits) (Pre-req CHE311& CHE312)
<b>CHE421</b>	Advanced Transition Metal

## FACULTY OF SCIENCE

- Chemistry (3 credits)  
(Pre-req CHE322)
- CHE431** Heterocyclic Chemistry, Synthetic Reactions and Design of Organic Synthesis (3 credits) (Pre-req CHE331 & CHE 332)
- CHE441** Advanced Physical Chemistry I (3 credits) (Pre-req CHE341)

Optional Courses: Take at least ONE course from the following

- CHE413** Advanced Analytical Chemistry Laboratory (2 credits) (Pre-req CHE311 & CHE312)
- CHE423** Advanced Inorganic Laboratory (2 credits) (Pre req CHE 323;Co-req CHE421)
- CHE433** Advanced Organic Chemistry Laboratory (2 credits) (Pre-req CHE334)
- CHE443** Physical Chemistry Laboratory III (2 credits) (Pre-req CHE343)
- CHE446** Special Topics in Physical Chemistry (2 credits) (Pre-req CHE341 & CHE342)

### Recommended Elective

- PHY472** Statistical Mechanics (3 credits)
- PHY 473** Solid State Physics (3 credits)

### Semester 8

#### Core Course

- CHE452** Student Research Project (3 credits) (Pre-req CHE352)

Optional Courses: Take at least 9 Credits from the following

- CHE412** Sample Handling & Biochemical Analysis (3 credits)-core (Pre-req CHE311&CHE312)
- CHE416** Environmental Chemistry (2 credits) (Pre-req CHE311 and CHE312 Co-req CHE412)
- CHE418** Special Topics in Analytical Chemistry (2 credits) (Pre-req CHE311 &CHE312)
- CHE422** Advanced Organo-metallic and Solid State Chemistry (3 credits) (Pre-req CHE322)
- CHE426** Special Topics in Inorganic Chemistry (2 credits) (Pre-req CHE322)
- CHE432** Secondary Metabolites and Biomolecules (3 credits) (Pre-req CHE331& CHE 432)
- CHE436** Special Topics in Organic Chemistry

- (2 credits) (Pre-req CHE331)
- CHE442** Advanced Physical Chemistry II (3 credits) (Pre-req CHE341)
- CHE470** Excited State Chemistry (2 credits)

### CHEMISTRY AS MAJOR SUBJECT IN COMBINED DEGREE

#### Semester 3

##### Core Courses

- CHE211** Introduction to Analytical Chemistry (2 credits) (Pre-req CHE 101 & CHE102)
- CHE213** Analytical Chemistry Laboratory I (1 credit) (Pre - req CHE 101 & CHE 102 ; Co-req CHE211)
- CHE232** Structure and Survey of Functional Groups I (2 credits) (Pre-req CHE 101 & CHE102)
- CHE234** Organic Chem. Lab I (1 credit) (Pre-req CHE 232)
- MAT291** Engineering Mathematics I (3 credits)
- PHY231** Mechanics & Physical Optics (2 credits)
- PHY239** Physics Practicals 2.1 (1 credit)

#### Semester 4

##### Core Courses

- CHE221** Atomic Structure, Bonding and Main Group Chemistry (2 credits) (Pre-req CHE 101 & CHE102)
- CHE223** Inorganic Chemistry Laboratory I (1 credit) (CHE 101 & CHE102 ; Co-req CHE221)
- CHE242** Introductory Physical Chemistry (2 credits) (Pre-req CHE 101 & CHE102, MAT122)
- CHE244** Physical Chemistry Laboratory I (1 credit) (Pre-req CHE 101 & CHE 102 ; Co-req CHE242)

#### Semester 5

##### Core Courses

- CHE311** Separation Techniques (3 credits) (Pre-req CHE211)
- CHE321** Coordination Chemistry (2 credits) (Pre-req CHE221)
- CHE323** Inorganic Chemistry Laboratory II (1 credits) (Pre - Req CHE 223;Co-req CHE321)
- CHE331** Structure and survey of functional groups II ( 3 credits) (Pre Req: CHE 232)
- CHE341** Applications of Thermodynamic and Electrochemistry (2 credits)

- (Pre-req CHE242)
- CHE343** Physical Chemistry Laboratory II (1 credit) (Pre-req CHE242 & CHE 244)
- CHE351** Chemical Informatics (1 credit)

### Recommended Electives

- BIO307** Biochemistry (3 credits)
- PHY353** Mathematical Methods of Physics I (2 credits)

### Semester 6

- CHE312** Analytic Spectroscopy (2 credits) (Pre-req CHE311)
- CHE314** Analytical Chemistry Laboratory II (1 credit) (Pre-req CHE311 Co req CHE 312)
- CHE322** Group Theory and Organometallic Chemistry (3 credits) (Pre-req CHE321)
- CHE332** Physical Organic Chemistry (2 credits) (Pre-req CHE232 & CHE 331)
- CHE334** Organic Chemistry Laboratory II (1 credit) (Pre-req CHE234 & CHE331)
- CHE352** Literature Project (1 credit) ((Pre-req CHE351+ all 200 level courses + at least one section at 300 level in which student intends to carry out the literature survey) (For Chemistry major only)

### Semester 7

#### Core Course

Optional Courses: Take at least 6 Credits from the following

- CHE411** Advanced Analytical Techniques (3 credits) (Pre-req CHE311 & CHE312)
- CHE421** Advanced Transition Metal Chemistry (3 credits) (Pre-req CHE322)
- CHE431** Heterocyclic Chemistry, Synthetic Reactions and Design of Organic Synthesis (3 credits) (Pre-req CHE331 & CHE332)
- CHE441** Advanced Physical Chemistry I (3 credits) (Pre-req CHE341)

### Semester 8

#### Core Course

- CHE342** Quantum Chemistry & its Applications (3 credits)



- (Pre-req CHE242)
- CHE334** Organic Chemistry Laboratory II  
(1 credit) (Pre-req  
CHE234 & CHE331)
- CHE452** Student Research Project (3 credits)  
(Pre-req CHE352)

#### Recommended Elective

- ENV476** Natural Resources Management and  
Economics (2 credits)

### CHEMISTRY AS MINOR SUBJECT IN COMBINED DEGREE

#### Semester 3

##### Core Courses

- CHE211** Introduction to Analytical Chemistry  
(2 credits) (Pre-req CHE 101 &  
CHE102)
- CHE213** Analytical Chemistry Laboratory I  
(1 credit)  
(Co-req CHE101 & CHE102, Co- req  
CHE211)
- CHE232** Structure and Survey of Functional  
Groups I (2 credits) (Pre-req CHE 101  
& CHE102)
- CHE234** Organic Chemistry Laboratory I  
(1 credit) (Pre-req CHE 232)

#### Semester 4

##### Core Courses

- CHE221** Atomic Structure, Bonding and  
Main Group Chemistry  
(2 credits) (Pre-req CHE  
101 & CHE102)
- CHE223** Inorganic Chemistry Laboratory I  
(1 credit) (Pre-req CHE  
101 & CHE 102 Co-req CHE221)
- CHE242** Introductory Physical Chemistry  
(2 credits) (Pre-req CHE  
101 & CHE102, MAT122)
- CHE244** Physical Chemistry Laboratory I  
(1 credit) (Pre-req CHE101&CHE102,  
Co-req CHE242)

Required to take at least 6 Credits including 2  
Credits of Laboratory from the CHE Courses in  
Semester 5 and 6

#### Semester 5

- CHE311** Separation Techniques (3 credits)  
(Pre-req CHE211)
- CHE321** Coordination Chemistry (2 credits)  
(Pre-req CHE221)
- CHE323** Inorganic Chemistry Laboratory II  
(1 credit) (Pre req CHE 223, Co-req  
CHE321)

- CHE331** Structure and Survey of Functional  
Groups II (3 credits) (Pre-req  
CHE232)
- CHE341** Applications of Thermodynamic and  
Electrochemistry (2 credits) (Pre-req  
CHE242)
- CHE343** Physical Chemistry Laboratory II  
(1 credit) (Pre-req CHE242 & CHE  
244)
- CHE351** Chemical Informatics (1 credit)

#### Semester 6

- CHE312** Analytic Spectroscopy (2 credits)  
(Pre-req CHE211)
- CHE314** Analytical Chemistry Laboratory II  
(1 credit), (Pre-req  
CHE 311 Co req CHE 312)
- CHE322** Group Theory and Organometallic  
Chemistry (3 credits)  
(Pre-req CHE321)
- CHE332** Physical Organic Chemistry  
(2 credits) (Pre-req CHE232 &  
CHE 331)
- CHE334** Organic Chemistry Laboratory II  
(1 credit) (Pre-req CHE234 & CHE  
331)
- CHE342** Quantum Chemistry and  
Applications (3 credits)  
(Pre-req CHE242 )

#### Recommended Electives

- BIO308** Molecular Biology (3 credits)
- MGT303** Entrepreneurship and New Business  
Formations (3 credits)

#### Semester 7

Not required to take any Chemistry courses.

#### Semester 8

Not required to take any Chemistry courses.

#### Recommended Electives

- ENV476** Natural Resources Management and  
Economics (2)

### 1.3 Assessment and Examination

The coursework shall be continuously assessed.  
Continuous assessment shall consist of written  
tests, assignments and laboratory exercises  
where applicable. The weighting of final  
examination where applicable, shall not be less  
than 50% of the overall grade for a given course.

### 1.4 Progression from one Semester to the next Semester

Progression from one semester to the next shall  
be as per General Regulations 00.9

### 1.5 Award of Degree

The award of the degree shall be as per General  
Regulations 00.852

### 2.0 Department of Chemistry Course Listing

100 Level Courses

#### CHE101 GENERAL CHEMISTRY I (4 credits)

Course covers fundamental concepts and  
principles of chemistry, i.e. the structure of  
matter, quantitative as well as qualitative  
aspects of chemistry.

#### CHE102 GENERAL CHEMISTRY II (4 credits)

This is a continuation of CHE101. The fundamental  
principles associated with properties of chemical  
systems will be presented.

#### CHE107 CHEMISTRY APPLIED TO HOME ECONOMICS (3 credits)

The role that chemistry plays in everyday life  
will be presented. Atomic structure, periodic  
table, oxidation and reduction, chemistry of  
carbon compounds, acids and bases, soaps and  
detergents, food and energy, fats, carbohydrates,  
proteins, minerals and vitamins, additives,  
poisons and toxins, gases, polymers and plastics,  
cosmetics.

#### CHE109 INTRODUCTORY CHEMISTRY FOR BACHELOR OF NURSING SCIENCE, BNS (3 credits)

Topics include: Structure and bonding,  
stoichiometry, solutions, chemistry of  
certain elements, electricity and chemical  
change, osmosis, reaction rates and catalysis,  
radioactivity.

200 Level courses

#### CHE211 INTRODUCTION TO ANALYTICAL CHEMISTRY (2 credits)

Basic principles of analytical chemistry, concepts  
of classical and modern methods in analytical  
chemistry, statistical treatment of experimental  
data including error analysis and significance  
tests; Gravimetry, titrimetry.

#### CHE213 ANALYTICAL CHEMISTRY LABORATORY I (1 credit)

Practical experience in analytical procedures,  
classical and modern methods of analytical  
chemistry, an overview of analytical  
instrumentation and the progress made towards  
development of analytical methodology,  
gravimetric analysis, titrimetric analysis, Electro

analytical/ spectrophotometry.

#### **CHE221 ATOMIC STRUCTURE, BONDING AND MAIN GROUP CHEMISTRY (2 credits)**

Structure of the atom based on elementary quantum theory. Bonding in simple molecules based on molecular orbital and valence bond theories; Trends in periodic properties and chemical reactions of s- and p-block elements.

#### **CHE223 INORGANIC CHEMISTRY LABORATORY I (1 credit)**

This course covers qualitative inorganic analysis, the synthesis of a selection of compounds, as well as solution chemistry of main group elements.

#### **CHE232 STRUCTURE AND SURVEY OF FUNCTIONAL GROUPS I (2 credits)**

Survey of various functional Groups; Aspects of stereochemistry; Review of alkanes, alkenes and alkynes: addition and substitution reactions. Organic halogen compounds: substitution and elimination reactions, aromatic compounds, and electrophilic substitution reactions. Introduction to chirality's: Acids and bases: alcohols, ethers, epoxides, carbonyls compounds.

#### **CHE234 ORGANIC CHEMISTRY LABORATORY I (1 credit)**

Course topics include: Purification and separation of organic compounds-distillation and fractional distillation, crystallization and recrystallization melting point and refractive index determination; Introduction to qualitative analysis of organic compounds; Preparations of simple organic compounds.

#### **CHE242 INTRODUCTORY PHYSICAL CHEMISTRY (2 credits)**

Basic principles of thermodynamics: first, second and third laws of thermodynamics; rates of chemical reactions.

#### **CHE244 PHYSICAL CHEMISTRY LABORATORY I (1 credit)**

This is an introduction to laboratory techniques in physical chemistry, Experiments dealing with properties of solutions, Calorimetry, thermodynamics, electrochemistry and chemical kinetics.

300 level courses

#### **CHE311 SEPARATION TECHNIQUES (3 credits)**

Introduction to chromatographic separation and

detection techniques: Liquid-liquid extraction; column chromatography, TLC, GC and HPLC, Supercritical fluid; Capillary electrophoresis. Detection systems include FID/ECD & thermal conductivity for GC. UV-Vis, DAD/ fluorescence detector for HPLC. Electrochemical / conductivity detectors for Ion Chromatography.

#### **CHE312 ANALYTICAL SPECTROSCOPY (2 credits)**

Introduction to spectroscopic methods. Molecular absorption & emission:- UV-visible, IR, phosphorescence, fluorescence, Fourier transform spectroscopy. Atomic absorption & emission techniques; AAS / AES and ICP-MS.

#### **CHE314 ANALYTICAL CHEMISTRY LABORATORY II (1 credit)**

Introduction to practical aspects of spectroscopic methods of analysis: UV-visible, IR, Fourier transform spectroscopy, GC, HPLC, AAS/AES, etc.

#### **CHE321 COORDINATION CHEMISTRY (2 credits)**

Introduction to nomenclature, properties and reactions of coordination compounds & complexes; isomerism and magnetic properties. Valence bond and crystal field theories; absorption spectra; field strength; Jahn-Teller effects; covalency and electron delocalization in complexes. Thermodynamics of complex formation. Hard and soft acids and bases. Non-aqueous chemistry. The chemistry of d-block elements and their compounds. Trends in the properties of elements of groups 3 to 12.

#### **CHE322 GROUP THEORY AND ORGANOMETALLIC CHEMISTRY (3 credits)**

Introduction to group theory and basic knowledge of organo-metallic chemistry. Fundamental concepts of organometallic chemistry; organometallic chemistry of transition elements; catalytic applications of organometallic compounds.

#### **CHE323 INORGANIC CHEMISTRY LABORATORY II (1 credit)**

Involves use of modern instruments to characterize organic compounds. Synthesis of inorganic compounds and their characterization using various techniques such as NMR, IR and UV-VIS spectroscopy; Reactions of transition elements and their compounds

#### **CHE331 STRUCTURE AND SURVEY OF FUNCTIONAL GROUPS II (3 credits)**

Spectroscopic methods in organic chemistry: UV, IR NMR and MS. Stereochemistry: Chirality, chiral compounds without stereogenic centres, prochiral centres. Theory of aromaticity, nucleophilic aromatic substitution reactions and polycyclic aromatic hydrocarbons-. Conformations of cycloalkanes. Reactions of enolate anions: Aldol, Claisen and Knoevenagel condensations, Michael addition and Robinson annulation reactions. Enamines. The Mannich reaction.

#### **CHE332 PHYSICAL ORGANIC CHEMISTRY (2 credits)**

Study of reaction mechanisms. Review of nucleophilic substitution and elimination reactions – E1, E2, SN1, SN2, SNi, and E1CB. Structure – reactivity relationships: equilibrium and rate constants – the Hammett equation. Methods for determining reaction mechanisms. Pericyclic reactions: Frontier Molecular Orbital Theory, cycloadditions, electrocyclic reactions and sigmatropic rearrangements.

#### **CHE334 ORGANIC CHEMISTRY LABORATORY III (1 credit)**

Introduction to modern synthetic and characterization methods for organic compounds: Preparation of liquid and solid products then separation, purification and identification by physical and spectroscopic properties- UV, IR and NMR techniques. Chemical and spectroscopic methods in qualitative analysis of organic compounds. Molecular modeling. Simulation of spectra.

#### **CHE341 APPLICATIONS OF THERMODYNAMIC AND ELECTROCHEMISTRY (2 credits)**

Introduction to the applications of chemical thermodynamics to solutions and electrochemical processes. Partial molar quantities, thermodynamics of mixing, properties of ideal solutions, non-ideal solutions, activity and activity coefficient, phase diagrams, chemical equilibrium, conductivity, ion activities, standard potentials, electrochemical cells applications of standard potentials.

#### **CHE342 QUANTUM CHEMISTRY AND ITS APPLICATIONS (3 credits)**

Microscopic concepts of physical chemistry. Basic principles of quantum mechanics, postulates, simple quantum mechanical systems (particle in a 1-D and 3-D box), rotational and vibrational energy levels in molecules, rotational, vibrational





and electronic spectroscopy, photophysical and photochemical processes in molecules and atoms, photochemical kinetics.

#### **CHE343 PHYSICAL CHEMISTRY LABORATORY II (1 credit)**

Practical familiarization with microscopic and time dependent macroscopic aspects of physical chemistry. Laboratory experiments in application of quantum chemistry, spectroscopy, photochemical kinetics, conductivity and transport phenomena.

#### **CHE351 CHEMICAL INFORMATICS (1 credit)**

Use of conventional and electronic chemical information resources. An overview of information resources in chemistry. Purpose of scientific literature. Peer review process. Electronic and non-electronic databases. Searching methodologies including Internet searching (use of chemical web browsers). Searching for information using chemical names, CAS numbers, structures, sub-structures, molecular formulas, etc. Searching material safety data sheets (MSDS).

#### **CHE352 LITERATURE BASED PROJECT (1 credit)**

Course will cover professional writing in chemistry and scholarly project reports. Writing styles in chemistry: comprehensive report on an assigned topic in chemistry under the supervision of an academic staff. Thorough search of the chemical literature including the latest information available on the subject.

400 Level Courses

#### **CHE411 ADVANCED ANALYTICAL TECHNIQUES (3 credits)**

Advanced analytical methods: Statistical treatment of experimental data; Electroanalytical Chemistry; -potentiometry, voltammetry, coulometry, classical and modern polarography, Instrumentation and application of GC-MS, LC-MS, CE-MS, tandem MS, Thermochemical and Radiochemical methods of analysis; isotope dilution and activity analysis.

#### **CHE412 SAMPLE HANDLING AND BIOCHEMICAL ANALYSIS (3 credits)**

Sampling strategies, sample preparation and clean-up techniques; solid phase extraction, solid phase micro-extraction, dialysis, solvent extraction, supported liquid membrane. Enzymatic analysis methods; application of immobilised enzymes, competitive binding

immunoassays, enzyme immunoassays, proteomics, and genomics. Properties of antibodies. Polymer structure elucidation of carbohydrate polymers; precipitation assays.

#### **CHE413 ADVANCED ANALYTICAL CHEMISTRY LABORATORY (2 credits)**

Modern instrumental methods of analysis: atomic absorption (AAS), flame emission, graphite furnace-AAS, inductively coupled plasma-AAS. Sample handling strategies. Micro high performance anion exchange chromatography. Hyphenated techniques; LC-MS, MS-capillary electrophoresis, electrochemistry workstations

#### **CHE416 ENVIRONMENTAL CHEMISTRY (2 credits)**

Introduction to environmental pollutants and their analysis using local case studies e.g., SO<sub>2</sub> emission from the BCL mine; Pesticide analysis, industrial waste management; Selection of safe methods of disposal. Degradation reactions and the dispersal pathways of materials into the environment.

#### **CHE418 SPECIAL TOPICS IN ANALYTICAL CHEMISTRY (2 credits)**

Special topics selected from the following: Application of Analytical Chemistry, Food, Drugs and Forensic Analysis, Chemostatistics and Clinical Analysis.

#### **CHE421 ADVANCED TRANSITION METAL CHEMISTRY (3 credits)**

Advanced topics in transition metal chemistry and introductory bio-inorganic chemistry. Electronic properties of transition metal complexes; magnetic properties of transition metal complexes; inorganic reaction mechanisms; introduction to photo-chemical reactions; f-block chemistry; introduction to bioinorganic chemistry

#### **CHE422 ADVANCED ORGANOMETALLIC AND SOLID STATE CHEMISTRY (3 credits)**

Organometallic Chemistry: Main group organometallics; structure and chemistry of (C<sub>5</sub>H<sub>5</sub>)<sub>2</sub>M<sub>n</sub> complexes; organometallic chemistry in synthesis; stereochemically non-rigid molecules; metal clusters and metal-metal bonds; low- and high-nuclearity clusters; NMR spectra; Latimer diagrams, oxidation state stability. Solid state chemistry: lattices; crystal packing; ionic structures; crystal defects; metallic bonding; spinels.

#### **CHE423 ADVANCED INORGANIC LABORATORY (2 credits)**

Physical methods in Inorganic Chemistry: the study of physical and chemical properties of transition metal and organometallic complexes using electronic, infrared, and nuclear magnetic resonance spectroscopy techniques as well as optical isomerism, reaction kinetics, and inert atmosphere techniques.

#### **CHE426 SPECIAL TOPICS IN INORGANIC CHEMISTRY (2 credits)**

Selection may be made from the following specialised topics: Nanochemistry, Synthesis of inorganic materials for the fabrication of semiconductors; Molecular orbital calculations; Kinetics and mechanisms of inorganic reactions in solution media; Applied homogeneous catalysis with organometallic compounds; Chemistry and applications of boranes, carboranes and metallocenes.

#### **CHE431 HETEROCYCLIC CHEMISTRY SYNTHETIC REACTIONS AND DESIGN OF ORGANIC SYNTHESIS (3 credits)**

Aromaticity and reactions of heterocyclic compounds – furan, pyrrole, thiophene, pyridine, indole, and quinoline. Synthetic reaction, Protective groups; Molecular rearrangements. Design of organic synthesis: introduction to disconnection approach / retrosynthetic analysis.

#### **CHE432 SECONDARY METABOLITES AND BIOMOLECULES (3 credits)**

Carbohydrates: structure, nomenclature, stereochemistry and reactions of monosaccharides and disaccharides. Structure and properties of polysaccharides. Amino acids and proteins: structure, nomenclature and stereochemistry of amino acids and peptides, analysis of peptides and proteins. Chemistry of purines and pyrimidines. Nucleosides, nucleotides and nucleic acids. Mechanisms of co-enzymes. Examples of secondary metabolites from the acetate, mevalonate and shikimic acid pathways.

#### **CHE433 ADVANCED ORGANIC CHEMISTRY LABORATORY (2 credits)**

Advanced laboratory techniques in organic synthesis- multi-step synthesis of organic compounds. Extraction and isolation of naturally occurring compounds from plant origin- application of chromatographic and spectroscopic methods. Analysis of mixtures of organic compounds.

**CHE436 SPECIAL TOPICS IN ORGANIC CHEMISTRY (2 credits)**

Selection may be made from the following specialised topics: Chemistry of drugs; Chemistry of lipids; Selected natural products; Agrochemicals; Free radicals and photochemistry; Polymer materials

**CHE441 ADVANCED PHYSICAL CHEMISTRY I (3 credits)**

Entropy and probability, partition functions, applications of statistical thermodynamics. Colloidal solutions, electrical double layer, Liquid-gas and liquid-liquid interfaces, Gibbs adsorption equation, spreading, solid-gas interface, adsorption isotherms, rates of surface processes, adsorption and catalysis.

**CHE442 ADVANCED PHYSICAL CHEMISTRY II (3 credits)**

Reaction kinetics, techniques of fast reactions, theories of reaction rates, reaction in solution, composite reactions, chain reactions, explosions. Transport phenomena. Polymers, kinetics of polymerization, osmometry, viscometry, gel-permeation chromatography, TGA, DSC. Introductory polymer processing.

**CHE443 PHYSICAL CHEMISTRY LABORATORY III (2 credits)**

Laboratory experiments in polymers, surface and colloid chemistry.

**CHE446 SPECIAL TOPICS IN PHYSICAL CHEMISTRY (2 credits)**

Detailed treatment of topics chosen from: solid-state chemistry; irreversible thermodynamics; molecular dynamics; intermolecular forces; atmospheric and/or astrophysical chemistry.

**CHE452 SENIOR RESEARCH PROJECT (3 credits)**

The course involves scientific bench work research. Will comprise a study leading to a written report and shall be based on an original investigation of a chemical problem. To be carried out under the supervision of a member of staff.

**CHE470 EXCITED STATE CHEMISTRY (2 credits)****THE DEPARTMENT OF COMPUTER SCIENCE**

Offers the following undergraduate programmes:

Single major programmes leading to the award of:

- B.Sc. (Computer Science),
- B.Sc. (Computing with Finance),
- B.Sc. (Information Systems)
- B.Sc. (Information Technology)

Combined Major/Minor programmes leading to the award of:

- B.Sc.(other subject Major/ Computer Science Minor)

**Entry Requirements**

Subject to the General Academic Regulation 00.5, the following departmental programme entry requirements shall apply for the programmes: B.Sc. (Computer Science), BIS (Computer Information Systems), and BIT (Information Technology).

i) For entry into 100-level, candidates must have a minimum grade of C in Mathematics and two other science subjects with computer studies recognized as a science subject, with a minimum grade of D in English.

ii) For entry into the programme at higher level, the following shall apply.

a. Transfer student from a Computer Science or Information Systems or equivalent programme from a higher institution considered equivalent to the University of Botswana, subject to General Academic Regulation 00.313.

b. Candidates holding a post Secondary Certificate qualification which is considered by the department as being at least equivalent to the 100- level of the programme and so deemed to earn the candidate an exemption from the 100-level of the programmes.

c. Candidates holding a post Secondary Certificate qualification who do not meet criteria b) above may be required to take some 100-level courses

- B.Sc. Computer Science Programme

**Semester I**

Courses Type Credits Prerequisite

- |               |  |        |  |
|---------------|--|--------|--|
| <b>CSI131</b> | Discrete Structures I core   | 3      |  |
| <b>CSI141</b> | Programming Principles   | 3      |  |
| <b>CSI161</b> | Introduction to Computing  | Core 3 |  |
| <b>MAT111</b> | Introductory Mathematics I   | Core 4 |  |
| <b>COM141</b> | Introduction to Communication and Academic Literacy Skills (Science) | GEC 3  |  |

**Semester II**

- |                |   |          |        |
|----------------|---|----------|--------|
| <b>CSI132</b>  | Discrete Structures II                            | Core 3   | CSI131 |
| <b>CSI142</b>  | Object-Oriented Programming                       | Core 4   | CSI141 |
| <b>MAT122</b>  | Introductory Mathematics II                       | Core 4   | MAT111 |
| <b>STA122</b>  | Introductory Concepts of Probability              | core (4) |        |
| <b>COM 142</b> | Academic and Professional Communication (Science) | GEC 3    |        |

**Semester III**

- |               |                         |        |                |
|---------------|-------------------------|--------|----------------|
| <b>CSI242</b> | Data Structures         | Core 3 | CSI132, CSI142 |
| <b>CSI243</b> | Functional Programming  | Core 3 | CSI142         |
| <b>CSI213</b> | Discrete Structures III | Core 3 | CSI132         |
| <b>MAT221</b> | Calculus I              | Core 3 | Elective 3     |

**Semester IV**

- |               |                                      |        |                |
|---------------|--------------------------------------|--------|----------------|
| <b>CSI262</b> | Database Concepts                    | Core 3 | CSI242         |
| <b>CSI223</b> | Systems Programming                  | Core 3 | CSI242         |
| <b>CSI251</b> | Computer Architecture & Organization | Core 3 | CSI161, CSI141 |
| <b>MAT212</b> | Introductory Linear Algebra          | Core 3 | Elective 3     |

**Semester V**

- |               |                           |        |                    |
|---------------|---------------------------|--------|--------------------|
| <b>CSI322</b> | Algorithms                | Core 3 | CSI242             |
| <b>CSI354</b> | Operating Systems         | Core 3 | CSI242, CSI251     |
| <b>CSI374</b> | Computer Networks         | Core 3 | CSI142, CSI251     |
| <b>CSI342</b> | Systems Analysis & Design | Core 3 | CSI262, Elective 3 |

**Semester VI**

- |               |                                      |        |                |
|---------------|--------------------------------------|--------|----------------|
| <b>CSI315</b> | Web Technology and Applications      | Core 3 | CSI262, CSI374 |
| <b>CSI332</b> | Programming Languages                | Core 3 | CSI243         |
| <b>CSI341</b> | Introduction to Software Engineering | Core 3 | CSI342         |



Min 6 credits from:

**CSI344** Artificial Intelligence Optional 3  
CSI242

**CSI392** Human Computer Interaction  
Optional 3 CSI342

**MGT303** Entrepreneurship and New Business  
Formation  
Optional 3

#### Winter Semester

**CSI352** Industrial Attachment Core 3  
CSI354, CSI374, CSI342

For semester VII and VIII, students choose from the following areas of specializations.

1. Software Engineering
2. Systems & Networks

#### Semester VII

**CSI411** Theory of Computation Core 3  
CSI322

**CSI472** Social Informatics Core 3 CSI352

**CSI481** Database Systems Core 3 CSI262

Software Engineering stream (Minimum 6 credits)

**CSI471** Software Design Optional 3 CSI341

**CSI441** Requirements Engineering Optional 3 CSI341

**CSI432** Intelligent Systems Optional 3  
CSI342

Systems & Networks stream (Minimum 6 credits)

**CSI462** Distributed Computing Optional 3  
CSI354, CSI374

**CSI451** Sensors Networks Optional 3 CSI374

**CSI493** Computer Graphics Optional 3  
CSI242

#### Semester VIII

**CSI405** Project Core 4 CSI352, CSI315,  
CSI341

**CSI412** Programming Language Translation  
Core 3 CSI411

**CSI461** Computer Networks & Security Core  
3 CSI374

Software Engineering stream (minimum 6 credits)

**CSI444** Software Project Management  
Optional 3 CSI441 or CSI471

**CSI392** Human Computer Interaction  
Optional 3 CSI342

**CSI345** Integrative Programming Optional 3  
CSI223, CSI354

Elective 3

Systems & Networks stream (minimum 6 credits)

**CSI464** Mobile Computing Optional 3  
CSI374

**CSI424** Network Algorithms Optional 3  
CSI374, CSI322

Elective 3

2. B.Sc. (Computer Science - Minor)  
The following courses constitute a minor in  
Computer Science with a total credit of 34.

#### First Year

**CSI131** Discrete Structures I

**CSI141** Programming Principles

**CSI161** Introduction to Computing

**CSI132** Discrete Structures II

**CSI142** Object-Oriented Programming

#### Second Year

**CSI242** Data Structures

**CSI262** Database Concepts

**CSI251** Computer Architecture &  
Organization

#### Third Year

**CSI354** Operating Systems

**CSI374** Computer Networks

**CSI315** Web Technology and Applications

b) B.Sc. Computing with Finance

#### Entry Requirement

Subject to the General Academic Regulation 00.5, the following departmental programme entry requirements shall apply for the programme:

For entry to the B.Sc. Computing with Finance, the following entry requirements shall apply.

i) For entry into 100-level, candidates must have a minimum grade of C in Mathematics and two other science subjects with Computer Studies recognized as a science subject, with a minimum grade of C in English.

ii) For entry into the programme at higher level:  
a. Transfer students from a Computing with Finance or equivalent programme from a higher institution considered equivalent to the University of Botswana, subject to General Academic Regulation 00.313.

b. Candidates holding a post Secondary

qualification which is considered by the department as being at least equivalent to the 100-level of the programme. For those who do not meet this criterion, they may be required to take some 100- Semester I

#### Semester 1

Courses Type Credits Prerequisite

**CSI141** Programming Principles Core 3

**CSI161** Introduction to Computing Core 3

**MAT111** Introductory Mathematics I Core 4

**CSI131** Discrete Structures I Core 3

**COM141** Introduction to Communication and  
Academic Literacy Skills (Science)  
GEC 3

#### Semester II

**ACC100** Introduction to Accounting Core 3

**CSI142** Object-Oriented Programming Core  
4 CSI141

**MAT122** Introductory Mathematics II Core 4  
MAT111

**CSI132** Discrete Structures II Core 3 CSI131

**COM142** Academic and Professional  
Communication (Science) GEC 3

#### Semester III

**CSI242** Data Structures Core 3 CSI132,  
CSI142

**FIN200** Business Finance Core 3

**MAT221** Calculus I Core 3

Min 6 credits from:

**ECO111** Basic Microeconomics Optional 3

**MGT100** Principles of Management  
Optional 3

**LAW251** Foundations of Business Law  
Optional 3

#### Semester IV

**CSI262** Database Concepts Core 3 CSI242

**ACC200** Financial Accounting I Core 3  
ACC100

**CSI251** Computer Architecture &  
Organization Core 3 CSI141, CSI161

**STA114** Business Statistics Core 3

Min 3 credits from:

**ECO112** Basic Macroeconomics Optional 3

**Optional 3**

#### Semester V

**CSI354** Operating Systems Core 3 CSI242,  
CSI251

**FIN301** Financial Institutions and Markets I  
Core 3 FIN200

**CSI374** Computer Networks Core 3 CSI141,  
CSI251

## FACULTY OF SCIENCE

**CSI342** Systems Analysis & Design C o r e 3  
C S I 2 6 2

**ACC302** Auditing I Core 3 ACC200

### Semester VI

**FIN302** Financial Planning and Forecasting  
Core 3 FIN200

**CSI315** Web Technology and Applications  
Core 3 CSI262, CSI374

**FIN300** Financial Management Core 3  
FIN200

**CSI341** Introduction to Software  
Engineering Core 3 CSI342  
Min 3 credits from:

**CSI392** Human Computer Interaction  
Optional 3 CSI342

**MGT303** Entrepreneurship and New Business  
Formation

### Optional 3

### Winter Semester

**CSI352** Industrial Attachment Core 3  
CSI354, CSI374, CSI342

### Semester VII

**CSIA471** Software Design Core 3 CSI341

**CSIA481** Databases Core 3 CSI262

**CSI322** Algorithms Core 3 CSI242

**CSIA472** Social Informatics Core 3 CSI352  
Min 3 credits from:

**FIN402** International Business Finance  
Optional 3 FIN301

**CSIA441** Requirements Engineering Optional  
3 CSI341

**CSIA432** Intelligent Systems Optional 3  
CSI342

### Semester VIII

**CSIA405** Project Core 4 CSI352, CSI315,  
CSI341

**CSIA452** Information Security Administration  
Core 3 CSI374

**BIS309** Accounting Information Systems  
Core 3 ACC200

Min 6 credits from:

**FIN404** Investment Analysis and Portfolio  
Management Optional 3 FIN300

**FIN403** Financial Institution and Markets II  
Optional 3 FIN301

**CSIA416** Web Computing Optional 3 CSI315

**CSIA444** Software Project Management  
Optional 3 CSIA471

c). B.Sc. Computer Information Systems; new  
program suspended till 2012 August

d). B.Sc. Computer Information Technology

### Semester I

Courses Type Credits Prerequisite

**CSI131** Discrete Structures Core 3

**CSI141** Programming Principles Core 3

**CSI161** Introduction to Computing Core 3

**STA116** Introduction to statistics Core 4

**COM141** Introduction to Communication and  
Academic Literacy Skills (Science)  
GEC 3

### Semester II

**CSI132** Discrete Structures II Core 3 CSI131

**CSI142** Object-Oriented Programming  
Core 4 CSI141

**MAT111** Introductory Mathematics I Core 4

**ECO111** Basic Micro Economics core 3

**COM142** Academic and Professional  
Communication (Science) GEC 3

### Semester III

**CSI242** Data Structures Core 3 CSI132,  
CSI142

**CSI244** Information Management Core 3

**CSI293** Information Technology  
Fundamentals Core 3

**MGT100** Principles of Management Core 3

**MAT122** Introductory Mathematics II Core 4

### Semester IV

**CSI262** Database Concepts Core 3 CSI242

**CSI261** Computer Architecture Core 3  
CSI161

**CSI223** Systems Programming core 3  
CSI242

**MGT200** Organizational Design and  
Development Core 3 MGT100

Min 3 credits from:

**ECO112** Basic Macro Economics Optional 3

**STA211** Statistical Methods Optional 3

**LIS 227** Introduction to Knowledge  
Management

### Optional 3

### Semester V

**CSI354** Operating Systems Core 3 CSI261,  
CSI242

**CSI374** Computer Networks Core 3 CSI141,  
CSI261

**CSI342** Systems Analysis & Design C o r e 3  
C S I 2 6 2

**MGT301** Organizational Behavior core 3  
MGT200

### Elective 3

### Semester VI

**CSI345** Integrative Programming Core 3  
CSI354, CSI223

**CSI315** Web Technology and Applications  
C o r e 3 CSI262, C SI374

**CSI392** Human Computer Interaction Core 3  
CSI342

**CSI341** Introduction to Software  
Engineering Core 3 CSI342

Min 3 credit from

**MGT303** Entrepreneurship and Business  
Formation Optional 3 MGT202

**BIS304** Management Information Systems

### Optional 3

### Winter Semester

Courses Type Credits Prerequisite

**CSI352** Industrial Attachment Core 3  
CSI354, CSI374, CSI342

### Semester VII

**CSIA481** Database Systems Core 3 CSI262

**CSIA472** Social Informatics Core 3 CSI352

**CSIA482** Information System Engineering  
Core 3 CSI345

**CSIA485** System Administration Core 3  
CSI354, CSI374

Min 3 credit from:

**LAW251** Foundations of Business Law  
Optional 3

**FIN200** Business Finance Optional 3

**LIS 403** Knowledge Management Optional 3  
LIS227

### Semester VIII

#### Courses Type Credits Prerequisite

**CSIA405** Project Core 4 CSI352, CSI315,  
CSI341

**CSIA416** Web Computing Core 3 CSI315

**CSIA452** Information Security Administration  
Core 3 CSI374

**CSIA446** Information Systems Project  
Management Core 3 CSIA482

Min 3 credits from:

**BIS417** Information System Auditing

### Optional 3

**MKT401** Marketing Management and  
Strategy Optional 3

## DEPARTMENT OF ENVIRONMENTAL SCIENCE

### 4. Entrance Requirements

Normal entry requirements shall be as



stipulated in General Regulation 20.00 in this Calendar and Department Regulation 1.4 (see DEPARTMENT Handbook).

## 5.1 Human Environment Programmes

### Level 100

All courses at this level are core courses.

#### Semester 1

- ENS101** Introduction to Environmental Science – Physical (3)
- ENS141** Introductory Quantitative Techniques in Environmental Science I (3)

#### Semester 2

- ENS102** Introduction to Environmental Science – Human (3)
- ENS142** Introductory Quantitative Techniques in Environmental Science II (3)

### Level 200

#### Semester 3

##### Core Courses

- ENS242** Introduction to Spatial Analysis (3)

##### Optional Courses

- ENS211** The Earth Environment System (3)
- ENS251** The Human Environment System (3)

#### Semester 4

##### Core Courses

- ENS243** Introduction to Remote Sensing (3)
- ENS252** Botswana Environment (3)
- ENS260** Environment and Population Dynamics (3)

##### Optional Courses

- ENS241** Quantitative Techniques in Environmental Science (3)

### Levels 300 to 400

#### Single Major Programmes

In accordance with General Academic Regulation 00.62, in each of Semesters 5 to 8 the Single Major Programme in Environmental Science shall consist of 10 to 12 core and optional courses for each of the Human Environment Areas of Specialisation, with optional courses selected from the following lists. Availability of courses and areas of specialisation are subject to the staffing situation in the particular semester and/or year. In accordance with Departmental Regulation 1.4, Entry into the programme is by application to HoD.

#### Human Environment CAREER AREAS ARE AS FOLLOWS:

- a) Area 1: Population, Economy and Resources;
- b) Area 2: Rural and Agricultural Development;
- c) Area 3: Management of the Urban and Industrial Environment;
- d) Area 4: Tourism Development and Policy.

#### Semester 5

##### Core Courses

##### (By career Areas:)

- ENV301** Environmental Issues (2, all areas)
- ENV303** Directed Readings (2, all areas)
- ENV304** Quantitative Techniques in Human Geography (3, all areas) (PRE: ENS141&ENS142)
- ENV302** Concepts and Principles in Population Geography (2, Area 1)
- ENV305** Rural Geography (2, Area 2) (Not available in 2011/12)
- ENV309** Tourism I: Principles and Practices (2, Area 4)
- ENV317** Industrialisation Trends and the Developing World (2, Area 3) (not available 2011/12)
- ENV321** Urbanisation in the Developing World (2, Area 3) (pre: ENV210/211/212/219/ ENS241/ENS252/ENS260/POP303/ URP200/204)

##### Optional Courses (By Area of Specialisation)

- ENV305** Rural Geography (2, Areas 1 and 4) (not available 2011/12)
- ENV306** Globalisation, Socioeconomic and Environmental Change (2, all areas) (not available 2011/12)
- ENV307** Human Settlements: Principles and Morphology (2, all areas) (pre:ENV210/211/212/219/ENS241/ ENS252/ENS260/ POP303/URP200/204)
- ENV309** Tourism I: Principles and Practices (2, Areas 1 and 2)
- ENV310** Medical Geography (2, all areas)
- ENV319** Economic Geography (2, all areas) (not available 2011/12)
- ENV321** Urbanisation in the Developing World (2, Area 1) (pre: ENV210/211/212/219/ POP303/ URP200/204)

#### Semester 6

##### Core Courses (By CAREER AreaS )

- ENV311** Environment, Population and

Development (3, Area 1)(pre:ENV302 or POP120)

- ENV312** Sustainable Development (2, all areas)(pre: ENV301)
- ENV314** Project Proposal (2, all areas) (pre: ENV303)
- ENV315** Environmentalism and Social Theory (2, all areas) (pre: ENV210/211/212/219/ENS241/ ENS252/ENV383/POL301/ SOC322/ SOC327)
- ENV313** Elementary Techniques in Population Geography (3, Area 1) (pre: ENV302)
- ENV316** Agricultural Development (2, Area 2)
- ENV318** Tourism II: Tools and Analysis (2, Area 4) (pre: ENV309)
- ENV320** Botswana's Environment (2, all areas) (not available 2011/12)

##### Optional Courses (By Career Areas )

- ENV315** Environmentalism and Social Theory (2, all areas)(ENV210/211/212/ 219/383/ POL301/SOC322/327)
- ENV339** Methods and Techniques in Environmental Appraisal (2, all areas)
- ENV318** Tourism II: Tools and Analysis (2, Areas 1 and 2) (pre: ENV309)
- POP305** Population Dynamics, Policies and Programmes (3, Area 1)

#### Semester 7

##### Core Courses (By CAREER AreaS)

- ENV400** Project Data Collection, Analysis and Reporting I (1, all areas)(pre:ENV314)
- ENV426** GIS for Socioeconomic Applications (3, all areas) (pre: ENV215/ENS242)
- ENV401** Advanced Techniques in Population Geography (3, Area 1) (pre: ENV313)
- ENV402** Natural Resource Conservation and Management (3, all areas) (not available 2010/11)
- ENV404** Rural Development Theory and Practice (2, Area 2)
- ENV405** Urban and Rural Survey Techniques (2, Area 2)
- ENV407** Ecotourism (2, Area 4) (pre: ENV309&318)
- ENV423** Urban Social Theory (2, Area 3) (pre:ENV315/383/POL301/ SOC421/433/URP400/407)
- ENV424** Industry and the Environment (2, Area 3) (not available 2011/12)



**Optional Courses (By CAREER AreaS)**

- ENV406** Regional Development Studies (2, all areas) (not available 2011/12)
- ENV425** The African Environment (3, all areas)
- ENV447** Environmental Hazards (2, all areas)
- ENV404** Rural Development Theory and Practice (2, Areas 1 and 4)
- ENV407** Ecotourism (2, Areas 1 and 2) (pre: ENV309&318)
- ENV423** Urban Social Theory (2, Area 1) (pre: ENV315/383/POL301/SOC421/433/ URP400/407)
- ENV424** Industry and the Environment (2, Area 4) (not available 2011/12)

**Semester 8****Core Courses (By CAREER AreaS )**

- ENV408** Tourism and Development (2, Areas 1 and 2) (pre: ENV309&318)
- ENV414** Project Data Collection, Analysis and Reporting II (2, all areas)(pre: ENV400)
- ENV456** Remote Sensing for Socio-economic Applications (3, all areas) (pre:ENV216)
- ENV415** Rural Development in Botswana (2, Areas 1 and 2)
- ENV418** Environmental Policy (2, Area 4)
- ENV481** Concepts and Principles of Industrialisation (2, Area 3)

**Optional Courses (By Area of Specialisation)**

- ENV403** Gender and Environment (2, all areas)
- ENV412** Environmental Impact Assessment (3, all areas) (not available 2011/12)
- ENV427** Energy and Environment (2, all areas) (not available 2011/12)
- ENV476** Natural Resource Management and Economics (2, all areas)
- ENV416** Transport and Environment (2, Areas 2, 3 and 4)
- ENV418** Environmental Policy (2, Areas 1, 2 and 3)
- ENV419** Development Geography (3, all areas) (not available 2010/11)
- ENV483** Advanced Map-work and Air Photo Interpretation (3, all areas)
- ENV484** Urbanisation and Environment (2, Area 3) (pre: ENV307/321/URP213,301)
- POP423** Population and Development (3, Areas 1 and 2)

**Major/Minor Programme with****Environmental Science as the Major**

In accordance with General Academic Regulation 00.62, in each of Semesters 5 to 8, the Major (ENV.SCIENCE) -MINOR Programme in Environmental Science shall consist of 7 to 8 core and optional courses, with optional courses selected from accompanying lists. The CAREER areas specified under Regulation 2.1 shall also apply to this Programme. Availability of courses and areas of specialisation are subject to the staffing situation in the particular semester and/or year. In accordance with DEPARTMENT Regulation 1.4, entry into the programme is by application to HoD.

**Semester 5****Core Courses (By Area of Specialisation)**

- ENV301** Environmental Issues (2, all areas)
- ENV302** Concepts and Principles in Population Geography (2, Area 1)
- ENV304** Quantitative Techniques in Human Geography (3 credits, all areas) (PRE:ENS141/ENS142)
- ENV305** Rural Geography (2, Area 2) (not available 2010/11)
- ENV309** Tourism I: Principles and Practices (2, Area 4)
- ENV317** Industrialisation Trends and Developing Countries (2, Area 3) (not available 2011/12)
- ENV383** Advanced Human Geography (2, Humanities Students) (pre: ENV102/211/219)

**Optional Courses (By Career Areas)**

- ENV306** Globalisation, Socioeconomic and Environmental Change (2, all areas) (not available 2011/12)
- ENV307** Human Settlements: Principles and Morphology (2, all areas) (pre:ENV210/211/212/219/POP303/URP200/204)
- ENV310** Medical Geography (2, all areas)
- ENV319** Economic Geography (2, all areas) (not available 2011/12)
- ENV339** Methods and Techniques in Environmental Appraisal (2, all areas) (NOT AVAILABLE IN 2011/12)
- ENV305** Rural Geography (2, Areas 1 and 4) (not available 2011/12)
- ENV309** Tourism I: Principles and Practices (2, Areas 1 and 2)
- ENV317** Industrialisation Trends and the Developing World (2, Areas 1 and 2)

(not available 2011/12)

- ENV321** Urbanisation in the Developing World (2, all areas) pre ENV210/211/212/219/POP303/URP200/204)

**Semester 6****Core Courses (By CAREER AreaS)**

- ENV311** Environment, Population and Development (3, Area 1)
- ENV312** Sustainable Development (2, all areas)(pre: ENV301)
- ENV313** Elementary Techniques in Population Geography (3, Area 1) (pre: ENV302)
- ENV316** Agricultural Development (2, Area 2)
- ENV318** Tourism II: Tools and Analysis (2, Area 4) (pre: ENV309)
- ENV384** Advanced Physical Geography (2, Humanities) (pre: ENV101/214/220)

**Optional Courses (By Career Areas)**

- POP306** Population and Development (3, all areas)
- ENV315** Environmentalism and Social Theory (2, all areas) (ENV210/211/212/219/383/POL301/SOC322/327)
- ENV320** Geography of Botswana (2, all areas) (not available 2010/11)
- ENV339** Methods and Techniques in Environmental Appraisal (2, all areas) (not available 2011/12)
- ENV318** Tourism II: Tools and Analysis (2, Areas 1 and 2) (pre: ENV309)
- POP305** Population Dynamics, Policies and Programmes (3, Area 1)

**Semester 7****Core Courses (By CAREER Areas)**

- ENV401** Advanced Techniques in Population Geography (3, Area 1) (pre: ENV313)
- ENV404** Rural Development Theory and Practice (2, Area 2)
- ENV405** Rural Survey Techniques (2, Area 2)
- ENV407** Eco-tourism (2, Area 4) (pre: ENV309&ENV318)
- ENV424** Industry and the Environment (2, Area 3) (not available 2011/12)

**Optional Courses (By Career Areas)**

- ENV406** Regional Development Studies (2, all areas) (not available 2011/12)
- ENV425** The African Environment (3, all areas)



- ENV426 GIS for Socioeconomic Applications (3, all areas)(pre: ENV215)
- ENV447 Environmental Hazards (2, all areas)
- ENV402 Natural Resource Conservation and Management (3, all areas) (not available 2011/12)
- ENV407 Ecotourism (2, Areas 1 and 2) (pre: ENV309&ENV318)
- ENV404 Rural Development Theory and Practice (2, Areas 1 and 4)
- ENV423 Urban Social Theory (2, Areas 1 and 3)(pre:ENV315/383/ POL301/SOC421/433/URP400/407)
- ENV424 Industry and the Environment (2, Area 4) (not available 2011/12)

#### Semester 8

##### Core Courses (By CAREER Areas )

- ENV415 Rural Development in Botswana (2, Areas 2 and 4)
- ENV418 Environmental Policy (2, Area 4)
- ENV424 Industry and Environment (2, Area 3) (not available 2011/12)

##### Optional Courses (By Area of Specialisation)

- ENV403 Gender and Environment (2, all areas)
- ENV412 Environmental Impact Assessment (3, all areas)(not available 2011/12)
- ENV418 Environmental Policy (2, Areas 1, 2 and 3)
- ENV419 Development Geography (2, all areas)(not available 2011/12)
- ENV427 Energy and Environment (2, all areas)(not available 2011/12)
- ENV456 Remote Sensing for Socioeconomic Applications (3, all areas) (pre: ENV216)
- ENV476 Natural Resource Management and Economics (2, all areas)
- ENV416 Transport and Environment (2, Areas2, 3 and 4)
- ENV483 Advanced Map-work and Air Photo Interpretation (3, all areas)
- ENV484 Urbanisation and Environment (2,Area 3) (pre: ENV307/321/ URP213,301)
- POP423 Population and Development (3, Areas 1 and 2)

#### Combined Major/Major Programme

Combined Major/Major students shall take 5 to 6 credits of core and/or optional Environmental Science courses in each of Semesters 5 to 8. No areas of specialization are prescribed under this Programme. However, candidates could use

templates for Single Majors or Major/Minors (Environmental Science Major) to guide their selection of courses. Availability of courses is subject to the staffing situation in the particular semester and/or year.

#### Semester 5

##### (See above or DEPARTMENT Handbook for course pre-req.)

In Semester 5, Combined Major/Major students shall take core course ENV301 and an additional 4 credits from the following list of optional courses: ENV302, ENV304, ENV305, ENV306, ENV307, ENV309, ENV310, ENV317, ENV319, ENV321, ENV339 and ENV383. For students registered in the Faculty of Humanities, ENV383 shall be taken as a core course.

#### Semester 6

##### (See above or DEPARTMENT Handbook for course pre-req.)

In Semester 6, Combined Major/Major students shall take core course ENV312 and an additional 4 credits from the following list of optional courses POP305, ENV311, ENV313, ENV315, ENV316, ENV318, ENV320, and ENV384. For students registered in the Faculty of Humanities ENV384 shall be taken as a core course.

#### Semester 7

##### (See above or DEPARTMENT Handbook for course pre-req.)

There are no core courses for the Combined Major/Major Programme in Semester 7. Students shall take, therefore, 5 to 6 credits from the following list of optional courses: ENV401, ENV402, ENV404, ENV405, ENV406, ENV407, ENV408, ENV423, ENV424, ENV425, ENV426, ENV447.

#### Semester 8

##### (See above or DEPARTMENT Handbook for course pre-req.)

There are no core courses for the Combined Major/Major Programme in Semester 8. Students shall take, therefore, 5 to 6 credits from the following list of optional courses: ENV402, ENV403, ENV412, ENV415, ENV416, ENV418, ENV419, POP423, ENV427, ENV456, ENV476, ENV481, ENV482, ENV483, ENV484.

#### Combined Major/Minor Programme with Environmental Science as the Minor

In the Combined Major/Minor Programme with Environmental Science as Minor, students shall take 3 to 4 credits of Environmental Science

courses in each of Semesters 5 to 8. No areas of specialisation apply to this Programme. The availability of courses is subject to the staffing situation in the particular semester.

#### Semester 5

##### (See above or DEPARTMENT Handbook for course pre-req.)

In Semester 5, Combined Major/Minor students shall take core course ENV301 and at least 2 additional credits from the following Environmental Science optional courses: ENV302, ENV304, ENV305, ENV306, ENV307, ENV309, ENV310, ENV317, ENV319, ENV321, ENV339 and ENV383. For students registered in the Faculty of Humanities, ENV383 shall be taken as a core course.

#### Semester 6

##### (See above or DEPARTMENT Handbook for course pre-req.)

In Semester 6, Combined Major/Minor (Environmental Science Minor) students shall take core course ENV312 and at least 2 additional credits from the following Environmental Science optional courses: POP305, ENV313, ENV311, ENV315, ENV316, ENV318, ENV320, and ENV384. For students registered in the Faculty of Humanities, ENV384 shall be taken as a core course.

#### Semester 7

##### (See above or DEPARTMENT Handbook for course pre-req.)

In Semester 7, Combined Major/Minor (Environmental Science Minor) students shall take 3 to 4 credits from the following Environmental Science options: ENV401, ENV402, ENV404, ENV405, ENV406, ENV408, ENV423, ENV424, ENV425, ENV440, and ENV447.

#### Semester 8

##### (See above or DEPARTMENT Handbook for course pre-req.)

In Semester 8, Combined Major/Minor (Environmental Science Minor) students shall take 3 to 4 credits from the following Environmental Science options: ENV402, ENV403, ENV412, ENV415, ENV416, ENV418, ENV419, POP423, ENV427, ENV456, ENV476, ENV481, ENV482, ENV483 and ENV484.

#### 5.2 Physical Environment Programmes

The Physical Environment Programmes are designed for students registered in the Faculty of APPLIED AND NATURAL ScienceS and are subject

to DEPARTMENT OF ENVIRONMENTAL SCIENCE  
 & MANAGEMENT Regulations 1.4.1.2 to 1.4.1.5.

## Level 100

In accordance with Faculty Special Regulation 23.45, Environmental Science is not offered at this level to students registered in the Faculty of APPLIED AND NATURAL Sciences.

## Levels 200 to 400

### Semester 3

#### Core Courses

- ENS211 The Earth Environment System (3)
- ENS242 Introduction to Spatial Analysis (3)
- ENS251 The Human Environment System (3)

### Semester 4

#### Core Courses

- ENS243 Introduction to Remote Sensing (3)

#### Optional Courses

- ENS241 Quantitative Techniques in Environmental Science (3)
- ENS252 Botswana Environment (3)
- ENS260 Environment and Population Dynamics (3)

## Single Major Programme

In accordance with General Academic Regulation 00.62, in each of Semesters 5 to 8 the Single Major Programme in Environmental Science shall consist of 10 to 12 core and optional courses for each of the Physical Environment Areas of Specialisation, with optional courses selected from the following lists. Availability of courses is subject to the staffing situation in the particular semester and/or year.

### Semester 5

#### Core Courses

- ENV301 Environmental Issues (2)
- ENV303 Directed Readings (2)
- ENV330 Remote Sensing for Environmental Science (3) (pre: ENV216/ENS243)

#### Optional Courses

- ENV331 Hydro-meteorology (2)
- ENV332 Air Photography (3) (pre: ENV215/ENV216/ENS242/ENS243)
- ENV334 Principles of Soil Science (3)
- ENV338 Introduction to Geomorphology (3) (pre: ENV218)
- ENV340 Biogeography (2)
- ENV382 Analytical Methods for Specific Hazards (3)

### Semester 6

#### Core Courses

- ENV312 Sustainable Development (2) (pre: ENV301)
- ENV314 Project Proposal (2) (pre: ENV303)
- ENV336 Advanced Statistical Techniques for Environmental Science (3)

#### Optional Courses

- ENV335 Principles of Hydrology (3)
- ENV337 Dynamic Meteorology (3)
- ENV339 Methods and Techniques for Environmental Appraisal (2) (not available 2011/12)
- ENV342 The Climate System (3)
- ENV385 Soil Geography (3)

### Semester 7

#### Core Courses

- ENV400 Project Data Collection, Analysis and Reporting I (1) (pre: ENV314)
- ENV440 Geographical Information Systems(3) (pre: ENV215/ENS242)

#### Optional Courses

- ENV441 Applied Hydrology I (3) (pre: ENV335)
  - ENV442 Boundary Layer Climates (3)
  - ENV447 Environmental Hazards (2)
  - ENV449 Land Reclamation (3)
  - ENV450 Rangeland Management I (3) (pre: ENV340)
  - ENV462 Environmental Quality and Management: Land and Air (3) (pre: ENV382)
  - ENV475 Pedology (2)
  - ENV477 Internet Kalahari Transect Land-use Change Modelling I (3)
- (NOT AVAILABLE IN 2011/2012)

### Semester 8

#### Core Course

- ENV414 Project Data Collection, Analysis and Reporting II (1, all areas) (pre:ENV400)

#### Optional Courses

- ENV445 Arid Lands Geomorphology (2) (pre: ENV338)
- ENV451 Rangeland Management II (2) (pre: ENV450)
- ENV452 Soil survey and land evaluation (3) (pre: ENV334/385)
- ENV458 Water Resources Development and Management (2)
- ENV463 Environmental Quality and

Management: Water and Wastewater (3) (pre: ENV462)

- ENV478 Climates of Southern Africa (2) (pre: ENV342)
- ENV479 Applied Hydrology II (3) (pre:ENV335)
- ENV480 Internet Kalahari Transect Land-use Change Modelling II (3) (not available 2011/12)

## Combined Major/Minor Programme with Environmental Science as the Major

In accordance with General Academic Regulation 00.62, the Combined Major/Minor Programme in Physical Environment shall consist of 7 to 8 credits from core and optional courses, with optional courses selected from the following lists. Courses ENV303, ENV400 and ENV414 jointly satisfy Faculty Regulation 23.47. Availability of courses is subject to the staffing situation in the particular semester.

### Semester 3

#### Core Courses

- ENS211 The Earth Environment System (3)
- ENS242 INTRODUCTION TO SPATIAL ANALYSIS (3)
- ENS251 The Human Environment System (3)

### Semester 4

#### Core Courses

- ENS243 Introduction to Remote Sensing (3)

#### Optional Courses

- ENS241 Quantitative Techniques in Environmental Science (3)
- ENS252 Botswana Environment (3)
- ENS260 Environment and Population Dynamics (3)

### Semester 5

#### Core Courses

- ENV301 Environmental Issues (2)
- ENV303 Directed Readings (2)

#### Optional Courses

- ENV330 Remote Sensing for Environmental Science (3) (pre: ENV216/ENS243)
- ENV331 Hydro-meteorology (2)
- ENV332 Air Photo Interpretation (3) (pre:ENV215/ENV216/ENS242/ENS243)
- ENV334 Principles of Soil Science (3)
- ENV338 Introduction to Geomorphology (3) (pre: ENV218)



ENV340 Biogeography (2)  
ENV382 Analytical Methods for Specific Hazards (3)

#### Semester 6 Core Courses

ENV312 Sustainable Development (2)  
(pre: ENV301)  
ENV314 Project Proposal (2) (pre: ENV303)  
ENV336 Advanced Statistical Techniques for Environmental Science (3)

#### Optional Courses

ENV335 Principles of Hydrology (3)  
ENV337 Dynamic Meteorology (3)  
ENV339 Methods and Techniques for Environmental Appraisal (2)  
(not available 2011/12)  
ENV342 The Climate System (3)  
ENV385 Soil Geography (3)

#### Semester 7 Core Course

ENV400 Project Data Collection, Analysis and Reporting I (1) (pre: ENV314)

#### Optional Courses

ENV440 Geographical Information Systems (3) (pre: ENV215)  
ENV441 Applied Hydrology I (3)  
(pre: ENV335)  
ENV442 Boundary Layer Climates (3)  
ENV447 Environmental Hazards (2)  
ENV449 Land Reclamation (3)  
ENV450 Rangeland Management I (3)  
(pre: ENV350)  
ENV462 Environmental Quality and Management: Land and Air (3)  
(pre: ENV382)  
ENV475 Pedology (2) (pre: ENV332)

#### Semester 8 Core Course

ENV414 Project Data Collection, Analysis and Reporting II (2, all areas)  
(pre: ENV400)

#### Optional Courses

ENV445 Arid Lands Geomorphology (2)  
(pre: ENV338)  
ENV451 Rangeland Management II (2)  
(Pre: ENV450)  
ENV452 Soil Survey and Land Evaluation (3)  
(pre: ENV334/385)  
ENV458 Water Resources Development and Management (2)

ENV462 Environmental Quality and Management: Water and Wastewater (3)  
(pre: ENV462)  
ENV478 Climates of Southern Africa (2)  
(pre: ENV342)  
ENV479 Applied Hydrology II (3)  
(pre: ENV335)

Combined Major/Major Programme In accordance with General Academic Regulation 00.62, the Major/Major Programme in Physical Environment shall consist of 5 to 6 credits from core and optional courses, with optional courses selected from the following lists. Course ENV485 satisfies Faculty Regulation 23.47. Availability of courses is subject to the staffing situation in the particular semester.

#### Semester 3 Core Courses

ENS211 The Earth Environment System (3)  
ENS242 INTRODUCTION TO SPATIAL ANALYSIS (3)  
ENS251 The Human Environment System (3)

#### Semester 4 Core Courses

ENS243 Introduction to Remote Sensing (3)

#### Optional Courses

ENS241 Quantitative Techniques in Environmental Science (3)  
ENS252 Botswana Environment (3)  
ENS260 Environment and Population Dynamics (3)

#### Semester 5 Core Course

ENV301 Environmental Issues (2)

#### Optional Courses

ENV330 Remote Sensing for Environmental Science (3) (pre: ENV216)  
ENV331 Hydro-meteorology (2)  
ENV332 Air Photography (3)  
(pre: ENV215/216)  
ENV334 Principles of Soil Science (3)  
ENV338 Introduction to Geomorphology (3)  
(pre: ENV218)  
ENV340 Biogeography (2)  
ENV382 Analytical Methods for Specific Hazards (3)

#### Semester 6 Core Courses

ENV312 Sustainable Development (2)  
(pre: ENV301)  
ENV336 Advanced Statistical Techniques for Environmental Science (3)

#### Optional Courses

ENV335 Principles of Hydrology (3)  
ENV337 Dynamic Meteorology (3)  
ENV339 Methods and Techniques for Environmental Appraisal (2)  
(not available 2011/12)  
ENV342 The Climate System (3)  
ENV385 Soil Geography (3)

#### Semester 7 Core Courses

None

#### Optional Courses

ENV440 Geographical Information Systems (3) (pre: ENV215/ENS242)  
ENV441 Applied Hydrology I (3)  
(pre: ENV335)  
ENV442 Boundary Layer Climates (3)  
ENV447 Environmental Hazards (2)  
ENV449 Land Reclamation (3)  
ENV450 Rangeland Management I (3)  
(pre: ENV350)  
ENV462 Environmental Quality and Management: Land and Air (3)  
(pre: ENV382)  
ENV475 Pedology (2) (pre: ENV332)

#### Semester 8 Core Courses

None

#### Optional Courses

ENV445 Arid Lands Geomorphology (2)  
(pre: ENV338)  
ENV451 Rangeland Management II (2)  
(pre: ENV450)  
ENV452 Soil Survey and Land Evaluation (3)  
(pre: ENV334/385)  
ENV458 Water Resources Development and Management (2)  
ENV463 Environmental Quality and Management: Water and Wastewater (3)  
(pre: ENV462)  
ENV478 Climates of Southern Africa (2)  
ENV479 Applied Hydrology II (3)  
(pre: ENV335)  
ENV485 Research Essay (2)

### Combined Minor/Major Programme with Environmental Science as Minor

In accordance with General Academic Regulation 00.62, the Major/Minor Programme in Physical Environment shall consist of 3 to 4 core and optional courses, with optional courses selected from the following lists. Availability of courses is subject to the staffing situation in the particular semester.

#### Semester 3

##### Core Courses

- ENS211 The Earth Environment System (3)  
 ENS242 INTRODUCTION TO SPATIAL ANALYSIS (3)  
 ENS251 The Human Environment System (3)

#### Semester 4

##### Core Courses

- ENS243 Introduction to Remote Sensing (3)

##### Optional Courses

- ENS241 Quantitative Techniques in Environmental Science (3)  
 ENS252 Botswana Environment (3)  
 ENS260 Environment and Population Dynamics (3)

#### Semester 5

##### Core Course

- ENV301 Environmental Issues (2)

##### Optional Courses

- ENV330 Remote Sensing for Environmental Science (3) (pre: ENV216)  
 ENV331 Hydro-meteorology (2)  
 ENV332 Air Photo Interpretation (3) (pre: ENV215/216)  
 ENV334 Principles of Soil Science (3)  
 ENV338 Introduction to Geomorphology (3) (pre: ENV218)  
 ENV340 Biogeography (2)  
 ENV382 Analytical Methods for Specific Hazards (3)

#### Semester 6

##### Core Course

- ENV312 Sustainable Development (2) (pre: ENV301)

##### Optional Courses

- ENV336 Advanced Statistical Techniques for Environmental Science (3)  
 ENV335 Principles of Hydrology (3)  
 ENV337 Dynamic Meteorology (3)  
 ENV339 Methods and Techniques for

Environmental Appraisal (2) (not available 2010/11)

- ENV342 The Climate System (3)

- ENV385 Soil Geography (3)

#### Semester 7

##### Core Courses

None

##### Optional Courses

- ENV440 Geographical Information Systems (3) (pre: ENV215/ENS242)  
 ENV441 Applied Hydrology I (3) (pre: ENV335)  
 ENV442 Boundary Layer Climates (3)  
 ENV447 Environmental Hazards (2)  
 ENV449 Land Reclamation (3)  
 ENV450 Rangeland Management I (3)  
 ENV462 Environmental Quality and Management: Land and Air (3) (pre:ENV382)  
 ENV475 Pedology (2) (pre: ENV332)

#### Semester 8

##### Core Courses

None

##### Optional Courses

- ENV445 Arid Lands Geomorphology (2) (pre: ENV338)  
 ENV451 Rangeland Management II (2) (pre: ENV450)  
 ENV452 Soil Survey and Land Evaluation (3) (pre: ENV334/385)  
 ENV458 Water Resources Development and Management (2)  
 ENV463 Environmental Quality and Management: Water and Wastewater (3) (pre: ENV462)  
 ENV478 Climates of Southern Africa (2)  
 ENV479 Applied Hydrology II (3) (pre: ENV335)  
 ENV485 Research Essay (2)

## DEPARTMENT OF GEOLOGY

### Programmes and Titles of Degrees

The Department of Geology offers the following Programmes leading to the award of the mentioned Degrees:

- Single Major Programme, leading to the award of a Bachelor of Science Degree in Geology as per Departmental Regulation 2.2
- Combined Major/Minor with a Geology major leading to the award a Bachelor of Science

degree as per Departmental Regulation 2.2

- Combined Major/Major Degree Programme with Geology and one of Chemistry, Environmental Science and Physics leading to the award of a Bachelor of Science Degree as per Departmental Regulations 2.2
- Combined Major/Minor with Geology as a Minor leading to the award of the degree in which the student is enrolled as per Departmental Regulation 2.2
- Single Major Programme (in collaboration with the Department of Physics), leading to the award of a Bachelor of Science Degree in Applied Geophysics as per in the Faculty of Science Regulations 23.2.1 and 23.4.
- Master of Science Programme leading to the award of a Master of Science Degree in Hydrogeology as per Departmental Regulation 4.0.

### Entry Requirements

(a) Admission to the Geology Single Major and Combined Degree Programmes shall be as specified in the Faculty of Science Regulations 23.2.1 and 23.4.

(b) Students who wish to register for Geology (Single Major or Combined Degree) at Level 200 must have taken and passed Mathematics, Physics, Chemistry and Geology or Mathematics, Physics and Chemistry at Level 100.

(c) In accordance with the Faculty of Science Special Regulation 23.2.4, a Geology student (Single Major and Combined Degree) can register directly at Level 200 but cannot be exempted from Level 100 Geology courses.

(d) A student admitted to Level 200 Geology who has not completed Level 100 Geology courses must take them during the first semester of Level 200.

(e) A student admitted to Level 200 Geology who has successfully completed Level 100 Geology courses must comply with the University of Botswana Academic General Regulation 00.311 by taking relevant General Education courses or Elective courses in consultation with the Head of Department.

### Award of Degree

To be awarded a Bachelor of Science Degree in Geology or a Bachelor of Science for a Combined Degree involving Geology as a subject, a student must satisfy General Academic Regulations





00.85 and 00.9 and Faculty of Science Special Regulation 23.7.

### Course Structure

Geology courses shall be offered at Levels 100 to 400 for the Undergraduate Programme as outlined in Regulations 2.1 to 2.4 below and Levels 600 to 700 for Master of Science candidates.

### Level 100

#### Semester 1

**GEO101** Introduction to Geology (4)

#### Semester 2

**GEO102** Introduction to Mineralogy (3)

### Levels 200, 300 and 400

Bachelor of Science, Geology Single Major

At Level 200, the Single Major Programme consists of 19 credits of core courses and 9 credits of elective courses from Statistics and Mathematics. In addition, students must take a minimum of 4 credits of General Education Courses.

### Semester 3

#### Core Courses

**GEO201** Structural Geology (3)

**GEO204** Sedimentology (3)

**GEO205** Introduction to Hydrogeology (3)

**MAT291** Engineering Mathematics I (3)

**STA116** Introduction to Statistics (3)

### Semester 4

#### Core Courses

**GEO202** Optical Mineralogy (2)

**GEO203** Photogeology and Remote Sensing Applied to Geology (2)

**GEO206** Petrography (3)

**GEO207** Chemical Geology (3)

**MAT292** Engineering Mathematics II (3)

### Level 300

At Level 300, the Single Major Programme will consist of 35 credits of core courses which include a winter course **GEO301** (Field Mapping) to be done during the long vacation/winter semester after Level 200.

### Long Vacation/Winter Semester

**GEO301** Field Mapping (3)

### Semester 5

#### Core Courses

**GEO302** Igneous Petrology (3)

**GEO303** Sedimentary Petrology (3)

**GEO305** Ore Geology (3)

**GEO306** Exploration Geophysics I (3)

**GEO312** Research Methods & Computer Applications in Geology (2)

### Semester 6

#### Core Courses

**GEO304** Advanced Structural Geology (4)

**GEO308** Metamorphic Petrology (3)

**GEO309** Hydrogeology (3)

**GEO310** Exploration Geophysics II (3)

**GEO311** Paleontology and Stratigraphy (3)

**GEO313** Theoretical Geochemistry (3)

### Level 400

At Level 400, the Single Major Programme shall consist of 23 credits of core courses and at least 3 credits from optional courses.

### Winter Semester

**GEO401** Research Project (Data Acquisition)

### Semester 7

#### Core Courses

**GEO401** Research Project (6, yearlong)

**GEO404** Geology of Africa (3)

**GEO407** Economic Geology (3)

**GEO408** Environmental Geology (3)

Optional (choose at least 1)

**GEO409** Geology of Botswana (3)

**GEO410** Advanced Methods in Exploration Geophysics (3)

### Semester 8

#### Core Courses

**GEO401** Research Project (6, yearlong)

**GEO402** Geotectonics (2)

**GEO403** Exploration Geochemistry (3)

**GEO405** Engineering Geology (3)

+ 4 credits of GEC's/Electives

### Bachelor of Science, Combined (Geology Major)

### Level 200

At level 200, the Major/Minor programme shall consist of 19 credits of core courses. In addition, the students must take the relevant General Education Courses and comply with Academic General Regulations 00.62

### Semester 3

#### Core Courses

**GEO201** Structural Geology (3)

**GEO204** Sedimentology (3)

**GEO205** Introduction to Hydrogeology (3)

Students who are registering at level 200 and have not taken **GEO101** and **GEO102** in the first year have to register for these courses at level 200.

### Semester 4

#### Core Courses

**GEO202** Optical Mineralogy (2)

**GEO203** Photogeology and Remote Sensing Applied to Geology (2)

**GEO206** Petrography (3)

**GEO207** Chemical Geology (3)

### Level 300

**At Level 300, the Major/Minor Programme (Geology Major)** shall consist of 23 credits. In addition, the students must take relevant General Education Courses.

### Long Vacation/Winter Semester

**GEO301** Field Mapping (3)

### Semester 5

#### Core Courses

**GEO305** Ore Geology (3)

**GEO307** Petrology I (2)

**GEO312** Research Methods & Computer Applications in Geol. (2)

**GEO315** Introduction to Exploration Geophysics (3)

### Semester 6

#### Core Courses

**GEO304** Advanced Structural Geology (4)

**GEO309** Hydrogeology (3)

**GEO313** Theoretical Geochemistry (3)

**GEO314** Petrology II (2)

### Level 400

At Level 400, the Major/Minor Programme shall consist of 15 credits of core courses and at least 2 to 3 credits from optional courses.

### Long Vacation/Winter Semester

**GEO401** Research Project (Data Acquisition)

### Semester 7

#### Core Courses

**GEO401** Research Project (yearlong)

**GEO404** Geology of Africa (3)

**GEO408** Environmental Geology (3)

## Semester 8

### Core Courses

- GEO401 Research Project (6)
- GEO403 Exploration Geochemistry (3)

### Optional Courses (choose at least 1)

- GEO402 Geotectonics (2)
- GEO405 Engineering Geology (3)

## Bachelor of Science, Combined

### Major

#### Level 200

At level 200, the Major/Major Programme shall consist of 11 credits of core courses for all streams ( Geology/Chemistry; Geology/Environmental Science; and Geology/Physics. In addition, the student must take the relevant General Education Courses and comply with Academic General Regulation 00.62

## Semester 3

### Core Courses

- GEO201 Structural Geology (3)
- GEO205 Introduction to Hydrogeology (3)

Students who are registering at level 200 and have not taken GEO101 and GEO102 in the first year have to register for these courses at level 200.

## Semester 4

### Core Courses

- GEO203 Photogeology and Remote Sensing Applied to Geology (2)
- GEO206 Petrography (3)

#### Level 300

At Level 300, the Major/Major Programme is offered in the 3 following streams:

- a) Geology/Chemistry;
- b) Geology/Environmental Science;
- c) Geology/Physics.

The programme consists of 13 credits of core and optional courses. In addition, the students must take the relevant General Education courses and comply with Academic General Regulation 00.62

### Long Vacation/Winter Session Core Course for all Streams

- GEO301 Field Mapping (3)

## Bachelor of Science, Combined Major (Geology/Chemistry)

## Semester 5

### Core Courses

- GEO305 Ore Geology (3)
- GEO307 Petrology I (2)

## Semester 6

### Core Courses

- GEO313 Theoretical Geochemistry (3)
- GEO314 Petrology II

#### Level 400

At level 400, the Major/Major programme shall consist of 3 credits of core courses and 5 to 6 credits of optional courses. In addition, the students must take the relevant General Education courses and comply with the Faculty of Science General Regulation 00.62

## Semester 7

### Core course

- GEO408 Environmental Geology (3)

### Optional Courses (choose at least 1)

- GEO407 Economic Geology (3)
- GEO409 Geology of Botswana (3)

## Semester 8

### Optional Courses (choose at least 2)

- GEO402 Geotectonics (2)
- GEO403 Exploration Geochemistry (3)
- GEO405 Engineering Geology (3)

### Important Notice for 4th Year Combined Major Students

(a) Students who wish to do a research project in Geology must register for GEO406 (in semester 2).

(b) Students who do not register for GEO406 must register for a project in the other subject.

## Bachelor of Science, Combined Major (Geology/Environmental Science)

## Semester 5

### Core Courses

- GEO305 Ore Geology (3)
- GEO307 Petrology I (2)

## Semester 6

### Core Courses

- GEO309 Hydrogeology (3)
- GEO314 Petrology II (2)

#### Level 400

At level 400, the Major/Major programme shall consist of 3 credits of core courses and 5 to 6 credits of optional courses. In addition, the students must take the relevant General Education courses and comply with the Faculty of Science General Regulation 00.62

## Semester 7

### Core course

- GEO408 Environmental Geology (3)

### Optional Courses (choose at least 1)

- GEO407 Economic Geology (3)
- GEO409 Geology of Botswana (3)

## Semester 8

### Optional Courses (choose at least 2)

- GEO402 Geotectonics (2)
- GEO403 Exploration Geochemistry (3)
- GEO405 Engineering Geology (3)

### Important Notice for 4th Year Combined Major Students

(a) Students who wish to do a research project in Geology must register for GEO406 (in semester 2).

(b) Students who do not register for GEO406 must register for a project in the other subject.

## Bachelor of Science, Combined Major (Geology/Physics)

## Semester 5

### Core Courses

- GEO307 Petrology I (2)
- GEO315 Introduction to Exploration Geophysics (3)

## Semester 6

### Core Courses

- GEO309 Hydrogeology (3)
- GEO314 Petrology II (2)

#### Level 400

At level 400, the Major/Major programme shall consist of 3 credits of core courses and 5 to 6 credits of optional courses. In addition, the students must take the relevant General Education courses and comply with the Faculty of Science General Regulation 00.62

## Semester 7

### Core course

- GEO404 Geology of Africa (3)



**GEO408** Environmental Geology (3)

#### Semester 8

**GEO402** Geotectonics (2)

**GEO405** Engineering Geology (3)

Important Notice for 4th Year Combined Major Students (a) Students who wish to do a research project in Geology must register for GEO406 (in semester 2).

(b) Students who do not register for GEO406 must register for a project in the other subject.

#### Bachelor of Science, Combined Major/Minor (Geology minor)

The combined Major/Minor programme with Geology as a Minor shall consist of 24 credits of core courses taken in Semesters 3 to 8.

#### Core Courses

**GEO101** Introduction to Geology (4)

**GEO102** Introduction to Mineralogy (3)

**GEO201** Structural Geology (3)

**GEO204** Sedimentology (3)

**GEO205** Introduction to Hydrogeology (3)

**GEO206** Petrography (3)

**GEO305** Ore Geology (3)

**GEO408** Environmental Geology (3)

It is important to note which courses are taken in the first semester or second semester of the academic year (Refer to Single Major Programme for such information)

#### Service Courses

The following are offered as service courses for non-Geology Majors

**GEO103** Geology for Teachers (3)

**GEO104** Introductory Geology for Engineers (2)

#### General Education Courses

**GEC250** Earth Processes, Mineral Resources and Development (2)

**GEC251** Groundwater and Society (2)

#### Assessment and Examination

(a) 2.5.1 If not stated otherwise, the examination will represent 2/3 and the continuous assessment 1/3 of the final marks.

(b) GEO301 shall be examined by continuous assessment only.

#### Progression

Student progression is made in accordance with

The University of Botswana General Academic Regulation 00.9

#### BSC201: Bachelor of Applied Geophysics

#### Entrance requirements

Admission to the Applied Geophysics Degree Programmes shall be as specified in the Faculty of Science Regulations 23.2.1 and 23.4.

(a) Students who wish to register for the Applied Geophysics Degree Programme at Level 200 must have taken and passed Mathematics, Physics, Chemistry and Geology or Mathematics, Physics and Chemistry at Level 100.

(b) In accordance with the Faculty of Science Special Regulation 23.2.4, an Applied Geophysics student can register directly at Level 200 but cannot be exempted from Level 100 Geology courses.

(c) A student admitted to Level 200 Applied Geophysics who has not completed Level 100 Geology courses must take them at Level 200.

(d) A student admitted to Level 200 Applied Geophysics who has successfully completed Level 100 Geology courses must comply with the University of Botswana Academic General Regulation 00.311 by taking relevant General Education courses or Elective courses in consultation with the Head of Department.

#### Award of Degree

To be awarded a B.Sc. (Applied Geophysics) a candidate/student must have taken and passed all the courses prescribed in Section 9 and must satisfy the University of Botswana Academic General Regulations 00.85 and 00.9 and Faculty of Science Special Regulation 23.7.

#### Programme Structure

The Programme is designed in such a manner as to gradually introduce students to the principles of Applied Geophysics in the third year. It is envisaged that at this level, students are sufficiently grounded in the basic theories and principles used in Geophysics and can appreciate all the scientific/practical developments in this field they are likely to encounter. They should have been exposed to adequate field work through the geologic field course taken during Level 100 and 200.

The fourth and final year consists of the completion of the Geology and Applied

Geophysics courses and emphasis is placed on application of the various geophysical methods in exploration and fieldwork (where the students will be acquainted with the use of various geophysical equipments) which forms a major component of the course.

The courses are also designed to satisfy the required training expected for an applied geophysicist. This will enable graduates of the programme to qualify to be members of professional societies such as the Society of Exploration Geophysicists (SEG).

In the final year students will have the option of choosing either the Mining Geophysics or the Environmental Geophysics Stream, the latter including geotechnical and groundwater studies.

#### LEVEL 100

##### Semester 1

**CHE101** General Chemistry I (4)

**PHY112** Geometrical Optics and Mechanics (4)

**MAT111** Introductory Mathematics I (4)

**GEC141** Introduction to Communication and Academic Literacy Skills (Science) (3)

**ICT 121** Computing Skills Fundamentals 1 (2)

##### Semester 2

**CHE102** General Chemistry II (4)

**PHY122** Electricity, Magnetism and Elements of Modern Physics (4)

**MAT122** Introductory Mathematics II (4)

**GEC142** Academic and Professional Communication (Science) (3)

**ICT 122** Computing Skills Fundamentals 2 (2)

#### LEVEL 200

##### Semester 3

##### Core courses

**GEO101** Introduction to Geology (4)

**GPH201** Fundamentals of Geophysics (3)

**GEO201** Structural Geology (3)

**MAT221** Calculus I (3)

**Optional Courses: Candidates will be required to take at least 3 credits from the following:**

**GEO205** Introduction to Hydrogeology (3)

**PHY231** Mechanics, Vibrations and Waves, Physical Optics (pre-requisite = PHY112) (3)

**PHY232** Properties of Matter, Basic Thermodynamics and Introduction

to Nuclear Physics (pre-requisite = PHY112 (3))  
**PHY239** Physics Practicals (3.1)

Note: Candidates intending to take Environmental Geophysics at level 400 are advised to take GEO205 as one of the optional courses

#### Semester 4

**GEO102** Introduction to Mineralogy (3)  
**GEO206** Petrography (3)  
**PHY241** Advanced Electricity and Magnetism (pre-requisite =PHY122) (3)  
**PHY249** Physics Practicals 2.2 (4.1) (pre-requisite = PHY122, co-requisite = PHY241 or 242) (1)  
**MAT222** Calculaus II (3)

**Optional Courses: Candidates will be required to take at least 3 credits from the following:**

**GEO203** Remote Sensing and GIS Applied to Geology (3)  
**PHY242** Basic Electronics (pre-requisite = PHY122) (3)  
**PHY232** Properties of Matter, Basic Thermodynamics and Introduction to Nuclear Physics (pre-requisite = PHY112 (3))  
**MAT242** Computing I (3)  
**MAT244** Numerical Methods (3)

Elective: Candidates are also advised to take the following course or any other 3-credit course of their choice as an elective.

**LAW203** Environmental Laws of Botswana (3)

#### WINTER SEMESTER

**GEO301** Field Mapping (5 weeks (3))

#### LEVEL 300

##### Semester 5

**GEO316** Introduction to sedimentology and stratigraphy (3)  
**CCB313** Surveying (3)  
**PHY353** Mathematical Methods for Physical Sciences I (3)  
**GPH301** Gravity and magnetic methods (3)

**Optional Courses: Candidates will be required to take at least 3 credits from the following:**

**MAT324** Differential Equations (3)  
**GEO304** Advanced structural Geology (4)

**GEO305** Ore Geology (3)  
**PHY354** Advanced Electronics (pre-requisite = PHY242 (3))  
**PHY315** Introduction to Potential Fields Geophysics (3)

#### Semester 6

**GPH302** Electrical and Electromagnetic Methods (3)  
**GPH304** Seismic Imaging: Theory and Applications (3)  
**GPH306** Geophysical Data Analysis and Interpretation (3)

**Optional Courses: Candidates will be required to take at least 3 credits from the following:**

**GEO309** Hydrogeology (3)  
**PHY361** Introduction to Electromagnetism (pre-requisite PHY241) (3)  
**PHY364** Advanced (pre-requisite PHY354) Electronics II (3)  
**PHY365** Physics of the Environmental (3)  
**PHY476** Mathematical Methods for Physical Sciences II (prerequisite PHY353) (3)

Elective: Candidates are also advised to take the following course or any other 3-credit course of their choice as an elective.

**ENV312** Sustainable Development (3)

#### WINTER SEMESTER

**GPH307** Geophysical Field School (3 Weeks) (3)

#### LEVEL 400

##### Mining Geophysics Stream

##### Semester 7

**GEO407** Economic Geology (3)  
**GPH403** Seismic Data Processing and Interpretation (3)  
**GPH405** Well Logging and Formation Evaluation (3)  
**GPH401** Research Project (3)

**Optional Courses: Candidates will be required to take at least 3 credits from the following:**

**GEO404** Geology of Africa (3)  
**GEO408** Environmental Geology (3)  
**GEO409** Geology of Botswana (3)  
**GPH407** Global Geophysics (3)  
**GPH404** Environmental Geophysics (3)  
**PHY481** Atomic and Basic Nuclear Physics(3)

#### Semester 8

**GEO405** Engineering Geology (3)  
**GPH412** Research Project II (3)  
**GHP406** Mining Geophysics (3)

**Optional Courses: Candidates will be required to take at least 3 credits from the following:**

**PHY485** Microcomputing for Physical sciences (3)  
**GPH402** Geophysical Time Series analysis (3)  
**GEO402** Geotectonics (3)  
**GEO409** Geology of Botswana (3)

**In addition candidates are required to take 3 credits of Elective/GEC**

##### Environmental Geophysics Option

#### Semester 7:

**GPH401** Research Project I (3)  
**GPH403** Seismic Data Processing and Interpretation (3)  
**GPH405** Well Logging and Formation Evaluation Techniques (3)  
**GEO408** Environmental Geology (3)

Optional Courses: Candidates will be required to take at least 3 credits from the following:

**GEO404** Geology of Africa (3)  
**GEO407** Economic Geology (3)  
**GPH407** Global Geophysics (3)  
**GPH407** Mining Geophysics (3)  
**PHY481** Atomic and Basic Nuclear Physics(3)

#### Semester 8

**GPH404** Environmental Geophysics (3)  
**GEO405** Engineering Geology (3)  
**GPH412** Research Project II (3)

**Optional Courses: Candidates will be required to take at least 3 credits from the following:**

**PHY485** Microcomputing for Physical sciences (3)  
**GPH402** Geophysical Time Series Analyses (3)  
**GPH407** Global Geophysics (3)  
**GEO404** Geology of Africa (3)

**In addition candidates are required to take 3 credits of Elective/GEC**



## DEPARTMENT OF MATHEMATICS

### Programmes and Titles of Degrees

The Department of Mathematics offers the following Programmes leading to the award of the mentioned degrees:

- Single Major Programme leading to the award of a Bachelor of Science Degree in Mathematics as outlined in Departmental Regulation 2.1
- Combined Major/Minor Programme with Mathematics as the Major, leading to the award of a Bachelor of Science Degree as outlined in Departmental Regulation 2.2
- Combined Major/Major Programme leading to the award of a Bachelor of Science Degree as outlined in Departmental Regulation 2.3
- Combined Major/Minor Programme with Mathematics as the Minor leading to the award of a Bachelor of Science Degree as outlined in Departmental Regulation 2.4.

### Entry Requirements

Admission to the Mathematics Programmes shall be as specified in Faculty of Science Regulation 23.21.

The entry requirement for Single Major and Major/Minor (with Mathematics Major) at level 300 shall be a GPA of 3.0 in the Mathematics courses at levels 100 and 200 subject to approval by the Head of the Department.

### Single Major (Mathematics Major)

#### Level 100

##### Semester 1

**MAT111** Introductory Mathematics I (4)

##### Semester 2

**MAT122** Introductory Mathematics II (4)

#### Level 200

##### Semester 3

In Semester 3, the Single Major Programme shall consist of 6 credits of core courses and a minimum of 6 credits optional courses.

#### Core Courses

**MAT211** Introductory Set and Number Theory (3)  
**MAT221** Calculus I (3) Optional Courses  
**MAT244** Numerical Methods I (3)  
**MAT251** Vectors and Introductory Mechanics (3)

**MAT271** Introduction to Mathematical Statistics (3)

#### Semester 4

##### Core Courses

In Semester 4, the Single Major Programme shall consist of 6 credits of core courses and a minimum of 6 credits of optional courses.

**MAT212** Introduction to Linear Algebra (3)  
**MAT222** Calculus II (3) Optional Courses  
**MAT214** Discrete Mathematics (3)  
**MAT242** Computing (3)  
**MAT252** Newtonian Mechanics (3)

#### Level 300

##### Semester 5

In Semester 5, the Single Major Programme shall consist of 6 credits of core courses.

Additional minimum 6 credits should be taken from optional courses in accordance with General Regulation 00.62.

#### Core Courses

**MAT311** Abstract Algebra I (3)  
**MAT321** Real Analysis I (3)

#### Optional Courses

**MAT323** Vector Calculus (3)  
**MAT344** Numerical Methods for Linear Algebra (3)  
**MAT361** Mathematical Programming and Game Theory (3)  
**MAT371** Mathematical Statistics I (3)

#### Semester 6

In Semester 6, the Single Major Programme shall consist of 9 credits of core courses. An additional minimum 3 credits should be taken from optional courses in accordance with General Regulation 00.62.

#### Core Courses

**MAT312** Abstract Algebra II (3)  
**MAT322** Real Analysis II (3)  
**MAT324** Differential Equations (3)

#### Optional Courses

**MAT346** Numerical Methods II (3)  
**MAT348** Introduction to Computational Mathematics (3)  
**MAT352** Dynamics I (3)  
**MAT372** Mathematical Statistics II (3)

#### Level 400

##### Semester 7

In Semester 7, the Single Major Programme shall consist of 7 credits of core courses. Additional minimum 6 credits should be taken from optional courses in accordance with General Regulation 00.62.

#### Core Courses

**MAT401** Introduction to Mathematical Writing (1)  
**MAT411** Linear Algebra (3)  
**MAT421** Functions of a Complex Variable (3)  
**Optional Courses**  
**MAT423** Mathematical Methods (3)  
**MAT425** Measure Theory (3)  
**MAT431** General Topology (3)  
**MAT451** Dynamics II (3)  
**MAT461** Optimisation and Control Theory (3)  
**MAT471** Multivariate Statistics (3)

#### Semester 8

In Semester 8, the Single Major Programme shall consist of 3 credits of core course and a minimum of 9 credits of optional courses in accordance with General Regulation 00.62.

#### Core Courses

**MAT406** Project (3)

#### Optional Courses

**MAT404** Topics in Advanced Mathematics (3)  
**MAT412** Number Theory (3)  
**MAT414** Combinatorics and Graph Theory (3)  
**MAT416** Abstract Algebra III (3)  
**MAT422** Functional Analysis (3)  
**MAT424** Dynamical Systems (3)  
**MAT426** Partial Differential Equations (3)  
**MAT428** Introduction to Probability Theory (3)  
**MAT432** Algebraic Topology (3)  
**MAT454** Introduction to Fluid Dynamics (3)  
**MAT464** Introduction to Mathematical Modelling Applied to Life Sciences (3)  
**MAT472** Linear Models (3)  
**MAT474** Stochastic Processes (3)  
**MAT478** Introduction to Statistical Analysis of Reliability (3)

### Combined Major/Minor Programme (Mathematics Major)

#### Level 100

##### Semester 1

**MAT111** Introductory Mathematics I (4)

##### Semester 2

**MAT122** Introductory Mathematics II (4)



**Level 200****Semester 3**

In Semester 3, the Combined Major/Minor Programme shall consist of 6 credits of core courses and 3 credits from optional courses.

**Core Courses**

- MAT211** Introductory Set and Number Theory (3)  
**MAT221** Calculus I (3)Optional Courses  
**MAT244** Numerical Methods I (3)  
**MAT251** Vectors and Introductory Mechanics (3)  
**MAT271** Introduction to Mathematical Statistics (3)

**Semester 4**

In Semester 4 the Combined Major/Minor Programme shall consist of 6 credits of core courses and 3 credits from optional courses.

**Core Courses**

- MAT212** Introduction to Linear Algebra (3)  
**MAT222** Calculus II (3)Optional Courses  
**MAT214** Discrete Mathematics (3)  
**MAT242** Computing (3)  
**MAT252** Newtonian Mechanics (3)

**Level 300****Semester 5**

In Semester 5, the Combined Major/Minor Programme shall consist of 6 credits of core courses. Additional minimum 6 credits should be taken from optional courses.

**Core Courses**

- MAT311** Abstract Algebra I (3)  
**MAT321** Real Analysis I (3)

**Optional Courses**

- MAT251** Vectors and Introductory Mechanics (3)  
**MAT271** Introduction to Mathematical Statistics (3)  
**MAT323** Vector Calculus (3)  
**MAT344** Numerical Methods of Linear Algebra (3)  
**MAT361** Mathematical Programming and Game Theory (3)  
**MAT371** Mathematical Statistics I (3)

**Semester 6**

In Semester 6, the Combined Major/ Minor Programme shall consist of 3 credits of core courses. Additional minimum 6 credits should be taken from optional courses.

**Core Courses**

- MAT324** Differential Equations (3)

**Optional Courses**

- MAT312** Abstract Algebra II (3)  
**MAT322** Real Analysis II (3)  
**MAT346** Numerical Methods II (3)  
**MAT348** Introduction to Computational Mathematics (3)  
**MAT352** Dynamics I (3)  
**MAT372** Mathematical Statistics II (3)

**Level 400****Semester 7**

In Semester 7, the Combined Major/Minor Programme shall consist of 4 credits of core courses. Additional minimum 6 credits should be taken from optional courses.

**Core Courses**

- MAT401** Introduction to Mathematical Writing (1)  
**MAT421** Functions of a Complex Variable (3)  
Optional Courses  
**MAT411** Linear Algebra (3)  
**MAT423** Mathematical Methods (3)  
**MAT425** Measure Theory (3)  
**MAT431** General Topology (3)  
**MAT451** Dynamics II (3)  
**MAT453** Electromagnetic Theory (3)  
**MAT461** Optimisation and Control Theory (3)  
**MAT471** Multivariate Statistics (3)

**Semester 8**

In Semester 8, the Combined Major/Minor Programme shall consist of 3 credits of core course 9 credits of optional courses.

**Core course**

- MAT406** Project (3)

**Optional Courses**

- MAT402** History of Mathematics (3)  
**MAT412** Number Theory (3)  
**MAT414** Combinatorics and Graph Theory (3)  
**MAT416** Abstract Algebra III (3)  
**MAT422** Functional Analysis (3)  
**MAT424** Dynamical Systems (3)  
**MAT426** Partial Differential Equations (3)  
**MAT428** Introduction to Probability Theory (3)  
**MAT432** Algebraic Topology (3)  
**MAT454** Introduction to Fluid Dynamics (3)  
**MAT464** Introduction to Mathematical Modelling Applied to Life Sciences (3)

- MAT472** Linear Models (3)  
**MAT474** Stochastic Processes (3)  
**MAT478** Introduction to Statistical Analysis of Reliability (3)

**Combined Major/Major Programme****Level 100****Semester 1**

- MAT111** Introductory Mathematics I (4)

**Semester 2**

- MAT122** Introductory Mathematics II (4)

**Level 200****Semester 3**

In Semester 3, the Combined Major/Major Programme shall consist of 6 credits of core courses. Additional credits may be taken from optional courses in accordance with General Regulation 00.62.

**Core Courses**

- MAT211** Introductory Set & Number Theory (3)  
**MAT221** Calculus I (3)Optional Courses  
**MAT244** Numerical Methods I (3)  
**MAT251** Vectors and Introductory Mechanics (3)  
**MAT271** Introduction to Mathematical Statistics (3)

**Semester 4**

In Semester 4, the Combined Major/Major Programme shall consist of 6 credits of core courses. Additional credits may be taken from optional courses in accordance with General Regulation 00.62.

**Core Courses**

- MAT212** Introduction to Linear Algebra (3)  
**MAT222** Calculus II (3)

**Optional Courses**

- MAT214** Discrete Mathematics (3)  
**MAT242** Computing (3)  
**MAT252** Newtonian Mechanics (3)

**Level 300****Semester 5**

In Semester 5, the Combined Major/Major Programme shall consist of 6 credits of core courses. Additional minimum 3 credits should be taken from optional courses in accordance with General Regulation 00.62.

**Core Courses**

- MAT311** Abstract Algebra I (3)  
**MAT321** Real Analysis I (3)



### Optional Courses (3)

- MAT251** Vectors and Introductory Mechanics (3)  
**MAT323** Vector Calculus (3)  
**MAT344** Numerical Methods of Linear Algebra (3)

### Semester 6

In Semester 6, the Combined Major/Major Programme shall consist of 3 credits of core courses. Additional minimum 3 credits should be taken from optional courses in accordance with General Regulation 00.62.

### Core Courses

- MAT324** Differential Equations (3)

### Optional Courses

- MAT252** Newtonian Mechanics (3)  
**MAT312** Abstract Algebra II (3)  
**MAT322** Real Analysis II (3)  
**MAT346** Numerical Methods II (3)  
**MAT348** Introduction to Computational Mathematics (3)  
**MAT352** Dynamics I (3)

### Level 400

### Semester 7

In Semester 7, the Combined Major/Major Programme shall consist of 3 credits of core courses. Additional minimum 6 credits should be taken from optional courses in accordance with General Regulation 00.62.

### Core Courses

- MAT421** Functions of a Complex Variable (3)

### Optional Courses

- MAT361** Maths. Programming and Game Theory (3)  
**MAT371** Mathematical Statistics I (3)  
**MAT401** Introduction to Mathematical Writing (1)  
**MAT411** Linear Algebra (3)  
**MAT423** Mathematical Methods (3)  
**MAT425** Measure Theory (3)  
**MAT431** General Topology (3)

### Semester 8

In Semester 8, the Combined Major/Major Programme shall consist of 6 credits of optional courses.

### Optional Courses

- MAT372** Mathematical Statistics II (3)  
**MAT402** History of Mathematics (3)

- MAT406** Project (3)  
**MAT414** Combinatorics and Graph Theory (3)  
**MAT416** Abstract Algebra III (3)  
**MAT422** Functional Analysis (3)  
**MAT428** Introduction to Probability Theory (3)  
**MAT464** Introduction to Mathematical Modelling Applied to Life Sciences (3)

### Combined Major/Minor Programme (Mathematics Minor)

### Level 100

### Semester 1

- MAT111** Introductory Mathematics I (4)

### Semester 2

- MAT122** Introductory Mathematics II (4)

### Level 200

### Semester 3

In Semester 3, the Combined Major/Minor Programme with Mathematics as Minor shall consist of 6 credits of core courses.

### Core Courses

- MAT211** Introductory Set and Number Theory (3)  
**MAT221** Calculus I (3)

### Semester 4

In Semester 4, the Combined Major/Minor Programme with Mathematics as Minor shall consist of 6 credits of core courses.

### Core Courses

- MAT212** Introduction to Linear Algebra (3)  
**MAT222** Calculus II (3)

### Level 300

### Semester 5

In Semester 5, the Combined Major/Minor Programme with Mathematics as Minor shall consist of 6 credits of optional courses.

### Optional Courses

- MAT251** Vectors and Introductory Mechanics (3)  
**MAT271** Introduction to Mathematical Statistics (3)  
**MAT311** Abstract Algebra I (3)  
**MAT323** Vector Calculus (3)  
**MAT344** Numerical Methods of Linear Algebra (3)

### Semester 6

In Semester 6, the Combined Major/Minor Programme with Mathematics as Minor shall consist of 6 credits of optional courses.

### Optional Courses

- MAT252** Newtonian Mechanics (3)  
**MAT312** Abstract Algebra II (3)  
**MAT346** Numerical Methods II (3)  
**MAT348** Introduction to Computational Mathematics (3)

### Level 400

### Semester 7

In Semester 7, the Combined Major/Minor Programme with Mathematics as Minor shall consist of 3 credits of optional courses.

### Optional Courses

- MAT321** Real Analysis I (3)  
**MAT361** Mathematical Programming and Game Theory (3)  
**MAT371** Mathematical Statistics I (3)  
**MAT411** Linear algebra (3)

### Semester 8

In Semester 8, the Combined Major/Minor Programme with Mathematics as Minor shall consist of 6 credits of optional courses.

### Optional Courses

- MAT322** Real Analysis II (3)  
**MAT324** Differential Equations (3)  
**MAT372** Mathematical Statistics II (3)  
**MAT402** History of Mathematics (3)  
**MAT414** Combinatorics and Graph Theory (3)

### Courses for Non-Mathematics Majors (Service courses)

- MAT103** Mathematics for Allied Sciences I (3)  
**MAT104** Mathematics for Allied Sciences II (3)  
**MAT201** Ancillary Mathematics (3)

### Engineering Mathematics

- MAT191** Design Mathematics I (3)  
**MAT192** Design Mathematics II (3)  
**MAT291** Engineering Mathematics I (3)  
**MAT292** Engineering Mathematics II (3)  
**MAT391** Engineering Mathematics III (3)  
**MAT392** Engineering Mathematics IV (3)  
**MAT394** Engineering Mathematics IVB (3)  
**MAT491** Engineering Mathematics V (3)  
**MAT492** Engineering Mathematics VI (3)

### General Education Course

- MAT105** Numeracy Skills (2)

### Bachelor of Education Degree (Secondary)

In Semesters 5 to 8, students pursuing the Bachelor of Education (Secondary) Programme shall take credits from the following core courses:

#### Semester 5

- MAT381** Calculus for Teachers I (3)
- MAT383** Linear Algebra for Teachers (3)
- MAT387** Mechanics for Teachers I (3)
- MAT389** Linear Programming and GameTheory for Teachers (3)

#### Semester 6

- MAT382** Calculus for Teachers II (3)
- MAT384** Computing for Teachers (3)
- MAT388** Mechanics for Teachers II (3)

#### Semester 7

- MAT481** Geometry for Teachers I (3)
- MAT483** Real Analysis for Teachers (3)
- MAT485** Number Theory and Abstract Algebra for Teachers (3)

#### Semester 8

- MAT324** Differential Equations (3)
- MAT482** Geometry for Teachers II (3)
- MAT484** Introduction to Probability and Statistics for Teachers (3)

### General Education Courses

- MAT105** Numeracy Skills (3)
- MAT101** Mathematics for Social Scientists (3)
- MAT102** Mathematics in Business (3)

### Assessment and Examination

Performance in each course shall be evaluated by the combination of continuous assessment and final examination marks:

(a) Continuous Assessment (CA): In all years CA shall be based on tests and/or assignments with at least two tests per semester.

(b) The Project courses MAT401, MAT406; and the course MAT404 shall be assessed by CA only.

(c) Examinations: Each course shall be examined at the end of the semester.

(d) Final marks: The ratio between CA and Examination normally shall be 1:2. For the courses MAT242, MAT348 and MAT384 the ratio between CA and Examination shall be 1:1.

### Progression from Semester to Semester

In order to proceed from one semester to the next, a student must obtain a cumulative GPA, which is in accordance with General Regulation 00.9.

## DEPARTMENT OF PHYSICS

### DEPARTMENTAL REGULATIONS

#### General Provisions

Subject to the provisions of Academic General Regulations and Faculty of Science Special Regulations, the following Departmental Regulations shall apply.

#### Programmes and Titles of Degrees

The Department of Physics offers three (3) BSc degree programmes leading to the award of the mentioned degrees:

- BSC230 (Basic Physics Programme)
- BSc202 (BSc in Physics with Meteorology)
- BSc203 (BSc in Radiation and Health Physics)

The Department of Physics in collaboration with The Department of Geology offers a Single Major Programme, leading to the award of a Bachelor of Science Degree in Applied Geophysics as per in the Faculty of Science Regulations 23.2.1 and 23.4. For Details refer to the Geology Department.

#### Entry Requirements

Admission to the Physics Programmes shall be as specified in Faculty of Science Regulation 23.21. To register into the 300 level of Physics Single Major Programme, a student must have passed all the levels 100 and 200 Physics courses.

#### Award of Degree

To be awarded a degree, a student must satisfy appropriate provisions of Academic General Regulation 23.71.

### PROGRAMME STRUCTURE

The physics courses shall be offered at levels 100 to 400 for the undergraduate programme as outlined in Regulations Departmental regulations 2.1 to 2.3, levels 600 to 700 for MSc candidates, levels 800 and 900 for MPhil and PhD candidates.

In addition to physics courses, an undergraduate candidate majoring in physics courses shall take

General Education Courses (GECs) and Electives in accordance with General Regulation 00.2124.

The Department of Physics offers service courses in physics to non-physics majors as outlined in departmental regulation 2.4

### BSC 230: BASIC PHYSICS PROGRAMME

- Single major programme (Departmental Regulation 2.3.1), leading to the award of BSc (Physics).
- Combined major/minor (Physics Major) (Departmental Regulation 2.3.2), leading to the award of BSc
- Combined major/major programme (Departmental Regulation 2.3.3), leading to the award of BSc
- Combined major/minor (Physics Minor) (Departmental Regulation 2.3.4), leading to the award of BSc if the student is registered in the Faculty of Science

### LEVEL 100

#### Semester 1

**PHY112:** Geometrical Optics and Mechanics (4 credits)

#### Semester 2

**PHY122:** Electricity, Magnetism and Elements of Modern Physics (4 Credit)

### LEVEL 200

#### Semester 3

**PHY 231:** Mechanics, Vibrations and Waves, Physical Optics (pre-requisite = PHY112) (3 Credits)

**PHY 232:** Properties of Matter, Basic Thermodynamics and Introduction to Nuclear Physics (pre-requisite = PHY112) (3 Credits)

**PHY 239:** Physics Practicals 3.1 (pre-requisites = PHY112, co-requisites = PHY231 or 232) (1 Credit)

#### Semester 4

**PHY 241:** Advanced Electricity and Magnetism (pre-requisites = PHY122) (3 Credits)

**PHY 242:** Basic Electronics (pre-requisite = PHY122) (3 Credits)

**PHY 249:** Physics Practicals 4.1 (pre-requisites = PHY122, co-requisites = PHY241 or 242) (1 Credit)



### 2.1.3 Levels 300 and 400

#### 2.1.3.1 Single Major Programme

##### Semester 5

In semester 5, the single major programme shall consist of 11 credits of core courses and additional credits may be taken from optional courses in accordance with General Regulation 00.62.

##### Core Courses

- PHY351:** Advanced Mechanics  
(pre-requisite = PHY231) (3 Credits)
- PHY352:** Introduction to Quantum Mechanics  
(pre-requisite = PHY231) (3 Credits)
- PHY354:** Advanced Electronics I  
(pre-requisite = PHY242)(3 Credits)
- PHY359:** Physics Practicals 5.1  
(pre-requisite = PHY239 and 249)  
(2 Credits)

##### Optional Course

- PHY353:** Mathematical Methods for Physical Sciences I (3 Credits)
- PHY355:** Basic Potential Fields in Geophysics  
(3 Credits)
- PHY356:** Special Relativity  
(pre-requisite = PHY231, 241)  
(3 Credits)

##### Semester 6

In semester 6, the single major programme shall consist of 11 credits of core courses and additional credits may be taken from optional courses in accordance with General Regulation 00.62.

##### Core Courses

- PHY 361:** Introduction to Electromagnetism  
(pre-requisite = PHY241)  
(3 Credits)
- PHY 362:** Analytical Thermodynamics  
(pre-requisite = PHY232)  
(3 Credits)
- PHY 363:** Vibrations, Waves and Advanced Physical Optics (pre-requisite = PHY231) (3 Credits)
- PHY 369:** Physics Practicals 6.1  
(pre-requisite = PHY239 and 249)  
(2 Credits)

##### Optional Courses

- PHY364:** Advanced Electronics II  
(pre-requisite = PHY354)

(3 Credits)

- PHY365:** Physics of the Environment  
(pre-requisite = PHY231)  
(3 Credits)

- PHY 367:** Elements of Air Pollution I  
(3 Credits)

##### Semester 7

In semester 7, the single major programme shall consist of 11 credits of core courses and additional credits may be taken from optional courses in accordance with General Regulation 00.62

##### Core Courses

- PHY 472:** Statistical Mechanics I (3 Credits)
- PHY473:** Solid State Physics (3 Credits)
- PHY478:** Project in Physics I (3 Credits)
- PHY479:** Physics Practicals 7.1  
(pre-requisite = PHY359 and 369)  
(2 Credits)

##### Optional Courses

- PHY 474:** Physics of Renewable Energy  
(3 Credits)
- PHY 475:** Microprocessor and Digital Systems  
(pre-requisite = PHY354) (3 Credits)
- PHY 476:** Mathematical Methods for Physical Sciences II (pre-requisite = PHY353)  
(3 Credits)
- PHY477:** Elements of Air Pollution II  
(3 Credits)

##### Semester 8

In semester 8, the single major programme shall consist of 11 credits of core courses and additional credits may be taken from optional courses in accordance with General Regulation 00.62.

##### Core Courses

- PHY 481:** Atomic and Basic Nuclear Physics  
(3 Credits)
- PHY482:** Statistical Mechanics II  
(pre-requisite = PHY472)(3 Credits)
- PHY483:** Advanced Solid State Physics  
(pre-requisite = PHY473;  
co-requisite = PHY 482) (3 Credits)
- PHY489:** Physics Practicals 8.1  
(pre-requisite = PHY359 and 369)  
(2 Credits)

##### Optional Courses

- PHY 485:** Microcomputing for Physical Sciences (3 Credits)
- PHY 486:** Basic Seismology (3 Credits)

- PHY 487:** Introduction to Astrophysics  
(3 Credits)

- PHY488:** Project in Physics II (3 Credits)

#### 2.1.3.2 Combined Major/Minor Programme (Physics Major)

##### Semester 5

In semester 5, the combined major/minor programme shall consist of 8 credits of core courses and at least 3 credits from optional courses

##### Core Courses

- PHY351:** Advanced Mechanics  
(pre-requisite = PHY231)(3 Credits)
- PHY352:** Introduction to Quantum Mechanics  
(pre-requisite = PHY231)(3 Credits)
- PHY359:** Physics Practicals 5.1  
(pre-requisite = PHY239 and 249)  
(2 Credits)

##### Optional Courses

- PHY353:** Mathematical Methods for Physical Sciences I (3 Credits)
- PHY354:** Advanced Electronics I  
(pre-requisite = PHY242)(3 Credits)
- PHY355:** Basic Potential Fields in Geophysics  
(3 Credits)

##### Semester 6

In semester 6, the combined major/minor programme shall consist of 8 credits of core courses and at least 3 credits from optional courses

##### Core Courses

- PHY361:** Introduction to Electromagnetism  
(pre-requisite = PHY241)(3 Credits)
- PHY 362:** Analytical Thermodynamics  
(pre-requisite = PHY232)(3 Credits)
- PHY 369:** Physics Practicals 6.1  
(pre-requisite = PHY239 and 249)  
(2 Credits)

##### Optional Courses

- PHY363:** Vibrations, Waves and Advanced Physical Optics  
(pre-requisite = PHY231)  
(3 Credits)
- PHY364:** Advanced Electronics II  
(pre-requisite = PHY354) (3 Credits)
- PHY365:** Physics of the Environment  
(pre-requisite = PHY231)(3 Credits)
- PHY367:** Elements of Air Pollution I

(3 Credits)

**Semester 7**

In semester 7, the combined major/minor programme shall consist of 8 credits of core courses and at least 3 credits from optional courses.

**Core Courses**

- PHY472:** Statistical Mechanics I (3 credits)  
**PHY473:** Solid State Physics (3 Credits)  
**PHY479:** Physics Practicals 7.1  
 (pre-requisite = PHY359 and 369)  
 (2 Credits)

**Optional Courses**

- PHY474:** Physics of Renewable Energy  
 (3 Credits)  
**PHY475:** Microprocessor and Digital Systems  
 (pre-requisite = PHY354) (3 Credits)  
**PHY 477:** Elements of Air Pollution II  
 (3 Credits)  
**PHY 478:** Project in Physics I (3 Credits)

**Semester 8**

In semester 8, the combined major/minor programme shall consist of 8 credits of core courses and at least 3 credits from optional courses.

**Core Courses**

- PHY481:** Atomic and Basic Nuclear Physics  
 (3 Credits)  
**PHY485:** Microcomputing for Physical sciences (3 Credits)  
**PHY 489:** Physics Practicals 8.1  
 (pre-requisite = PHY359 and 369)  
 (2 Credits)

**Optional Courses**

- PHY487:** Introduction to Astrophysics  
 (3 Credits)  
**PHY488:** Project in Physics II (3 Credits)

**2.1.3.3 Combined Major/Major Programme****Semester 5**

In semester 5, the combined major/major programme shall consist of 8 credits of core courses. Additional credits may be taken from optional courses PHY 355 and PHY 356 in accordance with General Regulation 00.62.

**Core Courses**

- PHY35:** Advanced Mechanics  
 (pre-requisite = PHY231)(3 Credits)

- PHY352:** Introduction to Quantum Mechanics  
 (pre-requisite = PHY231) (3 Credits)

- PHY359:** Physics Practicals 5.1  
 (pre-requisite = PHY239 and 249)  
 (2 Credits)

**Semester 6**

In semester 6, the combined major/major programme shall consist of 8 credits of core courses. Additional credits may be taken from optional courses PHY363 and PHY364 and PHY 365 in accordance with General Regulation 00.62.

**Core Courses**

- PHY361:** Introduction to Electromagnetism  
 (pre-requisite = PHY241) (3 Credits)  
**PHY 362:** Analytical Thermodynamics  
 (pre-requisite = PHY232) (3 Credits)  
**PHY 369:** Physics Practicals 6.1  
 (pre-requisite = PHY239 and 249)  
 (2 Credits)

**Semester 7**

In semester 7, the combined major/major programme shall consist of 8 credits of core courses. Additional credits may be taken from optional courses PHY474, PHY475 and PHY477 in accordance with General Regulation 00.62.

**Core Courses**

- PHY472:** Statistical Mechanics I (3 credits)  
**PHY 473:** Solid State Physics (3 Credits)  
**PHY 479:** Physics Practicals 7.1  
 (pre-requisite = PHY359 and 369)  
 (2 Credits)

**Semester 8**

In semester 8, the combined major/major programme shall consist of 8 credits of core courses. Additional credits may be taken from optional courses PHY 486 or PHY 488 in accordance with General Regulation 00.62.

**Core Courses**

- PHY481:** Atomic and Basic Nuclear Physics  
 (3 Credits)  
**PHY485:** Microcomputing for Physical Sciences (3 Credits)  
**PHY489:** Physics Practicals 8.1  
 (pre-requisite = PHY359 and 369)  
 (2 Credits)

**Combined Major/Minor Programme (Physics Minor)****Semesters 5-8**

In semesters 5 - 8, the combined major/minor (Physics Minor) programme shall consist of 6 to 8 credits of any of the physics courses from the core courses or optional courses of the Combined Major/Minor Physics Programme as defined in Regulation 2.3.2, in the given semester. To complete the Physics Minor programme, a candidate must take 4 credits of practical courses, PHY 359 or PHY 369 at 300 level, and PHY 479 or PHY 489 at 400 level.

**BSC 202: PHYSICS WITH METEOROLOGY**

(Departmental Regulations 23.2.1 and 23.4) leading to the award of BSc (Physics with Meteorology)

**REGULATIONS****Entrance requirements**

Admission to the degree programme shall be as specified in the Faculty of Science Regulations 23.2.1 and 23.4

**Award of Degree**

To be awarded a degree, a candidate/student must have taken and passed all relevant courses as prescribed in Section 13 and must satisfy the University of Botswana Academic General Regulations 00.8 and 00.9 and Faculty of Science Special Regulation 20.

**Programme Structure****Level 100****Semester I**

- PHY112;** Geometrical Optics and Mechanics  
 (4 Credits)  
**CHE101:** General Chemistry I (4 Credits)  
**MAT111:** Introductory Mathematics I  
 (4 Credits)  
**GEC141** Introduction to Communication and Academic Literacy Skills (Science)  
 (3 credits)  
**ICT121** Computing Skills Fundamentals 1  
 (2 credits)

**Semester II**

- PHY122:** Electricity and Magnetism, Introduction to Modern Physics (4 Credits)  
**CHE102:** General Chemistry II  
 (Pre-requisite: CHE 101) (4 Credits)  
**MAT122:** Introductory Mathematics II  
 (Pre-requisite: MAT 111) (4 Credits)  
**PHY122** Electricity, Magnetism and Elements of and Elements of Modern Physics  
 (3 credits)





**GEC142:** Academic and Professional Communication (Science) (3 credits)  
**ICT122:** Computing Skills Fundamentals 2 (2 credits)

#### LEVEL 200

##### Semester III

###### Core Courses

**PHY232:** Properties of Matter, Basic Thermodynamics and Introduction to Nuclear Physics (Pre-requisite: PHY 112) (3 Credits)  
**PMT231:** The Earth's Atmosphere (3 Credits)  
**MAT271:** Introduction to Mathematical Statistics (Pre-requisite: MAT 122) (3 Credits)  
**MAT 221:** Calculus I (Pre-requisite: MAT 122) (3 Credits)  
**CHE 211:** Introduction to Analytical Chemistry (Pre-requisite: CHE 102) (2 Credits)

Optional Course (3 Credits)

##### Semester IV

**PHY242:** Basic Electronics (Pre-requisite: PHY 122) (3 Credits)  
**PMT241:** Thermodynamics (3 Credits)  
**MAT222:** Calculus II (Pre-requisite: MAT 221) (3 Credits)  
**MAT244:** Numerical Methods (Pre-requisite: MAT122) (3 Credits)  
**PMT242:** Computer Programming – FORTRAN, MatLab (3 Credits)

#### WINTER SEMESTER

**PMT299:** Internship: Synoptic Meteorology (3 Credits)

#### Level 200

##### Optional Courses

##### Semester III

**PHY231:** Mechanics, Vibrations and Waves (Pre-requisite: PHY 112) (3 Credits)  
**MAT 242:** Computing I (Pre-requisite: GEC 121 and 122) (3 Credits)

#### Level 300

##### Semester V

###### Core Courses

**PMT351:** Atmospheric Radiation (3 Credits)  
**PMT352:** Atmospheric and Ocean Dynamics I (Pre-requisite: MAT331 OR 222) (3 Credits)  
**PHY353:** Mathematical Methods for Physical Sciences I (3 Credits)

**MAT 371:** Mathematical Statistics 1 (Pre-requisite: MAT 271) (3 Credits)

Optional Course (3 Credits)

##### Semester VI

###### Core Courses

**PMT361:** Introduction to Agrometeorology (3 Credits)  
**PMT 362:** Numerical Weather Prediction (Pre-requisite: PMT 232 and 352) (3 Credits)  
**PMT369:** Electronic Instrumentation (Pre-requisite: PHY 242) (3 Credits)

##### Optional Course

(6 Credits)

#### WINTER SESSION

**PMT399:** Internship: Forecasting and Agrometeorology (3 Credits)

#### LEVEL 300

Optional Courses

##### Semester V

**PHY 354:** Advanced Electronics I (Pre-requisite: PHY 242) (3 Credits)  
**ENV 337:** Dynamic meteorology (3 Credits)

##### Semester VI

**PHY364:** Advanced Electronics II (Pre-requisite: PHY254) (3 Credits)  
**PHY367:** Elements of Air Pollution I (3 Credits)  
**PHY365:** Physics of the Environment (Pre-requisite: PHY231) (3 Credits)

#### LEVEL 400

##### Semester VII

###### Core Courses

**PMT471:** Global Circulation Models I (Pre-requisite PMT 352)(3 Credits)  
**PMT472:** Atmospheric and Ocean Dynamics II (Pre-requisite: PMT 352)(3 Credits)  
**PMT473:** Boundary Layer Meteorology (Pre-requisite: pmt 351) (3 Credits)  
**PMT 474:** Basic Atmospheric Chemistry (3 Credits)

##### Elective Course(3 Credits)

##### Semester VIII

**PMT481:** Global Circulation Models II

(Pre-requisite: PMT 352)(3 Credits)

**PMT 482:** Global Climate Change (Pre-requisite: PMT 231)(3 Credits)

**PMT 483:** Cloud Physics (Pre-requisite: PMT 351) (3 Credits)

**PMT 489:** Research Project (6 Credits)

#### BSC 203 BSC IN RADIATION AND HEALTH

PHYSICS (Departmental Regulations 23.2.1 and 23.4) leading to the award of BSc (Radiation and Health Physics)

#### REGULATIONS

##### Entrance Requirements

Admission to the degree programme shall be as specified in the Faculty of Science Regulations 23.2.1 and 23.4

##### Award of Degree

To be awarded a degree, a candidate/student must have taken and passed all relevant courses as prescribed in Section 13 and must satisfy the University of Botswana Academic General Regulations 00.8 and 00.9 and Faculty of Science Special Regulation 20.

##### Programme Structure

#### LEVEL 100

##### Semester I

**PHY112;** Geometrical Optics and Mechanics (4 Credits)  
**CHE101:** General Chemistry I (4 Credits)  
**MAT111:** Introductory Mathematics I (4 Credits)  
**GEC141** Introduction to Communication and Academic Literacy Skills (Science) (3 Credits)  
**ICT121** Computing Skills Fundamentals 1 (2 Credits)

##### Semester II

**PHY122:** Electricity and Magnetism, Introduction to Modern Physics (4 Credits)  
**CHE102:** General Chemistry II (Pre-requisite: CHE101) (4 Credits)  
**MAT122:** Introductory Mathematics II (Pre-requisite: MAT 111) (4 Credits)  
**PHY122** Electricity, Magnetism and Elements of and Elements of Modern Physics (3 Credits)  
**GEC142** Academic and Professional Communication (Science) (3 Credits)

#### LEVEL 200

## Semester III

- PHY232:** Properties of Matter, Basic Thermodynamics and Introduction to Nuclear Physics  
(Pre-requisite: PHY112) (3 Credits)
- PHY 239:** Physics Practicals 3.1  
(Pre-requisite: PHY 112 (1 Credit)
- CHE 211:** Introduction to Analytical Chemistry  
(Pre-requisite: CHE 102) (2 Credits)
- CHE 213:** Analytical Chemistry Laboratory  
(Co-requisite: CHE 211) (1 Credit)
- ENH 211:** Introduction to Environmental Health (3 Credits)
- MAT 221:** Calculus I (Pre-requisite: MAT122) (3 Credits)
- MAT 271:** Introduction to Mathematical Statistics (Pre-requisite: MAT 122) (3 Credits)

## Semester IV

### Core Courses

- PHY 242:** Basic Electronics  
(Pre-requisite: PHY 122) (3 Credits)
- PHY 249:** Physics Practicals 4.1  
(Pre-requisite: PHY122) (1 Credit)
- PRH 241:** Radiation Physics I(3 Credits)
- PRH 242:** Radiation Therapy I (3 Credits)
- Optional Course (3 Credits)
- Elective Course(3 Credits)

## WINTER SEMESTER

- PRH299:** Internship: Supervised Clinical and/or Industrial Exposure (3 Credits)

## LEVEL 200

### Optional Courses

#### Semester IV (May take any one course)

- PHY241:** Electricity and Magnetism  
(Pre-requisite: PHY 122) (3 Credits)
- CSI 241:** Structured Programming  
(3 Credits)
- ENH 222:** Epidemiology (3 Credits)

## LEVEL 300

### Semester V

#### Core Courses

- PRH351:** Radiation Physics II  
(Pre-requisite: PRH 241) (3 Credits)
- PRH 352:** Radiation Therapy II  
(Pre-requisite: PRH 242)(3 Credits)
- PRH 353:** Introduction to Radiography  
(3 Credits)
- PRH354:** Introduction to Radiology(3 Credits)

Optional Course(3 Credits)

## Semester VI

### Core Courses

- PRH 361:** Radiobiology and Protection  
(3 Credits)
- PRH 362:** Physics of Medical Imaging  
(Pre-requisite: PRH 354) (3 Credits)
- PRH 363:** Radiation Detection and Instrumentation  
(Pre-requisite: PHY 242)(3 Credits)
- PRH 365:** Environmental Physics (3 Credits)  
Elective Course(3 Credits)

## WINTER SEMESTER

- PHY399:** Internship: Supervised Clinical and/or Industrial Exposure (3 Credits)

## LEVEL 300

### Optional Courses

#### Semester V (May take any one course)

- MAT371:** Mathematical Statistics I  
(Pre-requisite: MAT 271) (3 Credits)
- ENH 313:** Basic Toxicology
- PHY 367:** Elements of Air Pollution I

## LEVEL 400

### Semester VII

#### Core Courses

- PRH471:** Nuclear Rules and Regulations  
(3 Credits)
- PRH472:** Fundamentals of Nuclear Energy  
(Pre-requisite: PHY 232)  
(3 Credits)
- GPH402** Geophysical Time Series Analysis  
(3 Credits)
- Optional Course (3 Credits)
- Elective Course (3 Credits)

## Semester VIII

- PRH481:** Applied Nuclear Physics  
(Pre-requisite: PHY 232)  
(3 Credits)
- PRH482:** Radiation Protection and Dosimetry  
(Pre-requisite: PRH 361) (3 Credits)
- PRH483:** Applied Radiation Safety Techniques  
(3 Credits)
- PRH489:** Research Project (6 Credits)
- LEVEL 400

Optional Courses

#### Semester VII (May take any one course)

- PHY477:** Elements of Air Pollution II(3 Credits)
- PHY476:** Microprocessor and Digital Systems  
(Pre-requisite: PHY 353)(3 Credits)

## GRADUATE PROGRAMMES:

- MSc Programme in Physics (Departmental Regulation 5.0), leading to the award of MSc (Physics)
- MPhil and PhD Programmes in Physics (Departmental Regulation 6.0), leading to the award of MPhil (Physics) and PhD (Physics) respectively.

## SERVICE COURSES

The following physics courses are offered as service courses for non-physics majors.

**PHY161:** Physics for Nurses (3 Credits)

**PHY162:** Physics Applied to Home Economics  
(3 Credits)  
BEd (Secondary)

## Semesters 5-8

In semesters 5 - 8, students pursuing the BEd (Secondary) programme shall choose credits from the core courses or optional courses of the Combined Major/Minor Physics Programme as defined in Regulation 2.3.2, or from the Combined Major/Major programme as defined in Regulation 2.3.3, in the given semester. The courses chosen must include practical courses PHY 359, PHY 369, PHY 479 and PHY 489.

## GENERAL EDUCATION COURSES

The Department of Physics currently offers the following General Education courses under the Area 5 (Science and Technology) pending the outcome of the University review of General education Courses:

- GEC 252:** Origin of the Universe (2 Credits)
- GEC 253:** Energy and Society (2 Credits)

## Assessment

Performance in each course shall be evaluated by the combination of continuous assessment and final examination marks in the ratio of 1:1, except for physics practicals and physics projects which will be assessed by CA only.

## Progression

In order to proceed from one semester to the next, a student must obtain a Cumulative GPA which is in accordance with General Regulation 00.9.

# DEPARTMENT OF PHYSICS

## PHY 112: GEOMETRICAL OPTICS AND



#### **MECHANICS (4)**

Geometrical Optics: Rectilinear propagation of light, Laws of reflection; Reflection from plane and spherical surfaces; Laws of refraction: Refraction at plane and spherical surfaces; Combined Lenses; Defects of Lenses; Optical Instruments; Mechanics: Units and dimensions; Vector algebra; Linear Kinematics; Kinematics in two dimensions: Circular motion, Projectiles; Newton's laws of motion; Static and Kinetic Friction; Work, Energy and Power; Torque. A set of experiments to illustrate theoretical concepts.

#### **PHY 122: ELECTRICITY, MAGNETISM AND ELEMENTS OF MODERN PHYSICS (4)**

Electricity and Magnetism: Electrostatics: Electrostatic energy and dielectrics; Capacitance: Combination of capacitors in series and in parallel, Potential energy in a capacitor, Effects of dielectrics on capacitance and energy; Current Electricity; Resistance, Combination of resistors in series and in parallel; Magnetism; Cathode Ray Oscilloscope; Introduction to Modern Physics: Electromagnetic wave spectrum; Atomic Structure: Thompson's model, Rutherford model, Bohr's hydrogen model; Wave-particle duality: De Broglie's relation, Dual nature of light, dual nature of matter: Compton effect, X-ray diffraction, Electron diffraction, Neutron diffraction. A set of experiments to illustrate theoretical concepts.

#### **PHY161: PHYSICS FOR NURSES (3)**

The course will consist of lectures and associated laboratories for the following six modules: 1. Mechanics and properties of matter, 2. Thermal Physics, 3. Optics, 4. Sound and ultrasonics, 5. Electricity and magnetism, 6. Modern Physics.

#### **PHY 162: PHYSICS APPLIED TO HOME ECONOMICS (3)**

The course will consist of lectures and associated laboratories for the following six modules: Mechanics and Properties of Matter (4 weeks); Thermal Physics (2 weeks); Optics (2 weeks); Sound and Ultrasonics (1.5 weeks); Electricity and Magnetism (3 weeks); Modern Physics (1.5 weeks)

#### **PHY 231: MECHANICS, VIBRATIONS AND WAVES, PHYSICAL OPTICS (3)**

Mechanics: Vector analysis including cross products: examples of their applications to physics: motion in two dimensions: gravitational fields and potentials: center of gravity calculations for a system of particles including

3D bodies. Vibrations and Waves: Hooke's law; Simple harmonic motion; Damped Oscillations; Forced Oscillations and Resonance; Wave motion: Reflection of waves, Waves on strings and in pipes. Rotation of rigid bodies including application of parallel and perpendicular axis theorem; Physical Optics: interference of light waves including applications to lasers and Newton's: Franhofers diffraction for single and double slits: plane and circular. Polarisation: superposition of waves including Lissajous' figures.

#### **PHY 232: PROPERTIES OF MATTER, BASIC THERMODYNAMICS AND INTRODUCTION TO NUCLEAR PHYSICS (3)**

Properties of Matter: Elasticity: Stress and strain including Young, rigidity and bulk moduli: surface tension including contact angles: viscosity including Poiseuille's Law: Thermodynamics: kinetic theory: gas laws: Heat and work and first law of thermodynamics: second law of thermodynamics including application to heat engines. The nucleus: Structure of the nucleus, nucleons, nuclear forces and binding energy, atomic mass unit. Radioactivity: Definition, decay particles, decay constant, basic equations, half-life, carbon dating. Radiometric dating, nuclear reactions including stellar evolution.

#### **PHY 239: PHYSICS PRACTICALS 3.1 (1)**

A set of experiments to be performed in Semester 3 illustrating work done in the 200 level physics lecture courses.

#### **PHY241:ADVANCED ELECTRICITY AND MAGNETISM (3)**

Electrostatics field applied to line, surface and volume charges: applications of Gauss' law of electric fields: electric potential and potential energy of line surface and volume charges: applications to capacitance with and without dielectrics: magnetic field including Biot-savart law and amperes law: electromagnetic induction including faraday and Lenz laws.

#### **PHY242: BASIC ELECTRONICS (3)**

Alternating current circuits: ac source, peak, r.m.s. values, ac source with R, L, C, RC circuits, differentiating and integrating circuits, filters, series and parallel LCR circuits, and using them as band pass and band stop filters. Ideal transformers. Electronics: Equivalent circuits including application of Norton and Thevenin theorems: Basic theory of the Physics of semi-conductors: diodes and diode applications

including clipping and clamping circuits: transistors e.g. BJT, FET, JFET and MOSFET: other devices such as thyristor and opto-electronic devices.

#### **PHY 249: PHYSICS PRACTICALS 4.1 (1)**

A set of experiments to be performed in Semester 4 illustrating work done in the 200 level physics lecture courses

#### **PHY 351: ADVANCED MECHANICS (3)**

Newtonian formulation of mechanics including integration of Newton's equations of motion. Projectile in resistive media, central force motion, collision and scattering; Inertia matrix, Euler's equation of motion, spinning top; Lagrangian and Lagrange's equation of motion. Introduction to the theory of Special Relativity.

#### **PHY 352: INTRODUCTION TO QUANTUM MECHANICS (3)**

Historical Development of Quantum Mechanics; Heisenberg's uncertainty principle. The Schrodinger equation: Piecewise potentials in one and three-dimensions; Quantum Harmonic Oscillator: The Hydrogen Atom; Angular momentum Operators. Approximation Schemes: Time-Independent Perturbation Theory.

#### **PHY353: MATHEMATICAL METHODS FOR PHYSICAL SCIENCES I (3)**

Matrix Algebra including diagonalization of matrices. Complex Numbers. Vector analysis: vector differential calculus, vector identities, vector integral theorems; Ordinary differential equations with constant coefficients, complex analysis: analytic functions, contour integration.

#### **PHY 354: ADVANCED ELECTRONICS I (3)**

Frequency characteristics of RLC networks, Bode-plots; Principles of voltage amplifiers: amplifier characteristics for the bipolar junction transistor (BJT) amplifier, the field-effect-transistor (FET) amplifier, and the operational amplifier (Op Amp.); Feedback and its applications: negative feedback, positive feedback and oscillators. Logic elements; Multivibrators; Introduction to digital electronics.

#### **PHY 355: BASIC POTENTIAL FIELDS IN GEOPHYSICS (3)**

The Earth in the Solar System; Radiometrics; Gravity; Earth's thermal and electrical regime; geo-electricity and geomagnetism; plate tectonics; application of potential fields to exploration geophysics; field and laboratory

exercises; Use of potential fields with other methods such as Seismics, Ground Penetrating Radar, e.t.c.

#### **PHY 356: SPECIAL RELATIVITY (3)**

Galilean transformation, Michelson-Morley experiment, Lorentz transformation; four vector formulation of mechanics; energy momentum tensor, four vector formulation of Maxwell theory; Introduction to general relativity: Principle of equivalence, Einstein's field equations, Schwarzschild solution.

#### **PHY 359: PHYSICS PRACTICALS 5.1(2)**

A set of advanced experiments to be performed in Semester 5 illustrating work done in the 300 level lecture courses of the Combine Major/minor (Physics Major) or Combined Major/major Programmes.

#### **PHY 361: INTRODUCTION TO ELECTROMAGNETISM (3)**

Electromagnetic waves: Synthesis of the laws leading to the Maxwell's equations. Brief description of the wave equation, electromagnetic waves. Special techniques in electrostatics; Electrostatic fields in matter. Magnetostatic fields in matter; Electromagnetic radiation.

#### **PHY 362: ANALYTICAL THERMODYNAMICS (3)**

Equation of state, laws of thermodynamics, thermodynamic potentials, transport phenomena, principles of heat transfer. Entropy change during various processes.

#### **PHY 363: VIBRATIONS, WAVES AND ADVANCED PHYSICAL OPTICS (3)**

Damped oscillations; Forced oscillations and resonance; Coupled oscillations and normal modes; Wave equation; Interference; Diffraction. Elliptical polarization of light.

#### **PHY 364: ADVANCED ELECTRONICS II (3)**

Laplace transform methods; Fourier series analysis; Special purpose circuits; Principles of Radio communication; Digital systems; Semiconductor device physics. A set of experiments to illustrate theoretical concepts.

#### **PHY 365: PHYSICS OF THE ENVIRONMENT (3)**

The Earth's atmosphere. The radiation environment. Microclimatology of radiation. Transfer principles. Introduction to Soil Physics.

Crop micrometeorology. Ionising radiation and the environment.

#### **PHY 367: ELEMENTS OF AIR POLLUTION I (3)**

The Earth's atmosphere. Thermodynamics of atmosphere, Inversion layer, Convective instability, Solar radiation, Radiative energy transfer, Transport of momentum, energy and mass, Airborne particulate and gaseous pollutants, Health hazards. Some pollution-caused global phenomena. Field-based exercises.

#### **PHY 369: PHYSICS PRACTICALS 6.1 (2)**

A set of advanced experiments to be performed in Semester 6 illustrating work done in the 300 level lecture courses of the Combine Major/minor (Physics Major) or Combined Major/major Programmes.

#### **PHY 472: STATISTICAL MECHANICS I (3)**

Statistical mechanics: Need for statistical laws in many particle systems; condition equations; partition function; Lagrange's method of undetermined multipliers; Maxwell-Boltzmann distribution and applications; Fermi-Dirac statistics and applications; Bose-Einstein statistics and applications.

#### **PHY 473: SOLID STATE PHYSICS (3)**

Crystal structure, Experimental methods for determining crystal structure: x-ray crystallography and others; Interatomic forces and binding mechanisms. Elementary Excitations in solids: Phonons (lattice vibrations). Free electron theory (classical and quantum), Band theory; Classification of solids: metals, semiconductors, insulators; Some semiconductor devices; Magnetism: Diamagnets, Paramagnets and Spin ordered systems (ferromagnets, antiferromagnets and ferrimagnets)

#### **PHY 474: PHYSICS OF RENEWABLE ENERGY (3)**

Renewable energy resources: solar energy, wind power, hydro-power, geothermal energy, bio-fuels, ocean power systems

#### **PHY475: MICROPROCESSOR AND DIGITAL SYSTEMS (3)**

Interfacing with Analog World: D/A converter and A/D converter; transducers; Digital wave-shaping and timing circuits; Digital Signal Processing (DSP); Microprocessor: Architecture and system operation, addressing modes, instruction set and programming;

Microprocessor interfacing and applications.

#### **PHY 476: ADVANCED MATHEMATICAL METHODS FOR PHYSICS II (3)**

Laplace transform Fourier series. Fourier transform; Ordinary differential equations with variable coefficients; Partial differential equations: the wave heat and Laplace equations; Integral equations. Numerical analysis: Linear algebraic equations, Eigenvalue problems, Numerical roots of equations.

#### **PHY477: ELEMENTS OF AIR POLLUTION II (3 )**

Air pollutants, Gaseous and particulate, Dispersion of pollutants, Monitoring techniques, Preventive techniques, Air quality standards, Air pollution control management, strategies and legislation. Air pollution and impacts on energy, water resources, health and agriculture. Field based exercises.

#### **PHY 478: PROJECT IN PHYSICS I (3)**

A supervised independent study on any topic in Physics.

#### **PHY 479: PHYSICS PRACTICALS 7.1 (2)**

A set of advanced experiments to be performed in Semester 7 illustrating work done in the 400 level lecture courses of the Combine Major/minor (Physics Major) or Combined Major/major Programmes.

#### **PHY 481: ATOMIC AND BASIC NUCLEAR PHYSICS (3)**

Atomic Structure; Structure and spectra of many-electron atoms; Structure of the Nucleus; Nuclear Reactions: Classification of Nuclear Reactions, Elementary particles: Basic interaction and conservation laws, properties of elementary particles.

#### **PHY 482: STATISTICAL MECHANICS II (3)**

Statistical mechanics: Review of Distribution functions; Boltzmann transport equation without and with collisions; Phase transitions: critical points, order parameters, critical points exponents.

#### **PHY 483: ADVANCED SOLID STATE PHYSICS (3)**

Elementary excitations in solids: phonons, electrons, magnons. Semiconductors: Excitation mechanisms; Ferroelectrics: properties of ferroelectrics; Superconductivity: properties of superconductors, theories of superconductivity;



London's theory, Ginzburg-Landau theory, BCS theory; Low-dimensional systems: surfaces and interfaces, liquid crystals, polymers, fullerenes.

#### **PHY 485: MICROCOMPUTING FOR PHYSICAL SCIENCES (3)**

Computer programming languages; Numerical methods: Roots of equations; Numerical integration; Solution of ordinary differential equations; Data reduction.

#### **PHY486: BASIC SEISMOLOGY (3)**

Elasticity and seismic waves; seismic ray theory and boundary interactions; seismometry and seismogram interpretation; seismotectonics and earthquake prediction; the earth's internal structure from seismic waves; seismic waves application to exploration; field and laboratory exercises.

#### **PHY 487: INTRODUCTION TO ASTROPHYSICS (3)**

Astronomy and Astrophysics; The Astronomical Context; Radiation; Classical Dynamics; Stars and Stellar Structure

#### **PHY488 PROJECT IN PHYSICS II (3)**

A supervised independent study on any topic in Physics

#### **PHY489: PHYSICS PRACTICALS 8.1 (2)**

A set of advanced experiments to be performed in Semester 8 illustrating work done in the 400 level courses of the combined Major/Minor (Physics Major) or Combined Major/Major programmes.

#### **PMT 231: THE EARTH'S ATMOSPHERE (3)**

Origin of the Atmosphere, The Earth's Four Spheres. Weather and Climate. Composition of the Atmosphere. Vertical Structure of the Atmosphere. Temperature Measurements, Temperature Scales. Hydrologic Cycle: Changes of State, Humidity, Humidity Measurement, Condensation Adiabatic Temperature Changes, Atmospheric Lifting Processes (Convective Lifting, Orographic Lifting). Condensation and Cloud Formation. Types of clouds. Scales of Atmospheric Motion. Global Distribution of Precipitation Optical phenomena of the atmosphere: Mirages, Rainbows, Halos, Sun Dogs, Solar Pillars, The Corona.

#### **PMT 232: COMPUTER PROGRAMMING – C/C++ (3)**

Introduction to computers. Types of high level

programming languages. Structure of C/C++ program. Reserved words. Identifiers. Numbers and strings. Constants and variables. Expressions and statements. Integer – type data. Real – type data. Char – type data. Boolean – type data. Standard constants. Standard functions. Enumerated – type data. Subrange – type data. Utilizing user-defined data. Read and Read-in statements. Write and Write-in statements. The EO/n and Eof functions. Formatted output. Declaring string types and variable. String manipulations. The FOR structure. The WHILE – DO structure. The REPEAT – UNTIL structure. Nested control structures. The IF structure. The GOTO statement. Procedures – nested procedures. Parameters – value and reference. Functions. Recursion. The C/C++ editor. Planning a C/C++ program. Writing a C/C++ program. Entering the program into the computer. Compiling and running.

#### **PMT 241: THERMODYNAMICS (3)**

The law of conservation of energy including the zeroth law of thermodynamics. Gas laws: ideal gas law, kinetic theory of gases, Dalton's law, Van der Waal's gas. Specific heat and enthalpy: heating at constant pressure and constant volume, enthalpy, adiabatic processes, dry adiabatic lapse rate, thermodynamic diagrams. Entropy: free expansion, heating and cooling, reversible and irreversible processes, potential temperature, Carnot cycle. Water and its transformations: moisture variables, condensation and evaporation, phase changes, Clausius-Clapeyron equation, phase diagrams. Moist air and clouds: cloud formation, moist adiabatic lapse rate, conditional instability, CAPE (convective available potential energy) and entrainment.

#### **PMT 299: METEOROLOGY INTERNSHIP I (3)**

Supervised internship in Synoptic Meteorology

#### **PMT 351: ATMOSPHERIC RADIATION (3)**

Earth-Sun Relationships (Motions of the Earth, The Seasons), Heat and Temperature, Mechanism Transfer (Conduction, Convection, Radiation), Incoming Solar Radiation (Scattering, Reflections, Absorption Atmosphere), Terrestrial Radiation, Heat Budget, Latitudinal Heat Balance. Equation of radiative transfer. Modeling atmospheric transmission and emission. Scattering of radiation by molecules and particles. Remote Sensing. Role of radiation in climate system. Thermodynamic concepts of radiation and energy levels in molecules.

Absorption and emission by gases.

#### **PMT 352: ATMOSPHERIC AND OCEAN DYNAMICS I (3)**

Atmosphere radiative transfer through high and low level clouds and the physical implications of aerosols on climate; atmospheric circulation, surface ocean/terrestrial/biosphere exchange processes, greenhouse gas fluxes; implications of sea ice extent and sea level change, deep convection and mixed layer dynamics on ocean heat budgets and the breakdown of the thermohaline circulation.

#### **PMT369: ELECTRONIC INSTRUMENTATION (3)**

A set of experiments in electronics to underscore the principles behind weather-monitoring equipment.

#### **PMT 399: METEOROLOGY INTERNSHIP II (3)**

Supervised internship in Forecasting and Agrometeorology

#### **PMT 471: GLOBAL CIRCULATION MODELS I (3)**

General global circulation. The Hadley circulation: its strength and extent. The angular momentum budget. Kinetic energy of the atmosphere in motion. Tropical tropospheric dynamics. Tropospheric circulation over Southern Africa. The stratosphere: quasi-biennial oscillation and sudden warmings. Design of global circulation models.

#### **PMT 472: ATMOSPHERIC AND OCEAN DYNAMICS II (3)**

Kinematics---vorticity and divergence; Lagrangian and Eulerian frames of reference and the Lagrangian derivative; Continuity and state equations; Forces in a Newtonian fluid; The Navier Stokes equations and some basic solutions; Scale analysis and the Reynolds number; Bernoulli's theorem; Incompressible and irrotational flows; The vorticity equation; Some effects of buoyancy and stratification; Fluids on a rotating plane---the Coriolis force.

#### **PMT 473: BOUNDARY LAYER METEOROLOGY (3)**

Boundary layer definition: forcing mechanisms, meteorological scales, comparison with the free atmosphere, significance of the boundary layer. General characteristics and evolution of the boundary layer: winds in the boundary layer, turbulence and Taylors hypothesis,



thermodynamic variables, boundary layer depth and structure, introduction to evolution over land, daytime convectively mixed boundary layer, nocturnal boundary layer. Boundary layer phenomena: coastal fronts, sea/land breeze circulations, lake breezes, gust fronts, boundary layer convection - horizontal rolls, open/closed cell convection, urban heat island, local circulations due to land heterogeneity.

#### **PMT 474: BASIC ATMOSPHERIC CHEMISTRY(3)**

Atmospheric composition. Emission inventories. Anthropogenic and biogenic contributions to the atmosphere. Trace gas distributions in the atmosphere. Reaction Kinetics and Photochemistry: The importance of transient species in atmospheric chemistry, absorption processes, quantum yields, photodissociation. Photochemical air pollution and ozone production. Ozone depletion: the distribution and role of ozone in the natural stratosphere. Recovery of the ozone layer. Pollution of the stratosphere. The Montreal Protocol. Acid rain: formation of SO<sub>2</sub> and NO<sub>x</sub> in combustion. Particles in the atmosphere: physical properties, type of particles, reactions involved in particle formation and growth. Atmospheric pollution and climate change.

#### **PMT 481: GLOBAL CIRCULATION MODELS II (3)**

Discussion on the prognostic equations of a GCM that are stepped forward in time (typically winds, temperature, moisture, and surface pressure) together with a number of diagnostic equations that are evaluated from the simultaneous values of the variables. Computer simulations of these equations to include: equations of fluid motion, typically for surface pressure, horizontal components of velocity in layers, temperature and water vapor in layers; a radiation code split into solar/short wave and terrestrial/infra-red/long wave and parameterizations for convection, land surface processes, albedo, hydrology and cloud cover.

#### **PMT 482: GLOBAL CLIMATE CHANGE (3)**

Observed climate variability and change: Recent centuries; climate reconstruction; the last 100 years. Climate science: Energy balance; heat fluxes; the carbon cycle, physical climate interactions, chemistry-, biogeochemistry- and biosphere-climate interactions; natural modes and coupled systems. Human perturbation of climate: Climate forcing agents; aerosol

forcing of climate; climate models and simulation of current climate; climate change detection and attribution. Future climate: future emissions; future climate predictions; effects of climate change. Different portrayals of climate change issues, including scientific consensus and uncertainty, and their social and political implications- Environmental mechanisms through which climate change leads to socio-economic impacts. Methods for assessing socio-economic impacts of climate change: regional predictions, adaptability and vulnerability (including case studies from Sub-Saharan Africa). Climate change mitigation: the international political response, including the flexibility mechanisms of the Kyoto Protocol.

#### **PMT 483; CLOUD PHYSICS (3)**

Overview of cloud systems; theories of phase changes in clouds and micro-physical mechanisms of precipitation formation; cloud electrification. Topics include nucleation, hydrodynamics of cloud and precipitation particles, ice physics, mechanisms of precipitation formation, electrical and radiative properties. Formation of cloud droplets, droplet growth by condensation, formation of ice crystals, precipitation processes, weather radars, cloud models.

#### **PMT 489: RESEARCH PROJECT (6)**

A supervised independent study

#### **PRH 241: RADIATION PHYSICS I (3)**

The concept of radiation, its sources, and its interaction with matter. Charged particles and photon interaction with matter. Radiation detectors. Radiation dosimetry. The X-ray machine, circuits, components, and practical application. Symptoms of radiation sickness. Radiation protection.

#### **PRH 242: RADIATION THERAPY I (3)**

X-ray production, x-ray properties, gamma rays, electrons, and their respective interactions with matter. Other topics include the measurement of radiation, radioactivity, and particulate radiation. Brachytherapy, including radioactive sources, exposure rate, implant dosimetry, and remote after-loading units

#### **PRH 299: RADIATION AND HEALTH PHYSICS INTERNSHIP I (3)**

Supervised internship in Clinical and/or Industrial Exposure

#### **PRH 351: RADIATION PHYSICS II (3)**

Principles of radiation physics as they apply to the treatment and care of the cancer patients. Topics studied include measurements, general principles, structure of the atom, structure of the matter, electrostatics, magnetism, electrodynamics, electromagnetism, rectification and production and properties of radiation and radiographic techniques.

#### **PRH 352: RADIATION THERAPY II (3)**

Basic Radiation Therapy focusing on quality assurance, basic dosimetry concepts, radiographic anatomy, clinical objectives, and medical and technical terminology. Fundamentals of radiography, film construction, processing, and x-ray generation. Other topics include professional ethics, patient care procedures, pharmacology, nutrition, and oncology. Basic dosimetry skills including dose calculations for external beam, radiation therapy equipment, practical treatment planning, and brachytherapy applications.

#### **PRH 353: INTRODUCTION TO RADIOGRAPHY (3)**

Introduction to hospital organization and professional ethics in radiography. Also introduces elementary radiation protection, general radiographic anatomy and positioning, medical terminologies, and the basic principles of exposure.

#### **PRH 354: INTRODUCTION TO RADIOLOGY (3)**

Introduction to radiology and necessary skills of a health care professional. Nuclear medicine, and radiation therapy by incorporating lectures with field site visits. The roles of an allied health professional in the hospital and community setting. Explores career potentials and alternatives

#### **PRH 361: RADIOBIOLOGY AND PROTECTION (3)**

Introduction to biological responses to radiation and factors influencing radiation effects, tissue sensitivity, tissue tolerance, and clinical applications. Also includes a study of radiation protection principles, units of measurement and survey methods, advanced brachytherapy, personnel monitoring techniques and regulatory agencies and regulations.

#### **PRH 362: MEDICAL IMAGING PHYSICS (3)**

Basics of imaging science, X-ray imaging



modalities including basic principles, detectors, scattered radiation, planar imaging, CT, fluoroscopic imaging, nuclear medicine imaging. State-of-the-art specialized organ imaging, equipment, and procedures. Image intensification, serial radiography, cineradiography, TV and video systems, tomography, computerized technologies, and magnetic resonance imaging.

### **PRH 363: RADIATION DETECTION AND INSTRUMENTATION (3)**

Principles and mechanisms underlying nuclear radiation detection and measurements; operation of nuclear electronic laboratory instrumentation; application of gas-filled, scintillation and semiconductor laboratory detectors for measurement of alpha, beta, gamma, and neutron radiation; experimental investigation of interactions of radiation with matter.

### **PRH 365: ENVIRONMENTAL PHYSICS (3)**

Introduction to the atmosphere; the radiation environment; transfer principles; introduction to soil physics; radiation from groundwater; ionizing radiation and the environment

### **PRH 399: INTERNSHIP II (3)**

Supervised internship in Clinical and/or Industrial Exposure

### **PRH 471: NUCLEAR RULES AND REGULATIONS (3)**

Introduction to key nuclear regulatory agencies; major nuclear legislations; current radiation protection standards and organizational responsibility for their implementation. Introduction to rules and regulations applicable to (1) radiation and environmental protection, (2) the operation and licensing of nuclear facilities, and (3) the medical use of radioactive material.

### **PRH 472: FUNDAMENTALS OF NUCLEAR ENERGY (3)**

Power from fission; fission process, neutron chain reactions, reactor types, reactor operation and criticality, fuel types, energy balance, nuclear heat energy, breeder reactors, commercial reactors, reactor safety, advanced reactors; fusion, fusion reactors, history of nuclear explosions; environmental effects of nuclear power generation and weapons.

### **PRH 481: APPLIED NUCLEAR PHYSICS (3)**

Radioactivity, statistical nature, Alpha

decay, barrier penetration, Gamow's theory, alpha particle spectra, Beta decay, neutrino hypothesis, Fermis' theory, detection of neutrino, Gamma decay, multipole classification, gamma interaction, Two body systems and nuclear force. Nuclear power; Reactor Physics.

### **PRH 482: RADIATION PROTECTION AND DOSIMETRY (3)**

Theoretical principles of shielding for neutron and gamma radiation and applications to problems of practical interest. Principles of radiation protection dealing with major forms of ionizing and non-ionizing radiation, the physics and chemistry of radiation biology, biological effects of ionizing and non-ionizing radiations (lasers, etc.) at cellular and tissue levels, radiation protection quantities and units, medical HP issues in clinical environments, radiation safety regulations, and basic problem solving in radiation safety.

### **PRH 483: APPLIED RADIATION SAFETY TECHNIQUES (3)**

Application of radiation protection as practiced in the fields of nuclear science and engineering; application of health physics principles to reduce the health hazards at each of the following stages of nuclear laboratory equipment design: design, prevention, assessment, and post-incident. A history of the key nuclear regulatory agencies; early and current radiation protection standards and regulatory authorities; major nuclear legislation; pertinent nuclear rules and regulations and their application.

### **PRH 484: ENVIRONMENTAL RADIOACTIVITY (3)**

Radionuclides in the environment: their measurement and identification, uptake and transfer through food chains. Effects of radiation on natural populations of plants and animals.

### **PRH 485: ANATOMY AND PHYSIOLOGY FOR MEDICAL PHYSICS (3)**

A course focused on medical terminology, biochemistry pertaining to MP, basic Anatomy and physiology, elementary tumor and cancer biology, and overview of disease in general. Upon completion, the student should: (a) understand anatomic structures, their relationships, their cross-sectional and planar projections, and how they are modified by attenuation and artifacts in the final images; (b) understand the physiology underlying radionuclide images, (c) understand how (a) – (b) are modified by disease, (d) identify

anatomical entities in medical images (different modalities), and (e) identify basic disease features in medical images (e.g., Pneumothorax in chest radiographs, microcalcifications in mammograms).

### **PRH 489: RESEARCH PROJECT (6)**

A supervised independent study

### **GEC 252: ORIGINS OF THE UNIVERSE (2)**

Introduction to Astronomy: The solar system, Stars, Galaxies, The universe, Distance measurement in astronomy; The Expansion of the Universe: Analysing light from stars, Doppler effect, Spectral red shift, The Hubble constant; The Big Bang: The age of the universe, Age from its expansion, Age from the oldest stars, Age from the oldest atoms, Half life of U235, U238, Th232, Rh187; The remnant of the Big Bang at 3K; The formation of the universe: First few minutes, Formation of stars and galaxies, Formation of interstellar material and planets.

### **GEC 253: ENERGY AND SOCIETY (2)**

Introduction: Energy and civilization, Energy and development; Various sources of energy, their applications, advantages and limitations: Woodfuel, Coal, Oil and Petroleum products, Electricity, Nuclear Energy, Renewable Energies and Technologies: Solar Energy, Wind Energy, Geothermal Energy; Energy resources and technologies of the future: Energy from the Nuclear fusion, Hydrogen as a fuel of the future, Fuel cells, Magneto hydro generator (MHD) technology, thermoelectric and Thermomagnetic energy conversion. Total energy systems, Energy conservation and pursuit for high efficiency devices.

### **Course Descriptions**

## **DEPARTMENT OF CHEMISTRY**

### **100 Level Courses**

#### **CHE101 General Chemistry I (4 credits)**

Course covers fundamental concepts and principles of chemistry, i.e. the structure of matter, quantitative as well as qualitative aspects of chemistry.

#### **CHE102 General Chemistry II (4 credits)**

This is a continuation of CHE101. The fundamental principles associated with properties of chemical systems will be presented.

**CHE107 Chemistry Applied to Home Economics (3 credits)**

The role that chemistry plays in everyday life will be presented. Atomic structure, periodic table, oxidation and reduction, chemistry of carbon compounds, acids and bases, soaps and detergents, food and energy, fats, carbohydrates, proteins, minerals and vitamins, additives, poisons and toxins, gases, polymers and plastics, cosmetics.

**CHE109 Introductory Chemistry for Bachelor of Nursing Science, Bns (3 credits)**

Topics include: Structure and bonding, stoichiometry, solutions, chemistry of certain elements, electricity and chemical change, osmosis, reaction rates and catalysis, radioactivity.

**200 Level Courses****CHE211 Introduction To Analytical Chemistry (2 credits)**

Basic principles of analytical chemistry, concepts of classical and modern methods in analytical chemistry, statistical treatment of experimental data including error analysis and significance tests; Gravimetry, titrimetry; Introduction to analytical spectroscopy and electro analytical chemistry.

**CHE213 Analytical Chemistry Laboratory I (1 Credit)**

Practical experience in analytical procedures, classical and modern methods of analytical chemistry, an overview of analytical instrumentation and the progress made towards development of analytical methodology, gravimetric analysis, titrimetric analysis, Electro analytical/ spectrophotometry.

**CHE221 Atomic Structure, Bonding and Main Group Chemistry (2 Credits)**

Structure of the atom based on elementary quantum theory. Bonding in simple molecules based on molecular orbital and valence bond theories; Trends in periodic properties and chemical reactions of s- and p-block elements.

**CHE223 Inorganic Chemistry Laboratory I (1 credit)**

This course covers qualitative inorganic analysis, the synthesis of a selection of compounds, as well as solution chemistry of main group elements.

**CHE232 Structure And Survey Of Functional Groups I (2 credits)**

Survey of various functional Groups; Aspects of stereochemistry; Review of alkanes, alkenes and alkynes: addition and substitution reactions. Organic halogen compounds: substitution and elimination reactions, aromatic compounds, and electrophilic substitution reactions. Introduction to chirality's: Acids and bases: alcohols, ethers, epoxides, carbonyls compounds.

**CHE234 Organic Chemistry Laboratory I (1 credit)**

Course topics include: Purification and separation of organic compounds-distillation and fractional distillation, crystallization and recrystallization melting point and refractive index determination; Introduction to qualitative analysis of organic compounds; Preparations of simple organic compounds.

**CHE242 Introductory Physical Chemistry (2 credits)**

Basic principles of thermodynamics: first, second and third laws of thermodynamics; rates of chemical reactions.

**CHE244 Physical Chemistry Laboratory I (1 credit)**

This is an introduction to laboratory techniques in physical chemistry, Experiments dealing with properties of solutions, Calorimetry, thermodynamics, electrochemistry and chemical kinetics.

**300 Level Courses****CHE311 Separation Techniques (3 credits)**

Introduction to chromatographic separation and detection techniques: Liquid-liquid extraction; column chromatography, TLC, GC and HPLC, Supercritical fluid; Capillary electrophoresis. Detection systems include FID/ECD & thermal conductivity for GC. UV-Vis./ DAD/ fluorescence detector for HPLC. Electrochemical / conductivity detectors for Ion Chromatography.

**CHE312 Analytical Spectroscopy (2 credits)**

Introduction to spectroscopic methods. Molecular absorption & emission:- UV-visible, IR, phosphorescence, fluorescence, Fourier transform spectroscopy. Atomic absorption & emission techniques; AAS / AES and ICP-MS; NMR and X-ray spectroscopy.

**CHE314 Analytical Chemistry Laboratory II (1 credit)**

Introduction to practical aspects of spectroscopic methods of analysis: UV-visible, IR, Fourier transform spectroscopy, GC, HPLC, AAS/AES, etc.

**CHE321 Coordination Chemistry (2 credits)**

Introduction to nomenclature, properties and reactions of coordination compounds & complexes; isomerism and magnetic properties. Valence bond and crystal field theories; absorption spectra; field strength; Jahn-Teller effects; covalency and electron delocalization in complexes. Thermodynamics of complex formation. Hard and soft acids and bases. Non-aqueous chemistry. The chemistry of d-block elements and their compounds. Trends in the properties of elements of groups 3 to 12.

**CHE322 Group Theory and Organometallic Chemistry (3 credits)**

Introduction to group theory and basic knowledge of organo-metallic chemistry. Fundamental concepts of organometallic chemistry; organometallic chemistry of transition elements; catalytic applications of organometallic compounds.

**CHE323 Inorganic Chemistry Laboratory II (1 credit)**

Involves use of modern instruments to characterize organic compounds. Synthesis of inorganic compounds and their characterization using various techniques such as NMR, IR and UV-VIS spectroscopy; Reactions of transition elements and their compounds

**CHE331 Structure And Survey Of Functional Groups II (3 credits)**

Spectroscopic methods in organic chemistry: UV, IR NMR and MS. Stereochemistry: Chirality, chiral compounds without stereogenic centres, prochiral centres. Theory of aromaticity, nucleophilic aromatic substitution reactions and polycyclic aromatic hydrocarbons-. Conformations of cycloalkanes. Reactions of enolate anions: Aldol, Claisen and Knoevenegel condensations, Michael addition and Robinson annulation reactions. Enamines. The Mannich reaction.

**CHE332 Physical Organic Chemistry (2 credits)**

Study of reaction mechanisms. Review of nucleophilic substitution and elimination reactions – E1, E2, SN1, SN2, SNi, and E1cB. Structure – reactivity relationships: equilibrium and rate constants – the Hammett equation.



Methods for determining reaction mechanisms. Pericyclic reactions: Frontier Molecular Orbital Theory, cycloadditions, electrocyclic reactions and sigmatropic rearrangements.

#### **CHE334 Organic Chemistry Laboratory III (1 credit)**

Introduction to modern synthetic and characterization methods for organic compounds: Preparation of liquid and solid products then separation, purification and identification by physical and spectroscopic properties- UV, IR and NMR techniques. Chemical and spectroscopic methods in qualitative analysis of organic compounds. Molecular modeling. Simulation of spectra.

#### **CHE341 Applications Of Thermodynamic and Electrochemistry (2 credits)**

Introduction to the applications of chemical thermodynamics to solutions and electrochemical processes. Partial molar quantities, thermodynamics of mixing, properties of ideal solutions, non-ideal solutions, activity and activity coefficient, phase diagrams, chemical equilibrium, conductivity, ion activities, standard potentials, electrochemical cells applications of standard potentials.

#### **CHE342 Quantum Chemistry And Its Applications (3 credits)**

Microscopic concepts of physical chemistry. Basic principles of quantum mechanics, postulates, simple quantum mechanical systems (particle in a 1-D and 3-D box), rotational and vibrational energy levels in molecules, rotational, vibrational and electronic spectroscopy, photophysical and photochemical processes in molecules and atoms, photochemical kinetics.

#### **CHE343 Physical Chemistry Laboratory II (1 credit)**

Practical familiarization with microscopic and time dependent macroscopic aspects of physical chemistry. Laboratory experiments in application of quantum chemistry, spectroscopy, photochemical kinetics, conductivity and transport phenomena.

#### **CHE351 Chemical Informatics (1 credit)**

Use of conventional and electronic chemical information resources. An overview of information resources in chemistry. Purpose of scientific literature. Peer review process. Electronic and non-electronic databases. Searching methodologies including Internet

searching (use of chemical web browsers). Searching for information using chemical names, CAS numbers, structures, sub-structures, molecular formulas, etc. Searching material safety data sheets (MSDS).

#### **CHE352 Literature Based Project (1 credit)**

Course will cover professional writing in chemistry and scholarly project reports. Writing styles in chemistry: comprehensive report on an assigned topic in chemistry under the supervision of an academic staff. Thorough search of the chemical literature including the latest information available on the subject.

#### **400 Level Courses**

#### **CHE411 Advanced Analytical Techniques (3 credits)**

Advanced analytical methods: Statistical treatment of experimental data; Electroanalytical Chemistry; -potentiometry, voltammetry, coulometry, classical and modern polarography, Instrumentation and application of GC-MS, LC-MS, CE-MS, tandem MS, Thermochemical and Radiochemical methods of analysis; isotope dilution and activity analysis.

#### **CHE412 Sample Handling and Biochemical Analysis (3 credits)**

Sampling strategies, sample preparation and clean-up techniques; solid phase extraction, solid phase micro-extraction, dialysis, solvent extraction, supported liquid membrane. Enzymatic analysis methods; application of immobilised enzymes, competitive binding immunoassays, enzyme immunoassays, proteomics, and genomics. Properties of antibodies. Polymer structure elucidation of carbohydrate polymers; precipitation assays.

#### **CHE413 Advanced Analytical Chemistry Laboratory (2 credits)**

Modern instrumental methods of analysis: atomic absorption (AAS), flame emission, graphite furnace-AAS, inductively coupled plasma-AAS. Sample handling strategies. Micro high performance anion exchange chromatography. Hyphenated techniques; LC-MS, MS-capillary electrophoresis, electrochemistry workstations

#### **CHE416 Environmental Chemistry (2 credits)**

Introduction to environmental pollutants and their analysis using local case studies e.g., SO<sub>2</sub> emission from the BCL mine; Pesticide analysis,

industrial waste management; Selection of safe methods of disposal. Degradation reactions and the dispersal pathways of materials into the environment.

#### **CHE418 Special Topics in Analytical Chemistry (2 credits)**

Special topics selected from the following: Application of Analytical Chemistry, Food, Drugs and Forensic Analysis, Chemostatistics and Clinical Analysis.

#### **CHE421 Advanced Transition Metal Chemistry (3 credits)**

Advanced topics in transition metal chemistry and introductory bio-inorganic chemistry. Electronic properties of transition metal complexes; magnetic properties of transition metal complexes; inorganic reaction mechanisms; introduction to photo-chemical reactions; f-block chemistry; introduction to bioinorganic chemistry

#### **CHE422 Advanced Organometallic and Solid State Chemistry (3 credits)**

Organometallic Chemistry: Main group organometallics; structure and chemistry of (C<sub>5</sub>H<sub>5</sub>)<sub>2</sub>M<sub>n</sub> complexes; organometallic chemistry in synthesis; stereochemically non-rigid molecules; metal clusters and metal-metal bonds; low- and high-nuclearity clusters; NMR spectra; Latimer diagrams, oxidation state stability. Solid state chemistry: lattices; crystal packing; ionic structures; crystal defects; metallic bonding; spinels.

#### **CHE423 Advanced Inorganic Laboratory (2 credits)**

Physical methods in Inorganic Chemistry: the study of physical and chemical properties of transition metal and organometallic complexes using electronic, infrared, and nuclear magnetic resonance spectroscopy techniques as well as optical isomerism, reaction kinetics, and inert atmosphere techniques.

#### **CHE426 Special Topics in Inorganic Chemistry (2 credits)**

Selection may be made from the following specialised topics: Nanochemistry, Synthesis of inorganic materials for the fabrication of semiconductors; Molecular orbital calculations; Kinetics and mechanisms of inorganic reactions in solution media; Applied homogeneous catalysis with organometallic compounds; Chemistry and applications of boranes,

carboranes and metallocboranes.

**CHE431 Heterocyclic Chemistry Synthetic Reactions and Design of Organic Synthesis (3 credits)**

Aromaticity and reactions of heterocyclic compounds – furan, pyrrole, thiophene, pyridine, indole, and quinoline. Synthetic reaction, Protective groups.; Molecular rearrangements. Design of organic synthesis: introduction to disconnection approach / retrosynthetic analysis.

**CHE432 Secondary Metabolites and Biomolecules (3 credits)**

Carbohydrates: structure, nomenclature, stereochemistry and reactions of monosaccharides and disaccharides. Structure and properties of polysaccharides. Amino acids and proteins: structure, nomenclature and stereochemistry of amino acids and peptides, analysis of peptides and proteins. Chemistry of purines and pyrimidines. Nucleosides, nucleotides and nucleic acids. Mechanisms of co-enzymes. Examples of secondary metabolites from the acetate, mevalonate and shikimic acid pathways.

**CHE433 Advanced Organic Chemistry Laboratory (2 credits)**

Advanced laboratory techniques in organic synthesis- multi-step synthesis of organic compounds. Extraction and isolation of naturally occurring compounds from plant origin- application of chromatographic and spectroscopic methods. Analysis of mixtures of organic compounds.

**CHE436 Special Topics in Organic Chemistry (2 credits)**

Selection may be made from the following specialised topics: Chemistry of drugs; Chemistry of lipids; Selected natural products; Agrochemicals; Free radicals and photochemistry; Polymer materials

**CHE441 Advanced Physical Chemistry I (3 credits)**

Entropy and probability, partition functions, applications of statistical thermodynamics. Colloidal solutions, electrical double layer, Liquid-gas and liquid-liquid interfaces, Gibbs adsorption equation, spreading, solid-gas interface, adsorption isotherms, rates of surface processes, adsorption and catalysis.

**CHE442 Advanced Physical Chemistry II (3 credits)**

Reaction kinetics, techniques of fast reactions, theories of reaction rates, reaction in solution, composite reactions, chain reactions, explosions. Transport phenomena. Polymers, kinetics of polymerization, osmometry, viscometry, gel-permeation chromatography, TGA, DSC. Introductory polymer processing.

**CHE443 Physical Chemistry Laboratory III (2 credits)**

Laboratory experiments in polymers, surface and colloid chemistry.

**CHE446 Special Topics in Physical Chemistry (2 credits)**

Detailed treatment of topics chosen from: solid-state chemistry; irreversible thermodynamics; molecular dynamics; intermolecular forces; atmospheric and/or astrophysical chemistry.

**CHE452 Senior Research Project (3 credits)**

The course involves scientific bench work research. Will comprise a study leading to a written report and shall be based on an original investigation of a chemical problem. To be carried out under the supervision of a member of staff.

**CHE470 Excited State Chemistry (2 credits)**

## DEPARTMENT OF COMPUTER SCIENCE

**BSc/BIS Degree Course Details**

**CSI231 Discrete Mathematics I (3)pre-req.: MAT122/STA102**

Sets, relations and functions Propositional and predicate calculus; Mathematical proofs; Induction; Basic number theory – well-ordering, divisibility and congruence; Discrete probability; Algebraic structures – groups and rings

**CSI232 Discrete Mathematics II (2) pre-req.: CSI231**

Counting – basics, pigeon-hole principle, permutations and combinations, generating permutation and combinations, principle of inclusion and exclusion. Discrete probability and probability theory: Sequences and summations. Recurrence relations: Graphs – representation, isomorphism, connectivity, Euler and Hamilton

paths. Trees – application, traversal, sorting, spanning and minimum spanning trees.

**CSI241 Structured Programming (4) pre-req.: GEC122**

Problem solving with computer: The programming process. High level language programming: data types, input/output, control structures, functions, objects and classes, file I/O; simple data structures like arrays and records. Programme design concepts. Programme testing, debugging and documentation Practical problem-solving exercises.

**CSI242 Data Abstraction and Structures (4) pre-req.: CSI241**

Abstraction, decomposition, Abstract Data Types, information hiding; records, sets, arrays, tables, stacks, queues, binary trees, trees, graphs, etc. Object-orientated paradigm; practical application in problem-solving.

**CSI252 Operating System Concepts (3)**

History, evolution, philosophies, structures of OS systems. Introduction to the concepts processes; resource management; virtual machines; scheduling; memory management; file systems; device management, allocation techniques, memory protection; virtual memory; paging and segmentation. OS in security and protection: OS interface and distributed/network. Detailed comparative study of features and architecture of current OS

**CSI261 Machine Organization (3)**

Introduction to computer hardware: Computer systems organization: CPU organization; memory organization; I/O devices characteristics. Digital logic circuit; Combinational logic: sequential logic. Data representation; data coding: error detection and correction. Microprogramming based on a simplified machine example; sample macro-architecture. Some examples from Intel-80x86 architectures

**CSI272 Computer Communications Networks Fundamentals (2)**

Network basic Concepts Data transmissions, Multiplexing, Concentrators; Front-end Controllers line connectors, components of data communications system, network topologies, ISO-OSI reference model, LAN, WAN, Internet; Network Components and Technologies. Installation of networks particularly LAN and WAN Network tools, cables, hubs, and routers, NICs. Practical involving cables preparations etc,





network installation. NOS and installation.

### **CSI292 Information Systems**

#### **Fundamentals (3)**

Fundamental Systems Concepts; Systems components and relationships; IS in perspective; Information and knowledge economy; Information as an organizational resource; Processing models; IS Architectural Framework: IS infrastructure: Organisations as systems; IS in organizational context; IS Development frameworks: Life cycles and Methodologies; Global IS; Fundamentals of IS for Enterprise: Elements of Socio-economics of of IS. Case studies

### **CSI311 File Systems and Data Management**

#### **(4) pre-req.: CSI242**

Techniques for storing, accessing, and managing long-term data in computer systems Hardware and software aspects of data processing: processors, storage devices, communications, file I/O control. Techniques for organizing and managing files: DBMS. Data organisation methods in relation to physical database design. Major practical data management systems implementation

### **CSI312 Programming Language Translation (3) pre-req. : CSI241, CSI351/CSI361**

The principles and design aspects of programming language translation. Compiler organisation Lexical analysis, Syntax analysis, type checking, code generation, optimisation Alternative parsing strategies, comparison with respect to time and space trade offs. Grammars and ambiguity Data representation Error recovery strategies Symbol table design Binding Compiler writing tools: Incremental compiling, interpreters' Abstract machine concept

### **CSI314 Decision Support Systems II (3)**

Structure of the decision problem DSS Framework and applications: DSS Model Representation. DSS; Data Warehousing, Data marting and Data Mining for DSS; DSS Re-engineering; Modelling and decision support; Decision model construction; Forecasting; Optimisation and Simulation; Group support systems. Model Based Management Systems. DS and IS DSS Development Tools Group DSS; DSS development project

### **CSI315 Web Technology and Applications (3) pre-req. : CSI241**

The Internet, intranet and Web technologies;

Systems development; Rapid Applications Development concept; Web application development, architectures, environments, and technologies. Web applications Web Development using Web-authoring tools Database –Web connectivity Scripting languages for Web development; Web application Client/Server technologies Project.

### **CSI322 Algorithm Analysis and Design (3) pre-req.: CSI242**

Measuring algorithm performance: worst case analysis; average case analysis; lower bounds. Techniques of efficient algorithm design: greedy method, dynamic programming graph traversal. Illustration with topics from integer and polynomial arithmetic; matrix multiplication; random number generation; sorting; searching; graph and tree algorithms. Introduction to complexity theory Parallel and Randomized algorithms

### **CSI331 Numerical Methods I (3)**

Approximation and errors Finite differences Interpolation Solution of linear and non – linear equations. Numerical integration Curve fittings

### **CSI332 Programming Languages (3) pre-req.: CSI241**

Principles of programming language design. A brief history of major developments Procedural and non-procedural paradigms (languages-functional, logic, object-oriented, parallel) Virtual machines and language translation Binding time Sequence control. Representation of data types; data control, sharing, and type checking. Encapsulation Polymorphism Run-time storage management: allocation, recovery, and reuse of storage.

### **CSI341 Introduction to Software Engineering (3)**

The software development process Design objectives. Function oriented and object oriented design methodologies. Documentation Implementation strategies Debugging, anti bugging Introduction to specifications verification, and validation Elementary proof of correctness Code and design reading, structured walkthroughs. Testing strategies Software reliability issues Configuration management. CASE tools Team project assignments

### **CSI342 Systems Analysis and Design (3)**

General Systems Theory: development life cycle; analysis; description and modelling techniques:

Systems development project planning: concepts and tools; System Requirements; design: implementation, changeover and maintenance overview; Documentation; Systems development management; Modern systems development tools, implementation, techniques, and methodologies; Systems Analysis and Design project.

### **CSI351 Assembly Language Programming (3)**

Assembly language programming Language hierarchy, the assembly-linking process and the role of the OS in assembly level programming. Machine level data structures Assembly language programming techniques: advanced data structures like arrays; advanced I/O. Interrupt handling and introduction to concurrent programming. Use and definition of macros; conditional assembly object modules and linking Assembly/high-level language interface. Run-time considerations.

### **CSI352 Industrial Attachment (2) pre-req.:**

Completion of All Level 200 courses

### **CSI361 Computer Architecture (3) pre-req. : CSI261**

The computer system: interconnection structure; internal & external memory; input/output; relationship between the architecture and the OS. Advance topic in computer organization: pipelining; horizontal vertical microprogramming architecture; microprogramming applications. Alternative architectures: parallel processing; vector processing; RISC vs. CISC.

### **CSI362 Database Concepts (3)**

Principles and concepts of the DBS DBMS architecture Databases and data modelling Services of DBMS Overview of database languages Transactions The relational model. Mapping from a conceptual model to a relational model Database design methodologies The network and hierarchical models. Database Design languages Overview of commercially available systems. Practical work with DBMS

### **CSI371 Information Systems Resources Management (3)**

Information Systems resources (ISR) ISR Management objectives, responsibilities, principles and environment. IS Management, Control and Maintenance (MCM) concepts IS Management tasks and state models; Tasks at ISR Tasks Management level; IS Control and

Maintenance Processes modeling; Organisation of ISR management ISR Management types. ISR Management issues; practice; IT infrastructure Library; resources planning; and impact on organisational planning cycle Case studies

### **CSI372 Expert Systems (3)pre-req.: CSI241**

Expert System technology forward and backward reasoning State space, decompositions and game trees Heuristic search. Plausible reasoning Bayesian probability theory Certainty factors and other approach to uncertainty Knowledge representation (KR) Knowledge acquisition. Hybrid expert systems design. ES development tools ES and database systems. Intelligent data handling.

### **CSI373 Economics of Information Technology (3)**

Economic aspects of IT; systems managers, system users, the IT industry, and national policy-makers; the systems management perspective; performance and capacity, system financing, and price-for- service strategies. Cost/ benefit trade-off and measurement. Impacts of IT industries and markets National issues Global competition Informatics policies, and the role of IT in development

### **CSI382: Formal languages and Automata (3) pre-req.: CSI231 and CSI232**

Theory of formal languages The Chomsky hierarchy of formal grammars and the corresponding automata Finite state automata and regular expressions Deterministic and nondeterministic finite state automata, Criterion for regularity Context-free grammars and push down automata Pumping Lemma for regular and context-free languages Push-down automata in parsing programming languages Decision problems

### **CSI392 Human Computer Interaction (3)**

Basic principles and methodology for user interface design, Background of human information processing and human factors. Practical case studies Techniques for user-centred analysis and design Prototyping tools Introduction to Usability Engineering and evaluation methods. Methods for enhancing system usability including systems ergonomics

### **CSI393 Multimedia Computing (3)**

Multimedia computing concepts and principles; Multimedia computing application, Multimedia computing application packages; Multimedia

components - Sound, Graphics, Animation, Video; Understanding multimedia components and developing contents; Web Integration of multimedia components; Visual communication; Database integration of multimedia components.

### **CSI403 Project I (2)**

Project proposal, Literature review, Systems Analysis and Design It shall be a pre-req. course which must be passed before taking CSI405.

### **CSI405 Project II (4) pre-req: CSI403**

Continuation of CSI405 covering implementation and full documentation in form of a project report

### **CSI411 Complexity and Computability theory (3)pre-req.: CSI322**

Computational complexity of algorithms Phrases like NP-Complete and NP-Hard have already become common to the lexicon of algorithm designers. Computability, addresses time-honoured issues such as the famous halting problem, and, of course, some of the more interesting variations on the Turing machine theme.

### **CSI412 Topics in Computer Science (3)**

A selected advanced topic in computer science may be offered depending on the qualification and interest of available teaching staff. This course would be offered in first semester Number of hours/week: 4 lecture hours, or equivalent.

### **CSI414 Information Interfaces and Presentation (3)**

General: Multimedia IS; Animations Artificial, augmented and virtual realities. Audio I/O; Hypertext Navigation and maps; Video; Users Interfaces; Auditory feedback: Benchmarking; Evaluation/methodology; Graphical user interface (GUI) I/O strategies; Interaction styles Natural language prototyping; Screen design Standardization; Style guides Theory and methods; User-centred design User interface management systems Voice I/O Windowing systems Group and Organization interface: Hypertext/Hypermedia: Sound and Music Computing.

### **CSI416 Topics in Information Systems (3)**

Selected current topics in Information Systems may be offered depending on the qualification and interest of available teaching staff. This course would be offered in first semester.

### **CSI421 Operating Systems (3) pre-req.: CSI252**

Issues in analyzing, designing and implementing operating systems (OSs); Models of OS structure Processes: models, scheduling. Memory management: allocation techniques, memory protection; virtual memory; paging and segmentation. File System: structure; directories; implementation; security and protection and deadlocks. Distributed OSs: design issues; communications; synchronization; processes and processors. In-depth case studies of implementation of selected Operating Systems.

### **CSI422 Operations Research (3)**

Operations Research (OR): concepts, tools, techniques, applications in solving practical problems. Topics include: linear programming, parametric programming, dual, post optimal analysis, integer programming, the transportation problem, networks, simulation, queuing theory, inventory control and forecasting models. OR packages and their uses

### **CSI423: Systems Programming (3) pre-req.: CSI241**

Introduction to Systems Programming Process Control and Scheduling Processes Threads and Threads Programming File I/O and Signal Processing. Memory Management Programming Distributed Systems and Client Server Programming Unix socket programming. Java Systems Programming: SWING, multithreading and networking.

### **CSI431 Formal Methods (3)**

Introduction to Formal Methods: Introduction; Rationale for use of formal methods; Review of specification methods; Properties of specifications; Specification classes; Overview of formal method approaches. Mathematical Basis for Formal Methods: Propositional logic; Predicate calculus; Theories and proof systems; Reasoning and proof techniques. Formal Specification using Z : Z notation and structure; Building Z specifications; Functional and data refinement; Proving properties of Z specifications; Use of automated theorem proving tools.

### **CSI432 Intelligent Interfaces and Systems (3)pre-req.: CSI372**

Introduction to Natural Language Processing Natural Language Interfaces The linguistic Application if NLP NLP as a tool for Linguistic Research. Software for Natural Language



Systems Comparison between Natural Language Interactive Interfaces and direct manipulation, graphical interfaces

### **CSI433 Algorithmic Graph Theory (3) pre-req.: CSI322**

Graph Algorithms: depth first search, breadth first search, connected components, topological sorting, shortest path algorithm, network flow, string searching, parallel computation, graph partitioning, and graph isomorphism.

### **CSI434 Knowledge Management Systems (3)pre-req.: CSI362**

Knowledge systems theoretical foundations infrastructure enabling technologies, emerging applications and management Knowledge-based Economy; Knowledge Management systems; Types of knowledge Technologies KM technical infrastructure; Data Warehousing/Data Mining and Knowledge delivery Systems; Knowledge modeling; Application of AI technologies in KMS development; Case studies;

### **CSI441 Software Engineering (3) pre-req. CSI341**

Conventional development Requirements analysis architectural high-level design, implementation testing maintenance Formal development Project planning and control Metrics and measurement Software reliability modelling AI/KBS approaches environments AI/KBS development techniques Principles of object-oriented systems Prototyping Software reuse

### **CSI442 Artificial Intelligence (3)pre-req. : CSI372**

Proof techniques: State space search: exhaustive, heuristic, performance evaluation. Searching decompositions, AND/OR graphs, means-end analysis. Playing games by searching trees minimax procedure, pruning: Alternative search strategies. Searching and rule base systems. Language for AI problem solving: Natural Language Processing. Computer vision systems and image processing: Neural networks.

### **CSI451 Knowledge Engineering (3) pre-req.: CSI372**

The facility of KE and problem solving – an overview Fuzzy sets and fuzzy operations Fuzziness and probability. Fuzzy systems Neural Networks Theoretical and Computational models Real and artificial neurons Fuzzy neurons and fuzzy neural networks NN for Knowledge

Engineering and problem Solving NN as a problem solving paradigm Hybrid Symbolic and Fuzzy Systems

### **CSI452 Computer Simulation (3) pre-req.: CSI331 and MAT271**

Models, model development, verification, and validation; Simulation Study; Discrete and Continuous Probability distributions Linear congruential method for generating uniform random numbers; Tests for uniformity and independence; Inverse transform technique, Acceptance-rejection technique ; Student, Chi-square and Kolmogorov-Smirnov tests, Covariance and Correlation, ANOVA; Testing for significance of regression.

### **CSI461 Computer Communications Networks Management (4) pre-req.: CSI272**

Data communications: theory, and systems structures. Networks types, structures, ISO-OSI reference model Protocols types and structure. Protocol layers: functions. LAN and WAN and ISDN; Network management and Administration

### **CSI462 Distributed Systems (3) pre-req.: CSI411 and CSI361**

Design issues of Distributed Systems (DS), Architecture, design, and implementation of DS. Comparison of DS to PC's and centralized systems. Performance security and reliability issues Process communication: IPC, remote procedure calls (RPC), java communications, transactions; processing and concurrency control. Naming, security, Distributed file system, replication, shared memory, distributed algorithms and message passing.

### **CSI471 Object Oriented Systems Development (3) pre-req.: CSI241**

Object-orientation paradigm; analysis design, OO databases; Software reusability Abstraction Polymorphism Object messages and encapsulation Classes, inheritance, and class categories Foundations and collection classes Iconic user interfaces. Design and implementation Survey of Object Oriented features of programming languages, modelling database and knowledge – based systems.

### **CSI472 Social Issues of Information Technology (3)**

Historical development and transfer of Science and Technology of computing; Social context of computing; Perspectives to computer systems development; Risks and liabilities of computer-

based systems; intellectual property; Privacy and civil liberties; Computer crime; Ethics and professionalism issues; IT in socio-economic development: Computing technology transfer to Developing countries. Case studies

### **CSI481 – Database Systems (3) pre-req.: CSI362**

Database systems development framework, Planning; Logical and Physical DB design Query processing. Backup and recovery Concurrency Management; Performance tuning DB security, integrity and control. DBS architectural frameworks: Client/Server, Distributed and parallel DBS. Object-oriented DB KB and DBS Intelligent DB Data and DBA; Data Warehouse DB Design; Web-DBS; DB Programming languages Current topics.

### **CSI482 Information Systems Engineering (3)**

Information Systems(ISs) Engineering principles; Design for ISs; IS architectural (ISA): frameworks, models, and concepts; IS Strategies, Planning; methodologies; .IS Requirements Engineering; IS Engineering; Enterprise IS Integration: Framework, dimensions, and impacts; Legacy IS re-engineering; Data Warehouse systems engineering; Web-based systems engineering; IS Engineering impacts assessment; . Practical I

### **CSI484 National Information Systems Infrastructure (3)**

IS Technology (IST) and techno-economic development; National IST (NIST); Components and Perspectives; IT structure and System. Human capital economic growth, and policy; National development vision versus IST infrastructure vision Models to Strategic thrusts: E-Governance; IST culture issues; Telecommunications regulation. Legislative framework for IST; translating vision to reality, thrusts to action; Case studies

### **CSI491 Pattern Recognition (3) pre-req. : CSI372**

Introduction to Pattern Recognition Statistical Decision theory, Image processing and Analysis. Pattern recognition models Pattern Recognition Design Methodology. NN for Pattern recognition Pattern Recognition implementation – interactive systems, special architectures Pattern recognition applications – computer vision, signal processing, text processing etc

### **CSI493 Computer Graphics I (3) pre-req: CSI241**

Computer Graphics (CG)?, Image Analysis(IA) vs. CG. Hardware devices Software packages 2D-Graphics; homogenous coordinates, Transformations, Clippings 3D-Graphics 2D screens, projection Realism (basic illumination models, primary and secondary effects.

### **CSI494 Computer Graphics II (3)**

**pre-req. : CSI493**

Colour Models and Colour Applications; Modelling in 3D; Surface Rendering; Lighting effects; Computer Animation; Interaction; Computer Graphics in Scientific Visualization; Graphics on the World Wide Web; Graphics and multimedia systems.

### **GEC Area 2**

### **ICT 121 Computing Skills**

#### **Fundamentals 1 (2)**

Hardware and software systems concepts and principles OS and file management basics Applications areas of computers; Data Communications and network systems; Internet and Electronic mails basics; Computers and society issues; Information skills and organisation Information need, and sources Security and legal issues. Problem-solving with computers Practical laboratory exercises.

#### **ICT 122 Computing Skills Fundamentals 2 (2) pre-req.: ICT 121**

Advanced operating systems file management; Spreadsheet and database management; Use of basic spreadsheet application package facilities; Basic database application package facilities; Principles of problem-solving with computers. Design and specification with pseudo-code and other tools; evaluating information sources; Practical

#### **GEC 221 Information Management Skills (2) pre-req.: IEC 122**

Word processing and database management; application package facilities; DB application package facilities; problem-solving methods Data communication and network systems Evaluating information sources; Electronic information resources. Information management using intermediate to advanced Database management; Electronic information communications Topic analysis; integrated information management.

#### **GEC222 Problem-Solving with Spreadsheet (2) pre-req.: IEC122**

Problem solving Concepts and principles Spreadsheet problem-solving methodology: Problem-specification and solution design. Advanced Spreadsheet features. Survey of Spreadsheet application domains Spreadsheet programming Practical problem-solving using spreadsheet facilities Further information skills: Electronic information sourcing and evaluation; Information synthesis; Practical lab exercises.

### **GEC 223 Web Application Skills (2)**

**pre-req.-IEC122**

The Internet and Web technologies; Systems development Web Application development cycle; Web-Based Systems, structure and applications; Survey of Web application development tools and use; HTML components and syntax; Web planning, design using programmatic (e.g. scripting) and non-programmatic approaches; Use of tables and pictures; Validation and verification, error checking; Qualities of a good web site; Static versus Dynamic web concepts; Practical

### **GEC321 Multimedia Information**

#### **Presentation Skills (2) pre-req.: IEC122**

Multimedia information resources; Use of facilities in appropriate Presentation application packages Integrated use of presentation application packages with related application packages (e.g. Word processing, Spreadsheet, and Database packages). Advanced information skills: Topic analysis - Information needs analysis and problem definition; Use of advanced electronic information resources.

## **DEPARTMENT OF MATHEMATICS**

### **MAT111 Introductory Mathematics I (4)**

Basic algebra; Introduction to functions; Trigonometry; Series; Induction; Complex numbers; Permutations and combinations.

### **MAT122 Introductory Mathematics II (4)**

Calculus; Co-ordinate geometry; Vectors.

### **MAT191 Design Mathematics I (3)**

Basic Algebra; Trigonometry, Statistics.

### **MAT192 Design Mathematics II (3)**

Co-ordinate Geometry; Matrices and Determinants; Calculus.

### **MAT201 Ancillary Mathematics (3)**

Linear algebra; Calculus; Probability and statistics.

### **MAT211 Introductory Set and Number Theory (3)**

Logic; Sets; Relations; Integers; Modular Arithmetic.

### **MAT212 Introductory Linear Algebra (3)**

Linear equations; Matrices; Vector spaces; Transformations; Eigenvectors.

### **MAT 221 Calculus I (3)**

Techniques of integration; Applications of integration; Improper integrals; Generalized mean value theorem; Taylor's theorem; Differential equations; Sequences and series.

### **MAT 222 Calculus II (3)**

Power series; Conic sections; Differential calculus; Multiple integrals.

### **MAT 242 Computing I (3)**

Elements of programming; Procedures and subroutines; Structured design; Introduction to modularization.

### **MAT244 Numerical Methods (3)**

Computer arithmetic; Numerical approximation and integration.

### **MAT251 Vectors and Introductory Mechanics (3)**

Vectors; Vector calculus; Particle motion in a straight line; Newton's laws of motion; Kinematics; Dynamics in space; Statistics.

### **MAT252 Newtonian Mechanics (3)**

Work, power and energy; Momentum; Simple harmonic motion; Statics of rigid bodies; Centre of gravity; Dynamics of a rigid body.

### **MAT271 Introduction to Mathematical Statistics (3)**

Sample space and probability function; Distributions of random variables; Expectations; Normal distribution; Applications of t, chi-square and F distributions; Sampling distributions; Statement of central limit theorem; Confidence intervals and testing of hypothesis.

### **MAT291 Engineering Mathematics I (3)**

Determinants and matrices; Application of derivatives; Number sequences and series; Partial derivatives; Application of integration.

**MAT292 Engineering Mathematics II (3)**

Ordinary differential equations; Statistics; Probability; Binomial, Poisson and normal distributions.

**MAT311 Abstract Algebra I (3)**

Groups; Factor groups; Homomorphisms; Rings.

**MAT312 Abstract Algebra II (3)**

Group actions; p-groups; Rings; Fields.

**MAT 321 Real Analysis I (3)**

The real number system; Sequences of real numbers; Series; Functions; Continuity; Differentiability; Integration.

**MAT 322 Real Analysis II (3)**

Introduction to  $\mathbb{R}^n$  as a metric space; Differentiation in  $\mathbb{R}^n$ ; Power series; Integration in  $\mathbb{R}^n$ .

**MAT 323 Vector Calculus (3)**

Vectors and applications to lines and planes; Curves and surfaces; Differentiation and integration of vector functions; The divergence theorem and Stoke's theorem.

**MAT324 Differential Equations (3)**

Second order linear differential equations; Power series solutions to ordinary differential equations; Systems of differential equations; Boundary value problems for ordinary differential equations and partial differential equations.

**MAT342 Computing II (3)**

Recursion, pointers and linked lists; Object oriented programming; Dynamic memory allocation; Mathematical usage of objects and modules.

**MAT344 Numerical Methods of Linear Algebra (3)**

Direct and iterative methods for solving systems of linear equations; Numerical methods for computation of eigenvalues and eigenvectors of matrices.

**MAT352 Dynamics I (3)**

Central forces, systems of particles, variable mass; Non-inertial frames; Rigid body motion; Lagrangian and Hamiltonian dynamics.

**MAT361 Mathematical Programming and Game Theory (3)**

Graphical solution for linear programming; Simplex method and new developments; K-T

condition and basic methods for non-linear programming; Linear programming method for two person zero-sum games.

**MAT371 Mathematical Statistics I (3)**

Review of probability; Distributions of random variables; Conditional distributions; Normal, gamma, t, chi-square and F distributions; Different modes of convergence; Limiting distributions; Introduction to estimation theory and hypothesis testing.

**MAT372 Mathematical Statistics II (3)**

Estimation theory; Classical methods of estimation versus Bayes estimation; Theory of uniformly powerful tests and likelihood ratio tests; Introduction to linear models; Linear regression and ANOVA models.

**MAT381 Calculus for Teachers I (3)**

Differentiation; Integration.

**MAT382 Calculus for Teachers II (3)**

Complex numbers; Differential equations; Partial differentiation

**MAT383 Linear Algebra for Teachers (3)**

Linear equations; Matrices; Transformations; Vectors; Geometric equations.

**MAT384 Computing for Teachers (3)**

Introduction to computing; Basics of programming; laboratory exercises.

**MAT387 Mechanics for Teachers I(3)**

Vectors; Co-ordinate systems; Kinematics; Velocity; Acceleration; Projectiles; Relative motion and circular motion.

**MAT388 Mechanics for Teachers II (3)**

Newton's law of motion; Momentum and impulse; Conservation of momentum; Work, power and energy; Simple harmonic motion.

**MAT389 Linear Programming and Game Theory For Teachers (3)**

Mathematical formulation of linear programming (LP) problem; Graphical method; The simplex procedure and other techniques; Game theory; Two-person games; Zero-sum games; Mixed strategies; Graphical solution; The best mixed strategy as an LP problem.

**MAT391 Engineering Mathematics III (3)**

Laplace transforms; Vector analysis; Interpolation; Numerical solution of differential

equations; Fourier series representation of periodic functions.

**MAT392 Engineering Mathematics IVA (3)**

Laplace transforms; Partial differential equations; Complex analysis.

**MAT394 Engineering Mathematics IVB (3)**

Partial differential equations; Laplace transforms.

**MAT400 Project (3)****MAT402 History Of Mathematics (3)**

The origins of mathematics; Greek mathematics; Mathematics in other cultures; The European renaissance; Modern mathematics.

**MAT404 Topics in Advanced Mathematics (3)**

Topics to be determined.

**MAT411 Linear Algebra (3)**

Vector spaces; Linear transformations; Eigenvalues and eigenvectors; Inner product spaces; Multilinear algebra.

**MAT412 Number Theory (3)**

Brief revision of elementary number theory; Quadratic reciprocity; Number theoretic functions; Sums of squares; Algebraic integers.

**MAT414 Combinatorics and Graph Theory (3)**

Graphs; Planar graphs; Paths; Directed graphs; Networks; Matchings.

**MAT416 Abstract Algebra III**

Group theory; Field theory.

**MAT421 Functions of a Complex Variable (3)**

The elementary functions; Analytic functions; Series; Calculus of residues; Introduction to conformal mappings and analytic continuation.

**MAT422 Functional Analysis (3)**

Normed linear spaces; Inner product spaces; Fundamental theorems for normed linear spaces; Applications.

**MAT423 Mathematical Methods (3)**

Laplace transforms and applications; Fourier series; Fourier transforms and applications; Classification of partial differential equations; Boundary value problems.



## MAT424 Dynamical Systems (3)

Periodic attractors; Stability and bifurcations; Chaos and chaotic attractors.

## MAT425 Measure Theory (3)

Measure spaces; Measurable functions; Integration; Spaces of functions; Product measures.

## MAT426 Partial Differential Equations (3)

Initial boundary problems for parabolic, elliptic and hyperbolic equations.

## MAT431 General Topology

Topological spaces; Bases and sub-bases; Continuous mappings; Hausdorff spaces; Compact spaces; Connected spaces.

## MAT432 Algebraic Topology (3)

Homotopy theory; Homology theory; Categories and functors.

## MAT441 Numerical Analysis (3)

Multi-step linear methods and Runge Kutta methods for ordinary differential equations; Finite difference methods for partial differential equations.

## MAT442 Computational Mathematics (3)

Symbolic calculations with a computer; Automatic symbolic differentiation and integration; Symbolic solution of differential equations; Approximation of functions with a computer.

## MAT451 Dynamics II (3)

Further work on systems of particles; Lagrangian and Hamiltonian dynamics; Variational principles; Canonical transforms; Hamilton-Jacobi theory.

## MAT452 Quantum Mechanics (3)

Quantization rules; Application to the hydrogen atom; Schrodinger wave equation; Poisson brackets and commutation relations; The uncertainty principle.

## MAT453 Electromagnetic Theory (3)

Electric field; Electric currents in linear conductors; Biot-Savart law; Magnetic field; Potentials and related boundary value problems; Maxwell's equations.

## MAT454 Introduction to Fluid Dynamics (3)

Tensor methods; Two dimensional steady flow; Stream lines and streak lines; Properties of fl

uids; Mass conservation; Continuity equations; Convective derivative; Vorticity.

## MAT 461 Optimization And Control Theory (3)

Calculus of variation; Pontryagin maximum principle; Optimal control of linear systems; Linear systems with quadratic cost.

## MAT 462 Mathematical Modelling (3)

Population models; Competing species; Epidemic models; Van der Pol and Lotka- Volterra equations.

## MAT 471 Multivariate Statistics (3)

Multivariate, marginal and conditional distributions; Multivariate normal distribution  $N_p(m, S)$ . Wishart distribution and Hotelling  $T^2$  distribution; Maximum likelihood estimation of  $m$  and  $S$  of  $N_p(m, S)$  distribution; Likelihood ratio test for testing  $H_0: m = m_0$ ; Multivariate regression; Canonical correlations; Principal components.

## MAT 472 Linear Models (3)

General linear model and linear hypotheses; Models of full rank and models not of full rank; Estimable functions; Testable hypotheses; The exponential family and generalized linear models; Introduction to fixed models; Illustration of fitting models to real life data with a computer package.

## MAT 474 Stochastic Processes (3)

Stochastic processes in both discrete and continuous time; Markov chains; Poisson processes; Renewal theory; Branch processes; Applications.

## MAT 476 Statistical Computing (3)

Use of symbolic computation in statistics with a computer algebra system; Developing computational methods for selected problems of multivariate statistics; Using a statistics package for estimation and testing of hypotheses in different statistical models with real life data and/or data supplied by simulation.

## MAT481 Geometry for Teachers I (3)

Logic; Axiomatic systems; Incidence geometry; Euclidean geometry.

## MAT482 Geometry for Teachers II (3)

Analytic Geometry in the Euclidean plane and space; Transformational Geometry in the Euclidean plane.

## MAT483 Real Analysis for Teachers (3)

Sequences; Functions; Continuity; Derivatives; Riemann integral.

## MAT484 Introduction to Probability and Statistics For Teachers (3)

Sample space and probability function; Distributions of random variables and their moments; Binomial, Poisson, normal and other probability functions; Estimation and hypothesis testing.

## MAT485 Number Theory and Abstract Algebra for Teachers (3)

Elementary number theory; The Diophantine equation; Congruences; Fermat's and Wilson's theorems; Group theory; Polynomials.

## MAT491 Engineering Mathematics V

Partial differential equations; Bessel functions; Legendre polynomials; Reliability theory

## MAT492 Engineering Mathematics VI

Tests of hypothesis; Linear programming; Stochastic processes.

# Faculty of SOCIAL SCIENCES

ECONOMICS

LAW

POLITICAL & ADMINISTRATIVE STUDIES

POPULATION STUDIES

PSYCHOLOGY

SOCIAL WORK

SOCIOLOGY

STATISTICS

## DEAN

Prof. H.K. Siphambe, BA (UB), MA (Western Michigan), PhD (Manitoba)

## DEPUTY DEAN

R.G. Majelantle, BA (UB), PGDipPopStud (Rips, Ghana), MA (Pennsylvania).

## FACULTY ADMINISTRATOR

M. B. Maje, BA PGDE (UB), MEd (Birmingham)

## FACULTY HUMAN RESOURCES MANAGER

M.P. Tshebo, BA (UB), MSc HRM (Salford)



### Special Regulations of the Faculty of Social Sciences

24.00 General Regulations of the University shall apply.

24.01 Failure, without good cause, to deliver an assignment within the first 24 hours of the due date shall carry a penalty of 5 percentage marks. Failure to submit the assignment before the end of the week from the due date shall incur a zero mark.

## DEPARTMENT OF ECONOMICS

### Bachelor of Arts in Economics Degree Programme

Special Departmental Regulations for the Bachelor of Arts in Economics (Combined Degree and Economics Minor)

#### Entry Requirements

Subject to the provisions of General Regulation 20.20, at least a credit in Mathematics shall be required for all students intending to take Economics as a Major or Minor subject. Alternative qualifications may be accepted as per General Academic Regulation 20.24b. Requirements for entry into the Bachelor of Arts (Economics) Degree Programme are determined by the Department of Economics Board and may vary from year to year. The Department offers Economics as a Single Major Bachelor of Arts (Economics) Degree, a Combined Major (Major/Major) Degree for the BASS and other Degrees, and a Minor in Economics. Students majoring in other subjects may take courses in Economics provided the pre-requisites are satisfied.

#### Single Major Programme.

Students intending to take Economics as a Single Major shall take and pass the following courses:

#### Level 100

All courses at this level are Core.

#### Semester 1

- EC0111** Basic Microeconomics (3)
- STA101** Mathematics for Business and Social Sciences I (3)
- STA116** Introduction to Statistics (4)

#### Semester 2

- EC0112** Basic Macroeconomics (3)
- STA102** Mathematics for Business and Social

Sciences II (3)

- STA121** Elements of Probability (2)

#### Level 200

All courses at this level are Core.

#### Semester 1

- EC0211** Intermediate Microeconomics (3)
- EC0231** Intermediate Mathematics for Economists (3)

#### Semester 2

- EC0212** Intermediate Macroeconomics (3)
- EC0232** Intermediate Statistics for Economists (3)

#### Level 300

All courses at this level are Core.

#### Semester 1

- EC0311** Microeconomics I (3)
- EC0321** Macroeconomics I (3)
- EC0331** Mathematics for Economists I (3)
- EC0341** Econometrics I (3)
- EC0463** Economics of Botswana and Southern Africa (3)

#### Semester 2

- EC0312** Microeconomics II (3)
- EC0322** Macroeconomics II (3)
- EC0332** Mathematics for Economists II (3)
- EC0342** Econometrics II (3)
- EC0465** History of Economic Thought (3)

#### Level 400

All courses at this level are Core.

#### Semester 1

- EC0431** Research Methods in Economics (3)
- Plus: 4 Optional Courses.

#### Semester 2

- EC0432** Project in Applied Economics (3, core)
- Plus: 4 Optional Courses.

#### Optional Courses

- EC0221** Intermediate Microeconomics for Non-Majors
- EC0222** Intermediate Macroeconomics for Non-Majors
- EC0411** Development Economics
- EC0412** Development Problems and Policy
- EC0421** International Trade
- EC0422** International Finance
- EC0441** Economics of Agriculture
- EC0442** Agricultural Policy and Rural

Development

- EC0451** Environmental Economics
- EC0452** Resource Economics
- EC0463** Economics of Botswana and Southern Africa
- EC0465** History of Economic Thought
- EC0466** Public Finance
- EC0467** Labour Economics
- EC0468** Industrial Economics
- EC0469** Money and Banking
- EC0473** Financial Economics
- EC0474** Health Economics
- EC0475** Transport Economics

NB: EC0221 and EC0222 are not available for Students taking Economics as a Major.

NB: Students in Levels 300 and 400 may take any of the above-listed optional courses provided they satisfy the pre-requisites.

#### Combined Major Programme

Students intending to take Economics as a Combined Major shall take and pass the following courses:

#### Level 100

All courses at this level are Core.

#### Semester 1

- EC0111** Basic Microeconomics (3)
- STA101** Mathematics for Business and Social Sciences I (3)
- STA116** Introduction to Statistics (4)

#### Semester 2

- EC0112** Basic Macroeconomics (3)
- STA102** Mathematics for Business and Social Sciences II (3)
- STA121** Elements of Probability (2)

#### Level 200

All courses at this level are Core.

#### Semester 1

- EC0211** Intermediate Microeconomics (3)
- EC0231** Intermediate Mathematics for Economists (3)

#### Semester 2

- EC0212** Intermediate Macroeconomics (3)
- EC0232** Intermediate Statistics for Economists (3)

#### Level 300

All courses at this level are Core.

#### Semester 1

- EC0311** Microeconomics I (3)



- EC0321** Macroeconomics I (3)  
**EC0331** Mathematics for Economists I (3)

#### Semester 2

- EC0312** Microeconomics II (3)  
**EC0322** Macroeconomics II (3)  
**EC0332** Mathematics for Economists II (3)

#### Level 400

All courses at this level are Core.

#### Semester 1

- EC0341** Econometrics I (3)  
**EC0463** Economics of Botswana and  
Southern Africa (3)

Plus one Optional Course

#### Semester 2

- EC0342** Econometrics II (3)

Plus: 2 Optional Courses.

#### Minor in Economics.

Students intending to take Economics as a Minor subject shall take and pass the following courses:

#### Level 100

All courses at this level are Core.

#### Semester 1

- EC0111** Basic Microeconomics (3)  
**STA101** Mathematics for Business and Social  
Sciences I (3)

#### Semester 2

- EC0112** Basic Macroeconomics (3)  
**STA102** Mathematics for Business and Social  
Sciences II (3)

#### Level 200

All courses at this level are Core.

#### Semester 1

- EC0211** Intermediate Microeconomics (3)

#### Semester 2

- EC0212** Intermediate Macroeconomics (3)

#### Levels 300 and 400

Students are required to take 2 Optional Courses.

#### Assessment.

The continuous assessment (CA) of each course will normally include at least 2 components as outlined in the General Academic Regulation 00.811. These 2 components will normally be in written form. However, non-written presentations will count for no more than 10

percent of the CA. The CA will count for 40 percent of the total assessment while the final examination will count for 60 percent of the total assessment. This applies to all courses except EC0432 (Project in Applied Economics)

#### Research Proposal

All students taking EC0431 Research Methods in Economics shall write a research proposal that shall be graded, and there shall be no final examination for that course. The proposal for this course will normally be used as a basis for EC0432 Project in Applied Economics.

#### Progression from one Semester to Semester.

Progression from one Semester to the next shall be as per General Regulations 00.9

## DEPARTMENT OF LAW

The Department of Law offers programmes and courses leading to the award of the following qualifications:

- Bachelor of Laws (LLB)
- Master of Laws (LLM)

Departmental Regulations General Provisions  
Subject to the provisions of Academic General Regulations and Faculty of Social Sciences Regulations, the following Departmental Regulations shall apply.

### Bachelor of Laws (LLB) Degree

#### Entry Requirements

1. The normal requirement for admission to the Bachelor of Laws degree programme shall be the Botswana General Certificate of Secondary Education (BGCSE) obtained at one sitting with a minimum of five credits, one of which shall be in English language, or an equivalent qualification.

2. An applicant in possession of a Diploma in Law from this University, obtained with a minimum classification of a credit, or an equivalent qualification shall also be eligible for admission to the LLB programme.

3. Subject to Academic General Regulation 00.4, a student admitted to the LLB programme with a Diploma in Law shall be exempted from taking Levels 100 and 200 courses on the LLB programme designated by the Departmental Board as equivalent to courses passed under the Diploma in Law Programme and shall be allocated comparable credits under the LLB programme for the exemptions. A student admitted to the LLB programme with a Diploma

in Law will not normally be entitled to register for courses offered at levels 300, 400 and 500 of the LLB programme before completing and accumulating credits for levels 100 and 200 Core, Optional, Electives and General Education Courses.

#### Duration

The normal duration for the LLB degree programme shall be ten (10) semesters on a full-time basis. Students entitled to exemptions in terms of Academic General Regulations, Faculty and Special Departmental Regulations may however complete the programme within a shorter period which, for students with a Diploma in Law, may not be less than six (6) semesters on a full time basis.

#### Programme Structure

1. The LLB programme shall consist of specified Core (C) and Optional (O) courses in the principal subject Law offered at Levels 100 to 500, and Electives (E) and General Education Courses (GEC) in other subject areas offered at comparable levels.

2. Students shall normally be required to take and complete credits for the Core courses in the manner and sequence indicated in the programme structure. The Core courses at each level and semester from Levels 100 to 400 have generally been designed and arranged to prepare LLB students for other Core courses at each successive higher level.

3. Optional courses on the LLB programme shall be offered subject to optimal student and approval of the Departmental Board.

4. Subject to changes approved from time to time, LLB courses shall be arranged as follows:-

#### Level 100

##### Semester 1

**COM151** Introduction to Communication and Academic Literacy Skills (Social Sciences) (3)

**ICT121** Computer Skills Fundamentals I (2)

**LAW131** Introduction to Law (3)

**LAW132** Comparative Legal History and Systems (3)

**LAW133** Law of Persons (3)

GEC / Elective (4)

Total Number of Credits 17

##### Semester 2

**COM152** Academic and Professional Communication (Social Sciences) (3)

## FACULTY OF SOCIAL SCIENCES

**ICT122** Computer Skills Fundamentals 2 (3)  
**LAW106** Customary Law (3)  
**LAW134** Family Law (3)  
**LAW135** Law and Social Research Methods (2)  
 GEC / Elective (4)  
 Total for Number of Credits 16

### Level 200

#### Semester 3

**LAW231** Criminal Law, General Principles (3)  
**LAW232** Delict, General Principles (3)  
**LAW233** Contract Law (4)  
**LAW234** Constitutional Law (3)  
 GEC /Elective (2)  
 Total Number of Credits 15

#### Semester 4

**LAW235** Specific Offences in Criminal Law (3)  
**LAW236** Specific Delicts (3)  
**LAW237** Administrative Law (3)  
**LAW201** Introduction to Property Law (3)  
 GEC / Elective (4)  
 Total Number of Credits 16

### Level 300

#### Semester 5

**LAW202** Land and Mineral Resources Law (3)  
**LAW331** Civil Procedure and Practice (4)  
**LAW332** Evidence (4)  
**LAW333** Criminal Procedure (3)  
**LAW334** Employment Law (3)  
 Total Number of Credits 17

#### Semester 6

**LAW335** Sale, Lease and Credit Agreements (3)  
**LAW336** Negotiable Instruments and Banking Law (3)  
**LAW337** Labour Relations Law (3)  
**LAW338** Law and the Environment (3)  
**LAW339** Succession and Administration of Estates (2)  
 And one of  
**LAW340** Insurance and Agency Law (3)  
**LAW217** Insolvency and Secured Transactions (3)  
**LAW218** Tax Law in Botswana (3)  
 Total Number of Credits 17

### Level 400

#### Semester 7

**LAW431** Public International Law I (3)  
**LAW432** Jurisprudence (4)  
**LAW433** Clinical Legal Education I (4)  
**LAW434** Law of Business Associations I (3)  
 And One of

**LAW439** Gender and the Law (3)  
**LAW440** Law and the Media (3)  
**LAW441** Law and Health Care (3)  
**LAW442** Social Security Law (3)  
 Elective (3)  
 Total Number of Credits 17

#### Semester 8

**LAW435** Public International Law II (3)  
**LAW436** Clinical Legal Education II (4)  
**LAW437** Human Rights Law (3)  
**LAW438** Law of Business Associations II (3)  
 And one of  
**LAW439** Gender and the Law (3)  
**LAW440** Law and the Media (3)  
**LAW441** Law and Health Care (3)  
**LAW442** Social Security Law (3)  
 Elective (3)  
 Total Number of Credits 16

### Level 500

#### Semester 9

**LAW531** Clinical Legal Education III (4)  
**LAW532** Conveyancing Principles and Practice (4)  
**LAW535** Research Paper (3)  
 And at least two of  
**LAW536** International Moot (3)  
**LAW537** Private International Law I (3)  
**LAW538** International Organizations (3)  
**LAW539** International Business Transactions (3)  
**LAW540** Intellectual Property Law I (3)  
 Total Number of Credits 17

#### Semester 10

**LAW533** Introduction to Notarial Practice (4)  
**ACC407** Accounting for Lawyers (4)  
 And at least three of  
**LAW536** International Moot (3)  
**LAW541** Intellectual Property Law II (3)  
**LAW542** International Trade Law (3)  
**LAW538** International Organizations (3)  
**LAW543** Private International Law II (3)  
**LAW539** International Business Transactions (3)  
 Total Number of Credits 17

Minimum Total Credits for the Programme: 165 Credits

### Award of Degree

A student shall be eligible for the award of the LLB degree upon completion of a minimum of 165 credits from the Core, Optional, Electives and GECs indicated in the programme structure.

### Assessment

1. The following Special Regulations shall supplement Academic General Regulations and Faculty of Social Sciences Regulations on assessment and grading of law courses on the LLB programme.

2. Except for courses LAW135, Law and Social Research Methods; LAW433, Clinical Legal Education I; LAW436, Clinical Legal Education II; LAW531, Clinical Legal Education III; LAW535, Research Paper; and LAW536, International Moot, each Core and Optional course on the LLB programme shall be assessed through continuous assessment and a formal written examination taken at or before the end of the semester.

### Continuous Assessment

1. Continuous assessment shall consist of at least two or more of the following pieces of work: written assignments, written tests, oral tests, mock trials, moots, class or seminar exercises, practicals, projects, research exercises or independent study.

2. Except for the courses LAW135, Law and Social Research Methods; LAW433, Clinical Legal Education I; LAW436, Clinical Legal Education II; LAW531, Clinical Legal Education III; LAW535, Research Paper; and LAW536, International Moot, the ratio between continuous assessment and the formal examination in law courses shall be 2:3.

3. Law and Social Research Methods, LAW135, Law and Social Research Methods, shall be assessed through at least two or more pieces of continuous assessment work. Each piece of continuous assessment work shall be marked and shall contribute towards the final mark of 100 per cent for the course.

4 Clinical Legal Education Courses I to III shall be assessed as follows:

#### a) LAW 433 Clinical Legal Education I

1. Participation in seminars and written assignments - 30%
  2. Oral examination on work performed in the Legal Clinic - 20%
  3. End of semester examination - 50%
- Total 100%

#### b) LAW 436 Clinical Legal Education II

1. Oral Examination on work performed in the Legal Clinic - 40%
2. Moot/Mock trial documents and performance - 60%





Total 100%

#### c) LAW 531 Clinical Legal Education III

1. Internship Report - 30%
  2. Moot/mock trial documents and performance - 50%
  3. Oral examination on work performed in the Legal Clinic - 20%
- Total 100%

#### International Moot

The Course Law536, International Moot, shall be assessed as follows:

1. Documents prepared for the Moot - 60%
  2. Advocacy skills in the Moot - 40%
- Total 100%

#### Research Paper

The final version of the research paper in course LAW535 shall be submitted for examination by the relevant date and marked out of 100 per cent. A student who fails to submit the research paper for examination by the relevant date shall be awarded an incomplete Grade (I) in accordance with Academic General Regulation 00.844. Delay and Failure to Submit Continuous Assessment Work Subject to Special Departmental Regulations 3.6.4 and 3.65, failure without good cause to submit continuous assessment work within twenty-four hours of the due date shall carry a penalty of 5 percentage marks. Failure to submit the work within forty-eight hours of the due date shall carry a penalty of 50 percentage marks. Failure to submit the work within one week from the due date shall incur a zero mark.

#### Formal Examinations

Formal written examinations for Core and Optional law courses on the LLB programme shall be of the type and for the duration approved by the Departmental Board and indicated in the course outline or at the beginning of each course.

#### Service Courses

Subject to optimal student demand and the availability of staff and other resources, the Department of Law shall offer the following courses at levels 100 to 600 to students not registered for law programmes.

#### Level 100

- GEC277** Law and society in Botswana (2 sem 1 or 2)
- LAW151** Law and social work (4 sem 1)

#### Level 200

- LAW251** Foundations of Business Law (3, Sem 1)
- LAW252** Specific Business Transactions (4, Sem 2)
- LAW253** Foundations of Engineering Law (3, Sem 3)

#### Level 300

- LAW351** Introduction to Company Law (4, Sem 1)
- LAW353** Planning and Environmental Law (3, Sem 1 or 2)

#### Level 400

- LAW452** Construction Law (3, Sem 1 or 2)
- LAW453** Labour and Industrial Property Law (3, Sem 1 or 2)

## DEPARTMENT OF POLITICAL AND ADMINISTRATIVE STUDIES

Subject to the provisions of the General Academic Regulations, the following Departmental Regulations shall apply.

#### 4.2. Programmes and Titles of Degrees

The Department of Political and Administrative Studies offers the following undergraduate programmes leading to the award of the under-mentioned degrees:

- 4.2.1 Single Major Public Administration Programmes (PAS Regulations 2.1) leading to the award of the BA (Public Administration)
- 4.2.2 Single Major Political Science Programme (PAS Regulations 2.2) leading to the award of the BA (Political Science)
- 4.2.3 Combined Major/Major Programme (PAS Regulations 2.3) leading to the award of the BA (Social Science)
- 4.2.4 Combined Major/Minor Programme (PAS Regulations 2.4.1 and 2.4.2) leading to the award of BA (Social Science)
- 4.2.5 Combined Minor in Public Administration + Major in Other Programme
- 4.2.6 Combined Minor in Political Science + Major Other Programme

#### 4.3 Entry Requirements

Admission to the programmes offered by the Department shall be on the basis of performance in the Botswana General Certificate of Secondary Education (BGCSE)

examination, or its equivalent, and as specified in the General Academic Regulations.

#### 4.4 Assessment

Performance in each course shall be evaluated by the combination of continuous assessment and final examination marks in the ratio of 2:3 in favour of the final examination. The only exceptions are internships, projects and seminars, which shall be assessed only through assignments. The final examination for every course shall normally be 2 hours long. However, the department reserves the right to review the mode of assessment, and respective lectures shall specify approved mode of assessment prior to any intake or at the start of the semester in which the course is taken.

#### 4.5 Award of Degree

To be awarded a Degree, a student must satisfy the appropriate provisions of the General Academic Regulation 23.71 and the Special Regulations of the Faculty of Social Sciences.

#### 4.6 Degree Structure

4.6.1 The Public Administration and Political Sciences courses shall be offered at Levels 100 to 400 for the undergraduate programmes.

4.6.2 In addition to Public Administration and Political Sciences courses, an undergraduate candidate majoring in these courses shall take the General Education Courses (GECs) and Electives in accordance with the General Regulation 00.2124.

4.6.3 The Department of Political and Administrative Studies offers undergraduate Public Administration and Political Science courses (as Combined Majors including a Major combined with a Minor) to students majoring in other subjects. In addition, the Department offers single majors in Political Science and Public Administration.

4.6.4 The Department of Political and Administrative Studies offers GECs as outlined in the General Academic Regulations.

#### 5.0 Undergraduate Degree Course Listings.

### 5.1 Bachelor of Social Science Degree in Public Administration (Single Major)

#### Level 100

##### Semester 1

##### Core Courses

- PAD101** Introduction to Public Administration (3)
- ECO111** Basic Microeconomics (3)

## FACULTY OF SOCIAL SCIENCES

**POL 101** Introductions to Political Science (3)  
**STA III** Basic Statistics (3)  
 Plus one Elective and two GECs  
 Total Credits 16

### Semester 2

#### Core Courses

**PAD102** Institutions and Processors of Public Administration (3)  
**POL 102:** The Modern State (3)  
**ECO112** Basic Macroeconomics (3)  
**STA112** Statistical Tools for Social Research (3)  
 Plus one Elective and two GECs  
 Total Credit 16

### Level 200

#### Semester 1

#### Core Courses

**PAD201** Organization Theories (3)  
**ECO221** Basic Macroeconomics for non-Majors; or  
**ECO 211** Intermediate Micro Economics (3)  
**LAW234** Constitutional Law (3)  
 Plus one Elective and two GECs.  
 Total Credits 16

### Semester 2

#### Core Courses

**PAD202** Public Administration in Botswana (3)  
**ECO222** Intermediate Macro Economics for Non-Majors; or  
**ECO 212** Intermediate Macro Economics (3)  
**SOC226** Concepts & Principles of Social Research (3)  
 Plus one Optional Course, one Elective and one GEC.  
 Total Credits 17

### Level 300

#### Semester 1

#### Core Courses

**PAD302** Human Resource Management (3)  
**PAD306** Public Policy Analysis (3)  
**PAD303** Local Government Management (3)  
 One Optional Course from:  
**SOC334** Sociology of Development (3)  
**PAD 308** Industrial Relations (3)  
**POL 306** International Political Economy (3)  
**POL 310** Contemporary Africa (3)  
 Plus one Elective and one GEC  
 Total Credits 17

### Semester 2

#### Core Courses

**PAD304** Public Enterprise Management (3)

**PAD307** Human Resource Development (3)  
**LAW237** Administrative Law (3)  
 Two Optional courses from:

**POL309** Politics of Poverty in Southern Africa (3)  
**SOC 327** Political Sociology (3)  
**POL308** Politics and Management of Natural Resources or  
**ENV301** Environmental Issues (2) or  
**ENV476** Natural Resources Management and Economics (2)

Plus one GEC  
 Total Credits 17

### Level 400

#### Semester 1

#### Core Courses

**PAD401** Development Administration (3)  
**PAD403** Internship (3)  
**PAD402** Government Budgeting (3)  
 Two Optional Courses from  
**PAD405** Seminar in Public Policy (3)  
**PAD407** Comparative Public Administration (3)  
**PAD413** Leadership & Governance (3)  
 Plus one Elective  
 Total Credits 18

### Semester 2

#### Core Courses

**PAD406** Ethics and Public Administration (3)  
**PAD404** Contemporary Issues in Public Admin (3)  
**PAD410** Public Financial Management (3)  
 Two Optional Courses from  
**PAD408** International Administration (3)  
**PAD411** Local Government Finance (3)  
**PAD412** Research Project in Public Administration (3)  
 Plus one GEC  
 Total Credits 17

## 5.2 Bachelor of Social Science Degree Programme in Political Science (Single Major)

### Level 100

#### Semester 1

#### Core Courses

**POL101** Introduction to Political Science (3)  
**PAD101** Introduction to Public Administration (3)  
**ECO111** Basic Micro Economics (3)  
**STA111** Basic Statistics (3)  
 Plus two GECs.  
 Total Credits 16

### Semester 2

#### Core Courses

**POL102** The Modern State (3)  
**PAD102** Institutions and Processes of Public Admin.(3)  
**ECO112** Basic Macro Economics (3)  
**STA112** Statistical Tools for Social Research (3)  
 Plus One Elective and two GECs.  
 Total Credits 16

### Level 200

#### Semester 1

#### Core Courses

**POL201** Botswana Politics (3)  
**ECO221** Intermediate Micro Economics for Non-major or ECO211: Intermediate Micro Economic (3)  
**LAW234** Constitutional Law (3)  
 Plus one Elective and two GECs.  
 Total Credits 16

### Semester 2

#### Core Courses

**POL202** Classical Political Thought (3)  
**ECO222** Intermediate Macroeconomics for Non-major: or ECO212 Intermediate Macro-economics (3)  
**SOC226** Concepts & Principles of Social Research (3)

One Optional Course from

**POL204** Media and Politics (3)  
**SOC236** Social Inequality (3)  
 Plus one Elective and one GEC  
 Total Credits= 17

### Level 300

#### Semester 1

**POL301** Modern Political Thought (3)  
**POL306** International Political Economy (3)  
**POL310** Contemporary Africa (3)

One Optional Course from

**POL302** Politics of South Africa (3)  
**SOC334** Sociology of Development (3)  
 Plus one Elective and one GEC  
 Total Credits 17

### Semester 2

#### Core Courses

**POL305** Politics of Southern Africa (3)  
**POL307** Politics of Regionalism (3)  
**LAW237** Administrative Law (3)  
 Two Optional Courses from  
**POL309** Politics of Poverty in Southern Africa (3)  
**SOC327** Political Sociology (3)  
**POL308** Politics & Management of



Natural Resources (3)/  
core-coding  
ENV 301: Environmental Issues (2)  
or ENV 476:  
Natural Resource Management &  
Economics (2)

Plus one GEC  
Total Credits= 18

#### Level 400

##### Semester 1

###### Core Courses

**POL401** International Relations (3)  
**POL402** Democratic Theory and Practice (3)  
**POL410** Internship in Political Science (3)

###### Two Optional Courses from

**POL406** Africa in World Politics (3)  
**POL407** Civil Military Relations (3)  
**PAD402** Government Budgeting (3)  
**PAD413** Leadership & Governance (3)

Plus one Elective  
Total Credits 18

##### Semester 2

###### Core Courses

**POL405** Comparative Politics (3)  
**POL409** Security Studies (3)  
Two Optional Courses from  
**POL403** Modern Ideologies (3)  
**POL411** Research Project in Political Science (3)

**PAD408** International Administration (3)  
Plus one Elective and one GEC  
Total Credits 17

### 5.3 Bachelor of Social Science Degree Programme

Major in Public Administration + Major in Political Science

#### Level 100

##### Semester 1

###### Core Courses

**PAD101** Introduction to Public Administration (3)  
**POL101** Introduction to Political Science (3)  
**ECO111** Basic Microeconomics (3)  
**STA111** Basic Statistics (3)

Plus one Elective and two GECs.  
Total Credits 16

##### Semester 2

###### Core Courses

**PAD102** Institutions and Processes of Public Administration (3)  
**POL102** The Modern State (3)  
**ECO112** Basic Macroeconomics (3)

**STA 112** Statistical Tools for Social Research (3)

Plus two GECs.  
Total Credits 16

#### Level 200

##### Semester 1

###### Core Courses

**PAD201** Organisation Theories (3)  
**POL201** Botswana Politics (3)  
**ECO221** Intermediate Micro Economics for Non-Majors (3); or  
ECO211: Intermediate  
Micro Economics (3)

**LAW234** Constitutional Law (3)

Plus one Elective and one GEC  
Total Credits 17

##### Semester 2

###### Core Courses

**PAD202** Public Administration in Botswana (3)  
**POL202** Classical Political Thought (3)  
**ECO222** Intermediate Macroeconomics for Non-Majors (3); or ECO212:  
Intermediate Macroeconomics (3)

Two Optional Courses from

**POL204** Media and Politics (3)  
**SOC226** Concepts & Principles of Social Research (3)  
**SOC236** Social Inequality (3)

Plus one GEC  
Total Credits 17

#### Level 300

##### Semester 1

###### Core Courses

**PAD306** Public Policy Analysis (3)  
**POL301** Modern Political Thought (3)  
Three Optional Courses from  
**POL310** Contemporary Africa (3)  
**PAD302** Human Resource Management (3)  
**POL302** Politics in South Africa (3)  
**PAD303** Local Government Management (3)  
**POL306** International Political Economy (3)  
**PAD308** Industrial Relations (3)

Plus one GEC (2)  
Total Credits 18

##### Semester 2

###### Core Courses

**PAD307** Human Resource Development (3)  
**POL307** Politics of Regionalism (3)  
**LAW237** Administrative Law (3)

Three Optional Courses from

**POL305** Politics of Southern Africa (3)  
**POL309** Politics of Poverty in Southern Africa (3)

**PAD304** Public Enterprise Management (3)  
**POL308** Politics and Management of Natural Resources (3) /  
core-coding  
ENV 301: Environmental Issues (2)  
or ENV 476: Natural Resource Management &  
Economics (2)

Plus one GEC  
Total Credits 17

#### Level 400

##### Semester 1

###### Core Courses

**PAD401** Development Administration (3)  
**POL 401** International Relations (3)  
**PAD402** Government Budgeting (3)  
Three Optional Courses from  
PAD403/POL410 Internship in Public  
Administration/Political Science (3)

**PAD407** Comparative Public Administration (3)

**PAD 405** Case Studies in Public Policy  
**PAD413** Leadership & Governance  
**POL402** Democratic Theory and Practice (3)  
**POL406** Africa in World Politics (3)

Plus on Elective  
Total Credits 18

##### Semester 2

###### Core Courses

**PAD404** Contemporary Issues in Public Administration (3)  
**POL405** Comparative Politics (3)  
Two Optional Courses from  
**PAD 406** Ethics and Public Management (3)  
**PAD408** International Administration (3)  
**PAD 410** Public Financial Administration (3)  
**POL409** Security Studies (3)

PAD 412/ POL411 Research Project in Public  
Administration/Political Science (3)  
Plus one Elective and one GEC  
Total Credits 17

### 5.4 Bachelor of Social Science Degree Programme

Major in Political Science and Major in Another Subject.

#### Level 100

##### Semester 1

###### Core Courses

**POL101** Introduction to Political Science (3)  
**ECO111** Basic Micro-Economics (3)  
**STA111** Basic Statistics (3)  
Plus 2 GECs and one Other Major course (6).  
Total Credits 19

**Semester 2**

**Core Courses**

- POL102** The Modern State (3)  
**ECO112** Basic Macro Economics (3)  
**STA112** Statistical Tools for Social Research (3)

Plus 2 GECs and  
 One Other Major course (6).  
 Total Credits 19

**Level 200**

**Semester 1**

**Core Courses**

- POL201** Botswana Politics (3)  
**LAW 234** Constitutional Law (3)  
**ECO221** Intermediate Microeconomics for Non-Economists (3) or ECO211 Intermediate Microeconomics (3)

Plus 2 GECs and one Other Major course (6).  
 Total Credits 18

**Semester 2**

**Core Courses**

- POL202** Classical Political Thought (3)  
**ECO222** Intermediate Macroeconomics for Non-Majors (3) or  
**ECO212** Intermediate Macroeconomics (3)  
**SOC226** Concepts & Principles of Social Research (3)

Plus one GEC and one Other Major course (6)  
 Total Credits 17

**Level 300**

**Semester 1**

**Core Courses**

- POL301** Modern Political Thought (3)  
**POL306** International Political Economy (3)  
 One Optional Course from  
**POL302** Politics of South Africa (3)  
**SOC334** Sociology of Development (3)  
 or Optional Course from Other Major  
 Plus one Elective or one GEC  
 Total Credits 18

**Semester 2**

**Core Courses**

- POL307** Politics of Regionalism (3)  
**LAW237** Administrative Law (3)  
 One Optional Course from  
**POL305** Politics of Southern (3)  
**POL309** Politics of Poverty in Southern Africa (3)  
**POL308** Politics & Management of Natural Resources (3) or ENV301 Environmental Issues

(2) or ENV476

Natural Resource Management and Economics. (2)

Plus one GEC and One Other Major course (6)  
 Total Credits 17

**Level 400**

**Semester 1**

**Core Courses**

- POL401** International Relations (3)  
**POL402** Democratic Theory and Practice (3)  
**Two Optional Courses from**  
**POL406** Africa in World Politics (3)  
**POL407** Civil Military Relations (3)  
**POL411** Research Project in Political Science (3) or Optional Course from other major.

Plus Other Major course (6)  
 Total Credits 18

**Semester 2**

**Core Courses**

- POL405** Comparative Politics (3)  
**Two Optional Courses from**  
**POL403** Modern Ideologies (3)  
**POL409** Security Studies (3)  
**PAD408** International Administration (3) or  
 Optional Course from other major  
 Plus one Elective or one GEC and  
 Other Major course (6)

Total Credits 18

5.5 BA Social Science Degree Programme Major  
 Public Administration + Other MAJOR

**Level 100**

**Semester 1**

**Core Courses**

- PAD101** Introduction to Public Administration (3)  
**ECO111** Basic Micro Economics (3)  
**STA 111** Basic Statistics (3)  
 Plus 2 GECs and Other Major courses (6).  
 Total Credits 19

**Semester 2**

**Core Courses**

- PAD102** Institutions & Processes of Public Administration (3)  
**ECO112** Basic Macro Economics (3)  
**STA112** Statistical Tools for Social Research (3)  
 Plus one GEC and one Other Major courses (6)  
 Total Credits 17

**Level 200**

**Semester 1**

**Core Courses**

- PAD201** Organisation Theories (3)  
**LAW234** Constitutional Law (3)  
**ECO221** Intermediate Microeconomics for Non-majors (3) or ECO211 Intermediate Microeconomics (3)

Plus one GEC and one Other Major course.  
 Total Credits 17

**Semester 2**

**Core Courses**

- PAD202** Public Administration in Botswana (3)  
**ECO222** Intermediate Macroeconomics for Non-Majors (3)  
**SOC226** Concepts & Principles of Social Research (3)

Plus one GEC and Other Major course (6).  
 Total Credits 17

**Level 300**

**Semester 1**

**Core Courses**

- PAD306** Public Policy Analysis (3)  
**PAD302** Human Resource Management (3)  
 One Optional Course from  
**PAD303** Local Government Management (3) or  
 Optional Course from other major  
 Plus one Elective, or one GEC and Other Major  
 courses (6)  
 Total Credits 18

**Semester 2**

**Core Courses**

- PAD307** Human Resource Development (3)  
**LAW 237** Administrative LAW (3)  
 One Optional course from  
**PAD 304** Public Enterprise Management (3)  
**POL308** Politics & Management of Natural Resources (3) /  
 core-coding  
 ENV 301: Environmental Issues (2)  
 or ENV 476:  
 Natural Resource Management & Economics (2)  
 or Optional Course from the Major

Plus one Elective or one GEC and Other Major  
 courses (6)

Total Credits 18

**Level 400**

**Semester 1**

**Core Courses**

- PAD401** Development Administration. (3)  
**PAD402** Government Budgeting (3)  
**Two Optional Courses from**  
**PAD403** Internship (3)



**PAD407** Comparative Public Administration (3)

**PAD405** Case Studies in Public Policy (3) or  
Optional Course from other major  
One other Major Course  
Total Credits 18

#### Semester 2

##### Core Courses

**PAD404** Contemporary Issues in Public Administration (3)

One Optional Course from

**PAD406** Ethics and Accountability (3)

**PAD408** International Administration (3)

**PAD 410** Public Financial Administration (3)

**PAD412** Research Project in Public Administration or Optional Course from other major

Plus one Elective, one GEC and other Major Courses (6)

Total Credits 18

6.6 Bachelor of Social Science Degree

Programme: Major in Political Science and Minor in Other Subject

#### Level 100

##### Semester 1

##### Core Courses

**POL101** Introduction to Political Science (3)

**PAD101** Introduction to Public Administration (3)

**ECO111** Basic Microeconomics (3)

**STA111** Basic Statistics (3)

Plus two GECs and Minor course (3).

Total Credits 19

#### Semester 2

##### Core Courses

**POL102** The Modern State (3)

**PAD102** Institutions and Processes in Public Admin. (3)

**ECO112** Basic Macro Economics (3)

**STA 112** Statistical Tools for Social Research (3)

Plus two GECs and one Minor course.(3)

Total Credits 19

#### Level 200

##### Semester 1

##### Core Courses

**POL201** Botswana Politics (3)

**ECO221** Intermediate Micro Economics for Non-Majors (3) or

**ECO211** Intermediate Micro Economics (3)

One Optional Course from

**LAW234** Constitutional Law (3)

Plus one Elective or, two GECs and one Minor course.

Total Credits= 18

#### Semester 2

##### Core Courses

**POL202** Classical Political Thought (3)

**ECO222** Intermediate Macro Economics (3) or

**ECO212** Intermediate Macro Economics (3)

**SOC226** Concepts & Principles of Social Research

One Optional Course from

**POL204** Media and Politics (3)

**SOC236** Social Inequality (3)

Plus one GEC and one Minor course

Total Credits 17

#### Level 300

##### Semester 1

##### Core Courses

**POL301** Modern Political Thought (3)

**POL310** Contemporary Africa (3)

One Optional Course from

**POL302** Politics of South Africa (3)

**POL306** International Political Economy (3)

**SOC338** Democracy and Development (3)

Plus one Elective or one GEC and one Minor course

Total Credits 18

#### Semester 2

##### Core Courses

**POL307** Politics of Regionalism (3)

**POL305** Politics of Southern Africa (3)

**LAW237** Administrative Law (3)

One Optional Course from

**POL309** Politics of Poverty in Southern Africa (3)

**POL308** Politics and Management of Natural Resources (3)

or ENV301 Environmental Issues (2)

or ENV476 Natural Resource Management and Economics (2)

Plus one Elective, one GEC and one Minor course (3)

Total Credits 17

#### Level 400

##### Semester 1

##### Core Courses

**POL401** International Relations (3)

**POL402** Democratic Theory and Practice (3)

One Optional Course from

**POL406** Africa in World Politics (3)

**POL407** Civil Military Relations (3)

**POL410** Internship in Political Science (3)

Plus one Elective and one Minor Course

Total Credits 15

#### Semester 2

##### Core Courses

**POL405** Comparative Politics (3)

**POL409** Security Studies (3)

One Optional Course from

**POL403** Modern Ideologies (3)

**POL411** Research Project in Political Science (3)

Plus one Elective, one GEC and one Minor Course

Total Credits 17

5.7 Bachelor of Social Science Degree

Programme: Major in Public Administration + Minor

#### Level 100

##### Semester 1

##### Core Courses

**PAD101** Introduction to Public Administration (3)

**ECO111** Basic Micro Economics (3)

**POL101** Introduction to Political Science (3)

**STA111** Basic Statistics (3)

Plus two GECs and one Minor Course.

Total Credits 19

#### Semester 2

##### Core Courses

**PAD102** Institutions and Processes of Public Administration (3)

**POL102** The Modern State (3)

**ECO112** Basic Macro Economics (3)

**STA112** Statistical Tools Social Research (3)

Plus two GECs and one Minor Course.

Total Credits 19

#### Level 200

##### Semester 1

##### Core Courses

**PAD201** Organisation Theories (3)

**LAW234** Constitutional Law (3)

**ECO221** Intermediate Micro Economics for Non-Majors (3) or

**ECO211** Intermediate Micro Economics (3)

Plus one Elective, two GECs and one Minor Course.

Total Credits 19

#### Semester 2

##### Core Course

**PAD202** Public Administration in Botswana (3)

**ECO222** Intermediate Macro Economics for Non-Majors (3) or ECO 212

Intermediate Macro Economics (3)

One Optional Course from



**SOC226** Concepts & Principles of Social Research (3)

Plus one Elective, one GEC and one Minor Course

Total Credits 17

#### Level 300

##### Semester 1

###### Core Courses

**PAD302** Human Resource Management (3)

**PAD306** Public Policy Analysis (3)

Two Optional Courses from

**PAD303** Local Government Management (3)

**PAD308** Industrial Relations (3)

**SOC334** Sociology of Development (3)

Plus one GEC and one Minor Course

Total Credits 17

##### Semester 2

###### Core Courses

**PAD307** Human Resource Development (3)

**LAW 237** Administrative Law (3)

One Optional Course from

**PAD304** Public Enterprise Management (3)

**POL308** Politics and Management of Natural Resources (3) or ENV301 Environmental Issues (2) or ENV476 Natural Resource Management and Economics (2)

Plus two GECs and one Minor course.

Total Credits 16

#### Level 400

##### Semester 1

###### Core Courses

**PAD401** Development Administration (3)

**PAD402** Government Budgeting (3)

One Optional Course from

**PAD403** Internship (3)

**PAD407** Comparative Public Administration (3)

**PAD405** Case Studies in Public Policy Analysis (3)

Plus one Elective and one Minor course

Total Credits 15

##### Semester 2

###### Core Courses

**PAD404** Contemporary Issues in Public Administration (3)

**PAD410** Public Financial Management (3)

One Optional Course from

**PAD406** Ethics and Public Management (3)

**PAD411** Local Government Finance (3)

**PAD412** Research Project in Public Administration (3)

Plus one Elective, one GEC and one Minor course

Total Credits 17

### 5.8 Bachelor of Social Science Degree

Programme: Minor Political Science + Major in Other Subject

#### Level 100

##### Semester 1

###### Core Courses for Minor

**POL101** Introduction to Political Science (3)

**STA111** Basic Statistics (3)

Plus two Major Core Courses (6), and two GECs.

Total Credits 16

##### Semester 2

###### Core Courses for Minor

**POL102** The Modern State (3)

**STA 112** Statistical Tools for Social Research (3)

Plus two Major Core Courses, one Elective and two GECs.

Total Credits 16

#### Level 200

##### Semester 1

###### Core Courses for Minor

**POL201** Botswana Politics (3)

Plus two Major Core Courses, one Elective and two GECs.

Total Credits 16

##### Semester (2)

###### Core Courses for Minor

**POL202** Classical Political Thought (3)

Plus two Major Core Courses, one Optional Course, one Elective and one GEC.

Total Credits 17

#### Level 300

##### Semester 1

###### Core Courses for Minor

**POL301** Modern Political Thought (3)

Plus two Major Core Courses, one Optional Course, one Elective and one GEC.

Total Credits 17

##### Semester 2

###### Core Courses for Minor

**POL305** Politics of Southern Africa (3)

Plus two Major Core Courses, one Optional Course, one Elective and one GEC.

Total Credits 17

#### Level 400

##### Semester 1

###### Core Courses for Minor

**POL401** International Relations (3)

Plus two Major Core Courses, one Optional Course, one

Elective and one GEC.

Total Credits 17

##### Semester 2

###### Core Courses for Minor

**POL405** Comparative Politics (3)

Plus two Major Core Courses, one Optional Course, one

Elective and one GEC.

Total Credits 17

### 5.9 Bachelor of Social Science Degree

Programme: Minor in Public Administration + Major in Other Subject.

#### Level 100

##### Semester 1

###### Core Courses for Minor

**PAD101** Introduction to Public Administration (3)

**STA111** Basic Statistics (3)

Plus two Major Core Courses, and two GECs.

Total Credits= 16

##### Semester 2

###### Core Courses for Minor

**PAD102** Institutions and Processes of Public Administration (3)

**STA112** Statistical Tools for Social Research (3)

Plus two Major Core Courses, and two GECs.

Total Credits= 16

#### Level 200

##### Semester 1

###### Core Courses for Minor

**PAD201** Organisation Theories (3)

Plus two Major Core Courses, one Elective and two GECs.

Total Credits 16

##### Semester 2

###### Core Courses for Minor

**PAD202** Public Administration in Botswana (3)

Plus two Major Core Courses, one Optional Course, one

Elective and one GEC.

Total Credits 17



## Level 300

### Semester 1

#### Core Courses for Minor

**PAD306** Public Policy Analysis (3) OR:  
Plus two Major Core Courses, one Optional  
Course, one  
Elective and one GEC.  
Total Credits 17

### Semester 2

#### Core Courses for Minor

**PAD307** Human Resource Management (3)  
Plus two Major Core Courses, one Optional  
Course and two GECs.  
Total Credits 16

## Level 400

### Semester 1

#### Core Courses for Minor

**PAD401** Development Administration (3)  
Plus two Major Core Courses, one Optional  
Course and one Elective.  
Total Credits 18

### Semester 2

#### Core Courses for Minor

**PAD406** Ethics Et Public Management (3) OR:  
**PAD404** Contemporary Issues in Public  
Administration  
Plus two Major Core Courses, one Optional  
Course, one Elective and one GEC.  
Total Credits 17

## Course Descriptions

# POLITICAL AND ADMINISTRATIVE STUDIES

### PAD101 Introduction to Public Administration (3)

The aim of this introductory foundation course is to promote the student's understanding of Public Administration and the processes and institutions through which it formulates and implements public policy. The topics that it covers include definition of Public Administration, Institutions of the state decision-making, administration leadership and responsibility, motivation and communication.

### PAD102 Institutions and Processes of Public Administration (3)

The aim of this course is to enable students to have an understanding of essentials of public administration institutions and

processes. It covers topics such as the ecology of public administration, decentralization and centralization, local government and intergovernmental relations, public enterprises and public financial administration and improvement of the performance of public administration.

### PAD201 Organisation Theories (3)

The aim of this course is to introduce students to organization theories as a basis for understanding organisations and their management. Emphasis shall be on critical examination of major ideas and significant developments that have taken place over the years. The course will cover essentials of significant organisation theories, including early management thought, organisations as rational instrumental entities as associations, and as systems.

### PAD202 Public Administration in Botswana (3)

This course is meant to serve as a foundation for introducing to the students some key aspects of the organisation and operation of public administration machinery in Botswana. The course covers organization and functioning of central government, local government and public enterprises. It seeks to explain the nature and characteristics of Botswana's public policies, organisation of development planning and administration of public finances.

### PAD302 Human Resource Management (3)

The aim of this course is to introduce students to the theory and concepts of managing human resources. A practical approach will be emphasized. This course will cover topics such as job design and analysis, human resource planning, recruitment, training, motivation, performance appraisal, leadership, discipline and labour-management relations.

### PAD303 Local Government Management (3)

The aim of this course is to provide students with an understanding of the nature and functioning of local government management. It attempts to expose and familiarize students with the various complexities of local government management. At the end of the course students should be able to critically analyse and evaluate concepts and theories associated with local government, understand more deeply the complexities involved in local government and analyse and apply appropriate strategies for effective operation of local government

### PAD304 Public Enterprise Management (3)

The aim of this course is to promote student's understanding of organization and management of public enterprise with particular reference to developing countries. It also seeks to explore viable strategies for remedying the problems faced by public enterprises. Topical amongst the remedies is the issue of privatization, its theory and implications.

### PAD306 Public Policy Analysis (3)

This course introduces the field of policy studies, starting with its rationale, scope, significance, and relationships with other disciplines. It also covers conceptual approaches to critical assessment of the causes and consequences of public policies. Policy processes such as agenda setting, formulation, implementation, monitoring and evaluation, and the interactions of the actors involved in them are also discussed. Application of analytical tools and models in real world are discussed through case studies.

### PAD307 Human Resource Development and Management (3)

The main objective of the course is to enable students to understand and appreciate the importance of Human Resource and its development in the "art of getting things alone" – frequently referred to as management in any organisation and public sector in particular. The course will cover theory, practice and issues of human resource planning development and effective deployment - emphasizing the need for the right combination of operational skills and managerial capabilities in both quality and quantity in order to safeguard continuity and improve performance.

### PAD401 Development Administration (3)

The course discusses the theoretical and practical aspects of state promotion of national development. It seeks to provide an understanding of the context and context of state-directed development, by focusing on national development policy processes, planning, and implementation. The course then examines selected critical issues, such as the role and effects of foreign aid, administrative reforms, and globalization, on the management of national development. Lastly, it considers the future of development administration in the context of changing relationships of the state, the private sector, and society. This course will also include seminar on the course topics.

#### **PAD402 Government Budgeting (3)**

The course exposes students to basic concepts in Government Budgeting with a focus on political and administrative aspects. The course is divided into three main segments the first part considers the justificatory aspects of state intervention. The second part focuses on Government budgets (evolution of budgeting and expenditure control) and the last covers budgetary reforms.

#### **PAD403 Internship in Public Administration (3)**

To enable the students majoring in Public Administration to gain insight into the operation of public administration machinery at central or local government levels by supplementing theory with some work experience This involves 8 weeks attachment of students to government Organizations during the long vacation at the end of their 3rd year.

#### **PAD404 Contemporary Issues in Public Administration (3)**

This course will begin with a discussion of critical issues in the intellectual development of Public Administration as a discipline and examine the contemporary issues such as changing role of the state; political, social and economic environment of Public Administration in Africa; challenges of good governance; new Public Management; and impact of Globalization.

#### **PAD405 Seminar in Public Policy (3)**

This course is aimed at examining, through case studies, the causes, and consequences of government actions on society. It gives the student a chance to critically analyse any contemporary policy, project, or programme of choice.

#### **PAD406 Ethics and Public Management (3)**

This course discusses the ideals of public management ethics; the nature, causes and consequences of declining standards; effectiveness of mechanisms for checking corruption, mal-administration and public accountability; and measures for enhancing the standards of ethics, accountability and responsible conduct in public management.

#### **PAD407 Comparative Public Administration (3)**

This course is meant to contribute to the understanding of institutions and processes of Public Administration through a comparative

perspective that looks at the features of Public administration in different developed as well as developing countries with a focus on public bureaucracy. African countries will receive special attention.

#### **PAD408 International Administration (3)**

The aim of this course is to familiarize students with the theories of international organization and administration, and to appreciate the need for international organisations.

#### **PAD410 Public Financial Management (3)**

This course examines a major set of components in the financial management in public sector financial resources. It explains and analyses how modern financial management techniques are applied to the public sector. It emphasizes the dynamic nature of change and the increasing role of markets and competition in the public sector through various forms of privatization. Some of the topics covered in the course are context of public financial management, revenue administration and management financial planning and aid management, managing budgetary/expenditure control and significance of budget reforms and management.

#### **PAD411 Local Government Finance (3)**

It raises critical issues about financial arrangements for decentralized revenues and expenditures. This course is concerned with how different levels of government raise money and how they spend it. At the end of the course students should be able to; analyse current issues of local government finance and apply appropriate solutions to the needs of the situation, critically evaluate the role of local government in financial management and understand Intergovernmental fiscal relations.

#### **PAD412 Research Project in Public Administration (3)**

The course is intended to give students majoring in Public Administration a chance to do an extensive search of the literature and produce an extended research essay.

#### **POLITICAL SCIENCE**

##### **POL101 Introduction to Political Science (3)**

This course is about the study of politics and aims to introduce students to the field of political science and the tools used to understand it. The course aims to ensure that students will have a basic understanding of the core concepts and main theories of politics and to help them

understand how politics is organised and how political issues are dealt with in the context of modern society. It introduces students to concepts such as political power, political parties, civil society and human rights.

##### **POL102 The Modern State (3)**

The course on the Modern State introduces the major state theories, the legitimacy or illegitimacy of the state, state capacity or the power of the state, the democratic and undemocratic state, and state and civil society. The course introduces state- related concepts and theories and analyses the productive or unproductive ways in which the state interacts with business.

##### **POL201 Politics in Botswana (3)**

This course examines the shape and contour of politics in Botswana through an understanding of both the past and present and how various factors influence how politics in contemporary Botswana are played out within the context of the country's political economy. It discusses pre-colonial social formations, the protectorate era, the rise of nationalism, the construction of the Botswana State, political and economic developments, political participation, quest for equality and relations with the outside world.

##### **POL202 Classical Political Thought (3)**

Classical political philosophy has laid the foundations of modern political theory. It has been re-stated, reworked and re-interpreted over time. This course will outline and critique some of the major classical philosophies. The major classical political thoughts covered in this course include Social Contract, Republicanism, Utilitarianism, Liberalism, and Marxism.

##### **POL203 Contemporary Africa (3)**

Contemporary Africa is complex and varied the continent consists of around fifty states with very different histories, colonial experience, economies, values, and social structures. This course will provide students both with a sense of this diversity, and with a grasp of the main patterns currently energizing the continent. It will discuss a range of contemporary approaches to analysing and theorizing African politics, and will identify key contemporary issues. Topics covered in the course include; instability and neo-Patrimonialism, state collapse, economic decline, democratization, class analysis, coups and military in Africa, Gender and politics, civil society, ethnicity, religion and politics.



### **POL204 Media and Politics (3)**

This course examines the place and role of the media in politics; with a specific emphasis on print and electronic forms of communication. It examines both Western and developing country media industries from a political, economic, and historical viewpoint. Often called the "fourth estate," the media historically have played an important role in the political and democratic process in the Western world. Since the end of the Cold War, the media has come to be seen as an important 'watchdog of democracy' in transitional states.

### **POL301 Modern Political Thought (3)**

The course is aimed at acquainting students with the major schools of thought that dominate modern political theory in the last half of the twentieth century. The course covers some important philosophical developments that characterize the last half of the twentieth century. It outlines and interprets such philosophical theories as contractarian, communitarian, feminism, complex equality and entitlement. These theories constitute the core of political philosophy today.

### **POL302 Politics in South Africa (3)**

The course recognizes the importance of South Africa as a dominant actor within the Southern African region. It discusses the political economy of white settler domination and the relationship between the racial ideology of white supremacy and capitalist development in South Africa. The course further discusses the interface between the rise of the apartheid state and African nationalism. The course goes on to discuss South Africa's domestic and foreign policies, especially with respect to the Southern African region. It concludes with a discussion of the democratic transition in South Africa and its position in the regional integration.

### **POL305 Politics of Southern Africa (3)**

This course examines Southern Africa as a regional sub-system within the broader global political economy. It attempts an overview of contemporary Southern African politics focusing on the national politics of select Southern African countries; cooperation and conflict in the region; security and development in the region; and peace and Democracy in the Region. It concludes with the discussion on the prospect of economic cooperation in Southern Africa.

### **POL306 International Political Economy (3)**

The course unpacks and problematises International Political Economy as a discipline, the main actors in it, the theoretical debates that have characterized it since its inception and how the forces of globalization are redefining and reshaping the discipline of International Political Economy.

### **POL307 Politics of Regionalism (3)**

This course explores the several dimensions of regionalism in the current era of Neoliberalism and globalisation. There will be a survey of both new and traditional literature on regionalism and regional integration. The course will then compare the aims, objectives and evolution of regional co-operation in the North and South. As far as formal, state centered attempts at regional integration are concerned, a number of historical and contemporary case studies. The case studies will cover the history and the institutions of regional integration as well as the political dynamics, the social and economic dimensions of the process and the growing significance of these processes for the international relations of the countries concerned. The course will also focus on what is being called 'regionalism from below'.

### **POL308 Politics and Management of Natural Resources (3)**

This course is concerned with an empirical analysis of the natural resource base of the majority of SADC's states, historical and current patterns of resource use, typical resource conflicts and attempts at management, and strategies for sustainable development. The course sets Southern Africa within wider theoretical, historical and global political-economic and sociopolitical context. In addition to country-specific topics, special attention will be given to specific environmental issues and problems faced by all/some states and peoples in the region.

### **POL309 Politics of Poverty in Southern Africa (3)**

Rural and urban poverty and the search for sustainable livelihoods are issues that students of Political Science ought to be familiar with given existing large poor rural populations of Southern Africa and the fact that many of the grandaunts of political science will in future be employed by government departments/ ministries dealing with issues of rural development and poverty eradication.

### **POL401 International Relations (3)**

The course thoroughly examines the emergence of International Relations as a separate discipline in the broad field of Political Science, what is distinctive about it, its relationship with international law and diplomacy, the theoretical disputes that have surrounded it since its emergence and the perennial issues of international security, conflict management and resolution - including the challenging questions of peacekeeping and peace-building.

### **POL402 Democratic Theory and Practice (3)**

Different forms of democracy will be identified and examined for their strengths and weaknesses, among them Athenian participatory democracy; the Levelers and Diggers in the English Civil War; the contrast between Anglo-American liberalism focused on the individual and property and the more radical French tradition; democratisation in the 19th and early 20th centuries as a potentiality within capitalist development; the elitist counter-attack and the liberal/Elite-democratic compromise; the social democratic variant; and the contemporary threat to democracy from global corporate power.

### **POL403 Modern Ideologies (3)**

To understand the ideologies, or great systemic bodies of thought, that have shaped the modern world and its political environment. This course will cover discussion of modern ideologies such as liberalism, conservatism, socialism, nationalism, anarchism, communism, fascism, feminism, and religious fundamentalism.

### **POL405 Comparative Politics (3)**

This course examines a diverse selection of the world's political/ economic systems by contrasting and comparing key aspects of each system, and by seeking generalizations about them. The specific country case studies we examine will be drawn from industrialized, transitional, and that broad category often referred to as less developed/Third World states. The examination and analysis of each country case study will focus on the common themes of political history, key institutions, political cultures, political parties, interest groups, political issues, and cleavages.

### **POL406 Africa in World Politics (3)**

The key objectives of this course are to explore the place and role of Africa in world politics;

in particular, to unravel the structural position of Africa in the world economy and what this implies for African development. The origins, dimensions and consequences of the African debt crisis will be given due attention – including the burning issues of democracy and 'good governance'. It will also consider the evolution and trajectory of the African state system, especially the role of the Organisation of African Unity (now the African Union) in conflict management and resolution.

#### POL407 Civil Military Relations (3)

The civil-military relations course explores the interface between the civilian democratic institutions and the military. It will cover aspects related to civilian control of military, military professionalism, military's role in democratization, human rights and the rule of law.

#### POL409 Security Studies (3)

This course will explore and an introduction to various approaches to the study of security. It will provide a general introduction to a number of issues on the contemporary security agenda and give an understanding of the changing nature of security concepts and security policies, and their relations to historical and political contexts

#### POL410 Internship in Political Science (3)

This course involves eight weeks attachment of students to government non-government organisations during the long vacation at the end of their third year, to enable them to gain insight into the operation of these institutions. During this period the students will observe procedures and functioning, and participate in work assignments given by their supervisors as advised by the Department. At the end of the attachment period, the students will complete assignments in the form of essays and reports related to their work in the organisations to which they are attached.

#### POL411 Research Project in Political Science (3)

The course is intended to give students majoring in Political Science a chance to do an extensive search of the literature and produce an extended research essay.

## DEPARTMENT OF POPULATION STUDIES

### Diploma in Population Studies

#### Special Regulations for Diploma in Population Studies

Subject to the provisions of the Academic General Regulations 000 and 100, and the Faculty of Social Sciences Special Regulations, the following Special Regulations shall apply:

#### Entrance Requirements

The normal requirement for entrance into Diploma in Population Studies shall be:

- a) A minimum of 3 credits (one of which is Mathematics) in the Botswana General Certificate of Secondary Education (BGCSE) or its equivalent;
- Or:
- b) A GPA of at least 2.0 at the Certificate in Civil Registration and Population Dynamics of this University or its equivalent;

#### Duration of the Programme

The normal duration of the Diploma in Population Studies Programme shall be 4 to 6 semesters on a full-time basis or 8 to 12 semesters on a part-time basis.

#### Programme Structure

The curriculum and methods of assessment shall be as follows:

#### Level 100

##### Semester 1

#### Core courses (6 credits)

- POP120** Introduction to Substantive Demography (3 credits)
- STA116** Introduction to Statistics (4 credits)
- Elective courses (6 credits)
- General Education courses (3 credits)

Students planning to enter a degree programme after the completing of their Diploma should take STA101 as well.

##### Semester 2

#### Core courses (6 credits)

- POP121** Introduction to Epidemiology and Technical Demography (3 credits)
- POP110** Elements of Research Methods (3

credits)

Elective courses (6 credits)

General Education courses (3 credits)

Students planning to enter a degree programme after the completing of their Diploma should take STA102 as well.

#### Level 200

##### Semester 3

#### Core courses (6 credits)

- POP200** Methods of Demographic Analysis (3 credits)
- POP201** Computing for Demographers (3 credits)

Optional courses (3credits)

Select from the following:

- POP202** Introduction to Population and Developments (3 credits)
- POP206** Population Policy of Botswana (3 credits)
- General Education Courses (6 credits)

##### Semester 4

Core Courses (3 credits)

- POP203** Demographic Data Analysis and Report Writing (3 credits)

#### Optional courses (3 credits)

Select one from the following:

- POP204** Reproductive Health and Family Planning (3 credits)
- POP205** Demography of Southern Africa (3 credits)

Elective courses (6 credits)

General Education courses (3 credits).

It is recommended that all Diploma students take POP202: Introduction to Population and Development.

#### Assessment

Each course shall be evaluated by a combination of continuous assessment and final examination or semester paper in the ratio of 2:3.

#### Award of Diploma

In order to be awarded the Diploma, a student must have completed a minimum of 60 credits and have a cumulative GPA of at least 2.0.

#### Bachelor of Arts Degree

Special Regulations for the Major/Minor Programme in Population Studies.





Subject to the provisions of the Academic General Regulations 000 and 200, the following Special Regulations shall apply:

#### Entrance Requirements

The normal requirement for entrance into the Bachelor's Degree in Population Studies Programme shall be:

- a) A minimum of 5 credits (one of which is Mathematics) in the Botswana General Certificate of Secondary Education (BGCSE) or its equivalent;
- Or:
- b) A GPA of at least 2.0 in the Diploma in Population Studies of this University or its equivalent; Other qualifications for entrance to the Bachelor's Degree in Population Studies may be accepted on their own merit as alternatives as shown by the General Regulation 00.052.

#### Duration of the Programme

The normal duration for the Bachelor of Arts Degree in Population Studies Programme shall be 8 to 10 semesters of full-time study or up to 16 to 20 semesters of part-time study.

#### Level 100

##### Semester 1

###### Core courses (9 credits)

- POP120** Introduction to Substantive Demography (3 credits)
- STA101** Mathematics for Business and Social Sciences (3 credits)
- STA116** Introduction to Statistics (4 credits)
- General Education courses (8 credits)

##### Semester 2

###### Core courses (6 credits)

- POP121** Introduction to Epidemiology and Technical Demography (3 credits)
- STA102** Mathematics for Business and Social Sciences (3 credits)
- General Education courses (8 credits)

#### Level 200

##### Semester 3

###### Core courses (6 credits)

- POP220** History of Fertility, Mortality and Migration (3 credits)
- POP221** Theories of Fertility, Mortality and Migration (3 credits)

Students entering the degree programme after the completing of their diploma should take STA101 as well if the course was not taken

during the diploma studies.

##### Semester 4

###### Core courses (6 credits)

- POP222** Demography of Botswana (3 credits)
- POP223** Demographic Techniques (3 credits)

###### Optional courses (3 credits)

###### Select one from the following:

- POP224** Demographic Aspects of the Labour Force (3 credits)
- POP225** Demographic Aspects of the HIV/AIDS Epidemic (3 credits)
- Elective courses (3 credits)
- General Education courses (3 credits)

Students entering the degree programme after the completing of their diploma should take STA102 as well if the course was not taken during the diploma studies.

#### Level 300

##### Semester 5

###### Core course (6 credits)

- POP300** Sources, Evaluation, Adjustment and Analysis of Demographic Data (3 credits)
- POP302** Research Methods (3 credits)

###### Optional course (3 credits)

- POP304** Inter-relationships of Fertility, Mortality and Migration (3 credits)

##### Semester 6

###### Core courses (6 credits)

- POP301** Computer Applications in Population Analysis (3 credits)

###### Optional courses (3 credits)

###### Select from the following:

- POP303** Migration, Urbanisation and Development (3 credits)
- POP305** Population Policies and Programmes (3 credits)
- General Education courses (4 credits)

#### Level 400

##### Semester 7

###### Core courses (9 credits)

- POP400** Integrating Population Variables into Development Planning (3 credits)
- POP401** Research Paper (3 credits)
- POP402** Indirect Estimation Techniques (3

credits)

##### Semester 8

###### Optional courses (6 credits)

###### Select from the following:

- POP403** Population, Development and Environment (3 credits)
- POP404** Gender, Reproductive Health and Development (3 credits)
- POP405** Demographic Dimensions of Poverty (3 credits)
- POP406** Demographic Aspects of Ageing (3 credits)
- POP407** Demographics (3 credits)
- Elective courses (2 credits)
- General Education courses (2 credits)

#### Assessment

Each course shall be evaluated by a combination of continuous assessment and final examination or semester paper in the ratio of 2:3.

#### Progression

In order to proceed from one semester to the next, a student must obtain a Cumulative GPA that is in accordance with General Regulation 00.9.

#### General Education Courses offered by the Department.

##### Semester 1 & 2

- GEC 372** Migration and Globalisation (2)
- GEC278** Population and Society (2)

## DEPARTMENT OF PSYCHOLOGY

#### Programmes

The Department offers two degree programmes at undergraduate level:

- i) Bachelor of Arts in Social Sciences degree with Psychology as Combined Major (Major/Major) and
- ii) Bachelor of Psychology degree, which is a semi-professional programme.

#### 2.0 Bachelor of Arts in Social Sciences with Psychology as Combined Major

##### 2.1 Aims of the Programme

The main aim of a Bachelor's programme with Psychology as a Combined Major is to introduce students to the discipline of psychology and

provide them with basic knowledge about major substantive areas of research in psychology.

## 2.2 Entrance Requirement

Subject to provisions of General Academic Regulations 20.2, a credit in Mathematics shall be required for applicants intending to enroll for Psychology as a Combined Major.

## 2.3 General Provisions.

2.3.1 Psychology as a Combined Major shall consist of an eight semester programme and with core and optional psychology courses.

2.3.2 Subject to special regulations of programmes in other departments, students may pursue a combined major in psychology and any other major of their choice.

2.3.3 Students who enroll for psychology as part of a combined degree (major/major) shall be expected to combine courses from psychology and the second subject in the ratio of 50:50 (major/major).

2.3.4 Students at any level of their university studies may be allowed to enroll in a psychology course at another level with the permission of the Head of Department.

## 2.4 Programme Structure

### Level 100

#### Semester 1

##### Core Courses

- STA101\*) Mathematics for Social Sciences I (3)
- STA116\*) Introduction to Statistics (4)
- PSY101 Introduction to Psychology (3)
- \*) or equivalent course

#### Semester 2

##### Core Courses

- PSY102 Biological Basis of Human Behaviour (3)

### Level 200

Combined Major students are expected to enroll in at least two psychology courses per Semester.

#### Semester 3

##### Core Courses

- PSY201 Theories of Personality (3)
- PSY209 Research in Psychology: Methods and Designs (3) (Core for both Combined and B.Psych. students)

##### Optional Courses

- PSY202 Social Psychology (3)
- PSY203 Developmental Psychology of Childhood and Adolescence (3)
- PSY204 History and Philosophy of Psychology (3)

#### Semester 4

##### Core Courses

- PSY208 Statistics for Psychology I (3)

##### Optional Courses

- PSY206 Developmental Psychology of Adulthood and Old Age (3)
- PSY207 Psychology of Work and Labour Relations (3)

### Level 300

For the Combined Major, all but one Level 300 psychology courses are optional in order to enable the student flexibility in his/her choice of courses. Level 300 Combined Major students are expected to enroll in at least two psychology courses per Semester.

#### Semester 5

##### Optional Courses

- PSY302 Psychological Testing and Psychometrics (3)
- PSY303 Cognition and Learning (3)
- PSY304 Health Psychology (3)
- PSY305 Organisational and Personnel Psychology (3)

#### Semester 6

##### Core Courses

- PSY312 Research Proposal in Psychology (3) (Core for B.Psych. students and Optional for Combined Major students)

##### Optional Courses

- PSY309 Human Factors in the Work Environment (3)
- PSY310 Consumer Psychology (3)

### Level 400

For the Combined Major, all Level 400 psychology courses are optional in order to enable the student flexibility in his/her choice of courses. Level 400 Combined Major students are expected to enroll in at least two psychology courses per Semester.

#### Semester 7

##### Optional Courses

- PSY406 Psychological Challenges of HIV/

AIDS (3)

- PSY407 Special Topics in Psychology (3)
- PSY409 Sensation and Perception (3)

#### Semester 8

##### Optional Courses

- PSY410 Applied Psychology (3)
- PSY411 Psychopathology (3)
- PSY412 Research Project (3)

## 2.5 Assessment

Assessment of psychology courses shall be based on any one or combinations of the following: tests, assignments, written examinations, oral examinations as approved by the Department.

## 3.0 Bachelor of Psychology (B.Psych.) Programme

### 3.1 Objectives of the Programme

Students who graduate with a Bachelor of Psychology (B.Psych.) degree shall be qualified to work as semi-professionals in the field of psychology, more specifically as "psychological counsellors". In order to become full professional psychologists, graduates would, however, require post-graduate training in Psychology on either Masters or Doctorate level that provides coursework and internship.

### 3.2 Entrance Requirement

Subject to provisions of General Academic Regulations 20.2, a credit in Mathematics shall be required for applicants intending to enroll for a B.Psych. degree.

### 3.3 General Provisions

3.3.1 The B.Psych. degree shall consist of an eight-semester programme.

3.3.2 A student who intends to pursue a B.Psych. degree shall take a minimum of 87 credits in psychology courses (consisting of 54 credits in core and 15 credits in optional psychology courses and 18 credits in the internship), 6 credits from core Mathematics and Statistics courses, and 20 credits from General Education Courses. Required credits from another subject taken during Level 100 and Level 200 shall be determined by this other subject.

3.3.2.1 The core and optional psychology courses shall consist of 6 credits at Level 100, 12 credits at Level 200, 24 credits at Level 300 and 33 credits at Level 400.



3.3.2.2 B.Psych. Students at any level of their university studies may be allowed to enroll in a psychology course at another level with the permission of the Head of Department.

3.3.2.3 A student who intends to pursue a B.Psych. degree shall enroll in a Bachelor's programme of any faculty at Level 100 and Level 200 and study psychology together with another major subject.

3.3.2.4 Students shall normally be selected for the B.Psych. programme after completing Level 200 to start the programme at Level 300 (fifth semester).

3.3.2.5 Students who are not selected for the B.Psych. programme may continue with psychology as a Combined Major.

3.3.2.6 The B.Psych. programme shall consist of core and optional psychology courses that include lectures, seminars, laboratory work and supervised practical work and a research project based on empirical data.

3.3.2.7 The B.Psych. programme shall include a supervised internship undertaken over six months with a minimum of 960 hours practical experience.

#### 3.4 Programme Structure

##### Level 100

##### Semester 1

##### Core Courses

**STA101\*** Mathematics for Social Sciences I (3)

**STA116\*** Introduction to Statistics (4)

**PSY101** Introduction to Psychology (3)

\*) or equivalent course

##### Semester 2

##### Core Courses

**PSY102** Biological Basis of Human Behaviour (3)

##### Level 200

##### Semester 3

##### Core Courses

**PSY201** Theories of Personality (3)

**PSY202** Social Psychology (3)

##### Optional Courses

(Students choose at least one)

**PSY203** Developmental Psychology of Childhood and Adolescence (3)

**PSY204** History and Philosophy of Psychology (3)

##### Semester 4

##### Core Courses

**PSY208** Statistics for Psychology I (3)

##### Optional Courses

(Students choose at least one)

**PSY206** Developmental Psychology of Adulthood and Old Age (3)

**PSY207** Psychology of Work and Labour Relations (3)

##### Level 300

##### Semester 5

##### Core Courses

**PSY301** Abnormal Psychology I (3)

**PSY302** Psychological Testing and Psychometrics (3)

**PSY303** Cognition and Learning (3)

##### Optional Courses

(Students choose at least one)

**PSY304** Health Psychology (3)

**PSY305** Organisational and Personnel Psychology (3)

##### Semester 6

##### Core Courses

**PSY306** Counselling I (3)

**PSY307** Psychological Assessment (3)

**PSY311** Research Methods in Psychology (3)

##### Optional Courses

(Students choose at least one)

**PSY309** Human Factors in the Work Environment (3)

**PSY310** Consumer Psychology (3)

##### Level 400

##### Semester 7

##### Core Courses

**PSY401** Research Project (3)

**PSY402** Abnormal Psychology II (3)

**PSY403** Counselling II (3)

##### Optional courses

(Students choose at least two courses)

**PSY404\*** Psychotherapy (3)

**PSY405\*\*)** Training and Human Resource Development (3)

**PSY406** Psychological Challenges of HIV/AIDS (3)

**PSY407** Special Topics in Psychology (3)

\*) This course is recommended to students who wish to pursue a career in the field of clinical psychology. \*\*) This course is recommended to students who wish to pursue a career in the field of industrial psychology.

##### Semester 8

##### Core Course

**PSY408** Internship\* (18 credits)

The internship shall start with the first week of Semester VIII and continue for at least eight weeks in the Winter vacation.

#### 3.5 Assessment

3.5.1 Assessment of psychology courses shall be based on any one or combinations of the following: tests, assignments, written examinations, oral examinations, practical examinations as approved by the Department.

3.5.2 Assessment of the performance on the internship shall consist of an evaluation of the intern according to criteria set by the Department.

3.5.2.1 A student who fails the internship shall be permitted to repeat the internship only once.

3.5.2.2 A student who, for a good reason, fails to complete the internship may be awarded an "I" (incomplete) grade and may, with the consent of the Head of Department and the Dean of the Faculty, be allowed an additional period, not exceeding ten weeks, to complete the work.

3.5.3 A student who fails the B.Psych. requirements may be permitted to continue his/her psychology studies as a combined major.

#### 3.6 Special Departmental Regulation

Subject to provisions of the General Examination Regulations, admission to an examination of a course that contains essential practical components (e.g. PSY305, PSY306, PSY403, PSY404 and PSY405) shall be subject to given if students have achieved a class attendance of at least 80% and a continuous assessment mark of at least 50%. Students who fail to achieve the required minimum class attendance or continuous assessment mark in courses with an essential practical component may be permitted to repeat the course only once.

### 3.7 Progression from Level to Level

3.7.1 A student who intends to pursue a B.Psych. degree must achieve an average of at least 60% (Grade Point 3.0) in all core psychology courses at Level 100.

3.7.2 A student who intends to pursue a B.Psych. degree must achieve an average of at least 60% (Grade Point 3.0) in all core psychology courses at Level 200.

3.7.3 A student who intends to pursue a B.Psych. degree may be permitted to register for the programme only at Level 300 but not before.

3.7.3.1 The intake into the B.Psych. programme at Level 300 shall be based on academic merit and restricted to a specified number of students per annum. The number of students selected into the B.Psych. programme shall be determined by the Department from time to time.

3.7.3.2 The criteria for selection into the B.Psych. programme shall take into consideration academic performance, performance in a selection interview and the number of spaces available for practical training.

3.7.3.3 A student who does not meet the requirements for the B.Psych. programme may be permitted to continue his/her studies with psychology as a combined major.

### 3.8 Award of the Degree

In order to be awarded the B.Psych. degree, a student must meet the requirements of the Academic General Regulations, Faculty and Departmental Special Regulations and obtain a minimum of Grade Point of 3.0 (60%) in the internship.

## Course Descriptions

### PSY101 Introduction to Psychology (3)

This is a foundation course to the study of psychology as a scientific discipline and it introduces students to major themes in psychology such as cognition, emotion, behaviour, intelligence, learning, and motivation from various theoretical perspectives.

### PSY102 Biological Basis of Human Behaviour (3)

This course is an introduction to essential topics in the area of psychobiology and its historical,

contextual and empirical development. It deals with the basic units of the central and peripheral nervous system, neuro-anatomy and physiology. It establishes a foundation in understanding the brain behaviour relationship.

### PSY201 Theories of Personality (3)

This course discusses major theories of personality applied in psychology and psychotherapy such as psycho-dynamic theories, behavioural theories, cognitive theories, humanistic and existential perspectives, and systemic theories.

### PSY202 Social Psychology (3)

This course emphasises the social basis of human behaviour. Concepts of socialization, culture, conformity and gender are addressed as well as theories of self-knowledge and self-justification, interpersonal attraction, prosocial behaviour and aggression. Attitudes, attributions, stereotypes and prejudices are discussed in the context of social perception and cognition. In addition, the course emphasises group processes and dynamics.

### PSY203 Developmental Psychology of Childhood and Adolescence (3)

This course traces human development through prenatal period, infancy and childhood up to adolescence. Emphasis is placed on physical, cognitive, emotional and social development and relevant theories.

### PSY204 History and Philosophy of Psychology (3)

This course introduces students to the history of psychology and its link to philosophy. Schools of thought such as Cartesian dualism, materialism, behaviourism, functionalism, cognitivism, postmodernism as well as African discourses on philosophy are discussed, particularly with regard to psychologically relevant constructs such as "individuals", "self" and "personhood".

### PSY206 Developmental Psychology of Adulthood and Old Age (3)

This course examines life-span development during early, middle and late adulthood considering biological, cognitive, emotional and social factors and the relevance of life events (e.g. marriage, parenthood, divorce, first employment, unemployment, retirement, illness, and death) for development.

### PSY207 Psychology Of Work and Labour Relations (3)

This course highlights the psychological functions of work and the psychological effects of the lack or loss of work (e.g. with regard to unemployment and retirement). Work ethics, job attitudes, job satisfaction, work motivation, and work related stress are further topics in this course. In addition, the course presents a psychological approach to labour relations and related concepts (such as negotiation, collective bargaining, mediation, and conflict handling).

### PSY208 Statistics for Psychology (3)

This course introduces students to relevant concepts in statistics, teaches students when and how to apply different statistical tests, and discusses principles of experimental design and empirical research. The course will enhance students' understanding of basic descriptive and inferential statistics commonly applied in psychological research such as sampling distributions, confidence intervals, standard errors of measurements, measures of central tendency, measures of variability, non-parametric tests, chi square, t-tests, F-test, ANOVA, scatter plots and correlations, regression analysis and other tests of significance, and rudimentary introduction to factor analysis. Furthermore, students will be introduced to statistical application packages such as SPSS.

### PSY209 Research in Psychology: Methods and Design (3)

The course introduces students to the relationship between theory and empirical research and basic research criteria (validity, reliability, objectivity). With reference to quantitative and qualitative research paradigms, students learn about research strategies and designs and methods of sampling and data generation (e.g. experiment, systematic observation, questionnaire, scales, interview). Ethical issues in psychological research are discussed as well.

### PSY301 Abnormal Psychology I (3)

This course familiarises students with a range of psychological disorders (such as mood disorders, anxiety disorders, personality disorders, schizophrenia, dissociative disorders, substance-related disorders, eating disorders, disorders of childhood and adolescence), their causes and conceptualization within the various schools of thoughts in psychology as well as in traditional healing approaches in the African context.

### PSY302 Psychological Testing and Psychometrics (3)



This course introduces students to the principles of psychological testing. Classification and construction of tests, norms, standardization, validity and reliability are addressed, together with critical views on social and ethical issues of testing in general, and the utilization of psychometrics within multi-cultural settings in particular.

### **PSY303 Cognition and Learning (3)**

This course discusses topics about human thought and memory. Topics include attention, various kinds of memory, problem solving, decision making, and language. In addition, the course explores learning processes, influences upon these processes and resultant behaviour.

### **PSY304 Health Psychology (3)**

This is an applied psychology course that focuses on the contributions of psychology to the understanding of physical and mental health and illness. With regard to prevention and intervention, behavioural, environmental, psychosocial and cultural factors that may affect health and illness are addressed and applied to various fields of health psychology such as cardiology, oncology, rehabilitation, and HIV/AIDS.

### **PSY305 Organisational and Personnel Psychology (3)**

This course familiarises students with the application of psychology in (work) organisations. Leadership theories, processes of decision-making, communication and interactive behaviour are presented as well as the psychological relevance of theories about organisational structure and organization development. In addition, concepts of human resource management such as recruitment and selection, job description, job analysis, and performance appraisal are presented from a psychological perspective.

### **PSY306 Psychological Counselling I (3)**

In this course students develop basic skills in interviewing, counselling and rapport building with regard to a diverse population. Students build up theoretical knowledge of the process of counselling through observing processes of interaction and non-verbal behaviour and through the practical use of attending and listening skills.

### **PSY307 Psychological Assessment (3)**

This course is a continuation of PSY302 and

trains students in selection, administration and interpretation of psychological assessment tools (e.g. intelligence tests, personality tests, aptitude tests, interest inventories, attitude scales, projective tests, interviews) (up to test level B), and in report writing.

### **PSY309 Human Factors in the Work Environment (3)**

This course presents the sensory systems (visual, auditory, haptic and kinaesthetic) with regard to ergonomic principles. The psychological relevance of the compatibility of machines and equipment with human capabilities as well as the machine-human interaction in its various applications (e.g. manufacturing, aviation, transport, architecture, sport, rehabilitation etc.) are major topics in this course.

### **PSY310 Consumer Psychology (3)**

This course introduces students to psychological theories and research that explain consumer needs, motivation and behaviour. Consumer perception, attitudes and decision making are analysed in the context of the social environment. Ethics in consumer psychology are a further part of this course.

### **PSY312 Research Proposal in Psychology (3)**

This course teaches students how to conceptualise, design and propose an empirical research project of psychological relevance. Students will choose a topic of investigation and learn how to write a problem statement, formulate a research question and develop hypotheses guided by a relevant theoretical framework. The course will guide students through the relevant steps of proposal writing including literature review, decisions on methods proposed for sampling, data generation and data analysis, time frame and budgetary expenses of the proposed research. At the end of this course, students are expected to present a complete research proposal.

### **PSY401 Research Project (3)**

In this project course students carry out an empirical study on an approved topic and under departmental supervision. The study could be based on the research proposal submitted in PSY312. At the end of the course, students submit a research paper (of approximately 10,000 words).

### **PSY402 Abnormal Psychology II (3)**

This course is a continuation of PSY301 and

focuses on the diagnosis of psychological disorders (e.g. based on the DSM IV, neuropsychological tests and examination) and their treatment (e.g. psychotherapy, psychopharmacological treatment). This course also considers traditional forms of treatment within the African context.

### **PSY403 Psychological Counselling II (3)**

This course is a continuation of PSY306. The course expands the students' repertoire of interviewing and counselling skills and techniques and enables students to apply them in practice. Students are also enabled to assess clients and to develop intervention strategies and referral expertise. In addition, matters of ethical conduct are emphasised.

### **PSY404 Psychotherapy (3)**

This course introduces students to the various psychotherapeutic approaches on practical level (e.g. Cognitive-Behavioural Therapy, Family Therapy, Psychoanalysis, Psychodrama, Gestalttherapy), and also reviews their application to the African context.

### **PSY405 Training and Human Resource Development (3)**

This course trains students in skills and techniques of training and human resource development. With regard to qualification and development of employees, students learn how to conduct a needs assessment and how to design and conduct a training programme that emphasizes the psychological empowerment of the workforce (e.g. leadership and managerial skills, communication and interaction skills, managing cultural diversity, competences in team building and conflict resolution).

### **PSY406 Psychological Challenges of HIV/AIDS (3)**

This is an applied psychology course that emphasises the psychological effects on people infected or affected by HIV/AIDS, for instance, with regard to identity development, sexual development, risk-taking behaviour, coping with stigmatisation, HIV/AIDS-related multiple losses (e.g. health, income, social support, death of closed ones), grieving and bereavement, hopelessness and the threat of death, and suicide. The course also highlights the psychological role of hope and meaning making in the context of HIV/AIDS.



### PSY407 Special Topics in Psychology (3)

This course provides the opportunity to present various specific themes and topics of psychology depending on students' and lecturers' interests or the expertise of visiting/ guest lecturers. Thus, the content taught in this course varies from year to year.

### PSY408 Internship (18)

The supervised internship (professional on-site supervision and regular supervision through the Department) shall be undertaken over six months with a minimum of 960 hours practical exposure and experience involving competencies and skills in the following areas:

- interviewing
- conflict management
- assessment and evaluation
- professional and ethical conduct
- report writing
- psychological coping skills (e.g. with regard to transference/counter-transference, stress)
- referral expertise management, burnout etc.)
- counselling
- project implementation and management

### PSY412 Research Project (3)

In this project course students carry out an empirical study on an approved topic and under departmental supervision. The study could be based on the research proposal submitted in PSY312. At the end of the course, students submit a research paper (of approximately 10,000 words).

## DEPARTMENT OF SOCIAL WORK

### Diploma in Social Work (DSW) Programme

#### Entry Requirements.

Subject to the General Regulations 200 and the Special Regulations of the Faculty of Social Sciences, the following Special Regulations of the Department of Social Work shall apply: The normal minimum requirement is a BGCSE with credit in English or a Certificate in Social Work from this University or an equivalent qualification. Students shall be subject to the guidelines and regulations of the Department's Fieldwork Manual.

### DSW Programme Structure and Content.

The Diploma in Social Work (DSW) programme has a total of 72 to 74 credits.

#### Level 100

##### Semester 1

- DSW100** Introduction to Social Work and its Literature (3)
- DSW101** Social Work with Communities and Groups (3)
- DSW102** Social Services in Botswana (2)
- DSW103** Social Work with Youth (3)
- DSW104** Social Work in Health Services (3)
- COM151** Introduction to Communication and Academic Literacy Skills (Social Sciences) (3)
- ICT121** Computer Skills Fundamentals I (2) 18 credits.

##### Semester 2

- SWF101** Orientation to Fieldwork (1)
- DSW105** Social Work with Families and Children (3)
- DSW106** Psychology for Social Work (3)
- DSW107** Social Work and Disabilities (3)
- DSW108** Interpersonal Communication (3)
- STA111** Elementary Statistics (2)
- COM152** Academic and Professional Communication (Social Sciences) (3)
- ICT122** Computer Skills Fundamentals 2 (2) 19 credits.

#### Level 200

##### Semester 1

- SWF200** Fieldwork (Block Placement) (3)
- SWF201** Fieldwork and Professional Development (3)
- DSW200** Introduction to Counselling in Social Work (3)
- DSW201** Introduction to Social Policy (2)
- DSW202** Selected Issues in Social Work (2)
- DSW205** Probation (3)
- General Education Course/Elective (2 or 3 credits)
- 18/19 credits.

NB: SWF200 is a 12-week block placement in social welfare agencies that takes place during the long vacation between Levels 1 and 2.

##### Semester 2

- DSW203** AIDS and Home Based Care (3)
- DSW204** Social Work and Social Development (3)
- DSW206** Management and Supervision in the Human Services (3)

- DSW207** Culture, Change and Social Work in Botswana (3)
- SOC122** The Social Structure of Society (3)

General Education Course/Elective (2 or 3 credits)

NB: A student can choose to take a GEC or an Elective course.

#### Assessment.

Assessment shall be as per General Academic Regulations 00.8. Assessment criteria shall also be stated in each course outline.

#### Progression from Semester to Semester.

Progression from one semester to the next shall be as per General Academic Regulations 00.9.

#### Award of the Diploma

The award of the Diploma shall be as per General Regulations 00.852.

### Bachelor of Social Work Programme

#### Entry Requirements.

Subject to the General Regulations 200 and the Special Regulations of the Faculty of Social Sciences, the following Special Regulations of the Department of Social Work shall apply:

1. The normal minimum requirement for entry into the Bachelor of Social Work (BSW) Programme is a credit in Mathematics.
2. Students shall be subject to the guidelines and regulations of the Department's Fieldwork Manual.
3. Applicants with a Diploma in Social Work from this University or an equivalent qualification with a minimum grade of a credit shall be eligible for entry at Level 2 of the first semester of the second year of the BSW Programme.

### BSW Programme Structure and Content.

The BSW programme has a total of 129-137 credits.

#### Level 100

##### Semester 1

- BSW100** Reading and Writing in Social Work (2)
- BSW101** Introduction to Psychology (3)
- POL101** Introduction to Political Science (3)
- LAW151** Social Work and Law (4)
- SOC121** Introduction to Sociological Concepts and Principles (3)



- COM151** Introduction to Communication and Academic Literacy Skills (Social Sciences) (3)
- ICT121** Computer Skills Fundamentals I (2) 20 credits.

#### Semester 2

- BSW102** Oral Communication (3)
- BSW103** Introduction to Social Welfare (3)
- BSW104** Introduction to Social Work (3)
- SWF102** Helping in the Community– Fieldwork Experience (3)
- COM152** Academic and Professional Communication (Social Sciences) (3)
- ICT122** Computer Skills Fundamentals 2 (3) 17 credits.

#### Level 200.

##### Semester 1 (Regular Entry)

- BSW200** Introduction to Community Work (3)
- BSW201** Introduction to Working with Families and Individuals (3)
- STA111** Elementary Statistics (3)
- ECO111** Basic Microeconomics (3)
- LAW151** Social Work and Law (4)
- General Education Course/Elective (2 or 3 credits) 18-19 credits.

##### Semester 1 (Direct Entry)

- BSW201** Introduction to Working with Families and Individuals (3)
- POL101** Introduction to Political Science (3)
- LAW151** Social Work and Law (4)
- STA111** Elementary Statistics (3)
- ECO111** Basic Microeconomics (3)
- General Education Course/Elective (2 or 3 credits) 18-19 credits.

NB: Direct entry students are exempted from BSW200.

#### Semester 2

- SWF101** Orientation to Fieldwork (1)
- BSW202** Social Policy (3)
- BSW203** Social Work and Mental Health (3)
- BSW204** Theory and Social Work Practice (3)
- BSW205** Introduction to Group Work (3)
- STA112** Statistical Tools for Social Research (3) 16 credits.

#### Level 300

##### Semester 1

- SWF300** Fieldwork I (Block Placement) (3) (Direct Entry Students Exempted).
- SWF301** Reflective Practice on Fieldwork (2)
- BSW301** Administration and Change in the Social Services (3)

- BSW302** Counselling (3)
- BSW303** Social Work Practice with AIDS (3)
- \*General Education Course/Elective (2 or 3 credits)
- 16-17 credits.

#### Semester 2

- SWF302** Fieldwork Practice, Culture and Social Work (2)
- BSW305** Community with Practice (3)
- BSW306** Research in Social Work (3)
- BSW307** Social Service Planning (3)
- \*General Education Course/Elective (2 or 3 credits)
- 15-17 credits.

#### Level 400

##### Semester 1

- SWF400** Fieldwork II (Block Placement) (3)
- SWF402** Linking Theory and Fieldwork (2)
- BSW401** Supervision in Social Work (3)

Students shall take one of the following.

- BSW402** Seminar (3)
- BSW403** Seminar (3)
- BSW404** Seminar (3)
- BSW405** Seminar (3) or:
- BSW406** Research Project I (3)
- General Education Course/Elective (3 Credits each) 15 credits.

##### Semester 2

- SWF401** Integrative Fieldwork Practice (3)
- Students shall take two of the following
- BSW407** Seminar (3)
- BSW408** Seminar (3)
- BSW409** Seminar (3)
- BSW410** Seminar (3)

Or:

- BSW415** Research Project II (3) and 1 Seminar.
- General Education Course/Elective (3 Credits) 15 Credits.

NB: Students with a minimum of a B average from Level 2 and 3 and a minimum of B average from BSW306 can choose BSW406 and BSW415 in place of one seminar in Semester 1 and one seminar in Semester 2.

NB: SWF300 and SWF400 are 9-week fieldwork placements in social welfare agencies that take place during the long vacation between Levels 2 and 3 and Levels 3 and 4 respectively.

#### Assessment

Assessment shall be as per General Academic Regulations 00.8. Assessment criteria shall also be stated in each course outline.

#### Progression from Semester to Semester

Progression from one semester to the next shall be as per General Academic Regulations 00.9.

#### Award of the Degree

The award of the Degree shall be as per General Regulations 00.852.

## DEPARTMENT OF SOCIOLOGY

### Degree Programme in Sociology

#### Entry Requirement

The normal Entry Requirements shall be as stipulated in General 20.2

#### Duration of Programme

The normal duration for the Bachelor of Arts Degree in Sociology shall be eight (8) semesters on a full-time basis. Students who are granted exemptions under the Departmental regulations may be able to complete the programme in a shorter period of time.

#### Programme Structure

The Department offers Sociology as a subject in the following Programmes:

- 1.Single Major Programme leading to the award of Bachelor of Arts Degree (Sociology)
- 2.Combined Major/Major Programme leading to the award of Bachelor of Arts Degree
- 3.Combined Major/Minor (with Sociology as Minor) Programme leading to the award of Bachelor of Arts Degree.

#### Requirements for the Single Major Degree in Sociology

Only students with a cumulative GPA of at least 3.5 (B-) for all Sociology courses taken during the first and second years of their studies will be invited to pursue a single major degree in Sociology. A student pursuing a single major degree in Sociology must take and pass the following Sociology courses:

#### Level 100

##### Semester 1

##### Core Courses

- SOC121** Introduction to Sociological Concepts and Principles (3)

**STA111** Elementary Statistics (3); or  
Equivalent course(s) approved by  
the Department

## Optional Courses

Any one of the following courses:

**SOC125** Theories of Deviance and Crime (3)  
**SOC130** Crime and Punishment in Modern  
Society (3)

PLUS Electives (3)  
or GEC (4)

## Semester 2

### Optional Courses

Any one of the following courses:

**SOC122** The Social Structure of Society (3)  
**SOC123** Introduction to Social and Cultural  
Anthropology (3)  
**SOC127** Introduction to Penology (3)  
**SOC133** The History of Punishment in  
Botswana (3)

plus Electives (3 credit)  
or GEC (4 credit)

## Level 200

### Semester 1

#### Core Courses

**SOC224** Introduction to Sociological  
Theory (3)

## Optional Courses

Any one of the following courses:

**SOC234** Social Problems in Southern  
Africa (3)  
**SOC236** Social Inequality (3)  
**SOC242** Concepts of Health and Illness (3)  
**SOC245** Gender and the Criminal Justice  
System (3)

plus Electives (3)  
or GEC (4)

## Semester 2

### Core Courses

**SOC226** Concepts and Principles of Social  
Research (3)

## Optional Courses

Any one of the following courses:

**SOC225** Sociology of Policing (3)  
**SOC233** Families and Households (3)  
**SOC241** Social Structure of S. African  
Societies (3)  
**SOC243** Crime and Social Justice (3)  
**SOC246** Communities and Crime (3)  
**STA241** Statistical Analysis (3)

plus Electives (3)  
or GEC (5)

## Level 300

### Semester 1

210

## Core Courses

**SOC322** Classical Sociological Theories (3)  
**SOC339** Quantitative Research Methods (3)

## Optional Courses

Any two of the following courses:

**SOC328** Comparative Social Institutions (3)  
**SOC329** Urban Sociology (3)  
**SOC331** Industry and Society (3)  
**SOC334** Sociology of Development (3)  
**SOC342** Crime and Victimization (3)  
plus Electives (3)  
or GEC (3)

## Semester 2

### Core Courses

**SOC341** Qualitative Research Methods (3)

## Optional Courses

Any four of the following courses:

**SOC324** Sociology of Gender (3)  
**SOC326** Race and Ethnicity (3)  
**SOC327** Political Sociology (3)  
**SOC332** Traditional and Alt Medical  
Systems (3)  
**SOC335** Rural Sociology (3)  
**SOC343** Advanced Criminological Theories(3)  
plus Electives (3)

## Level 400

### Semester 1

#### Core Courses

**SOC424:** African Social Thought (3)  
**SOC436:** Micro Sociological Theories (3)  
**SOC441:** Research Proposal (3)

## Optional Courses

Any one of the following courses:

**SOC428** Family and Kinship (3)  
**SOC431** Sociology of Law (3)  
**SOC434** Social Movements (3)  
**SOC432** Work and Occupations (3)  
**SOC439** Special Topics in Sociology (3)  
Electives (3)

## Semester 2

### Core Courses

**SOC421** Contemporary Sociological  
Theories (3)  
**SOC422** Research Project (6)  
**SOC442** Data Analysis and Report Writing (3)

## Optional Courses

Any one of the following courses:

**SOC438** The Medical Prof and Allied  
Occupations (3)  
**SOC439** Special Topics in Sociology (3)  
**SOC443** Sentencing Theory and Practice (3)

**SOC444** Contemporary Research in  
Criminology (3)  
plus Electives (3)

## Requirements for a Combined Major/Major Degree

A student intending to pursue a double major  
degree with Sociology as a major subject must  
take and pass the following Sociology courses:

## Level 100

### Semester 1

#### Core Courses

**SOC121** Introduction to Sociological  
Concepts and Principles (3)  
**STA111** Elementary Statistics (3); or  
Equivalent course(s) approved by  
the Department

## Optional Courses

Any one of the following courses:

**SOC125** Theories of Deviance and Crime (3)  
**SOC130** Crime and Punishment in Modern  
Society (3)  
plus Electives (3)  
or GEC (4)

## Semester 2

### Optional Courses

Any one of the following courses:

**SOC122** The Social Structure of Society (3)  
**SOC123** Introduction to Social and Cultural  
Anthropology (3)  
**SOC127** Introduction to Penology (3)  
**SOC133** The History of Punishment in  
Botswana (3)  
plus Electives (3)  
or GEC (4)

## Level 200

### Semester 1

#### Core Courses

**SOC224** Introduction to Sociological  
Theory (3)

## Optional Courses

Any one of the following courses:

**SOC234** Social Problems in Southern  
Africa (3)  
**SOC236** Social Inequality (3)  
**SOC242** Concepts of Health and Illness (3)  
**SOC245** Gender and the Criminal Justice  
System (3)  
plus Electives (3)  
or GEC (4)

## Semester 2

### Core Courses



**SOC226** Concepts and Principles of Social Research (3)

#### Optional Courses

Any one of the following courses:

**SOC225** Sociology of Policing (3)  
**SOC233** Families and Households (3)  
**SOC241** Social Structure of S. African Societies (3)  
**SOC243** Crime and Social Justice (3)  
**SOC246** Communities and Crime (3)  
**STA241** Statistical Analysis (3)  
plus Electives (3)  
or GEC (5)

#### Level 300

##### Semester 1

#### Core Courses

**SOC322** Classical Sociological Theories (3)  
**SOC339** Quantitative Research Methods (3)

#### Optional Courses

Any one of the following courses:

**SOC328** Comparative Social Institutions (3)  
**SOC329** Urban Sociology (3)  
**SOC331** Industry and Society (3)  
**SOC334** Sociology of Development (3)  
**SOC342** Crime and Victimization (3)

##### Semester 2

#### Core Courses

**SOC341** Qualitative Research Methods (3)

#### Optional Courses

Any two of the following courses:

**SOC324** Sociology of Gender (3)  
**SOC326** Race and Ethnicity (3)  
**SOC327** Political Sociology (3)  
**SOC332** Traditional and Alt Medical Systems (3)  
**SOC335** Rural Sociology (3)  
**SOC343** Advanced Criminological Theories (3)

#### Level 400

##### Semester 1

#### Core Courses

**SOC441** Research Proposal (3)

#### Optional Courses

Any two of the following courses:

**SOC424** African Social Thought (3)  
**SOC428** Family and Kinship (3)  
**SOC431** Sociology of Law (3)  
**SOC432** Work and Occupations (3)

**SOC434** Social Movements (3)  
**SOC436** Micro Sociological Theories (3)  
**SOC439** Special Topics in Sociology (3)

##### Semester 2

#### Core Courses

**SOC421** Contemporary Sociological Theories (3)  
**SOC442** Data Analysis and Report Writing (3)

#### Optional Courses

Any one of the following courses:

**SOC438** The Medical Prof and Allied Occupations (3)  
**SOC439** Special Topics in Sociology (3)  
**SOC443** Sentencing Theory and Practice (3)  
**SOC444** Contemporary Research in Criminology (3)

#### Requirements for a Combined Major/Minor [Sociology Minor]

A student intending to pursue a degree with Sociology as a minor subject must take and pass the following Sociology courses:

#### Level 100

##### Semester 1

#### Core Courses

**SOC121** Introduction to Sociological Concepts and Principles (3)  
**STA111** Elementary Statistics (3); or  
Equivalent course(s) approved by the Department

#### Optional Courses

Any one of the following courses:

**SOC125** Theories of Deviance and Crime (3)  
**SOC130** Crime and Punishment in Modern Society (3)  
plus Electives (3)  
or GEC (4)

##### Semester 2

#### Optional Courses

Any one of the following courses:

**SOC122** The Social Structure of Society (3)  
**SOC123** Introduction to Social and Cultural Anthropology (3)  
**SOC127** Introduction to Penology (3)  
**SOC133** The History of Punishment in Botswana (3)  
plus Electives (3)  
or GEC (4)

#### Level 200

##### Semester 1

#### Core Courses

**SOC224** Introduction to Sociological Theory (3)

#### Optional Courses

Any one of the following courses:

**SOC234** Social Problems in Southern Africa (3)  
**SOC236** Social Inequality (3)  
**SOC242** Concepts of Health and Illness (3)  
**SOC245** Gender and the Criminal Justice System (3)  
plus Electives (3)  
or GEC (4)

##### Semester 2

#### Core Courses

**SOC226** Concepts and Principles of Social Research (3)

#### Optional Courses

Any one of the following courses:

**SOC225** Sociology of Policing (3)  
**SOC233** Families and Households (3)  
**SOC241** Social Structure of S. African Societies (3)  
**SOC243** Crime and Social Justice (3)  
**SOC246** Communities and Crime (3)  
**STA241** Statistical Analysis (3)  
plus Electives (3)  
or GEC (5)

#### Level 300

##### Semester 1

#### Core Courses

**SOC322** Classical Sociological Theories (3)  
**SOC339** Quantitative Research Methods (3)

#### Level 400

##### Semester 1

#### Core Courses

**SOC441** Research Proposal (3)

##### Semester 2

#### Core Courses

**SOC421** Contemporary Sociological Theories (3)  
**SOC442** Data Analysis and Report Writing (3)

#### Assessment

Performance shall be evaluated by the combination of continuous assessment scores (CAS) and final examination marks; each contributing 50 percent to the final grade awarded. Seminars, internships and research projects will be assessed through assignments, term papers and research reports.

#### Progression from one Semester to another

## Semester

Progression from one Semester to the next shall be as per General Regulation 00.9

## Award of Degree

The award of the degree shall be as per General Regulation 00.852

## Bachelor of Arts in Criminal Justice Studies (Single Major)

## Entry Requirements

Admission to the BA CJS will be as per the University of Botswana General Regulation 20.2 or successful completion of the Diploma in Criminal Justice Studies (DCJ). Applicants who hold the DCJ from the University of Botswana will be admitted to the third year of the BA CJS degree programme. These students will be advised to take three new courses (1 at 1st year level, and 2 at second year level) as electives in order to satisfy requirements.

## Duration of Programme

The normal duration for the Bachelor of Arts in Criminal Justice Studies shall be eight (8) semesters on a full-time basis. Students who are granted exemptions under the Departmental regulations may be able to complete the programme in a shorter period of time.

## Level 100

## Semester 1

## Core Courses

- CJS 121 Introduction to Criminology (3)
- CJS 125 Theoretical Criminology (3)
- LAW 131 Introduction to Law (3)

## Optional Courses

Any one of the following courses:

- CJS130 Punishment in Contemporary Society(3)
- PAD102 Institutional Process of Public Administration (3)
- SOC122 Social Structure of Society (3) plus GEC (4)

## Semester 2

## Core Courses

- STA111 Elementary Statistics (3)

## Optional Courses

Any one of the following courses:

- CJS 127 Penology and the Penal System (3)
- CJS 133 Punishment in Botswana (3) plus Electives (3) or GEC (4)

## Level 200

## Semester 1

## Core Courses

- CJS 221 Classical and Post-Classical Criminological Theories (3)
- LAW 234 Constitutional Law (3)

## Optional Courses

Any two of the following courses:

- CJS227 Criminal Justice Work Experience (3)
- CJS 223 Media, Crime and Culture (3)
- CJS 245 Gender, Crime and Justice (3)
- SOC 234 Social Problems in Southern Africa (3)
- BSW201 Introduction to working with Families and Individuals (3) plus Electives (3 credits)

## Semester 2

## Core Courses

- CJS221 Basic Concepts and Principles in Criminological Research (3)
- CJS 246 Environmental Criminology (3)

## Optional Courses

Any two of the following courses:

- CJS225 Policing and Society (3)
- CJS243 Social Inequality and Criminal Justice (3)
- LAW 235 Administrative Law (3) plus Electives (3)

## Level 300

## Semester 1

## Core Courses

- CJS326 Crime Prevention, Management and Control (3)
- CJS343 Theoretical Debates in Criminology (3)
- LAW 333 Criminal Procedure (3)

## Optional Courses

Any two of the following courses:

- CJS 342 Victimology (3)
- CJS 325 Risk Management (3)
- CJS 328 Psychology of Criminal Behaviour (3)
- LAW 332 Evidence (4)
- SOC 324 Sociology of Gender (3)

## Semester 2

## Core Courses

- CJS321 Research Methods in Criminal Justice (3)
- CJS332 Policy Analysis in Criminal Justice(3)
- CJS323 Criminal Justice Practicum (3)

## Optional Courses

Any two of the following courses:

- CJS324 White Collar Crime (3)
- CJS327 Forensic Criminology (3)
- CJS329 Juvenile Delinquency and Youth Justice (3)
- PAD 307 Human Resource Development (3)

## Level 400

## Semester 1

## Core Courses

- CJS426 Electronic Crime (3)
- CJS 445 Data Analysis in Criminal Justice Studies (3)

## Optional Courses

Any Two of the following courses:

- CJS422 Management of Criminal Justice Organisations (3)
- CJS424 Domestic and International Security (3)
- LAW 432 Jurisprudence (4)
- Soc431 Sociology of Law (3) plus Electives (3)

## Semester 2

## Core Courses

- CJS421 Research Project (6)
- CJS444 Organised Crime (3)
- LAW437 Human Rights Law (3)

## Optional Courses

Any one of the following courses:

- CJS423 International Policing (3)
- CJS425 Privatisation/Commercialisation of Criminal Justice (3)
- CJS427 Criminal Offender Profiling (3)
- CJS428 Special Topics in Criminal Justice Studies (3)
- CJS443 Sentencing (3)

## Progression from one Semester to another Semester

Progression from one Semester to the next shall be as per General Regulation 00.9

## Award of Degree

The award of the degree shall be as per General Regulation 00.852

## DEPARTMENT OF STATISTICS

## Diploma in Statistics Programme

Special Regulations for the Diploma in Statistics Programme.

Subject to the General Academic Regulations 000 and 100, the following Special Departmental





Regulations shall apply:

### 1.2 Direct Entry into the Diploma

#### Programme

Students possessing an Ordinary Level pass with grade C or better in Mathematics, or an additional Mathematics paper are eligible for direct entry admission to the Diploma Programme; those who have a credit of C or better in the extended Mathematics option for BGCSE are also eligible for admission.

### 1.3 Duration of the Programme

The normal duration of the Programme is 4 semesters on a full-time basis carrying a minimum of 64 accumulated credits for required courses.

### 1.4 Programme Structure

The core Programme comprises 11 courses in Statistics totalling 33 credits. In addition, there are 11 optional/elective courses with 27 credits and 2 General Education Courses with 4 credits. Students can take electives from other related disciplines. Students intending to take BSC statistics later should take MAT option. Those intending to combine Statistics and Economics should take Economics courses while those intending to major in Population Studies should take Population Studies courses.

### 1.5 Core Courses

#### Level 100

- DST111** Statistical Systems (3. Sem 1)
- DST112** Collecting and Organizing Data (3, Sem 1)
- DST121** Handling and Analyzing Data Basic (3, Sem 2)
- DST122** Presenting Statistical Data and Results (3, Sem 2)
- DST123** Using Prob. Ideas in Dealing with data (3, Sem 2)

#### Optional Courses

Semester 1: Either STA101 Mathematics for Business and Social Sciences I or MAT 111  
Semester 2: Either STA102 Mathematics for Business and Social Sciences II or MAT 112

#### Elective Courses.

Semester 1: A 100 Level course from Economics/Populations Studies/Environmental Science or any other related discipline (3, sem1)  
Semester 2: A 100 Level course from Economics/Populations Studies/Environmental Science or any other related discipline (3 sem2)

### General Education Courses

#### Semester 1

- 1. COM151 Introduction to Communication and Academic Literacy Skills (Social Sciences) (3)
- 2. ICDL International Computer Driver's License Part 1 (3) or ICT121.

#### Semester 2

- 3. COM152 Academic and Professional Communication (Social Sciences)(3)

### Level 200

#### Semester 2

- DST211** Introduction to Basic Statistical Concepts (3. Sem 1)
- DST212** Introduction to Time Series Concepts (3. Sem 1)
- DST213** Index Numbers and Economics Statistics (3. Sem 1)
- DST221** Statistical Modelling (3. Sem 2)
- DST222** Sampling Concepts in Survey Work (3. Sem 2)
- DST223** Practical Project (3. Sem 2)

#### Optional Courses

Must take one course per semester (2 courses, 6 credits) from any of the following:

#### Semester 1

MAT221/POP201/ECO211/STA201

#### Semester 2

MAT212/POP223/STA 212

#### Elective Courses

Semester 1: A 200 Level course from Economics/Populations Studies/Environmental Science or any other related discipline (3, sem1)

Semester 2: A 200 Level course from Economics/Populations Studies/Environmental Science or any other related discipline (3 sem2)

#### Assessment

Unless otherwise specified the mode of delivery and learning objectives for this programme does not follow the usual conventions of teach test and examine. Some courses are theory based; some are more practical and interactive while others require some degree of field work and report writing. Hence the details on how each course shall be assessed are shown under the course description.

#### Award of Diploma

A student shall be eligible for the award of the Diploma in Statistics after completing a

minimum of 64 credits for courses specified in section 7.3.

### Classification of the Diploma

The award of the Diploma shall be classified as Distinction, Merit, Credit or Pass, according to the GPA as per General Regulation 10.4.

### Undergraduate Degree Programmes.

The Department offers Statistics as a subject in the combined Bachelor of Arts Degree in Social Sciences and in the Single Major Bachelor of Science Degree for both the Social Sciences and Science students. In addition Statistics is offered as a subject for the Combined Bachelor of Science Degree in Science. For the Diploma Programme in Statistics see Faculty Regulation 180.

### Special Regulations for the Undergraduate Degree Programmes

Special Regulation for the Combined Bachelor of Arts Degree in Statistics Subject to the General Academic Regulations 00.00 and 20.00 the following Departmental Regulations shall apply:

### Entrance Requirements

- 1 Entrance requirements are subject to the Faculty General Regulations.
- 2 Students who have passed the Diploma in Statistics Examination of this University or who possess the equivalent qualification can be admitted to Semester 5 of the Programme.

### Duration of the Programme

The normal duration for the Bachelor of Arts Degree in Statistics Programme shall be 8 semesters on a full-time basis. Students, who were granted exemption under the Departmental Regulations, may be able to complete the Programme in a shorter period of time.

### Programme Structure

1 At Levels 100 and 200, the Statistics part of the Programme requires 10 core courses in Statistics totaling 29 credits, normally taken during the first 4 semesters. In addition courses from the other major as well as electives and General Education Courses are required as per Faculty Regulations. Core courses are listed in Sections 1.4.1, 1.4.2 and 1.4.3.

2 At Levels 300 and 400, the Statistics part of the Programme consists of 8 core courses in Statistics totaling 24 credits normally taken in Semester 5 and upwards. In addition, students are required to take 12 credits of optional courses and 4 credits of General Education Courses. Core and optional courses are given in Sections 1.4.1,

1.4.2, and 1.4.3.

## Assessment

Normally the assessment for any course is based on the continuous assessment and the final examination in the ratio of 1:2, unless otherwise specified.

## Award of Bachelor of Arts Degree

A student who has completed the entire core, optional, elective and General Education Courses as listed above shall be eligible for the award of the Bachelor of Arts Combined Degree in Statistics.

## Bachelor of Science in Statistics Degree

### The Single Major Bachelor of Science

Programme can be taken by students from the Faculty of Science as well as students from the Faculty of Social Sciences or any other faculty, provided they satisfy the requirements outlined below.

## Special Regulations for the Single Major Bachelor of Science in Statistics Degree

Subject to General Regulation 20.00 and the relevant Faculty of Science Special Regulations, the following Department of Statistics Special Regulations shall apply:

## Entrance Requirements

1 Students who are admitted to the Faculty of Science and who have passed each of the 2 required Level 100 Statistics and Mathematics courses are eligible to join the Bachelor of Science (Statistics) Single Major Degree Programme. The specific combined major programme on the optional courses (MAT/ECO/POP etc) taken during the diploma.

2 Students admitted to other faculties, such as the Faculty of Social Sciences, who have passed each of the 2 required Level 100 Statistics and Mathematics courses are eligible to join the Bachelor of Science (Statistics) Single Major Degree Programme. The decision as to what major is to be taken should be made as early as possible, preferably not later than Semester 5 of the undergraduate studies.

3 Students who have passed the Diploma in Statistics examination of this University with a credit or who possess equivalent qualifications can join at level Semester 5 of the Programme on condition of Departmental recommendation.

4 Students who intend to join the Single Major Programme are normally expected to complete the courses listed under the Department of Statistics Special Regulation 1.3.3 before

Semester 5 of study.

## Duration of the Programme

The normal duration for the Bachelor of Science Degree Programme shall be 8 semesters on a full-time basis. Students who join under Departmental Special Regulation 4.6.1.3 may be able to complete the Programme in a shorter period.

## Programme Structure

1 At Levels 100 and 200, the Programme requires 11 core courses in Statistics and Mathematics totaling 37 credits, normally to be taken during the first 4 semesters. In addition students are expected to take elective and General Education Courses as required by their Faculty Regulations.

2 At Levels 300 and 400, the Programme consists of 15 core courses in Statistics and Mathematics totaling 48 credits that are usually taken from Semester 5 upwards. In addition, there are 3 optional Statistics courses totaling 9 credits.

## Assessment

Normally assessment of any course is based on the continuous assessment and the examination in the ratio 1:2, unless otherwise specified in the Departmental Special Regulations.

## Award of Bachelor of Science in Statistics Degree

A student who has completed all core, optional, elective and General Education Course requirements shall be eligible for the award of the Bachelor of Science (Statistics) Degree.

## Classification of Degree

The award shall be classified according to the GPA as per General Regulation 20.4.

## Combined Bachelor of Science Degree

The Combined Major Bachelor of Science Degree Programmes are for students who take Statistics as a major with any other subject major from the Faculty of Science.

Special Regulations for the Combined Major Bachelor of Science in Statistics Degree.

The Programme will be offered under the General Regulations of the University, the Faculty of Science Special Regulations, which allows Statistics as one of the subjects available to the students at Level 100, and the Department of Statistics Special Regulations. Subject to General Regulation 20.00 and the relevant Faculty of Science Special Regulations, the following Department of Statistics Special Regulations

shall apply:

## Entrance Requirements

1 The Faculty of Science students can take Statistics as a Major subject combined with any other Science subject. In order to take Statistics as a Major the student should have passed the 2 relevant Level 100 courses in Statistics. The decision as to what major to take is to be made as early as possible, preferably not later than Semester 5.

2 Students who intend to join the Bachelor of Science Combined Major Programme in Statistics are normally expected to complete the courses listed under the Department of Statistics Special Regulation 1.3.2 before Semester 5.

## Duration of the Programme

The normal duration for the Bachelor of Science Combined Major Degree in Statistics Programme shall be 8 semesters on a full-time basis.

## Programme Structure

1 At Levels 100 and 200, the Statistics component of the Combined Major requires 8 core courses in Statistics and Mathematics totaling 28 credits normally taken during the first 4 semesters. In addition courses from the other major as well as electives and General Education Courses are required as per General Academic Regulations.

2 At Levels 300 and 400, the Statistics part of the Programme consists of 8 core courses in Statistics totaling 24 credits, normally for Semester 5 and upwards. In addition, there are 3 optional courses in Statistics totaling 9 credits to be taken during the same period. Courses from the other major electives and General Education Courses will supplement the Programme structure.

## Assessment

Normally assessment of any course is based on the continuous assessment and the examination in the ratio 1:2, unless specified otherwise in the Department of Statistics Special Regulations.

## Award of the Combined Bachelor of Science Degree

1 A student who has successfully completed the entire core, optional, elective and General Education Courses shall be eligible for the award of the Bachelor of Science Combined Major Degree.

## 2 Classification of Degree

The award shall be classified according to the GPA, as per General Regulation 20.4.

## Level 100



### Undergraduate Degree Programmes

At Level 100 a student majoring in the Combined Bachelor of Arts Degree in Statistics shall take:

#### Semester 1

- STA101 Mathematics for Social Sciences I(3)
- STA116 Introduction to Statistics (4,)

#### Semester 2

- STA102 Mathematics for Social Sciences II (3)
- STA121 Elements of Probability (2)

### Elective Courses

#### Semester 2

One Course on the advice of the Department (3)

At Level 100 a student intending to major in Statistics in the Bachelor of Science Programme shall take:

#### Semester 1

- MAT111 Introductory Concepts of Mathematics I (4)
- STA116 Introduction to Statistics (4)

#### Semester 2

- MAT112 Introductory Concepts of Mathematics II (4, Sem 2)
- STA122 Introductory Concepts of Probability (4, Sem 2)

### General Education Courses

Two GEC courses as required for the Faculty (2+2 credits) in semester one.  
Two GEC courses as required by the Faculty (2+2 credits) in semester two.

### Level 200

At Level 200 a student majoring in Statistics for the Combined Bachelor of Arts Degree in Social Sciences shall take:

#### Semester 1

- STA201 Elementary Calculus (3)
- STA221 Statistical Distributions I (3)

#### Semester 2

- STA202 Matrix Algebra (3)
- STA222 Probability I (3)
- STA211 Statistical Methods (3)
- STA272 Statistical Computing (3, Semester 1 and 2)

General Education Courses  
A GEC course (2 credit)

At Level 200 a student majoring in Statistics for the Combined Bachelor of Science Degree shall take:

#### Semester 1

- STA221 Statistical Distributions I (3,)
- STA272 Statistical Computing (3, Sem 1&2)
- MAT212 Introduction to Algebra (3)

#### Semester 2

- STA222 Probability I (3)
- STA211 Statistical Methods (3)

### Optional Courses.

One 200 level courses from Mathematics/ Computer Sc/Econ/ Pop.Studies/Env. Science (3, Sem3)

One 200 level course from Math/Comp.Sc/ Econ/ Pop. Studies/ Env. Science (3, Sem 4)

At Level 200 a student majoring in Statistics for the Single Major Bachelor of Science Degree shall take:

#### Semester 1

- MAT221 Calculus I (3)
- STA221 Statistical Distributions I (3)

#### Semester 2

- MAT222 Calculus II (3)
- STA211 Statistical Methods (3)
- STA222 Probability I (3)
- STA272 Statistical Computing (3, Sem 1&2)

### Optional Course

1. Two 200 level courses from Math/Comp Sc/ Econ/ Pop.Studies/Env. Science (3+3 credit)
2. A 200 level course from Math/Comp.Sc/ Econ/ Pop. Studies/ Env.Science (3 credit)

### Electives

One 200 level course (2or 3)

General Education Courses  
GEC course (2 credit)

### Levels 300

At Level 300, a student majoring in Statistics for the Combined Bachelor of Arts Degree shall take:

#### Semester 2

##### Core Courses

- STA321 Statistical Distributions II (3)
- STA354 Survey Research Methods (3)

- STA352 Regression and Linear Models (3)

#### Semester 2

- STA322 Probability II (3,)
- STA353 Experimental Design I (3)

### Optional Courses (2 courses, 6 credits)

#### Semester 1

- STA361 Time Series Analysis (3)
- STA381 Statistical Quality Control (3)

#### Semester 2

##### (1 course, 3 credits)

- STA382 Operations Research I (3)
- STA384 Economic Statistics (3)
- STA391 Field Survey (3)

At Level 300, a student majoring in Statistics for the Combined Major Bachelor of Science Degree shall take:

#### Semester 1

##### Core Courses

- STA321 Statistical Distributions II (3)
- STA352 Regression and Linear Models (3)
- STA354 Survey Research Methods (3)

#### Semester 2

- STA322 Probability II (3)
- STA353 Experimental Design I (3)
- Optional Courses (3 courses, 9 credits)

#### Semester 1

- STA361 Time Series Analysis (3, Sem 1)
- STA381 Statistical Quality Control (3, Sem 1)
- MAT321 Real Analysis I (3, Sem 1)

#### Semester 2

- STA382 Operations Research I (3)
- STA383 Econometric Methods (3)
- STA391 Field Survey (3)
- MAT322 Real Analysis II (3)

At Level 300 A student majoring in Statistics for the Single Major Bachelor of Science Degree shall take:

#### Semester 1

##### Core Courses

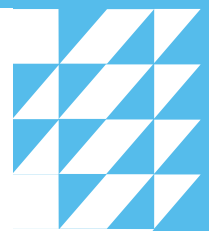
- MAT321 Real Analysis I (3)
- STA321 Statistical Distributions II (3)
- STA352 Regression and Linear Models (3)
- STA354 Survey Research Methods (3)

#### Semester 2

- STA302 Linear Algebra for Statistics (3)
- STA322 Probability II (3)

STA353	Experimental Design (3)	(3, Sem 2)	STA481	Operations Project II
STA391	Field Survey (3)			
Optional Courses (3 courses, 9 credits)		Optional Courses (3 courses, 9 credits)	One from	
Semester 2		One From	Semester 2	
STA381	Statistical Quality Control (3)	Semester 1	STA451	Experimental Design II (3)
STA361	Time Series Analysis (3)	STA453	STA452	Introduction to Generalized Linear Model (3)
			STA462	Applied Stochastic Process (3)
Semester 2		STA461	STA471	Multivariate Data Analysis (3)
MAT322	Real Analysis II (3)	STA483	STA482	Agricultural Statistics (3)
STA382	Operations Research I (3)	STA490	STA484	Design and Analysis of Clinical Trials (3)
STA383	Econometric Methods (3)			
STA384	Economic Statistics (3)			
Level 400		One From		
At Level 400, a student majoring in Statistics for the Combined Bachelor of Arts Degree shall take:		Semester 2		
STA431	Theory of Estimation (3, Sem 1)	STA433	Introduction to Bayesian Inference (3)	
STA453	Sampling Theory and Applications (3, Sem 1)	STA451	Experimental Design II (3)	
STA432	Theory of Hypothesis Testing (3, Sem 2)	STA452	Introduction to Generalized Linear Model (3)	
		STA462	Applied Stochastic Process (3)	
		STA471	Multivariate Data Analysis (3)	
		STA482	Agricultural Statistics (3)	
		STA484	Design and Analysis of Clinical Trials (3)	
		STA490	Research Project (6 credits, Semesters 1 and 2) (will be allowed for exceptionally motivated students).	
Optional Courses (2 courses, 6 credits)		At Level 400 A student majoring in Statistics for the Single Major Bachelor of Science Degree shall take:		
One From				
Semester 1		Semester 1		
STA421	Multivariate Distributions (3)	Core Courses		
STA461	Elements of Stochastic Process (3)	STA421	Multivariate Distributions (3)	
STA481	Operations Research II (3)	STA431	Theory of Estimation (3)	
STA483	Health Statistics (3)	STA453	Sampling Theory and Applications(3)	
STA490	Research Project (6, Sem 1 and 2) (will be allowed for exceptionally motivated students).	STA490	Research Project (6 credits, Semesters 1 and 2)	
One From		Semester 2		
Semester 2		STA461	Elements of Stochastic Process (3)	
STA433	Introduction to Bayesian Inference (3)	STA432	Theory of Testing of Hypothesis (3)	
STA471	Multivariate Data Analysis (3)	STA433	Introduction to Bayesian Inference(3)	
STA482	Agricultural Statistics (3)	STA490	Research Project (6 credits, Semesters 1 and 2)	
STA484	Design and Analysis of Clinical Trials (3)			
STA490	Research Project (6, Sem 1 and 2) (will be allowed for exceptionally motivated students).			
At Level 400, a student majoring in Statistics for the Combined Major Bachelor of Science Degree shall take:		Optional Courses (2 courses, 6 credits)		
Semester 1		Semester 1		
STA421	Multivariate Distributions (3)	Take One from		
STA431	Theory of Estimation (3)	STA483	Health Statistics (3)	
STA432	Theory of Hypothesis Testing			

# Act and Statutes





### University of Botswana Act, 2008 No 15 of 2008

An Act to re-enact the University of Botswana Act with substantial revisions to the governance structures of the University and matters incidental thereto.

**Date of assent: 28.08.2008**

**Date of Commencement: ON NOTICE**

**ENACTED by the Parliament of Botswana.**

#### PART I -Preliminary

##### Short title and commencement

1. This Act may be cited as the University of Botswana Act, 2008, and shall come into operation on such a date as the Minister may, by Order published in the Gazette, appoint.

Interpretation

2. In this Act, unless the context otherwise requires -

"Council" means the University Council established under section 9;

"member" means a member of the Council;

"Minister" means the Minister of Education and Skills Development; "Statutes" means the statutes enacted under section 22;

"University" means the University of Botswana established under section 3.

#### PART II -Establishment of University of Botswana

##### Continuance of University

3. (1) The University of Botswana, established in terms of section 2 of the Act repealed under section 23, shall continue to exist as if established under this Act.

(2) The University shall be a body corporate with perpetual succession and common seal, capable of suing and being sued in its own name and, subject to the provisions of this Act, performing such acts as bodies corporate may by law perform.

##### Functions of University

4. The functions of the University shall include the following -

- (a) providing higher education and training;
- (b) advancing and disseminating knowledge through teaching;
- (c) undertaking, promoting and facilitating research and scholarly investigations;
- (d) supporting and contributing to the realisation of economic and social development of the nation;
- (e) contributing to the cultural and social life of the community; and
- (f) contributing to the advancement of the intellectual and human resource capacity of the international community.

##### Powers of University

5. (1) The University shall have the power to do all things necessary or expedient for exercising and discharging its functions subject to this Act.

(2) Without prejudice to subsection (1), the University shall have the power to-

(a) provide programmes and courses of study, conduct examinations and other methods of assessment, and award degrees and other qualifications;

(b) establish relationships and collaborate with other persons or bodies, or other institutions of learning, higher education, training or research, within or outside Botswana, upon such terms as may be provided in the Statutes;

(c) establish or participate in the establishment of trading, research or other co-operations as may be necessary in the discharge of its functions;

(d) collaborate with business, professional, cultural, social or other interests within and outside Botswana as may be necessary in the discharge of its functions;

(e) collaborate with alumni and associations of alumni and graduates of the University;

(f) receive and accept donations on such terms and conditions as shall not be inconsistent with this Act and the functions of the University;

(g) maintain, manage, administer and invest funds in a manner which shall not be inconsistent with this Act and the functions of the University; and

(h) acquire and hold movable or immovable property, sell, lease, mortgage or otherwise alienate or dispose of the property, and enter into other transactions.

(3) Where the University has resolved that it is necessary or expedient to acquire a property under subsection (2) (h), the property may be treated as property required for public purposes, and the Acquisition of Property Act shall apply with necessary modifications to allow for the vesting of the property acquired in the University and for the cost to be defrayed by the University.

#### PART 11- Governance of University

##### Principal officers and governance bodies

6. The Principal officers and the governance bodies of the University shall be -

- (a) Chancellor;
- (b) Chairperson of the University Council;
- (c) Vice-Chancellor;
- (d) University Council;
- (e) Senate; and
- (f) Deputy Vice-Chancellors

##### Chancellor

7. (1) The Chancellor shall be appointed by the President of Botswana,

(2) The Chancellor shall hold office for five years and shall be eligible for one more term of five years.

(3) The Chancellor shall be the titular head of the University and shall be its ambassador, promoting goodwill and mobilising resources for the University.

(4) The Chancellor shall preside over ceremonial assemblies of the University, confer awards of the University and, perform and exercise other functions and powers as described in this Act and in the Statutes,

(5) In the absence of the Chancellor, the Chairperson of the Council shall act as Chancellor.

##### Vice- Chancellor

8. (1) The Vice-Chancellor shall be appointed by the Minister after consulting the University Council and the Senate.

(2) The Vice-Chancellor shall be the chief executive officer of the - University with overall responsibility for academic and administrative leadership as well as chief disciplinary officer of the University, subject to directions of policy that the University may give from time to time.

(3) The Council shall, in consultation with the Senate, appoint Deputy Vice-Chancellors in accordance with the Statutes,

(4) When the post of Vice-Chancellor is vacant, or when the Vice- Chancellor is absent, or for any reason unable to perform the functions of Vice-Chancellor, the Council shall appoint, in accordance with the Statutes, one of the Deputy Vice-Chancellors, or if no Deputy Vice-Chancellor is available, any other suitable member of the University staff, to act as Vice- Chancellor,

(5) The Vice-Chancellor and the Deputy Vice-Chancellors shall together constitute an executive management team to provide executive leadership to the University.

##### Establishment of Council

9.(1) There shall be established the University Council which shall consist of the following 32 members -

(a) 12 people appointed by the Minister, five of whom shall be appointed by the Minister at his or her discretion and seven on the recommendation of the Council;

(b) seven people representative of civil society and the private sector, appointed by the Chancellor on the recommendation of Council in accordance with the procedure and criteria specified in the Statutes;

(c) two people who are not resident in Botswana appointed by the University Council by reason of their special knowledge and competence in



tertiary education;

(d) one graduate of the University and its antecedents who is not a member of staff of the University elected by the Alumni Association of the University;

(e) the Vice-Chancellor and Deputy Vice-Chancellors;

(f) two members of Senate elected by Senate, one of whom shall be a professor and the other a Dean of Faculty;

(g) one member of the academic staff who is not on Senate, elected by members of academic staff; (h) two members of the support staff elected by the support staff, one of whom shall be a senior member of staff; (i) one student elected by the student body of the University.

(2) The procedure for election of members under paragraphs (d), (f), (g), {h} and (i) of subsection (1) shall be prescribed in the Statutes.

(3) A member shall be responsible to the Council and not to the entity that appointed or elected the member and shall have a duty to act in good faith, avoid conflict of interest and, to exercise skill and judgment in the interest of the University.

(4) A member shall have collective responsibility for the decisions of the Council.

#### Chairperson of Council

10. (1) The Minister shall appoint the Chairperson of Council and members shall elect the Vice-Chairperson from amongst those members that are not employees or students of the University.

2) The Chairperson of the Council shall-

(a) provide leadership to the Council;

(b) conduct meetings of Council;

(c) act as the representative and spokesperson of Council; and

(d) subject to restrictions and directions of the Council, act for and make decisions on behalf of the Council where it is not feasible or practicable to convene a meeting of the Council for that purpose.

(3) The Vice-Chairperson of the Council shall act as Chairperson in the absence of the Chairperson.

#### Functions of Council

11. (1) The Council shall be the governing body with ultimate responsibility for ensuring the performance of the University in accordance with the powers conferred by this Act.

(2) Without prejudice to subsection (1), the Council shall-

(a) set the strategic directions of the University by overseeing the development and adoption of the mission and strategic plans of the University;

(b) approve major policies, capital plans, and the

annual planning and budget report;

(c) monitor and review the overall performance of the University in relation to plans, policies, values, academic standards, financial management and buildings and estates management;

(d) approve the annual report and annual statement of accounts of the University;

(e) ensure the strategic leadership of the University;

(f) enhance the engagement between the University and the community;

(g) approve the institutional plan of the University; and

(h) maintain, through Senate, high levels of academic standards.

#### Powers of Council

12. (1) The Council shall have the power to do or provide for any act or thing which it considers necessary or expedient for the performance or exercise of its powers and functions under this Act,

(2) Without prejudice to subsection (1), the Council shall-

(a) determine persons who are authorised to sign contracts, cheques and other documents on behalf of the University, and otherwise regulate procedure in relation to transactions entered into by the University;

(b) provide for the safe custody and proper use of the seal of the University;

and

(c) approve terms and conditions of service for employees of the University,

(3) The Council may, where it deems it necessary or desirable, prohibit the admission of a person as a student of the University.

(4) The Council shall exercise the powers under subsection (3) notwithstanding the disciplinary powers conferred on the Vice-Chancellor by section 8(2),

(5) Without prejudice to the powers conferred on any other person or public officer under any other law, the Council shall have the power, after consultation with the Minister and the Senate, to declare the University closed for purposes of offering some or all academic programmes and courses and, whenever possible, indicate the period during which the University shall remain closed,

(6) Notwithstanding subsection (5), where there is an emergency, the Chairperson shall have the power to act on behalf of the Council and order the University closed.

#### Accounts and annual reports

13. (1) The Council shall cause the accounts of the University to be annual report drawn up,

audited and published annually and at such times and in such manner as the Minister may direct,

(2) The Council shall cause, within six months after the end of each academic year, a report of the activities of the University to be drawn up and made available to the public.

(3) The Council shall, within 30 days of receiving a copy of the audited accounts and the report give such copy and report to the Minister.

(4) The Minister shall, within 90 days of receiving the report and a copy of the audited accounts, lay such report and accounts before the National Assembly.

#### Tenure of office for members

14. (1) The Chairperson and Vice-Chairperson of Council shall hold office for a period of three years and shall be eligible for re-election for one more term.

(2) All appointed or elected members, other than the member elected by the student body of the University, shall hold office for a period not exceeding three years and shall be eligible for reappointment or re election for one more term at the end of the first period.

(3) The member elected by the student body shall hold office for a period not exceeding one year and shall be eligible for re-election for one more term.

#### Disqualification, removal and resignation of member

15. (1) A person shall not be appointed, or elected a member or be qualified to continue to hold office, who

(a) in terms of a law in force in any country-

(i) been adjudged or otherwise declared bankrupt and has not been discharged; or

(ii) made an assignment, arrangement or composition with his or her creditors, which has not been rescinded or set aside;

(b) within a period of 10 years immediately preceding the date of his or her appointment, been convicted -

(i) of a criminal offence in any country; or

(ii) of a criminal offence for which he or she has not received a free pardon and notwithstanding that the sentence has been suspended, which, if committed in Botswana, would have been committed, the penalty for which would be at least six months imprisonment without the option of a fine,

(2) The Council may remove a member from office after consultation with the appointing authority if the member-

(a) is absent without reasonable cause from three consecutive meetings of the Council of

which the member has had notice;  
(b) is inefficient;  
(c) has been found to be physically or mentally incapable of performing his or her duties efficiently; or  
(d) contravenes this Act, Statutes, or other instruments stipulating the duties and responsibilities of members, or otherwise misconducts himself or herself to the detriment of the objectives of the Council.

(3) A member may resign from office by giving 30 days notice in writing to the person or officer designated in the Statutes as the Secretary to the Council,

(4) The office of a member shall become vacant after-

(a) a period of 30 days from the date the member is convicted of an offence referred to under subsection (1) (b), where the member does not appeal;

(b) a period of 30 days from the date a ruling against the member is made on an appeal made in respect of a conviction against the member under subsection (1) (b), where the member appeals;

(c) a period of 30 days has elapsed from the date the member gave notice in writing of his or her intention to resign in accordance with subsection (3);

(d) a period of 30 days has elapsed from the date the member is given notice in writing by the Council to vacate office; or

(e) a member is summarily required by the Council to vacate office on the grounds referred to in subsection (2) (d),

(5) Where the office of a member becomes vacant before the expiry of the member's term of office, the Secretary shall initiate the process of appointing or electing a replacement who shall hold office for a full term,

### Meetings of Council

16. (1) Subject to this Act and the Statutes, the Council shall regulate its own proceedings.

(2) The Council shall meet at least three times in an academic year,

(3) The Chairperson may, upon giving a written notice of not less than 14 days, and upon a written request of not less than one half of the members, call a meeting,

(4) The Chairperson may, where the urgency of the matter does not permit giving notice as required in paragraph (a), call a special meeting of the Council, giving a shorter notice,

(5) The Chairperson shall preside at any meeting of Council, but in the absence of the Chairperson the Vice-Chairperson shall preside, and in the absence of both the Chairperson and Vice-

Chairperson, the members present shall elect one of them, not being an employee or student of the University, to preside at that meeting.

(6) The quorum at any meeting of Council shall be one half of the members.

(7) A decision of the Council on any question shall be taken by the majority of the members present and voting at that meeting, and in the event of an equality of votes, the person presiding shall have a casting vote in addition to that person's deliberative vote.

(8) The Council may invite any person whose presence it considers necessary, to attend and to participate in the deliberations of the Council, but such person shall have no vote.

### Disclosure of interest

17. (1) A member who has a direct or an indirect interest in a private capacity in any matter to be considered by the Council or a committee of Council shall, as soon as practicable after the commencement of the meeting, disclose the interest and shall not, unless the Council otherwise directs, take part in any consideration or discussion of, or vote on, any question relating to the matter.

(2) A disclosure of interest made under this section shall be recorded in the minutes of the meeting at which it is made,

(3) Where a member fails to disclose his or her interest in accordance with subsection (1) and a decision by the committee is made which benefits '-. such member directly, such decision shall be null and void,

(4) A member who contravenes the provisions of subsection (1) shall be guilty of an offence and liable to a fine not exceeding P6 000, or to imprisonment for a term not exceeding 12 months, or to both.

### Confidentiality

18.(1) Every member and any person co-opted to a committee shall observe and preserve the confidentiality of all matters coming before a committee, and such confidentiality shall subsist even after the termination of his or her term of office or his or her co-option

(2) A person to whom confidential information is revealed through working with a committee shall not disclose that information to any other person unless he or she is required to do so in terms of any written law or for purposes of any judicial proceedings.

(3) A member or an expert engaged to render services that may include access to confidential information shall not, for a period of two years after leaving office or rendering such expert service, use to their personal advantage

information acquired by him or her by virtue of being associated with a committee.

(4) Any person who contravenes the provisions of this section shall be guilty of an offence and liable to a fine not exceeding P6 000, or to imprisonment for a term not exceeding 12 months, or to both, and for a second or subsequent offence to a fine not exceeding P10 000, or to imprisonment for a term not exceeding two years, or to both.

### Committees of Council

19. (1) The Council shall have the following committees whose terms of reference and membership shall be as specified in the Statutes -

(a) the Executive Committee of Council;

(b) the Joint Committee of the Council and the Senate;

(c) the Audit Committee;

(d) the Finance Committee;

(e) the Human Resources Committee;

(f) the Staff Appeals Committee; and

(g) the Physical Resources Committee.

(2) The Council may from time to time establish other Committees of a special or general nature, consisting of its members or other suitably qualified persons, as it may deem fit.

(3) The Council may delegate any of its functions under this Act to a committee established in terms of subsection (2).

(4) The provisions of sections 16 and 17 shall, with necessary modifications, apply to a member of a committee.

### Remuneration and Allowances

20. A member may be paid remuneration and allowances, if any, as Government may from time to time determine.

### Senate

21. (1) There shall be a Senate which shall have overall responsibility for the -

(i) academic policies and academic plans,

(ii) academic development strategy, and

(iii) research and community service functions of the University.

(2) The Senate shall consist of the Vice-Chancellor and such other members as shall be specified in the Statutes.

The Senate shall -

(a) have control and direction of teaching, research, assessment, conferment of degrees and granting of other awards of the University;

(b) be responsible for the integration of academic, financial and physical plans through the annual planning and budget report;

(c) be responsible for articulating the objectives,



goals, mission and strategic direction of the University for approval by the Council;  
(d) be responsive to requests of Council and regularly monitor its own performance; and  
(e) establish committees of the Senate and regulate their membership as it sees fit.  
(4) The Senate shall have such other functions and powers as shall from time to time be specified in the Statutes.

#### PART IV – General Indemnity

22. No matter or thing done or omitted to be done by a member or a member of a committee shall, if the matter or thing is done or omitted to be done bona fide in the course of operations of the Council or a committee, render a member or a member of a committee personally liable for an action, claim or demand.

#### Statutes

23. The Council, acting in consultation with the Senate may, from time to time, enact Statutes for the better carrying into effect of this Act.

#### Repeal of Cap.57:01

24. The University of Botswana Act, hereinafter referred to as the repealed Act, is hereby repealed.

#### Savings

25. (1) All Statutes, rules, ordinances and regulations made under the repealed Act shall, to the extent consistent with this Act, and until otherwise provided for in terms of this Act, continue to apply and have effect.  
(2) All principal officers, the Council and the Senate appointed under the repealed Act shall continue to hold and perform the duties and exercise the powers conferred under the repealed Act until they are replaced by officers and governance structures provided for in this Act.

#### Transitional Provisions

26. (1) Upon commencement of this Act, there shall be transferred to and vested in the University, by virtue of this Act and without further assurance, all property, rights, liabilities and obligations that, immediately before the commencement of this Act, were the property, rights, liabilities and obligations of the former University.  
(2) The Minister may, by notice published in the Gazette, make such transitional arrangements not otherwise provided for in this Act as shall

be necessary.

Passed by the National Assembly this 14th day of August, 2008.

E.S. MPOFU,

Clerk of the National Assembly.

## THE UNIVERSITY OF BOTSWANA STATUTES

In Exercise of the powers conferred by Section 14 of the University of Botswana Act (Cap.57:01), the Council of the University of Botswana hereby makes the following Statutes:

### Part I Preliminary

1. These Statutes shall be cited as the University of Botswana Statutes, 1982, which came into operation on 7th October 1983; as revised from time to time.

2. In these Statutes, unless the context otherwise requires:

"Academic staff " means an employee of the University whose terms and conditions of service include the obligation to undertake teaching, research and service and/or holders of posts declared by Council on the advice of Senate to be academic;

"Act" means the University of Botswana Act (Cap.57:01);

"Chancellor" means the person holding the office of Chancellor in accordance with Section 5 of the Act;

"Council" means the University Council established under Section 8 of the Act;

"Department" means either an academic department of the University established under Statute 45 in which one or more programmes of study are offered, or an administrative department;

"Deputy Vice Chancellor" means a Deputy Vice Chancellor appointed under Part VI hereof;

"Director" means the head of an institute, an academic centre or an administrative department;

"Graduate" means a graduate of the University or a graduate of the former universities, in accordance with the Act;

"Quorum" means the minimum number of members that must be present to constitute a valid meeting. Except where otherwise specified by the Statutes, the quorum of every committee shall be 50% (fifty percent) of the membership thereof;

"Senate" means the Senate established under Section 9 of the Act;

"Staff Development Fellow" means an employee of the University who is required to undertake programmes of study or training in order to

become a member of the academic staff;

"Student" means any person currently registered for the receipt of instruction in the University;

"Support Staff" means an employee of the University whose terms and conditions of service do not include the primary obligation to undertake teaching and research;

"University" means the University of Botswana established under Section 2 of the Act;

"Vice Chancellor" means the Vice Chancellor appointed pursuant to Section 7 (1) of the Act.

3. Nothing in these Statutes shall be interpreted in such a manner as to conflict with the provisions of the Act and where such conflict occurs the provisions of the Act shall take precedence.

4. The members of the University shall be:

(a) The members of the Council;

(b) The members of the Senate;

(c) The employees of the University;

(d) The professors emeritus;

(e) The graduates;

(f) The students;

(g) Such other persons as the Council may declare to be members.

5. The membership of students on Council, Senate, the Committees of Council and Senate, and any other Committees or Boards defined in these Statutes shall cease if they cease to be registered students of the University or when they are suspended, provided that during such period of suspension the Student Representative Council may nominate replacement members from its membership.

6. Unless otherwise specified in these Statutes, the Secretary of every Committee or Board shall be appointed by the Chairperson of the Committee or Board.

7. The Secretary to Council, Senate, and any other Committee or Board defined in these Statutes shall also be the Secretary to the respective Executive Committee.

### Part II Meetings of Council

8. (i) The Council shall hold an annual meeting in each calendar year within six months after the end of each academic year, as shall be appointed by the Chairperson of Council.

(ii) At each annual meeting the Council will receive an annual report of the activities of the University, together with an audited Statement of Accounts, and the Council shall take such action as may be necessary and make such appointments as required to be made at an annual meeting.

(iii) Notice of the annual meeting shall be circulated by the Secretary of Council at least twenty-one days before the date thereof and

a copy of the annual report and the audited Statement of Accounts shall be sent to every member of the Council at least fourteen days before the date of the annual meeting.

(iv) An agenda shall be circulated by the Secretary to Council at least fourteen days before any meeting of the Council.

(v) The Council shall exclude from its meetings the student members when it is considering the restricted agenda of Council.

(vi) Subject to these Statutes, Council shall regulate its own procedure.

9. The University's duly appointed Director of Legal Services shall act as Secretary to Council and shall be responsible for the management of the Council Committee structure.

10 (i) When a vacancy occurs in the membership of the Council the Secretary shall notify the appointing or electing person or body, as appropriate, requesting the appointment or election of a successor to the vacant office, in accordance with Section 8 of the Act and the schedule thereto.

(ii) The Secretary shall arrange the conduct of all elections to other bodies and offices by the Council, its committees, and such other groups of University staff as shall be determined from time to time by the Vice Chancellor.

(iii) Elections conducted under Statute 10 (ii) to membership of Council shall be conducted by secret ballot.

11. The Secretary shall be responsible for the signing and custody of notices and legal documents on behalf of the University and Council shall pass a resolution to such effect for the purpose of legal process.

### Part III The University Seal

12. (i) The Secretary to Council shall be responsible to the Council for the safe custody of the University Seal.

(ii) The University Seal shall be affixed to leases, contracts and agreements to which the University is a party, and to parchments issued in respect of any degree, diploma or certificate conferred by the authority of the Senate; provided however, that it is specifically recorded that any failure by the University to affix the University Seal shall not affect the enforceability of such lease, contract or agreement in any manner whatsoever.

(iii) Except as provided in Statute 12 (ii), the University Seal shall be used only on the specific authority of the Council.

(iv) The affixing of the University Seal to any certificates, diplomas, degrees or any awards shall be attested to by the Secretary to Council and witnessed by a Dean of Faculty or School.

(v) The affixing of the University Seal to any document, other than certificates, diplomas, degrees or awards, as authorised by Council shall be attested to by the Secretary to Council and by a witness who shall be a member of the Council.

### Part IV Appointment of the Vice Chancellor

13.(i) There shall be a Joint Committee of the Council and the Senate to recommend to the Council what advice it should give to the Chancellor, in terms of Section 7(1) of the Act, on the appointment of a Vice Chancellor.

(ii) The Joint Committee shall consist of the following members:

(a) A chairperson, who is not the chairperson of Council, appointed by Council from among those of its members who are not employees of the University;

(b) Three persons appointed by the Council from among those of its members who are not members of the Senate; and

(c) Three persons appointed by the Senate.

### Part V Appointment of Deputy Vice Chancellors

14. (i) There shall be a Joint Committee of the Council and the Senate which shall make recommendations to the Council in respect of the appointment of Deputy Vice Chancellors.

(ii) The Joint Committee prescribed by the Statute shall be constituted as in Statute 13 (ii) except that the Vice Chancellor shall also be a member.

(iii) The Council shall appoint Deputy Vice Chancellors after considering recommendations from the Joint Committee of Council and Senate, and for such period and under such conditions as the Council shall determine.

### Part VI Auditor

15. Unless otherwise directed under the provisions of Section 13 of the Act, the Council shall appoint an Auditor provided that:

(a) The person so appointed shall be, in the opinion of the Council, a qualified accountant actively practising his/her profession; and

(b) No person shall be so appointed who, or any of whose partners, is a member of the Council or staff of the University.

16. The Auditor appointed in accordance with Statute 15 may require:

(i) Any member, servant or agent of the University to produce such material information in regard to any transaction of the University or the management of its affairs as such member, servant or agent is reasonably able to provide; and

(ii) The production for inspection by the Auditor of any book or document relating to the affairs of or any cash or securities belonging to the University by the member, servant or agent of the University in possession of such book, document, cash or securities.

17. The Auditor appointed in accordance with Statute 15 shall report directly to the Council on whether proper books of account have been kept and whether the financial statements of the University:

(a) Were prepared on a basis consistent with the requirements of the Council and/or in agreement with the books of account;

(b) In the case of the income and expenditure statement gives a true and fair view of the income and expenditure of the University for the financial year; and

(c) In the case of the balance sheet gives a true and fair view of the University's state of affairs as at the end of the financial year.

### Part VII Finance and Audit Committee

18.(i) There shall be a Finance and Audit Committee of the Council (in this Part referred to as "the Committee") which shall consist of the following members:

(a) Vice Chancellor;

(b) Deputy Vice Chancellors;

(c) Permanent Secretary of the Ministry of Education or representative;

(d) Permanent Secretary of the Ministry of Finance and Development Planning or representative;

(e) Director of Financial Services;

(f) One person appointed by the Senate;

(g) One member of Council from among those appointed to Council from Senate;

(h) One student appointed annually by the Students Representative Council of the University;

(i) Member of Council appointed to Council from among the academic staff;

(j) Member of Council appointed to Council from among the support staff;

(k) Member of Council elected by the Botswana graduates of the University of Botswana and its antecedents.

(ii) The Council shall appoint, on an annual basis, a chairperson from amongst the members of the Committee.

(iii) Subject to any directions which may be given by the Council, the Committee shall regulate its own procedure.

19. Subject to such limitations as the Council may impose, the Committee may govern, manage, regulate and advise the Council on the finances, accounts, investments, property





business and generally, the financial affairs of the University; but the Committee shall not approve, without further reference to the Council, the annual estimates of expenditure. Without prejudice to the generality of the foregoing, the Committee may:

- (a) Recommend policies regarding the management and administration of the finances of the University;
- (b) Receive the annual estimates of revenue and expenditure and act as an advisory committee to Council on such estimates;
- (c) Recommend to Council the form in which the annual estimates of revenue and expenditure and financial statements shall be prepared;
- (d) Make rules and prescribe procedures for the control of expenditure and generally for the administration of financial affairs; and
- (e) Determine the persons who shall be authorised to sign cheques, contracts and other financial orders and documents on behalf of the University, provided such persons shall include the Deputy Vice Chancellor (Finance and Administration).

20. (i) The Committee shall cause to be established a fund (in this Statute referred to as "the Fund").

(ii) There shall be paid into the Fund:

- (a) Monies representing any gift, donation, legacy or endowment received by the University without direction as to the purpose to which the same shall be applied;
- (b) Monies appropriated in terms of Statute 20 (iii); and/or
- (c) Monies accruing or realised from any investment or deposit made under Statutes 20 (iv) or (v).
- (iii) The annual estimates of the University shall make provision for the expenditure of any monies to be appropriated by the Committee for payment into the Fund, and shall specify the purposes for which those monies may be paid from the Fund.
- (iv) Pending payment from the Fund, monies of the Fund (including monies appropriated for payment into the Fund) shall, as far as is practicable, be invested.
- (v) Monies of the Fund which are not invested in accordance with Statute 20(iv) shall be deposited in a University bank account specifically opened for that purpose.
- (vi) Subject to the supervision of the Committee, investments of the monies of the Fund may be released at any time.
- (vii) Monies may be paid from the Fund either for the purposes specified under Statute 20 (iii) or for such other purposes as the Committee may determine.

21. (i) The Committee shall cause to be kept all proper books and records of account of the income, expenditure, assets and liabilities of the

University.

(ii) Within three months of the end of each financial year, the Committee shall cause to be submitted to the Auditor the account of the University together with-

- (a) a statement of income and expenditure during such year; and
- (b) a statement of the assets and liabilities of the University on the last day of such year.

22. The financial year of the University shall be the period from 1st April in one year to 31st March in the following year.

23. (i) Subject to the approval of the Council, the Committee shall by regulation prescribe the level of fees payable, and the dates by which such fees shall be paid, in respect of tuition, maintenance and such other facilities and services of the University as the Council may from time to time determine.

(ii) No student shall be awarded a degree or other qualification of the University unless he/she shall have paid, or have had paid on his/her behalf, all fees including fines due to the University.

24. The Committee may exercise or perform any duty conferred or imposed on it with financial implications, subject to such limitations as the Council may specify.

#### Part VIII Human Resources Committee

25. (i) There shall be a Human Resources Committee of the Council (in this Part referred to as "the Committee") which shall consist of the following members:

- (a) Vice Chancellor;
- (b) Deputy Vice Chancellors;
- (c) Director of Human Resources;
- (d) A person appointed by Senate;
- (e) One Dean of Faculty elected by the Deans;
- (f) One external member of Council appointed by Council;
- (g) One member of the academic staff elected by the academic staff;
- (h) One member of the support staff elected by the support staff;
- (i) At the discretion of the chairperson, not more than two additional members with special competence from within or outside the University.
- (ii) The Council shall appoint, on an annual basis, a chairperson from amongst the members of the Committee.

26. The Committee shall inter alia recommend to Council, for approval, policies regarding the human resource development and training needs, the terms and conditions of service, and benefits of the employees of the University.

#### Part IX Physical Resources Committee

27. (i) There shall be a Physical Resources Committee (in this Part referred to as "the Committee") which

shall consist of the following members:

- (a) Vice Chancellor;
- (b) Deputy Vice Chancellor;
- (c) Permanent Secretary of the Ministry of Education or representative;
- (d) Permanent Secretary of the Ministry of Finance and Development Planning or representative;
- (e) One member of Senate appointed by Senate;
- (f) Director of Institutional Planning;
- (g) Director of Campus Services;
- (h) Director of Financial Services;
- (i) Director of the Department of Architecture and Building Services in the Ministry of Works, Transport, and Communications or representative;
- (j) A representative of a local authority as a co-opted member;
- (k) The member of Council appointed to Council from Senate;
- (l) One external member of Council appointed by Council.
- (ii) The Council shall appoint, on an annual basis, a chairperson from amongst the members of the Committee.

28. (i) The Committee shall, inter alia recommend to the Council policies on the physical development of the University and the overall management of construction, maintenance and security of buildings, grounds, campus properties, equipment and vehicles of the University.

#### Part X Staff Appointments and Promotions Committee

29. (i) There shall be a Staff Appointments and Promotions Committee of the Council (in this Part referred to as "the Committee") which shall consist of the following members:

- (a) Vice Chancellor;
- (b) Deputy Vice Chancellors;
- (c) Principal of the Botswana College of Agriculture;
- (d) Two external members of Council appointed by Council;
- (e) One Dean of Faculty elected by the Deans;
- (f) Director of Human Resources;
- (g) Three professors from within the University, coming from different faculties, elected by Senate for a term of three years after which they shall be eligible for re-election for a second term only.
- (ii) The Council shall appoint, on an annual basis, a chairperson from amongst the members of the Committee.

(iii) Deans of Faculties and Schools, Directors of Institutes and Centres, and Directors of Administrative Departments to or within which an appointment or promotion is to be made may be invited but only when the business of their Faculty, School, Institute, Centre, or Department is under consideration. (iv) Subject to any directions which may be given by the Council, the Committee shall

regulate its own procedure.

30. (i) Subject to such directions as may be given by the Council, the Committee shall make every appointment and every promotion of the academic staff of the University of the rank of associate professor and above, the appointment of Deans and Deputy Deans of Faculties, Directors of Institutes and Centres, and the appointment of support staff of the University of the rank of Director or equivalent.

(ii) No appointment or promotion of such members of the academic and the support staff of the University as are specified in Statute 30 (i) shall be made by the Committee unless it has considered every recommendation made to it by an Appointments, Promotions and Review Committee in accordance with Part XXXIII.

31. (i) Subject to such directions as may be given by the Council, every appointment and every promotion of the academic staff of the University below the rank of associate professor, and of the support staff of the University below the rank of director, shall be made by the Vice Chancellor or such persons as to whom such powers may be delegated by the Vice Chancellor.

(ii) No appointment or promotion of such members of the academic and the support staff of the University as are specified in Statute 31 (i) shall be made by the Vice Chancellor or such persons as to whom such powers may be delegated until the Vice Chancellor has considered every recommendation made by the Appointments, Promotions and Review Committee in accordance with Part XXXIII.

32. The Vice Chancellor may refer decisions in respect of University staff appointments or promotions to Council and defer their implementation until Council has taken a decision on them.

## Part XI Staff Appeals Committee

33. (i) There shall be a Staff Appeals Committee of Council (in this Part referred to as "the Committee") which shall consist of the following members

- a) two external members of Council appointed by Council;
- b) one member of Council elected to Council by Senate.

ii) council shall appoint, on an annual basis, a Chairperson from amongst the members of the Committee.

iii) subject to any directions which may be given by Council, the Committee shall regulate its own procedures.

34. subject to such directions as may be given by the Council, the Committee shall hear appeals by staff against decisions of Management and make appropriate recommendations to Council.

## Part XII Vice Chancellor

35. Subject to the Act, the Vice Chancellor shall be the chief executive officer of the University and shall have overall responsibility for academic and administrative leadership by directing policy formulation and institutional planning and development; for the management and development of the University by ensuring implementation of University policy; and for the achievement of its mission through monitoring and evaluation of the performance of the University in realizing its goals and objectives.

36. The Vice Chancellor shall be responsible to the Council for maintaining and promoting the reputation and good order, efficient and effective processes and procedures of the University, and shall have all such powers as are necessary or expedient for the performance of these duties, and may establish such committees as the Vice Chancellor may deem necessary for the better carrying into effect of these functions.

37. The Vice Chancellor shall have overall direction and responsibility over the academic and administrative work of the University and the staff thereof, and the officers and servants employed in, or in connection with, such work, including (but without limitation by reason of such particularity) the Deputy Vice Chancellors, and has such other powers and shall perform such other duties as may be conferred upon or assigned to the Vice Chancellor by the Council; it being specifically recorded that any derogation of responsibility to such officers, servants and Deputy Vice Chancellors made in accordance with these Statutes shall be strictly without derogation to the authority of the Vice Chancellor as provided for by Section 7 (1) of the Act.

38. (i) Subject to such regulation as the Council may approve, the Vice- Chancellor may, in the performance of his/her duties under Statute 34, by order:

- (a) Prohibit the admission as a student of any person to the University;
- (b) Prohibit, for such period as shall be specified, any student from attending classes or a particular class;
- (c) Prohibit any student from entering or remaining on such part or parts of the University precinct as shall be specified;
- (d) Dismiss or suspend for such period as shall be specified any student or group of students;
- (e) Take any other action against any student as the Vice Chancellor may in the circumstances deem appropriate.

(ii) The Vice Chancellor may appoint a disciplinary committee, with such membership as is deemed appropriate, to assist the Vice Chancellor in the

performance of the Vice Chancellor's duties under this Statute.

39. Subject to the Act and to Statute 37, the Vice Chancellor may delegate such powers, duties or functions as is deemed fit and prescribe conditions governing the exercise of any delegated power, duty or function, provided that, in the absence of express provision made by him/her power delegated shall not include power to sub delegate.

40. The Vice Chancellor shall by virtue of office be a member of every Faculty and of every other entity of the University established by or under the Statutes and of every board or committee appointed by the Council, by the Senate, by any Faculty or by any other authority of the University established by or under these Statutes.

## Part XIII Deputy Vice Chancellors

41. (i) The Deputy Vice Chancellors shall be responsible to the Vice Chancellor for providing leadership through policy formulation and planning, management and administration in their respective areas

of responsibilities as may be defined in the Ordinances/Regulations provided for by Part XXXVII, if any.

(ii) By virtue of office, a Deputy Vice Chancellor shall be a member of such other committees of Council and Senate as may from time to time be prescribed in these Statutes.

## Part XIV Senate

42. (i) The membership of the Senate shall consist of:

- (a) Vice Chancellor;
- (b) Deputy Vice Chancellors;
- (c) Three representatives from each faculty elected by the Faculty Board , two of whom shall be professors or Associate professors and the other a senior lecturer or lecturer;
- (d) Deans of the Faculties, Schools of the University and the Deans of the Botswana College of Agriculture;
- (e) Three students one of whom should be a graduate student appointed annually by the Students Representative Council;
- (f ) Director of Academic Development;
- (g) Two representatives of each Faculty, elected by the Faculty Board one of whom shall be a Professor or an Associate Professor;
- (h) Director of Library Services;
- (i) Director of Research and Development;
- (j) Deputy Director of Affiliated Institutions;
- (k) Director of Academic Services;
- (l) Director of Continuing Education.

(ii) The Vice Chancellor shall be Chairperson of the Senate and in the Vice Chancellor's absence the Deputy Vice Chancellor (Academic Affairs) shall act as Chairperson of Senate.



(iii) Where Senate is considering any matter where conflict of interest might arise when discussed in the presence of any member, such a member shall be required by the Senate to recuse themselves from any further consideration of the matter.

(iv) The Senate shall exclude from its meetings the student members when it is considering the academic performance in examinations or otherwise, of individual students, or matters relating to a member or members of staff which the Senate in its discretion shall consider confidential.

(v) Senate shall regulate its own procedures by the standing orders formulated by itself.

(vi) The Senate may:

(a) Appoint any committee consisting of members of the Senate and such other persons as it deems appropriate;

(b) Authorise any committee appointed under this Statute to act jointly with any committee appointed by the Council; and

(c) Delegate any of its powers and functions to any committee appointed under this Statute.

43. Senate shall be the academic authority of the University and shall have overall responsibility for the academic policies, plans, and programmes of the University and shall have general control and direction under the Council of the teaching, research, examinations, conferment of degrees and the granting of other awards of the University. In addition, Senate shall be responsible for articulating the mission statement, goals and objectives of the University for approval by Council.

44. Subject to the provisions of the Act, the Senate shall have power to:

(a) Make regulations relating to teaching and instruction within the University including programmes of study and contents of courses, provided that the introduction of new programmes of study shall be subject to the approval of the Council;

(b) Make regulations governing the admission of persons to programmes of study in the University;

(c) Make regulations governing methods of assessing and examining the academic performance of students, and regulations for the conduct of examinations;

(d) Make regulations governing the award of such fellowships, scholarships, studentship, exhibitions and other prizes as the Council may establish, subject to any conditions made by the founders or donors thereof and accepted by the Council;

(e) Authorise the conferment of degrees, diplomas, certificates and other awards and shall be determined their titles and abbreviations;

(f ) By regulation, define academic dress and prescribe the use thereof;

(g) Recommend to Council the conferment of

the title and status of Emeritus Professor on any Professor at or after his/her retirement in recognition of long and distinguished service to the University or to the former University of Botswana and Swaziland and their antecedents;

(h) Initiate proposals relating to the conduct of the University generally, discuss matters relating to the University and make representations thereon to the Council; exercise all such other powers as are or may be conferred upon the Senate by the Act, by the Statutes, or by the Council, and make such regulations or rules as are necessary in the exercise of those powers.

45. The Senate shall recommend to the Council the establishment of academic Departments and determine which Departments and academic subjects shall form part of or be the responsibility of each Faculty or school and may determine that a Department or academic subject shall form part of or be the responsibility of more than one Faculty or School.

46. The Senate shall meet at least twice each semester.

#### Part XV Executive Committee of Senate

47. (i) There shall be an Executive Committee of the Senate (in this part referred to as "the Committee") which shall consist of the following members:

(a) Vice Chancellor;

(b) Deputy Vice Chancellors;

(c) the Deans of the Faculties and Schools of the University and the Deans of the Faculties of the Botswana College of Agriculture;

(d) Two persons who are members of the Senate, elected by the Senate, one of whom shall be a Professor or an Associate Professor;

(e) Director of Academic Services;

(f ) Director of Continuing Education; and

(g) The Director of Research and Development.

(ii) The Committee may make rules and regulations to govern its proceedings provided that the Vice Chancellor may summon meetings whenever the Vice Chancellor may deem it necessary to do so.

(iii) The Vice Chancellor shall be Chairperson of the Executive Committee and in the Vice Chancellor's absence the Deputy Vice Chancellor (Academic Affairs) shall act as Chairperson.

48. The Executive Committee may:

(a) Act on behalf of the Senate between Senate meetings and deal with such matters as may be referred to it by Senate;

(b) At the request of the Vice Chancellor, act as an advisory body to the Vice Chancellor;

(c) Deal with such other matters as may from time to time be referred to it by Senate.

#### Part XVI Congregation

49. (i) There shall be a Congregation of the University

for the purpose of conferring degrees and honorary degrees and for granting diplomas, certificates and other awards of the University.

(ii) All members of the University, as defined in Statute 2, shall be members of the congregation and it shall be open to the Senate to invite other persons to a Congregation.

(iii) A Congregation shall be presided over by the Chancellor or in the Chancellor's absence by the Vice Chancellor.

(iv) A Congregation shall be held at least once in each academic year and shall be called by the authority of the Senate.

#### Part XVII Honorary Degrees

50. (i) Any degree may be awarded honoris causa.

(ii) Honorary degrees may from time to time be conferred upon any person who is not an employee of the University and who has rendered distinguished service in the advancement of any branch of learning or who has otherwise rendered himself/ herself worthy of such degree.

(iii) At the invitation of the Vice Chancellor, members of the University may submit written nominations for the conferment of honorary degrees upon deserving persons.

(iv) Each such nomination shall be accompanied by a statement of the degree recommended and the grounds for making the recommendation.

(v) The Vice Chancellor shall be the sole authority to ask persons upon whom it is proposed to confer honorary degrees whether or not they wish to accept such award.

(vi) Notwithstanding Statute 50 (i), an honorary degree shall be conferred only on the authority of a resolution of the Senate and the Council passed by not less than two thirds of the members of the Senate and the Council present, on the recommendation of an Academic Honours Committee.

#### Part XVIII Academic Honours Committee

51. (i) There shall be an Academic Honours Committee of Senate (in this part referred to as "the Committee") which shall consist of the following members:

(a) Deputy Vice Chancellor (Academic Affairs) who shall be chairperson;

(b) Three persons appointed by the Council; from among those of its members who are not members of the Senate; and

(c) Three professors appointed by the Senate.

(ii) The Committee shall recommend to Senate the conferment of honorary degrees.

(iii) Subject to any directions which may be given by the Council and the Senate, the Committee shall regulate its own procedure.

#### Part XIX Planning and Resources Committee

52. There shall be a Planning and Resources Committee of Senate (in this part referred to as "the Committee") which shall consist of the following members:

- (a) Deputy Vice Chancellor (Finance and Administration) who shall be the chairperson;
- (b) Deputy Vice Chancellor (Academic Affairs);
- (c) Deputy Vice Chancellor (Student Affairs);
- (d) The Deans of the Faculties and Schools;
- (e) Two members of the academic staff appointed by Senate;
- (f) Director of Academic Services;
- (g) Director of Financial Services;
- (h) Director of Campus Services;
- (i) Director of Human Resources;
- (j) The Directors of Institutes and Centres;
- (k) Director of Library Services; and
- (l) Director of Institutional Planning.

53. The Committee shall inter alia:

- (a) Review the mission statement, goals, and objectives of the University and recommend to Senate accordingly;
- (b) Co-ordinate the University's planning and development strategy;
- (c) Co-ordinate the methodology of allocation and distribution of internal resources in support of the institutional planning and development strategy;
- (d) Review sectional planning submissions in order to ensure their appropriateness and consistency with the mission, strategy and objectives of the University, and advise Senate accordingly;
- (e) Evaluate sectional planning submissions and recommend funding priorities to Senate; and
- (f) Advise Senate on the integration of academic, financial and physical plans into the University's institutional plan.

## Part XX Academic Policy Review and Planning Committee

54. There shall be an Academic Policy Review and Planning Committee of Senate (in this part referred to as the "Committee") which shall consist of the following members:

- (a) Deputy Vice Chancellor (Academic Affairs) who shall be the chairperson;
- (b) Principal of the Botswana College of Agriculture or representative;
- (c) Deans of the Faculties and Schools of the University and the Deans of the Faculties of the Botswana College of Agriculture;
- (d) Director of Library Services;
- (e) Director of Academic Services;
- (f) Director of Academic Development;
- (g) Two persons appointed by Senate, one of whom should be a Professor or an Associate Professor;
- (h) Director of Institutional Planning;
- (i) Director of Research and Development;
- (j) Director of Continuing Education.

55. The Committee shall:

- (i) Review the University's academic policies and advise Senate accordingly;
- (ii) Review proposals from the Faculties, Schools, Institutes and Centres and from the academic support service units for changes in academic policy, ensure their compliance with the academic policies of the University, and advise Senate accordingly;
- (iii) Review and advise Senate on the submissions from the Faculties, Schools, Institutes and Centres and from the academic support service units in which are outlined the academic plans for the accomplishment of the University's mission, objectives, and strategies with a statement of the attendant human, financial, and physical resource requirements;
- (iv) Integrate and consolidate the academic planning submissions into the University's academic plan, setting out the resource implications of implementation, and advise Senate accordingly;
- (v) Review continually the needs which underpin the elements of the University's academic plan and, where necessary and appropriate, suggest changes and improvements to Senate.

## Part XXI Boards of Faculties, Schools, Institutes and Centres

56. Each Faculty, School, Institute or Centre shall have a Board which shall meet at least twice each semester but otherwise shall regulate its own procedure by the standing orders formulated by it.

57. (i) There shall be a Faculty Board of each Faculty which shall consist of the following members:

- a) The Dean of the Faculty, who shall be Chairperson;
- (b) The Deputy Dean of the Faculty;
- (c) Heads of Departments;
- (d) Such members of the academic staff of the Departments of the Faculty as the Board may determine;
- (e) One representative of each of the Faculties including the Faculties of Botswana College of Agriculture;
- (f) Director of Library Services or representative;
- (g) One representative of each of the Institutes and Centres of the University;
- (h) Such number of students as the Board may determine;
- (i) Such number of staff development fellows of the Departments of the Faculty as the Board may determine;
- (j) Such other persons as the Senate may determine.
- (ii) The members of a Faculty Board referred to in Statute 57 (i) (e), (g) and (h) shall vacate their seats at the end of each academic year but shall be eligible for reappointment.
- (iii) The quorum of a Faculty Board shall be one third

of the membership thereof.

(iv) Part-time members of academic staff may attend meetings of the Faculty Board at the discretion of the Dean but shall have no vote.

(v) A Faculty Board shall exclude from its meeting the student members when it is considering the academic performance of individual students, or when it is discussing any other matter relating to a member or members of staff which a Faculty Board in its discretion shall consider confidential.

58. Subject to the Statutes and to such limitations as the Senate may impose, a Faculty Board or School may:

- (i) Direct and regulate, within the general academic policy formulated by the Senate, all matters relating to teaching, instruction and research within each Faculty or School, including curricula and examinations, and advise the Senate on such matters;
  - (ii) Appoint internal and external examiners and recommend to the Finance Committee the fees payable to the examiners;
  - (iii) Make recommendations to the Senate in respect of the award of degrees, diplomas, certificates and other awards, academic titles and distinctions within the Faculty;
  - (iv) Discuss any matters relating to the work of the Faculty and submit recommendations thereon to the Senate;
  - (v) From time to time, consider the progress and conduct of the students of the Faculty and make regular reports to the Senate;
  - (vi) Consider all matters referred to it for its consideration by the Senate and report to the Senate;
  - (vii) Receive at each meeting oral and/or written reports from Heads of Departments and Faculty representatives on University committees and boards;
  - (viii) Appoint committees consisting of members of the Faculty and such other persons as it thinks fit and delegate any of its functions to the committees so appointed.
59. (i) There shall be a School of Graduate Studies, the Board of which ("the School Board") shall consist of the following members:
- (a) Dean of the School, who shall be Chairperson;
  - b) One person appointed by Senate;
  - (c) One representative from each Faculty, School, Institute or Centre who shall be of the rank of at least senior lecturer or equivalent;
  - (d) One representative of each of the Departments offering postgraduate programmes;
  - (e) Director of Library Services or representative;
  - (f) Two post graduate students elected for a period of one academic year by and from among the postgraduate students; and
  - (g) Such other persons as the Senate may determine.



(ii) The members of the School Board referred to in Statute 59 (i) (b) and (c) shall vacate their seats at the end of each academic year but shall be eligible for reappointment.

(iii) The quorum of the School Board shall be one third of the membership thereof.

(iv) The School Board shall exclude from its meeting the student members when it is considering the academic performance in examination or otherwise, of individual students, or when it is discussing any matters relating to a member or members of staff which the Board in its discretion shall consider confidential.

60. Subject to the Statutes to such limitations as the Senate may impose, the School Board shall: (i) Promote the development of quality and relevance in the provision of graduate studies;

(ii) Approve admissions and progression for all graduate students;

(iii) Provide leadership in the co-ordination and development of graduate studies;

(iv) Maintain quality across all graduate programmes;

(v) Assist with fund-raising and marketing of graduate programmes;

(vi) Establish guidelines for supervision of graduate students (approval of supervisors and monitor the progress of graduate students);

(vii) Maintain clear lines of communication with each faculty and department offering graduate studies;

(viii) Work to enhance the facilities available to graduate students.

61. (i) There shall be a Board of each Institute or Centre which shall consist of the following members:

(a) The Director of the Institute or Centre who shall be the chairperson;

(b) Such members of the academic staff as the Board may from time to time determine;

(c) One member from each Faculty elected by the Faculty Board;

(d) One member of Senate elected by Senate;

(e) Such other persons as the Senate may determine; and

(f) Such number of staff development fellows of the Institute or Centre as the Board may determine.

(ii) The members of the Board referred to in Statute 61 (i) (c) and (d) shall vacate their seats at the end of each academic year but shall be eligible for reappointment.

(iii) Subject to the direction of Senate, the Board of an Institute or Centre may:

(a) Decide on matters of general policy regarding the work of the Institute or Centre, after consultation with the staff of the Institute or Centre;

(b) Establish advisory groups to give the Board and the Director advice on any academic work, research

project, or consultancy being, or to be, undertaken by the Institute or Centre;

(c) Notwithstanding the generality of Statute 61 (i), advise the Director of the Institute or Centre on the priorities and emphasis of scholarship required for the benefit of the nation or of particular sectors of the nation;

(d) Approve the affiliation or attachment to an Institute or Centre of individual academics;

(e) Generally direct and approve proposals for activities of the Institute or Centre in pursuance of its objectives;

(f) Consider all matters referred to it by Senate and report thereon to the Senate.

(iv) The quorum of the Board of an Institute or Centre shall be one third of the membership thereof.

#### Part XXII Executive Committees of Boards, Schools, Institutes or Centres

62. (i) There shall be an Executive Committee of the Board of each Faculty, School, Institute or Centre.

(ii) The Executive Committee shall:

(a) Act on behalf of the Board between Board meetings and deal with such matters as may be referred to it by the Board;

(b) Act at the request of the Dean of a Faculty or School, or the Director of an Institute or Centre as an advisory body to the Dean or Director.

(iii) The Committee may make rules and regulations to govern its proceedings, provided that the Dean or the Director may summon meetings whenever the Dean or Director may deem it necessary to do so.

#### Part XXIII Executive Committees of Faculty Boards

63. (i) The Executive Committee of each Faculty Board (in this part referred to as "the Committee") shall consist of the following members:

(a) The Dean of the Faculty;

(b) The Deputy Dean of the Faculty;

(c) The Heads of Department of the Faculty;

(d) Two persons elected by the Faculty Board one of whom shall be a professor or an associate professor.

(ii) The Dean of the Faculty shall be the Chairperson of the Executive Committee and in his/her absence the Deputy Dean shall act as Chairperson.

#### Part XXIV Executive Committee of the School of Graduate Studies

64. The Executive Committee of the Board of the School of Graduate Studies (in this part referred to as "the Committee") shall consist of the following members:

(a) The Dean of the School, who shall be Chairperson;

(b) The Faculty representatives on the Board;

(c) One person appointed by the Senate;

(d) One person who is a member of the School

Board, elected by the School Board.

#### Part XXV Executive Committees of Institutes or Centres

65. The Executive Committee of the Board of an Institute or Centre (in this part referred to as "the Committee") shall consist of the following members:

(a) The Director of the Institute or Centre, who shall be the Chairperson;

(b) The Deputy Director of the Institute or Centre;

(c) The Heads of Departments or Units of the Institute or Centre; and

(d) One person who is a member of the Board of the Institute, elected by the Board of the Institute.

Part XXVI Deans of Faculties and Schools, and Directors of Institutes and Centres

66.(i) The Dean or Director shall be the chief executive officer of the Faculty, School, Institute or Centre to which he/she is appointed and in the Faculty, School, Institute or Centre shall, subject to the Act and to these Statutes, be responsible for its general administration, the supervision of the academic and the support staff, the teaching and study of the subjects assigned to the Faculty, School, Institute, or Centre, the welfare and academic progress of the students, and shall have such other powers and duties as may be assigned to him/her by the Deputy Vice Chancellor (Academic Affairs) on behalf of, and as directed by, the Vice Chancellor.

ii) The Dean or Director shall participate in the formulation, implementation and evaluation of the academic policies of the University and shall promote academic excellence in the teaching, research and service programmes of the University. He/she shall provide academic leadership to the Faculty, School, Institute, or Centre by planning, directing, and co-ordinating the formulation and implementation of the academic plans and programmes of the departments of the Faculty, School, Institute, or Centre.

(iii) The Dean or Director, subject to the approval of the Vice Chancellor may delegate any powers or duties under this Statute subject to such restrictions and conditions as may be imposed, provided that a power delegated shall not include power to sub delegate.

(iv) By virtue of office, the Dean or Director shall be a member of all the boards and committees in the Faculty, School, Institute or Centre. In addition, he/she shall be a member of such committees of the Council and Senate as may from time to time be prescribed in these Statutes.

67. Where the Dean of a Faculty is unable, whether by reason of his/her absence from the University, or for any other reason, to carry out his/her functions as such, the Deputy Dean of the Faculty shall act as Dean of the Faculty. If the Deputy Dean is unable to act as Dean, the Deputy Vice Chancellor may, after consulting the Dean, if that is reasonably practicable, and the members of the Executive Committee of the



Faculty Board appoint a person of or above the rank of senior lecturer from among those members of the Faculty Board referred to in Statute 57 (i) (c) to act as Dean of the Faculty.

68. Where the Dean of the School of Graduate Studies is unable, whether by reason of absence from the University, or for any other reason, to carry out functions as such, the Deputy Vice Chancellor (Academic Affairs) shall, after consulting the Dean, if that is reasonably practicable, and the members of the Executive Committee of the Board of the School of Graduate Studies, appoint a person of the rank of at least an associate professor from among members of the Faculty Boards to act as Dean of the School.

69. Where the Director of an Institute or a Centre is unable, whether by reason of absence from the University, or for any other reason, to carry out functions as such, the Deputy Vice Chancellor (Academic Affairs) shall appoint from among the academic staff of the Institute or Centre a person of or above the rank of senior lecturer to act as Director of the Institute or Centre.

## Part XXVII Deputy Deans of Faculties

70. (i) The Deputy Dean of a Faculty shall assist the Dean in the formulation, planning and implementation of academic policy of the Faculty and shall have responsibility for ensuring the academic welfare of the students registered in the Faculty.

(ii) By virtue of office, the Deputy Dean shall be a member of all the boards and committees in their Faculty. In addition, the Deputy Dean shall be a member of such committees of the Council and Senate as may from time to time be prescribed in these Statutes.

## Part XXVIII Appointments of Deans, Deputy Deans and Directors of Institutes or Centres

71. (i) Each Faculty shall have a Dean and a Deputy Dean and each Institute or Centre shall have a Director who shall be appointed by the Academic and Administrative Staff Appointments and Promotions Committee taking into consideration the recommendation of the appropriate Appointments, Promotions and Review Committee.

(ii) Where there is a vacancy in any of the offices referred to under Statute 71 (i), the Deputy Vice Chancellor (Academic Affairs) shall cause the position to be advertised within the Faculty, Institute, or Centre.

(iii) Candidates for the position of Dean, Deputy Dean, or Director shall make their candidacy known either through an application or through a nomination or by invitation of the University of Botswana.

(iv) In the event of the establishment of a new

Faculty, or where a vacancy of Dean of Faculty has been advertised in accordance with Statute 71 (ii) and it has been determined that there are no suitable internal candidates, the University shall, after consultation with the Faculty Appointments, Promotions and Review Committee, extend the search for a Dean internationally. In this event, the requirements shall be for a person holding the rank of associate professor or above.

(v) A Dean appointed in accordance with Statute 71 (iv) above shall, upon successful completion of two three-year terms, have the option to apply to take up appointment at the appropriate rank in the relevant Department by filling a vacant position. Alternatively, the University may offer appointment on supernumerary basis for a period not exceeding three years.

(vi) The file of candidates shall be reviewed by the appropriate Appointments, Promotions and Review Committee which shall recommend a short list of candidates to the Staff Appointments and Promotions Committee of persons for appointment as Deans and Deputy Deans of the Faculties and Directors of Institutes and Centres.

(vii) No person shall be eligible for appointment as Dean, Deputy Dean, or Director unless he/she has been, for the twelve months preceding appointment, of or above the rank of senior lecturer or equivalent.

(viii) The Dean, Deputy Dean or Director shall be subject to an annual performance appraisal and review undertaken by the Deputy Vice Chancellor (Academic Affairs) who shall provide a report to the appropriate Appointments, Promotions and Review Committee which shall recommend to the Staff Appointments and Promotions Committee.

(ix) Subject to these Statutes, the Dean, Deputy Dean, or Director shall hold the appointment as such for three years, and shall be eligible for re-appointment for a further term of three years provided that he/she shall not hold office for a continuous period exceeding six years.

(x) Before the completion of the initial three year term, the Dean, Deputy Dean, or Director shall inform the Deputy Vice Chancellor of his/her intentions regarding renewal of the term of office; which intention shall be recorded in writing at least 60 days prior to the completion of the said initial three year term.

(xi) If the Dean, Deputy Dean or Director does not intend to renew his/her term of office, the Deputy Vice Chancellor (Academic Affairs) shall initiate the process of appointment of a new Dean, Deputy Dean or Director.

(xii) If the Dean or Director intends to renew the term of office, the Deputy Vice Chancellor (Academic Affairs) shall submit an assessment of the performance of the incumbent to the

appropriate Appointments, Promotions and Review Committee which shall make a recommendation to the Staff Appointments and Promotions Committee on re-appointment of the Dean or Director. In the case of a Deputy Dean or Deputy Director, the assessment shall be done by the Dean or Director, as the case may be. (xiii) On completion of two consecutive terms of office, a Dean, Deputy Dean or Director shall not be eligible for further appointment to the position of Dean, Deputy Dean or Director until a three year period has elapsed.

## Part XXIX Appointment of the Dean of the School of Graduate Studies

72. (i) The Dean of the School of Graduate Studies shall be appointed by the Staff Appointments and Promotions Committee taking into consideration the recommendation of a Special Selection Committee which shall consist of the following members:

(a) Deputy Vice Chancellor (Academic Affairs) who shall be chairperson;

(b) The Deans of the Faculties and the Schools of the University and the Deans of the Faculties of the Botswana College of Agriculture;

(c) Two Professors appointed by the Senate;

(d) Director of Human Resources or representative.

(ii) Where there is a vacancy in the office of the Dean of the School of Graduate Studies, the Deputy Vice Chancellor (Academic Affairs) shall cause the position to be advertised within the University inviting applications from suitably qualified members of the University staff. No person shall be eligible for appointment as Dean unless he/she has been, for the twelve (120 months immediately preceding the appointment, of or above the rank of associate professor.

(iii) Candidates for the position of Dean shall make their candidacy known either through an application or through a nomination.

(iv) The file of candidates shall be reviewed by the Special Selection Committee which shall recommend a short list to the Staff Appointments and Promotions Committee of persons for appointment as Dean of the School.

(v) No person shall be eligible for appointment as Dean unless he/she has been, for the twelve months preceding the appointment, of or above the rank of associate professor.

(vi) The Dean shall be subject to an annual performance appraisal and review undertaken by the Deputy Vice Chancellor (Academic Affairs) who shall provide a report to the Staff Appointments and Promotions Committee.

(vii) Subject to these Statutes, the Dean of the School shall hold the initial appointment as such for three years, and shall be eligible for re-appointment for a further term of three years provided that he/she shall not hold office for a continuous period



exceeding six years.

(viii) If the Dean intends to extend the term of office, the Deputy Vice Chancellor (Academic Affairs) shall submit an assessment of the performance of the incumbent to the Special Selection Committee which shall make a recommendation to the Staff Appointments and Promotions Committee on the reappointment of the Dean.

(ix) Before the completion of the initial three year term, the Dean shall inform the Deputy Vice Chancellor of his/her intentions regarding renewal of the term of office; which intention shall be recorded in writing at least 60 days prior to the completion of the said initial three year term.

(x) If the Dean does not intend to renew the term of office, the Deputy Vice Chancellor (Academic Affairs) shall initiate the process of appointment of a new Dean.

### Part XXX Departmental Boards

73. (i) Every Academic Department shall have a Departmental Board which shall consist of the following members:

(a) The Head of the Department, who shall be Chairperson;

(b) All the full-time members of the academic staff of the Department;

(c) Not more than three students elected annually by the students of the Department from among themselves;

(d) Staff Development Fellows of the Department;

(e) Such other persons as the Department may determine from time to time.

(ii) Part-time members of the academic staff may attend the meeting of the Departmental Board at the discretion of the Head of Department but shall have no vote.

(iii) A Departmental Board may co-opt representatives of Departments with related interests.

74.(i) The functions of a Departmental Board shall be to:

(a) Make recommendations for programmes and courses in the Department;

(b) Consider the general organisation of programmes and courses of study and research within the Department and make recommendations to the Faculty Board and the Board of the School of Graduate Studies;

(c) Make arrangements for the examination of each course in the Department and selection of external examiners for their academic programmes;

(d) Initiate recruitment and recommend candidates for appointment to posts within the Department;

(e) From time to time consider the progress and conduct of the students of the Department and make regular reports to the Faculty Board and to the Board of the School of Graduate Studies;

(f) Consider other academic matters as determined by the Department.

(ii) A Departmental Board shall exclude from its meetings the student members when it is considering the academic performance in examinations or otherwise, of individual students, or when it is discussing the appointment or promotion of a member of staff or any other matter relating to a member or members of staff which a Departmental Board in its discretion shall consider confidential.

75. Every Departmental Board shall meet at least twice each semester, but otherwise shall regulate its own procedure including the creation and establishment of committees.

### Part XXXI Heads of Academic Departments

76. (i) The Head of a Department shall participate in the formulation, implementation and evaluation of the academic policies of the University and shall promote academic excellence in the teaching, research and service programmes of the University. In addition, the Head of a Department shall provide academic leadership to the Department by planning, directing, and co-coordinating the formulation and implementation of the academic plans and programmes of the Department.

(ii) The Head of a Department shall be appointed by the Vice Chancellor after receiving a recommendation from the Dean of the Faculty concerned, who shall make such recommendation after consulting the full-time members of the academic staff of the Department and the Deputy Vice Chancellor (Academic Affairs).

(iii) No person shall be eligible for appointment as Head of Department unless he/she has been, for the twelve months preceding his/her appointment, of or above the rank of senior lecturer.

(iv) The Head of Department shall be subject to an annual performance appraisal and review undertaken by the Dean of the Faculty who shall provide a report to the Deputy Vice Chancellor (Academic Affairs).

(v) Subject to these Statutes, the Head of a Department shall hold the appointment as such for three years, and shall be eligible for reappointment for a further term of three years provided that he/she shall not hold office for a continuous period exceeding six years.

(vi) On completion of the second term of office, a Head of a Department shall not be eligible for further appointment to the position of Head of a Department until a three year period has elapsed.

(vii) If the Head of a Department intends to renew the term of office (which intention shall be recorded in writing at least 60 days prior to the completion of the said initial three year term), the Dean shall, after consultation with the full-time members of

the academic staff and the Deputy Vice Chancellor (Academic Affairs), make a recommendation to the Vice Chancellor on re-appointment of the Head of Department.

(viii) If the Head of a Department does not intend to renew his/her term of office, the Dean shall initiate the process of appointment of a new Head of Department.

### Part XXXII Affiliated and Associate Institutions

#### 77. Affiliated Institutions

(i) The Council may, on the recommendation of the Senate, approve the affiliation with the University of any other institution of teaching or research situated within or outside Botswana and may designate it an Affiliated Institution of the University.

(ii) In respect of any Affiliated Institution the Senate shall:

(a) Advise on and assist in the preparation of programmes of instruction;

(b) Validate programmes of instruction, examinations and the granting of certificates

and other awards of the Affiliated Institutions; and

(c) Have the right of visitation and inspection of each institution affiliated to the University to ensure observance of affiliation regulations.

(iii) The Senate shall establish a Board of Affiliation with the following functions:

(a) To consider recommendations concerning the growth and development of the Affiliated Institutions;

(b) To consider matters concerning regulations, syllabi, assessment procedures, and teaching methods and to make recommendations to Senate accordingly;

(c) To oversee assessment procedures and to appoint external examiners;

(d) To deal with any matter of affiliation that may be delegated by Senate from time to time;

(e) To receive reports on other matters concerning Affiliated Institutions;

(f) To encourage research initiatives in the areas of educational expertise of the Affiliated Institutions;

(g) To present periodic reports to Senate;

(h) To consider and recommend examination results and awards to Senate.

(iv) The membership of the Board of Affiliation shall be determined by Senate after consultation with the governing bodies of the Affiliated Institutions.

(v) The Director of Academic Development shall be chairperson of the Board.

#### 78. Associate Institutions

(i) The Council may, on the recommendation of the Senate, designate any academic or research institution situated within Botswana and seeking to offer programmes leading to the award of degrees, diplomas and other awards of the University of Botswana, an Associate Institution of the University.

(ii) The award of degrees, diplomas and other awards of an Associate Institution shall be the responsibility

of, and shall be made by, the University of Botswana.  
(iii) In respect of degrees, diplomas or other awards to be granted by the University, the University Senate shall be entirely responsible for approving programmes and courses of study, regulating the conduct of examinations, the marking of examinations, and the granting of such degrees, diplomas, or awards.

(iv) The governing body of an Associate Institution shall obtain the approval of the University in respect of:

(a) The appointment, promotion and review of academic staff and of Deans and Heads of Departments who teach courses, or are responsible for programmes leading to the awards by the University of Botswana; and

(b) The establishment of Boards for each Faculty or Department which is responsible for programmes leading to the awards of the University of Botswana.

## Part XXXIII Appointments, Promotions and Review Committees

79. (i) The appointment, promotion, and annual appraisal and performance review of every academic member of staff and of every member of the support staff of the University shall be made by an Appointments, Promotions, and Review Committee.  
(ii) Appointments, Promotions, and Review Committees shall make recommendations for the appointment or the promotion of staff in accordance with the provisions of Statutes 30 and 31.

## 80. Faculty Appointments, Promotions and Review Committees

(i) There shall be a Faculty Appointments, Promotions and Review Committee of each Faculty (in this part referred to as "the Committee") which shall consist of the following members:

(a) The Dean of the Faculty who shall be Chairperson; and where the Dean is under review, the Deputy Vice Chancellor (Academic Affairs) shall be the Chairperson;

(b) The Deputy Dean;

(c) Heads of Departments;

(d) Two members elected by the Faculty Board;

(e) One professor or associate professor from each Department, elected by the members of the Departmental Board; provided where the Department does not have positions of associate professor and professor, or the positions are vacant, the Department shall be represented by a senior member of the

academic staff elected by members of the Departmental Board;

(f) At the discretion of the chairperson, not more than two Professors with special competence from outside the Faculty; and

(g) The Director of Human Resources or representative.

(ii) Subject to such directions as may be given by the Staff Appointments and Promotions Committee, the Committee shall recommend the appointment, the promotion and review of the academic staff of the Faculty.

## 81. Appointment, Promotion and Review of Academic Staff in Institutes or Centres

(i) The appointment, promotion, or review of academic staff who are members of a Centre or Institute which is not part of a Faculty shall be considered by the Faculty Appointments, Promotions, and Review Committee of that Faculty which contains the discipline or academic subject area of the staff member under consideration.

(ii) In such circumstances, the membership of the Faculty Appointments, Promotions and Review committee specified under Statute 80 (i) shall be extended to include the Director of the Institute or Centre concerned.

(iii) When considering the appointment, promotion or review of professors of the University who are members of an Institute or Centre which is not part of a Faculty, the membership of the Committee specified under Statute 80 (i) shall be extended to include a professor or an associate professor of the Institute or Centre concerned provided where the Department does not have positions of associate professor and professor, or the positions are vacant, the Department shall be represented by a senior member of the Academic Staff elected by members of the Departmental Board.

(iv) An Institute or a Centre which is not part of a Faculty shall have an Appointments, Promotions, and Review Selection Committee which shall consist of the following members:

(a) The Director of the Institute or Centre who shall be the Chairperson;

(b) Three members of the academic staff of the Institute or Centre elected by the academic staff of the Institute or Centre;

(c) Two co-opted members with special competence, from outside the Institute or Centre.

(v) No recommendation on the appointment, promotion or review of academic staff of the University who are members of an Institute or a Centre which is not part of a Faculty shall be made by a Faculty Appointments, Promotions, and Review Committee unless it has considered every recommendation made to it by an Appointments, Promotions, and Review Selection Committee in accordance with Statute 81 (iv).

## 82. Support Staff Appointments, Promotions and Review Committees

(i) For the purposes of this Statute, the Library and

any other group of staff which Council shall specify, shall be regarded as Departments and the term Head of Department shall be correspondingly interpreted.

(ii) Where support staff consists of a cadre confined to a single Department, there shall be Departmental Appointments, Promotions, and Review Committees which shall consist of the following members:

(a) The Head of Department, who shall be chairperson;

(b) Director of Human Resources or representative;

(c) Three members of the staff of the Department; and

(d) At the discretion of the chairperson, not more than four additional members with special competence from within or outside the University.

(iii) Where support staff consist of a common cadre which is not confined to a single Department, there shall be for each such cadre a Common Cadre Appointments, Promotions, and Review Committee which shall consist of the following members:

(a) The Director, Human Resources, who shall be the Chairperson;

(b) The Deputy Director (Appointments and Administration);

(c) Two members of the staff belonging to the common cadre;

(d) At the discretion of the chairperson, not more than four additional members with special competence from within or outside the University.

(iv) Heads of Departments to, or within which, an appointment or a promotion of common cadre staff is to be made shall be invited but only when the business of their Department is under consideration.

## 83. Special Appointments

(i) Notwithstanding the provisions of Statutes 80, 81, and 82, the Vice Chancellor may, in the event that he/she is satisfied that exceptional circumstances so require, and on the recommendation of any academic, support or other unit of the University, appoint any person as a member of staff of the University for a period not exceeding twelve (12) months.

(ii) Appointments made under this provision shall be reported periodically to the Staff Appointments and Promotions Committee.

## 84. Miscellaneous

(i) Where a spouse or relation of a member of Appointments, Promotions Review Committee, constituted under these Statutes is a candidate for appointment or promotion under consideration by the Committee, the member concerned shall recuse himself/ herself from any further consideration of the matter. Where the Chairperson is recused in accordance with the provisions hereof, another member shall be elected to preside. Heads of Departments, where recused, must be represented by a senior member of staff of the Department.

i) Subject to Statute 83, no appointment shall be



made to any vacant post within the approved establishment of any Department of the University unless the vacancy which exists has been advertised publicly for a reasonable period in such a manner as the Council shall determine.

#### Part XXXIV Terms and Conditions of Service of Members of University Staff

85. (i) Subject to these Statutes, an employee of the University shall hold his/ her appointment upon such terms and conditions of service as the Council shall in each case determine.

(ii) The terms and conditions of service of every employee of the University shall be sent out in a written contract of service.

(iii) Without prejudice to the foregoing, every member of staff of the University shall be subject to the general authority of the Council and of the Vice Chancellor.

86. Every contract of service between the University and an employee of the University shall contain or be deemed to contain a provision that the contract is subject to the Employment Act, University Act and Statutes, and to all regulations made hereunder.

87. Where an employee of the University is convicted by a court within or outside Botswana, of an offence which is a criminal offence under the laws of Botswana and in consequence thereof is sentenced to imprisonment, whether in respect of the nonpayment of a fine imposed for the offence or otherwise, such employee shall receive no emoluments in respect of the period of detention in prison in execution of that sentence unless the Council otherwise directs. In addition to the foregoing such conviction shall render the employee liable for immediate termination in respect thereof.

#### Part XXXV Students Representative Council

88. (i) The affairs of the students of the University shall be governed by a Students Representative Council.

(ii) The constitution of the Students Representative Council shall be subject to review and/or amendment in such manner as the Constitution provides and/or as directed by Council should Council find it necessary or expedient in the interests of the student body.

(iii) The function of the Students Representative Council shall be:

(a) To represent the students in their relations with the authorities of the University and other relevant bodies;

(b) To develop the intellectual, cultural, social and sporting life of the students; and

(c) To foster the corporate spirit of the students.

89. Subject to the observance by them of the

Statutes and of regulations prescribed under these Statutes, the students shall enjoy all the privileges and facilities available to them in the University.

#### Part XXXVI Security

90. The University reserves the right, through Ordinances and/or Regulations, to implement measures to control and to regulate access to, and movement within, its buildings and premises, and to promulgate such other regulations as may be required to establish and maintain good order, and to protect persons and property provided that such measures shall at all times be consistent with the preservation of individual rights of movement, association and privacy.

#### Part XXXVII Ordinances/Regulations

91. (i) Subject to the Act and the Statutes, the Council may make Ordinances/ Regulations prescribing any matter which, in the opinion of Council, is appropriate to be prescribed for the better carrying out of the University's functions and in furtherance of these Statutes.

(ii) Ordinances/Regulations may provide such information, activities or acts as, in the opinion of the Council, may be appropriate.

(iii) The Council may at any time amend or repeal any Ordinance/ Regulation.

(iv) Ordinances/Regulations need not be published in the Calendar, but the Council shall publish them in such a manner as the Council considers will best make them known to the persons to whom they apply.

#### Part XXXVIII Amendments to Statutes

92. Without prejudice to the provisions of Section 15 (2) of the Act, the Council shall not amend, or revoke any Statute which, in the opinion of the Council, affects academic matters without first consulting the Senate and considering any representations the Senate may make upon such Statute, amendment, or revocation as the case may be.

#### Preliminary Investigation Procedure under Statute 73 (III) (a)

##### 1.0 Appointment of Committee of Investigation

1.1 The Vice Chancellor shall, upon reasonable belief that any allegations of misconduct against a member of the academic or senior administrative staff of the University may necessitate disciplinary proceedings, hold a preliminary investigation into the allegations.

1.2 In holding a preliminary investigation as aforesaid the Vice Chancellor may appoint an investigator or investigators from among the academic and senior administrative staff to assist him/her in such preliminary investigation

and to report to him/her, provided that the supervisor of the member of staff whose conduct is being investigated, or any member of staff of the department to which the member of staff whose conduct is being investigated belongs, shall not be appointed an investigator as afore described, and, further, provided that the investigator or investigators as afore described shall not be of a rank less senior than the member of staff whose conduct is being investigated.

#### 2.0 Conduct of Investigation

2.1 In investigating any matter referred to be investigated, the Vice Chancellor or his/her investigator or investigators may require any person (excluding the member of staff whose conduct is being investigated):

(a) To furnish in writing or otherwise, such particulars in relation to the matter as may be specified;

(b) To attend before or then;

(c) To give a verbal or written statement on oath or otherwise;

(d) To produce any document relevant to the investigation.

2.2 The Vice Chancellor, or an investigator or investigators shall not be bound by any rules of evidence or procedure and no person shall be represented by a legal practitioner in any part of the preliminary investigation.

#### 3.0 Report

Upon completion of the preliminary investigation:

3.1 An investigator or investigators, as the case may be, shall, having completed the investigation forthwith, submit a report thereon to the Vice Chancellor which report may contain any proposals and such recommendations as he/she or they may think fit to make.

3.2 Neither the Vice Chancellor, nor any investigator shall disclose to any person any information obtained or disclosed during any investigation, save as required by the Statutes of the University.

\*Please note that the University of Botswana Statutes are currently under review and/or consolidation.

