UNIVERSITY OF KELANIYA SRI LANKA

Faculty of Science

Student Handbook

BACHELOR OF SCIENCE
BSc AND BSc HONOURS DEGREE PROGRAMMES

BACHELOR OF SCIENCE
ENVIRONMENTAL CONSERVATION AND MANAGEMENT
BSc AND BSc HONOURS DEGREE PROGRAMMES

BACHELOR OF SCIENCE
MANAGEMENT AND INFORMATION TECHNOLOGY
HONOURS DEGREE PROGRAMME

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HONOURS DEGREE PROGRAMME

BACHELOR OF SCIENCE
PHYSICS AND ELECTRONICS
BSc DEGREE PROGRAMME

2015/2016

UNIVERSITY OF KELANIYA SRI LANKA

Mission of the Faculty of Science

The mission of the Faculty of Science of the University of Kelaniya is to produce highly motivated graduates and postgraduates capable of making a significant contribution towards national development and the well being of mankind, to conduct research and provide advice and consultancy services in various scientific disciplines to foster a better understanding of the environment for sustainable use and conservation of natural resources.

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**BSc and BSc Honours
Degree**

1.1   Preamble

The Faculty of Science of the University of Kelaniya consists of eight academic Departments, namely the Departments of Botany, Chemistry, Industrial Management, Mathematics, Microbiology, Physics, Statistics & Computer Science and Zoology & Environmental Management. Academic programmes of the Faculty operate on a 'Course Unit System' i.e. a modularized credit based system within a two-semester academic year with end of course examinations. It offers a variety of course combinations that are designed to provide maximum possible flexibility in the choice of subjects.

The Faculty of Science now offers 07 BSc Degree Programmes viz, 03 BSc Degree Programmes of 3 year duration and 04 Honours Degree Programmes of 4 year duration. The BSc Degree Programmes are BSc Degree, BSc Degree in Environmental Conservation and Management (ENCM) and Bsc Degree in Physics and Electronics (PHEL). The Honours Degree Programmes are BSc Honours Degree, BSc Honours Degree in Environmental Conservation and Management (ENCM), BSc Honours Degree in Management and Information Technology (MIT) and BSc Honours Degree in Software Engineering (SENG).

The duration of a semester is 15 weeks. After 15 weeks of teaching, a study leave period of 2 weeks is given followed by end of course written examinations that are conducted within a period of 3 to 4 weeks. Examinations of laboratory course units are usually conducted either during the last week of the semester or during the study leave period.

A course unit is a subject module which has a credit value. A credit is a time based quantitative measure used in calculating the grade point average. The course modules are organized at four levels namely level 1, level 2, level 3 and level 4.

For level 1, level 2 and level 3 course units, credit ratings are as follows.

For course units with lectures only
15 contact hours = 1 credit

For course units with laboratory work only
30 – 45 hours of laboratory work = 1 credit
60 – 75 hours of laboratory work = 2 credits

For course units with both lectures and laboratory work
10 contact hours + 15 hours of laboratory work = 1 credit

Theory course units at level 4 with 15 hours of lectures, seminars and tutorials in any combination carry a credit rating of one. Laboratory course units and research projects at level 4 with 30 hours of laboratory or field work carry a credit rating of one. A level 4 lecture *cum* practical course unit with 10 hours of lectures plus 15 hours of laboratory or 15 hours of field work also carries a credit rating of one.

1.2 Notations of Course Units and Abbreviations Used

There are three types of course units, namely **Compulsory (C), Optional (O) and Auxiliary (A)**.

All **compulsory course units** of a given subject together form the minimum subject content required to be completed by a student following those units as the subject.

The **optional course units** are those outside the core of a particular subject.

The **auxiliary course units** of a subject are, in general, designed to provide fundamental knowledge and to develop some skills in selected areas of the subject. Auxiliary course units of a subject are offered, without any pre-requisites, to all students other than those who are following that as a subject.

An alpha numeric code is used to identify a unit. The code consists of five digits prefixed by a set of four letters which refers to the principal discipline of the course content of the unit.

The first digit denotes the level of the course unit whereas the fifth digit signifies its credit value. The second digit indicates the semester in which the course unit is offered (1 – first semester, 2 – second semester, 3 – both first & second semesters, 4 – either the first or the second semester). The third and fourth digits together form a number assigned by the Department that conducts it.

The academic disciplines designated by the 4 letters in the code are as follows:

Applied Mathematics	AMAT
Biochemistry*	BIOC
Biological Science Compulsory Course Units*	BIOL
Botany*	BOTA
Business Finance [1]	BFIN
Chemistry*	CHEM
Computer Science*	COSC
Computer Studies*	COST
Electronics*	ELEC
Environmental Conservation and Management*	ENCM
Generic Competencies	GNCT
Industrial Management	IMGT
Information Technology*	INTE
Management and Technology*	MGTE
Microbiology*	MIBI
Molecular Biology & Plant Biotechnology*	MBBT
Physics*	PHYS
Professional Placement	PRPL
Pure Mathematics	PMAT
Software Engineering*	SENG
Statistics*	STAT
Zoology*	ZOOL

* - with a practical component
[1] – offered by the Faculty of Commerce & Management Studies

Some course units require courses of study that must previously be completed before students are allowed to follow them. Such courses of study are called pre-requisites (PR). Some of the pre-requisites are subjects taken for the GCE (Advanced Level) Examination. Some other course units require certain course units, which are called co-requisites (CR), to be taken simultaneously with them. Practical course units are co-requisites for theory course units and vice-versa.

1.3   BSc Degree Programmes

1.3.1 Biological Science: All the Biological Science students are required to follow all the stream compulsory course units as specified during the first semester of the first academic year. All students have the option of following the Computer Science course unit COSC 11513 during the first semester of the first academic year. Those who wish to follow Computer Studies as a subject are required to take COSC 11513 and COST 11522 during the first semester of the first academic year.

Selection of students for limited enrolment subjects in the Biological Science streams will be carried out at the beginning of the second semester of the first academic year based upon the performance at examinations in the first semester of the first academic year when demand exceeds capacity. In the Biological Sciences, Biochemistry (BIOC), Computer Studies (COST), Microbiology (MIBI) and Molecular Biology & Plant Biotechnology (MBBT) subjects have limited enrolment.

1.3.2 Physical Science: Selection of students for preferred subjects in the Physical science streams will be carried out at the beginning of the first academic year. In the Physical Sciences, Computer Science (COSC), Computer Studies (COST), Electronics (ELEC), Physics (PHYS) and Statistics (STAT) subjects have limited enrolment.

The BSc Degree, BSc Degree in PHEL and BSc Degree in ENCM are required to follow only the levels 1, 2 and 3 course units. Course units to be completed during each academic year by the students following the BSc Degree, BSc Degree in PHEL and, BSc Degree in ENCM Programmes are given in the student handbook of the Faculty of Science. After deciding on a particular subject combination, a student should take all course units in the category 'C' of the selected subjects and sufficient number of units in categories 'O' and 'A', as the time table permits, to make up at least 27 credits in each academic year. A student may take course units aggregating **to total of not more than 6 credits with only 2 credits per semester from the other Faculties** for the Degree Programme. Students are advised to consult an academic advisor of the Faculty before deciding on their choice of course units.

All credits accumulated by a student over the entire three academic year period shall be considered for the computation of the GPA in respect of the BSc Degree Programme, the BSc in ENCM Degree Programme and BSc Degree in PHEL **unless stated otherwise**.

1.4 BSc Honours Degree Programmes

At the end of the second academic year, a student may apply to follow the BSc Honours Degree Programme in any one of the following subjects: Biochemistry, Botany, Chemistry, Computer Science, Computer Studies, Environmental Conservation and Management, Management and Information Technology, Mathematical Physics, Mathematics, Microbiology, Molecular Biology and Plant Biotechnology, Physics, Software Engineering, Statistics and Zoology.

The minimum requirements for selection to the BSc Honours Degree Programmes are as follows:

(i)   Biochemistry

A student should have obtained at least B grades for Level 1 and Level 2 compulsory course units in Biochemistry, BIOL 11532 Basic Biochemistry and B grades for additional 03 credits from any of the following course units ; CHEM 11522 General Chemistry and , Basic Analytical Chemistry/ CHEM 12562 Basic Organic Chemistry/ CHEM 12571 Introductory Organic Chemistry Laboratory/ CHEM 22552 Organic Spectroscopy, Natural products and Synthesis/ CHEM 22561 Organic Analytical and Synthetic Chemistry Laboratory aggregating to 20 credits. Further, students should obtain C or better for all the above chemistry courses   In addition students with either D/D+/C- grades in Level 1 and Level 2 course units aggregating more than 8 credits, or E grades in Level 1 and Level 2 course units are not eligible to read for an Honours Degree in Biochemistry.

(ii)   Botany

A student should have obtained grades of B or better in Level 1 and Level 2 compulsory course units in Botany, BIOL 11512 Scope and Fundamentals of Microbiology and BIOL 11522 Genetics aggregating to 21 credits. In addition, a student should not have obtained either D/D+/C- grades in Level 1 and Level 2 course units aggregating to more than 8 credits, or E grades in Level 1 and Level 2 course units.

(iii)   Chemistry

A student should have obtained a GPA of 3.00 or greater for Level 1 and Level 2 compulsory course units in Chemistry aggregating to 21 credits counted for GPA. In addition, a student should obtain grades of C or better for all chemistry course units mentioned above and should not have obtained either D/D+/C- grades in Level 1 and Level 2 course units aggregating to more than 8 credits, or E grades in Level 1 and Level 2 course units.

(iv)   Computer Science

A student should have obtained grades of B or better in Level 1 and Level 2 compulsory course units in Computer Science aggregating to at least 21 credits and followed Pure Mathematics as a subject in the first two years of study. In addition, a student should not have obtained either D/D+/C- grades in Level 1 and Level 2 course units aggregating to more than 8 credits, or E grades in Level 1 and Level 2 course units.

(v)   Computer Studies

A student should have obtained at least B grades for Level 1 and Level 2 course units in Computer Studies (COST) aggregating to 20 credits in the first two years of study. In addition, a student should not have obtained either D/D+/C- grades in Level 1 and Level 2 course units aggregating to more than 8 credits, or E grades in Level 1 and Level 2 course units.

(vi)   Environmental Conservation and Management

A student should have obtained grades of C or better in all Level 1 and Level 2 BOTA, CHEM, ENCM, MIBI, and ZOOL compulsory course units prescribed for the degree programme and obtained grades of B or better aggregating to at least 40 credits from BOTA, ENCM, MIBI and ZOOL course units.

(vii)   Management and Information Technology **(MIT)**

The students who apply to follow the degree in MIT can choose one of the following major areas of specializations in their level 3. These are Business Systems Engineering (BSE), Operations and Supply Chain Management (O&SCM), Information Technology (IT) and Information Systems (IS).

(viii)   Mathematical Physics

A student should have followed Applied Mathematics, Physics and Pure Mathematics as subjects in the first two years of study and should have obtained a GPA of 3.00 or better in Level 1 and Level 2 compulsory course units, aggregating to 20 credits in Pure Mathematics, 19 credits in Applied Mathematics and 18 credits in Physics counted for GPA. In addition, a student should obtain grades of C or better for all physics course units mentioned above. A student should not have obtained either D/D+/C- grades in Level 1 and Level 2 course units aggregating to more than 8 credits, or E grades in Level 1 and Level 2 course units.

(ix)   Mathematics (Pure Mathematics and Applied Mathematics)

A student should have obtained a GPA of 3.00 or greater for Level 1 and Level 2 compulsory course units in Pure Mathematics aggregating to 20 credits and Applied Mathematics aggregating to 19 credits counted for GPA. In addition, a student should obtain grades of C or better for all Pure and Applied Mathematics course units mentioned above and should not have obtained either D/D+/C- grades in Level 1 and Level 2 course units aggregating to more than 8 credits, or E grades in Level 1 and Level 2 course units.

(x)   Mathematics (Pure Mathematics and Statistics)

A student should have obtained a GPA of 3.00 or greater for Level 1 and Level 2 compulsory course units in Pure Mathematics aggregating to 20 credits and Statistics aggregating to 20 credits counted for GPA. In addition, a student should obtain grades of C or better for all Pure Mathematics and Statistics course units mentioned above and should not have obtained either D/D+/C- grades in Level 1 and Level 2 course units aggregating to more than 8 credits, or E grades in Level 1 and Level 2 course units.

(xi)   Microbiology

A student should have obtained grades of B or better for in Level 1 and Level 2 compulsory course units in Microbiology and BIOL 11512 Basic Microbiology aggregating to at least 20 credits. In addition, a student should not have obtained either D/D+/C- grades in Level 1 and Level 2 course units aggregating to more than 8 credits, or E grades in Level 1 and Level 2 course units.

(xii)   Molecular Biology & Plant Biotechnology

A student should have obtained grades of B or better in Level 1 and Level 2 compulsory course units in Molecular Biology & Plant Biotechnology, and BIOL 11512 Scope and Fundamentals of Microbiology and BIOL 11522 Genetics aggregating to 21 credits. In addition, a student should not have obtained either D/D+/C- grades in Level 1 and Level 2 course units aggregating to more than 8 credits, or E grades in Level 1 and Level 2 course units.

(xiii) Physics

A student should have obtained a GPA of 3.00 or greater for Level 1 and Level 2 compulsory course units in Physics aggregating to 18 credits counted for GPA. In addition, a student should obtain grades of C or better for all physics course units mentioned above and should not have obtained either D/D+/C- grades in Level 1 and Level 2 course units aggregating to more than 8 credits, or E grades in Level 1 and Level 2 course units.

(xiv) Software Engineering (SENG)

The proposed programme has been designed in such a way that it provides the necessary flexibility for the students to develop competencies in specific application domains relevant to current human resource requirements. This BSc degree in Software Engineering programme incorporates the following application domains: Net centric applications (AD1), Mobile computing (AD2), Business intelligent systems (AD3), Health informatics (AD4), Digital games and animations (AD5), Business engineering (AD6).

(xv) Statistics

A student should have obtained grades of B or better in Level 1 and Level 2 compulsory course units aggregating to 20 credits in Statistics and followed Pure Mathematics as a subject in the first two years of study. In addition, a student should not have obtained either D/D+/C- grades in Level 1 and Level 2 course units aggregating to more than 8 credits, or E grades in Level 1 and Level 2 course units.

(xvi) Zoology

A student should have obtained grades of B or better in Level 1 and Level 2 compulsory course units in Zoology and BIOL 11542 Animal Form, Function and Behaviour, BIOL 11512 Scope and Fundamentals of Microbiology and BIOL 11522 Genetics, aggregating to at least 20 credits. In addition, a student should not have obtained either D/D+/C- grades in Level 1 and Level 2 course units aggregating to more than 8 credits, or E grades in Level 1 and Level 2 course units.

Selection criteria may be varied at the discretion of the Department concerned.
A student selected for the BSc Honours Degree Programme is required to obtain the approval of the relevant Head/ Heads of the Department/ Departments for the course units he/ she intends to follow before enrolling for the programme.

The maximum number of credits that should be accumulated by a student following an Honours Degree Programme shall be determined by the Department/ Departments concerned.

During the fourth academic year, an Honours Degree student should carry out a research/ study project on a given topic under the supervision of a senior member of the academic staff assigned by the Department/ Departments.

All credits accumulated by a student over the entire four academic year period shall be considered for the computation of the Grade Point Average (GPA) in respect of the BSc Honours Degree Programme in the relevant subject, **unless stated otherwise**.

1.5 Registration for Courses

Students are strongly advised to obtain advice from relevant academic advisors prior to registration for course units, and must complete their registration for selected course combinations at the beginning of the commencement of each academic year. A student must also ensure that he/ she fulfils the required pre-requisites.

1.6 Changes of Courses

A student wishing to drop or add a course unit may do so within the first two weeks of the relevant semester. No changes in enrolment for course units shall be permitted later than the stipulated period.

1.7 Attendance

Students are strongly advised to attend and actively participate in their academic activities regularly, as it has proven that there is a highly significant relationship with the grades obtained for a particular course unit and attendance.

For the Level 1,2 and 3 theory course units 90% of the marks is assigned based on the assessments (including continuous assessments) and the balance 10% of the marks is allocated based on the attendance at the lectures. For the Level 4 theory course units 100% of the marks is assigned based on the assessments (including continuous assessments).

If the attendance of a student at a laboratory course unit is between 50% - 79% the best grade obtainable by a student for that course unit will be "C" and if the attendance of a student at a laboratory course unit is less than 50%, the best grade obtainable by the student will be "D".

2. ASSESSMENT CRITERIA

2.1 Assessment Procedure

Student performance at a course unit is generally assessed through assignments, reports, presentations and end of course examinations. The method of assessment will be announced by the relevant Department at the commencement of a course unit. The research projects of the BSc Honours Degree Programme are assessed by a dissertation and an oral presentation.

2.2 Grading System

Marks obtained in respect of a course unit will be graded according to the following grading system. A grade point value as indicated below is assigned to each grade.

Range of Marks	Grade	Grade Point Value
85 - 100	A+	4·0
70 - 84	A	4·0
65 - 69	A-	3·7
60 - 64	B+	3·3
55 - 59	B	3·0
50 - 54	B-	2·7
45 - 49	C+	2·3
40 - 44	C	2·0
35 - 39	C-	1.7
30 - 34	D+	1.3
25 - 29	D	1·0
00 - 24	E	0·0

Students should complete all course units that they are registered for and if they fail to complete a particular course unit, it will be indicated in the transcript as "absent" and a zero (0·0) grade point value will be assigned to it.

2.3 Repeating a Course Unit Examination

A student who does not obtain a grade C or better in a particular course unit may re-sit the examination of that course unit in the following academic year for the purpose of improving the grade. The best grade obtainable by a student in this instance would be C. In the event a student obtains a lower grade while attempting to better the grade, he/she will be entitled to the previous grade.

2.4 Grade Point Average

Grade Point Average (GPA) is the credit-weighted arithmetic mean of the Grade Point Values, which is determined by dividing the total credit-weighted Grade Point Value by the total number of credits. GPA shall be computed to the second decimal place.

Example: A student who has completed one course unit with two credits, three course units each of three credits and two course units each of 1 credit with grades A, C, B, D, C+ and A+ respectively would have the GPA of 2·48 as calculated below.

$$\frac{(2\text{x }4.0)+(3\text{x}2.0)+(3\text{x}3.0)+(3\text{x}1.0)+(1\text{x}2.3)+(1\text{x}4.0)}{2+3+3+3+1+1} = \frac{32.3}{13} = 2.4846$$

$$\text{Grade Point Average} \quad = \quad 2\cdot48$$

Grade point values and credit values of all registered course units in a study programme of a student shall be taken into account in calculating the final GPA, unless stated otherwise.

2.5 BSc Degree

2.5.1 Eligibility for the Award of the BSc Degree / BSc Degree in Physics and Electronics.

To be eligible for the BSc Degree/ BSc Degree in Physics and Electronics a student must

  (i) accumulate grades of D or better in course units, aggregating to at least 60 credits during the first two academic years, and aggregating to at least 90 credits during the entire three academic year period, including the stream compulsory units where applicable, of which at least 27 credits must be from each academic year,

 (ii) obtain grades of C or better in course units aggregating to at least 72 credits of which at least 48 must be from two subjects with at least 24 credits from each of them, and grades of D or better in course units aggregating to at least further 18 credits, considered under (i) above, provided that at least one of the above two subjects is with a practical component,

(iii) obtain a GPA of 2·00 or greater, and

(iv) complete the relevant requirements within a period of five academic years.

2.5.2 Award of Honours

2.5.2.1   First Class Honours

A student who is eligible for the BSc Degree/ BSc Degree in Physics and Electronics may be awarded First Class Honours provided he/ she

  (i)   obtains grades of C or better in course units aggregating to at least 90 credits, considered under 2.5.1 (ii),
  (ii) obtains grades of A or better in course units aggregating to at least half the number of total credits for the course units considered under 2.5.1 (ii),
  (iii) obtains a GPA of 3·70 or greater, and
  (iv) completes the relevant requirements within three academic years.

2.5.2.2   Second Class (Upper Division) Honours

A student who is eligible for the BSc Degree/ BSc Degree in Physics and Electronics may be awarded Second Class (Upper Division) Honours provided he/ she

  (i)   obtains grades of C or better in course units aggregating to at least 80 credits and grades of D or better in the remaining course units, considered under 2.5.1 (ii),
  (ii) obtains grades of B or better in course units aggregating to at least half the number of total credits for the course units considered under 2.5.1 (ii),
  (iii) obtains a GPA of 3·30 or greater, and
  (iv) completes the relevant requirements within three academic years.

2.5.2.3   Second Class (Lower Division) Honours

A student who is eligible for the BSc Degree/ BSc Degree in Physics and Electronics may be awarded Second Class (Lower Division) Honours provided he/ she

  (i)   obtains grades of C or better in course units aggregating to at least 80 credits and grades of D or better in the remaining course units, considered under 2.5.1 (ii),
  (ii) obtains grades of B or better in course units aggregating to at least half the number of total credits for the course units considered under 2.5.1 (ii),
  (iii) obtains a GPA of 3·00 or greater, and
  (iv) completes the relevant requirements within three academic years.

2.6 BSc Degree in Environmental Conservation & Management (ENCM)

2.6.1 Eligibility for the Award of the BSc Degree in ENCM

To be eligible for the BSc Degree in Environmental Conservation & Management, a student must

  (i)   accumulate grades of D or better in course units, aggregating to at least 60 credits during the first two academic years, and aggregating to at least 90 credits during the entire three academic year period, of which at least 27 credits must be from each academic year,

 (ii)   obtain grades of C or better in course units aggregating to at least 72 credits of which not less than 48 must be from compulsory course units and grades of D or better in course units aggregating to at least further 18 credits, considered under (i) above, with the proviso that he/ she should not have obtained grades of D/D+/C- in course units aggregating to more than 6 credits in each of the three subject areas (ENCM course units; BOTA, MIBI and ZOOL course units; CHEM course units),

(iii)   obtain a GPA of 2·00 or greater, and

(iv)   complete the relevant requirements within a period of five academic years.

2.6.2 Award of Honours

2.6.2.1   First Class Honours

A student who is eligible for the BSc Degree in ENCM may be awarded First Class Honours provided he/she

  (i)   obtains grades of C or better in course units aggregating to at least 90 credits, considered under 2.6.1 (ii),

 (ii)   obtains grades of A or better in course units aggregating to at least half the number of total credits for the course units considered under 2.6.1 (ii),

(iii)   obtains a GPA of 3·70 or greater, and

(iv)   completes the relevant requirements within three academic years.

2.6.2.2   Second Class (Upper Division) Honours

A student who is eligible for the BSc Degree in ENCM may be awarded Second Class (Upper Division) Honours provided he/ she

  (i)   obtains grades of C or better in course units aggregating to at least 80 credits and grades of D or better in the remaining course units, considered under 2.6.1 (ii),

 (ii)   obtains grades of B or better in course units aggregating to at least half the number of total credits for the course units considered under 2.6.1 (ii),

(iii)   obtains a GPA of 3·30 or greater, and

(iv)   completes the relevant requirements within three academic years.

2.6.2.3   Second Class (Lower Division) Honours

A student who is eligible for the BSc Degree in ENCM may be awarded Second Class (Lower Division) Honours provided he/ she

(i)   obtains grades of C or better in course units aggregating to at least 80 credits and grades of at least D in the remaining course units, considered under 2.6.1 (ii),

(ii) obtains grades of B or better in course units aggregating to at least half the number of total credits for the course units considered under 2.6.1 (ii),

(iii) obtains a GPA of 3·00 or greater, and

(iv) completes the relevant requirements within three academic years.

2.7   BSc Honours Degree

2.7.1 Eligibility for the Award of the BSc Honours Degree

To be eligible for the BSc Honours Degree, a student must

(i)   accumulate grades of D or better,

(a) in course units aggregating to at least 27 credits, including either at least 10 credits in the subject of specialization and the stream compulsory course units where applicable, or at least 10 credits each in the subjects of specialization and the stream compulsory course units where applicable, as the case may be, in each academic year, totalling to at least 60 credits, in the first two academic years, and

(b) aggregating to at least 66 credits in the third and the fourth academic year course units including at least 48 credits in level 4 course units in the subject/subjects of specialization, totalling to at least 126 credits, provided that he/she accumulates credits in the compulsory course units as stipulated by the relevant Department/Departments of study,

(ii) obtain grades of C or better in course units aggregating to at least 100 credits of which at least 40 credits should be in level 4 course units, and grades of D or better in course units aggregating to at least further 26 credits, with the proviso that he/she should not obtain grades of E in any of the course units in the subject/subjects of specialization, considered under (i) above,

(iii) obtain a GPA of 2·00 or greater, and

(iv) complete the relevant requirements within a period of five academic years.

2.7.2 Award of Classes

2.7.2.1   First Class Honours

A student who is eligible for the BSc Honours Degree may be awarded First Class Honours if he/ she

(i) obtains grades of C or better in course units, including all the course units in the subject/subjects of specialization, aggregating to at least 126 credits, considered under 2.7.1 (ii),
(ii) obtains a GPA of 3·70 or greater,
(iii) obtains grades of A or better in level 4 course units in the subject/subjects of specialization, aggregating to at least half the number of credits accumulated in such course units,
(iv) obtains grades of A or better in level 4 and level 3 course units where applicable, in the subject/subjects of specialization, aggregating to at least half the number of credits accumulated in such course units, and
(v) completes the relevant requirements within four academic years.

Note: A student who obtains grades of D/D+/C- aggregating to not more than 6 credits in level 4 course units, but fulfils all the other requirements stipulated under 2.7.2.1 may be considered by the Board of Examiners for the award of Second Class (Upper Division) Honours.

2.7.2.2   Second Class (Upper Division)

A student who is eligible for the BSc Honours Degree may be awarded Second Class (Upper Division) Honours if he/ she

(i) obtains grades of C or better in course units, including all the course units in the subject/ subjects of specialization, aggregating to at least 116 credits, considered under 2.7.1 (ii),
(ii) obtains a GPA of 3·30 or greater,
(iii) obtains grades of B or better in level 4 course units in the subject/ subjects of specialization, aggregating to at least half the number of credits accumulated in such course units,
(iv) obtains grades of B or better in level 4 and level 3 course units where applicable, in the subject/ subjects of specialization, aggregating to at least half the number of credits accumulated in such course units, and
(v) completes the relevant requirements within four academic years.

Note: A student who obtains grades of D/D+/C- aggregating to not more than 6 credits in level 4 course units, but fulfils all the other requirements stipulated under 2.7.2.2 may be considered by the Board of Examiners for the award of Second Class (Lower Division) Honours.

2.7.2.3   Second Class (Lower Division)

A student who is eligible for the BSc Honours Degree may be awarded Second Class (Lower Division) Honours provided he/ she

  (i) obtains grades of C or better in course units, including all the course units in the subject/subjects of specialization, aggregating to at least 116 credits, considered under 2.7.1 (ii),
 (ii) obtains a GPA of 3·00 or greater,
(iii) obtains grades of B or better in level 4 course units in the subject/ subjects of specialization, aggregating to at least half the number of credits accumulated in such course units,
 (iv) obtains grades of B or better in level 4 and level 3 course units where applicable, in the subject/ subjects of specialization, aggregating to at least half the number of credits accumulated in such course units, and
  (v) completes the relevant requirements within four academic years.

2.7.3   Option of reverting to the BSc Degree

A student reading for a BSc Honours Degree may request the award of the BSc Degree foregoing the BSc Honours Degree, upon satisfying the requirements for the award of the BSc Degree. This request should be made in the course of the 4th academic year or within 14 days from the date of final release of the results of the level 4 course units by the Faculty.

The results of the BSc Degree shall be determined solely on the basis of course units followed in the first three academic years.

2.8   BSc Honours Degree in Environmental Conservation & Management (ENCM)

2.8.1   Eligibility for the Award of the BSc Honours Degree in ENCM

To be eligible for the BSc Honours Degree in Environmental Conservation & Management, a student must

  (i) accumulate grades of D or better,
     (a) in course units aggregating to at least 27 credits, including all compulsory course units in each academic year, totalling to at least 60 credits in the first two academic years, and
     (b) aggregating to at least 66 credits in the third and the fourth academic years, including all the compulsory course units, and at least 48 credits in the level 4 course units, to totalling at least 126 credits,
 (ii) obtain grades of C or better in course units aggregating to at least 100 credits of which at least 40 credits should be in level 4 course units including the final year research project, and grades of D or better in course units

aggregating to at least further 26 credits, with the proviso that he/ she should not obtain grades of D/D+/C- in course units aggregating to more than 6 credits in each of the three subject areas (level 1, 2, & 3 ENCM course units; BOTA, MIBI and ZOOL course units; CHEM course units), or grades of E in any of the course units, considered under (i) above,

(iii)   obtain a GPA of 2·00 or greater, and

(iv)   complete the relevant requirements within a period of five academic   years.

2.8.2 Award of Classes

2.8.2.1   First Class Honours

A student who is eligible for the BSc Honours Degree in ENCM may be awarded First Class Honours if he/ she

  (i)   obtains grades of C or better in course units, including all the compulsory course units in the subject of specialization, aggregating to at least 126 credits, considered under 2.8.1 (ii),

 (ii)   obtains a GPA of 3·70 or greater,

(iii)   obtains grades of A or better in level 4 course units, aggregating to at least half the number of credits accumulated in such course units,

(iv)   obtains grades of A or better in level 4 and level 3 course units, aggregating to at least half the number of credits accumulated in such course units, and

 (v)   completes the relevant requirements within four academic years.

Note: A student who obtains grades of D/D+/C- aggregating to not more than 6 credits in level 4 course units, but fulfils all the other requirements stipulated under 2.8.2.1 may be considered by the Board of Examiners for the award of Second Class (Upper Division) Honours.

2.8.2.2   Second Class (Upper Division)

A student who is eligible for the BSc Honours Degree in ENCM may be awarded Second Class (Upper Division) Honours if he/ she

  (i)   obtains grades of C or better in course units, including the compulsory course units, aggregating to at least 116 credits, considered under 2.8.1 (ii),

 (ii)   obtains a GPA of 3·30 or greater,

(iii)   obtains grades of B or better in level 4 course units, aggregating to at least half the number of credits accumulated in such course units,

(iv)   obtains grades of B or better in level 4and level 3 course units, aggregating to at least half the number of credits accumulated in such course units, and

 (v)   completes the relevant requirements within four academic years.

Note: A student who obtains grades of D/D+/C- aggregating to not more than 6 credits in level 4 course units, but fulfils all the other requirements stipulated under 2.8.2.2 may be considered by the Board of Examiners for the award of Second Class (Lower Division) Honours.

2.8.2.3   Second Class (Lower Division)

A student who is eligible for the BSc Honours Degree in ENCM may be awarded Second Class (Lower Division) Honours provided he/ she

  (i)   obtains grades of C or better in course units, including the compulsory course units, aggregating to at least 116 credits, considered under 2.8.1 (ii),
 (ii)   obtains a GPA of 3·00 or greater,
(iii)   obtains grades of B or better in level 4 course units, aggregating to at least half the number of credits accumulated in such course units,
(iv)   obtains grades of B or better in level 4 and level 3 course units, aggregating to at least half the number of credits accumulated in such course units, and
 (v)   completes the relevant requirements within four academic years.

2.8.3 Option of reverting to the BSc Degree in Environmental Conservation & Management (ENCM)

A student reading for a BSc Honours Degree in ENCM may request the award of the BSc Degree in ENCM foregoing the BSc ENCM Honours Degree, upon satisfying the requirements for the award of the BSc Degree. This request should be made in the course of the 4th academic year or within 14 days from the date of final release of the results of the level 4 course units by the Faculty.

The results of the BSc Degree in ENCM shall be determined solely on the basis of course units followed in the first three academic years.

2.9   BSc Honours Degree in Management and Information Technology (MIT)

2.9.1   Eligibility for the award of the BSc Honours Degree in Management and Information Technology (MIT)

To be eligible for the BSc Honours Degree in Management and Information Technology, a student must

  (i)   accumulate grades of D or better, in course units including all core course units, totalling to a minimum of 120 credits, with
   (a)   a minimum aggregate of at least 90 credits in the first, second and third academic years, and
   (b)   a minimum aggregate of at least 30 credits in the fourth academic year and
   (c)   a minimum aggregate of at least 30 credits from each level and
   (d)   a minimum aggregate of at least 14 credits from optional courses from the Major area of study

(ii) obtained grades of C or better in course units totalling to at least 104 credits with at least D grades for the remaining course units, and

(iii) obtain grades of C or better in compulsory course units totalling to at least 90 credits with at least D grades for the remaining compulsory course units, and

(iv) obtain grades of C or better for either MGTE 43216 or INTE 43216 course unit and for INTE 31222, INTE 34212 and GNCT 32216 course units, and

(v) Pass GNCT 13212 and GNCT 23212 course units, and

(vi) obtain a minimum GPA of 2.00, and

(vii) complete the relevant requirements within a period of 5 academic years.

2.9.2   Award of Classes

2.9.2.1   First Class

A student who is eligible for the BSc Honours Degree in Management and Information Technology may be awarded First Class if he/ she

(i) obtains grades of C or better in all the course units considered for the calculation of the GPA, and

(ii) obtains grades of A or better, aggregating to at least half the number of credits in the compulsory course units, and

(iii) obtains grades of A or better aggregating to at least half the number of credits accumulated and considered for the calculation of the GPA, and

(iv) obtains a minimum GPA of 3·70 and

(v) completes the relevant requirements within four academic years.

Note: A student who obtains grades of D, D+ and C- for a maximum of 4 credits in compulsory course units, and fulfils all the other requirements stipulated under 2.9.2.1 may be considered by the Board of Examiners for the award of Second Class (Upper Division).

2.9.2.2   Second Class (Upper Division)

A student who is eligible for the BSc Honours Degree in Management and Information Technology may be awarded Second Class (Upper Division) if he/ she

(i) obtains grades of C or better in course units, including the compulsory course units, aggregating to at least 110 credits, and grades of D or better in the remaining course units considered for GPA calculation, and

(ii) obtains grades of B or better aggregating to at least half the number of credits in the compulsory course modules, and

(iii) obtains grades of B or better aggregating to at least half the number of credits accumulated and considered for the calculation of the GPA, and

(iv) obtains a minimum GPA of 3.30 and

(v) completes the relevant requirements within four academic years.

Note: A student who obtains minimum grades of D, D+ and C- for a maximum of 4 credits in compulsory course units, and fulfils all the other requirements stipulated under 2.9.2.2 may be considered by the Board of Examiners for the award of Second Class (Lower Division) Honours.

2.9.2.3 Second Class (Lower Division)

A student who is eligible for the BSc Honours Degree in Management and Information Technology may be awarded Second Class (Lower Division) provided he/ she

(i)   obtains grades of C or better in course units, including all compulsory course units, aggregating to at least 110 credits, and grades of D or better in the remaining course units considered for GPA calculation, and

(ii) obtains grades of B or better in aggregating to at least half the number of credits in the compulsory course modules, and

(iii) obtains grades of B or better aggregating to at least half the number of credits accumulated and considered for the calculation of the GPA, and

(iv) obtains minimum GPA of 3·00 and

(v)   completes the relevant requirements within four academic years.

2.10 BSc Honours Degree in Software Engineering (SE)

2.10.1 Eligibility for the award of the BSc Honours Degree in Software Engineering (SE)

To be eligible for the BSc Honours Degree in Software Engineering, a student must

(i)   accumulate grades of D or better, in course units including all core course units, totalling to a minimum of 120 credits, with

  (a)   a minimum aggregate of at least 90 credits in the first, second and third academic years, and

  (b)   a minimum aggregate of at least 30 credits in the fourth academic year and

  (c)   a minimum aggregate of at least 30 credits from each level and

  (d)   a minimum aggregate of at least 9 credits from one selected domain

(ii) obtain grades of C or better in course units totalling to at least 104 credits with at least D grades for the remaining course units, and

(iii) obtain grades of C or better in compulsory course units and course units from the one selected domain totalling to at least 90 credits with at least D grades for the remaining compulsory course units and the selected domain course units, and

(iv) obtain grades of C or better for SENG 31242, SENG 34213, SENG 32216, SENG 43216 course units and

(v)   pass GNCT 13212 and GNCT 23212 course units, and

(vi)   obtain a minimum GPA of 2·00, and

(vii) complete the relevant requirements within a period of 5 academic years.

2.10.2   Award of Classes

2.10.2.1 First Class

A student who is eligible for the BSc Honours Degree in Software Engineering may be awarded First Class if he/ she

(i)   obtains grades of C or better in all the course units considered for the calculation of the GPA, and

(ii)   obtains grades of A or better aggregating to at least half the number of credits in the compulsory course units, and

(iii) obtains grades of A or better aggregating to at least half the number of credits accumulated and considered for the calculation of the GPA, and

(iv)   obtains a minimum GPA of 3·70, and

(v)   completes the relevant requirements within four academic years.

Note: A student who obtains grades of D+ for a maximum of 4 credits and fulfils all the other requirements stipulated under 2.10.2.1 may be considered by the Board of Examiners for the award of Second Class (Upper Division).

2.10.2.2 Second Class (Upper Division)

A student who is eligible for the BSc Honours Degree in Software Engineering may be awarded Second Class (Upper Division) if he/ she

(i)   obtains grades of C or better in course units including all compulsory course units aggregating to at least 110 credits and grades of D or better in the remaining course units considered for GPA calculation, and

(ii)   obtains grades of B or better aggregating to at least half the number of credits in the compulsory course modules, and

(iii) obtains grades of B or better aggregating to at least half the number of credits accumulated and considered for the calculation of the GPA, and

(iv)   obtains a minimum GPA of 3.30, and

(v)   completes the relevant requirements within four academic years.

Note: A student who obtains minimum grades of D for a maximum of 4 credits in compulsory course units, and fulfils all the other requirements stipulated under 2.10.2.2 may be considered by the Board of Examiners for the award of Second Class (Lower Division).

2.10.2.3 Second Class (Lower Division)

A student who is eligible for the BSc Honours Degree in Software Engineering may be awarded Second Class (Lower Division) provided he/she

(i)   obtains grades of C or better in course units including all compulsory course units aggregating to at least 110 credits and grades of D or better in the remaining course units considered for GPA calculation, and

(ii)   obtains grades of B or better aggregating to at least half the number of credits in the compulsory course modules, and

(iii)   obtains grades of B or better aggregating to at least half the number of credits accumulated and considered for the calculation of the GPA, and

(iv)   obtains a minimum GPA of 3.00, and

(v)   completes the relevant requirements within four academic years.

2.11   Award of the Degree

A student who intends to enhance the grade(s) obtained at the examination(s) of a course unit(s) should request the Dean/Science in writing to refrain from processing her/his results, within a week of completion of releasing the results of all the course unit examinations in the relevant semester.

On successful completion of the BSc Degree, BSc Degree in PHEL, BSc Honours Degree, BSc Degree in ENCM, BSc Honours Degree in ENCM, BSc Honours Degree in MIT and BSc Honours Degree in SE, and after the confirmation of results by the University Senate, a student is entitled to have an official transcript giving the grades in the respective course units.

3.   COURSE STRUCTURE
      BSc DEGREE

3.1 Course Structure for BSc Degree
Biological Sciences

3.1.1 BSc Degree Programme – Year 1
Biological Sciences
Available combinations to select course units

Course code	Course unit combination (BSY1)									
	1	2	3	4	5	6	7	8	9	10
BIOL 11512	C	C	C	C	C	C	C	C	C	C
BIOL 11522	C	C	C	C	C	C	C	C	C	C
BIOL 11532	C	C	C	C	C	C	C	C	C	C
BIOL 11542	C	C	C	C	C	C	C	C	C	C
DELT 11222[1]	C	C	C	C	C	C	C	C	C	C
BIOC 12513						C		C	C	C
BIOC 12522						C		C	C	C
BIOC 12531						C		C	C	C
BOTA 12514	C	C		C			C	C		
BOTA 12522	C	C		C			C	C		
CHEM 11511[1]	C	C	C	C	C	C	C	C	C	C
CHEM 11522	C	C	C	C	C	C	C	C	C	C
CHEM 11532	C	C	C	C	C	C	C	C	C	C
CHEM 11541	C	C	C	C	C	C	C	C	C	C
CHEM 12552	C	C	C	C	C	C	C	C	C	C
CHEM 12562	C	C	C	C	C	C	C	C	C	C
CHEM 12571	C	C	C	C	C	C	C	C	C	C
COSC 11513	O	C	C	O	O	O	O	O	O	O
COST 11522		C	C							C
COST 12533		C	C							C
COST 12542		C	C							C
IMGT 14512	A	A	A	A	A	A	A	A	A	A
IMGT 21511	A	A	A	A	A	A	A	A	A	
MIBI 12514				C	C	C				
MIBI 12522				C	C	C				
MBBT 12513							C			
MBBT 12522							C			
MGMT 11022[1,2]	C	C	C	C	C	C	C	C	C	C
PMAT 11703	A	A	A	A	A	A	A	A	A	A
PMAT 12713	A	A	A	A	A	A	A	A	A	A
STAT 14552	A	A	A	A	A	A	A	A	A	A
ZOOL 12512	C		C		C				C	
ZOOL 12523	C		C		C				C	
ZOOL 12531	C		C		C				C	
No of Credits from Compulsory Units	30	33	33	30	30	30	29	30	30	31

1 Credits not counted for the GPA calculation.
2 Should offer during the three year period of the Degree Programme.
  Students may take course units up to a maximum of 6 credits with not more than 2 credits per semester from other faculties.

3.1.2 BSc Degree Programme – Year 2
Biological Sciences
Available combinations to select course units

Course code	Course unit combination (BSY2)									
	1	2	3	4	5	6	7	8	9	10
BIOC 21512						C		C	C	C
BIOC 21522						C		C	C	C
BIOC 21531						C		C	C	C
BIOC 22542						C		C	C	C
BIOC 22552						C		C	C	C
BIOC 22561						C		C	C	C
BOTA 21513	C	C		C			C	C		
BOTA 21522	C	C		C			C	C		
BOTA 21531	C	C		C			C	C		
BOTA 22544	C	C		C				C		
BOTA 22552	C	C		C				C		
CHEM 21512	C	C	C	C	C	C	C	C	C	C
CHEM 21522	C	C	C	C	C	C	C	C	C	C
CHEM 21531	C	C	C	C	C	C	C	C	C	C
CHEM 22542	C	C	C	C	C	C	C	C	C	C
CHEM 22552	C	C	C	C	C	C	C	C	C	C
CHEM 22561	C	C	C	C	C	C	C	C	C	C
CHEM 22571	C	C	C	C	C	C	C	C	C	C
COST 21513		C	C							C
COST 22523		C	C							C
COST 22534		C	C							C
DELT 22232[1]	C	C	C	C	C	C	C	C	C	C
IMGT 14512	A	A	A	A	A	A	A	A	A	A
IMGT 21511	A	A	A	A	A	A	A	A	A	A
MIBI 21514				C	C	C				
MIBI 21522				C	C	C				
MIBI 22534				C	C	C				
MIBI 22542				C	C	C				
MBBT 21513							C			
MBBT 21523							C			
MBBT 22533							C			
MBBT 22543							C			
MGMT 11022[1,2]	C	C	C	C	C	C	C	C	C	C
PHYS 25553	O	O	O	O	O	O	O	O	O	O
PMAT 11703	A	A	A	A	A	A	A	A	A	A
PMAT 12713	A	A	A	A	A	A	A	A	A	A
STAT 14552	A	A	A	A	A	A	A	A	A	A
ZOOL 21512	C		C		C				C	
ZOOL 21521	C		C		C				C	
ZOOL 21532	C		C		C				C	
ZOOL 22543	C		C		C				C	
ZOOL 22552	C		C		C				C	
ZOOL 22561	C		C		C				C	
No of Credits from Compulsory Units	34	33	32	35	34	33	29	33	32	35

1   **Credits not counted for the GPA calculation.**
2   Should offer during the three year period of the degree programme.

Students may take course units up to a maximum of 6 credits with not more than 2 credits per semester from other faculties.

3.1.3 BSc Degree Programme – Year 3
Biological Sciences
Available combinations to select course units

Course code	Course unit combination (BSY3)									
	1	2	3	4	5	6	7	8	9	10
BIOC 31511						C		C	C	C
BIOC 31522						C		C	C	C
BIOC 31532						C		C	C	C
BIOC 31541						C		C	C	C
BIOC 32552						O		O	O	O
BIOC 32561						O		O	O	O
BOTA 31514	C	C		C			C	C		
BOTA 31522	C	C		C			C	C		
BOTA 32534	O	O		O				O		
BOTA 32542	O	O		O				O		
BOTA 32554	O	O		O			O	O		
CHEM 31511	C	C	C	C	C	C	C	C	C	C
CHEM 31522	O	O	O	O	O	O	O	O	O	O
CHEM 31532	O	O	O	O	O	O	O	O	O	O
CHEM 32542	O	O	O	O	O	O	O	O	O	O
CHEM 32552	O	O	O	O	O	O	O	O	O	O
CHEM 32561	O	O	O	O	O	O	O	O	O	O
COST 31513		C	C							C
COST 31523		C	C							C
COST 32532		O	O							O
COST 32543		O	O							O
IMGT 14512	O	O	O	O	O	O	O	O	O	
IMGT 21511	O	O	O	O	O	O	O	O	O	
MIBI 31514				C	C	C				
MIBI 31522				C	C	C				
MIBI 32556				O	O	O				
MIBI 33534				O	O	O				
MIBI 33541				O	O	O				
MIBI 33562				O	O	O				
MBBT 31513							C			
MBBT 31522							C			
MBBT 32534							O			
MBBT 32542							O			
MGMT 11022[1,2]	C	C	C	C	C	C	C	C	C	C
PHYS 32582	O	O	O	O	O	O	O	O	O	O
PMAT 11703	A	A	A	A	A	A	A	A	A	A
PMAT 12713	A	A	A	A	A	A	A	A	A	A
PRPL 31992	O	O	O	O	O	O	O	O	O	O
STAT 14552	A	A	A	A	A	A	A	A	A	A
ZOOL 31512[3]	O		O	O				O		
ZOOL 31523[3]	O		O	O				O		
ZOOL 31532[3]	O		O	O				O		
ZOOL 32543[3]	O		O	O				O		
ZOOL 32552[3]	O		O	O				O		
ZOOL 32563[3]	O		O	O				O		
No of Credits from Compulsory Units	7	13	7	13	7	8	12	8	2	8

1 Should offer during the three year period of the Degree Programme.
2 **Credits not counted for the GPA calculation.**
3 In order to claim Zoology as a subject for the BSc Degree programme, student should accumulate a minimum of 7 credits from the level 3 ZOOL optional course units.

Students may take course units up to a maximum of 6 credits with not more than 2 credits per semester from other faculties.

3.2.2 BSc Degree Programme – Year 1
Physical Sciences
Available combinations to select course units

Course code	Course unit combination (PSY1)									
	1	2	3	4	5	6	7	8	9	10
AMAT 11513	C			C			C		C	
AMAT 11522	C			C			C		C	
AMAT 12532	C			C			C		C	
AMAT 12543	C			C			C		C	
DELT 12262[1]	C	C	C	C	C	C	C	C	C	C
CHEM 11511[1]						O	O			O
CHEM 11522						C	C			C
CHEM 11532						C	C			C
CHEM 11541						C	C			C
CHEM 12552						C	C			C
CHEM 12562						C	C			C
CHEM 12571						C	C			C
COSC 11513		C		C	C	C				
COSC 11522		C		C	C	C				
COSC 12533		C		C	C	C				
COSC 12542		C		C	C	C				
COST 11513								C		C
COST 11522								C		C
COST 12533								C		C
COST 12542								C		C
ELEC 11513			C					C		
ELEC 11521			C					C		
ELEC 12534			C					C		
ELEC 12541			C					C		
PHYS 11512	C	C	C					C		
PHYS 11521	C	C	C					C		
PHYS 11532	C	C	C					C		
PHYS 12542	C	C	C					C		
PHYS 12552	C	C	C					C		
PHYS 12561	C	C	C					C		
MAPS 11512	A	A	A	A	A	A	A	A	A	A
PMAT 11513	C	C	C	C	C	C	C		C	C
PMAT 11522	C	C	C	C	C	C	C		C	C
PMAT 12532	C	C	C	C	C	C	C		C	C
PMAT 12543	C	C	C	C	C	C	C		C	C
STAT 11514					C				C	
STAT 11521					C				C	
STAT 12533					C				C	
STAT 12542					C				C	
No of Credits from Compulsory Units	32	32	31	32	32	32	32	31	32	32

1   Credits not counted for the GPA calculation.

3.2.3 BSc Degree Programme – Year 2
Physical Sciences
Available combinations to select course units

Course code	Course unit combination (PSY2)									
	1	2	3	4	5	6	7	8	9	10
AMAT 21552	C			C			C		C	
AMAT 21562	C			C			C		C	
AMAT 22572	C			C			C		C	
AMAT 22582	C			C			C		C	
CHEM 21512						C	C			C
CHEM 21522						C	C			C
CHEM 21531						C	C			C
CHEM 22542						C	C			C
CHEM 22552						C	C			C
CHEM 22561						C	C			C
CHEM 22571						C	C			C
COSC 21513		C		C	C	C				
COSC 21523		C		C	C	C				
COSC 22532		C		C	C	C				
COSC 22543		C		C	C	C				
COST 21513								C		C
COST 22523								C		C
COST 22534								C		C
ELEC 21513			C					C		
ELEC 21521			C					C		
ELEC 22534			C					C		
ELEC 22541			C					C		
PHYS 21513	C	C	C					C		
PHYS 21521	C	C	C					C		
PHYS 22533	C	C	C					C		
PHYS 22541	C	C	C					C		
PHYS 22553	O	O	C					C		
MAPS 22603	A	A	A	A	A	A	A	A	A	A
PMAT 21553	C	C	C	C	C	C	C		C	C
PMAT 21562	C	C	C	C	C	C	C		C	C
PMAT 22572	C	C	C	C	C	C	C		C	C
PMAT 22583	C	C	C	C	C	C	C		C	C
STAT 21513					C				C	
STAT 21522					C				C	
STAT 22533					C				C	
STAT 22542					C				C	
No of Credits from Compulsory Units	27	29	30	30	31	32	30	30	29	31

3.2.4 BSc Degree Programme – Year 3
Physical Sciences
Available combinations to select course units

Course code	Course unit combination (PSY3)									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
AMAT 31593	C			C			C		C	
AMAT 31603	O			O			O		O	
AMAT 31613	O			O			O		O	
AMAT 32623	C			C			C		C	
AMAT 32633	O			O			O		O	
AMAT 32643	O			O			O		O	
CHEM 31511						C	C			C
CHEM 31522						O	O			O
CHEM 31532						O	O			O
CHEM 32542						O	O			O
CHEM 32552						O	O			O
CHEM 32561						O	O			O
COSC 31513		C		C	C	C				
COSC 31522		O		O	O	O				
COSC 31533		O		O	O	O				
COSC 31542		O		O	O	O				
COSC 32553		O		O	O	O				
COSC 32562		O		O	O	O				
COSC 32572		O		O	O	O				
COSC 32582		O		O	O	O				
COST 31513								O		O
COST 31523								C		C
COST 32532								O		O
COST 32543								O		O
ELEC 31513			C					C		
ELEC 31521			C					C		
ELEC 32534			O					O		
ELEC 33542			C					C		
MDGP 31982	O	O	O	O	O	O	O	O	O	O
PHYS 31512	C	C	C					C		
PHYS 31521	C	C	C					C		
PHYS 31532[1]	O	O	O					O		
PHYS 31544[1]	O	O	O					O		
PHYS 32551[2]	C	C								
PHYS 32562[2]	C	C								
PHYS 32572[1]	O	O	O					O		
PHYS 32582[1,3]	O	O	O					O		
PRPL 31992	O	O	O	O	O	O	O	O	O	O
MAPS 32612	A	A	A	A	A	A	A	A	A	A
PMAT 31593	C	C	C	C	C	C	C		C	C
PMAT 31602	C	C	C	C	C	C	C		C	C
PMAT 32612	C	C	C	C	C	C	C		C	C
PMAT 32622	O	O	O	O	O	O	O		O	O
PMAT 32632	O	O	O	O	O	O	O		O	O
STAT 31513					C				C	
STAT 31522					O				O	
STAT 31532					O				O	
STAT 32543[4]					O				O	
STAT 32552					O				O	

STAT 31562[4]					O				O	
No of Credits from Compulsory Units	**18**	**16**	**16**	**15**	**13**	**11**	**13**	**12**	**15**	**11**

1 Compulsory for BSc Honours Degree in Physics.

2 Available only for the students who are NOT doing Electronics as a subject.

3 Availability of the course unit will be announced by the Department of Physics at the beginning of the each academic year.

4 Compulsory for BSc Honours Degree in Statistics.

3.25 Course Structure for BSc in Physics and Electronics

Course code	Course unit combination		
	Year 1	Year 2	Year 3
AMAT 11513	C		
AMAT 12543	O		
AMAT 21552		C	
AMAT 31593			O
BFIN 12333[1]	C		
BFIN 22333[1]		C	
BFIN 31623[1]			C
ELEC 11513	C		
ELEC 11521	C		
ELEC 12534	C		
ELEC 12541	C		
ELEC 21513		C	
ELEC 21521		C	
ELEC 22534		C	
ELEC 22541		C	
ELEC 31513			C
ELEC 31521			C
ELEC 32534			C
ELEC 33542			C
DELT 12262[2]	C		
MDGP 31982			O
PHYS 11512	C		
PHYS 11521	C		
PHYS 11532	C		
PHYS 12542	C		
PHYS 12552	C		
PHYS 12561	C		
PHYS 21513		C	
PHYS 21521		C	
PHYS 22533		C	
PHYS 22541		C	
PHYS 22553		C	
PHYS 31512			C
PHYS 31521			C
PHYS 31532			C
PHYS 31544			O
PHYS 32572			C
PHYS 32582			C
PRPL 31992			O
MAPS 11512	O		
MAPS 22603		O	
MAPS 32612			O
PMAT 11513	C		
PMAT 12532	C		
PMAT 12543	C		
PMAT 21553		C	
PMAT 22572		C	
PMAT 22583		C	
PMAT 31593			C
PMAT 31602			C
PMAT 32612			O
No of Credits from Compulsory Units	33	33	31

1 Offered by the Faculty of Commerce & Management Studies.
2 Credits not counted for the GPA calculation.

3.3 Course Structure for BSc Degree in ENCM

Course code	Course unit combination (ENCM)		
	Year 1	Year 2	Year 3
BOTA 22563		C	
BOTA 22573		C	
DELT 11242	C		
CHEM 11522	C		
CHEM 11541	C		
CHEM 12552	C		
CHEM 12562	C		
CHEM 12571	C		
CHEM 21522		C	
CHEM 22571		C	
CHEM 31532			C
CHEM 32561			C
ENCM 11512	C		
ENCM 11522	C		
ENCM 11532	C		
ENCM 11543	C		
ENCM 12553	C		
ENCM 12562	C		
ENCM 12572	C		
ENCM 21513		C	
ENCM 21522		C	
ENCM 21533		C	
ENCM 21542		C	
ENCM 21552		C	
ENCM 21562		C	
ENCM 22572		C	
ENCM 31513[1]			C
ENCM 31522			C
ENCM 31532			C
ENCM 31543			C
ENCM 31552			C
ENCM 33564[1]			C
ENCM 32572[2]			O
ENCM 32582[2]			O
ENCM 32592			C
ENCM 32605[1]			C
MIBI 22554		C	
MIBI 22562		C	
ZOOL 12523	C		
ZOOL 12531	C		
ZOOL 32563			C
No of Credits from Compulsory Units	**30**	**31**	**33**

1 Not offered for the BSc Honours degree programme in ENCM.
2 Student should accumulate credits for at least one optional course units offered in the third year.

4. COURSE STRUCTURE
BSc HONOURS DEGREE

4.1   Honours Degree – Course Structure
Biochemistry, Botany, Chemistry, Computer Studies, Environmental Conservation and Management, Microbiology, Molecular Biology & Plant Biotechnology and Zoology

Course code	Course combination (HDBS)							
	1	2	3	4	5	6	7	8
BIOC 32552	O					O		
BIOC 32561	O					O		
BIOC 43764								C
BIOC 43774								C
BIOC 43784								C
BIOC 43794								C
BIOC 43802								C
BIOC 43812								C
BIOC 43822								C
BIOC 43832								C
BIOC 43841[1]								C
BIOC 43854								C
BIOC 43863								C
BIOC 43874								C
BIOC 43884								C
BIOC 43891								C
BIOC 43908								C
PRPL 31992	O			O	O	O		
BOTA 31514	C							
BOTA 31522	C							
BOTA 32534	C							
BOTA 32542	C							
BOTA 41766	C							
BOTA 41784	C							
BOTA 41793	C							
BOTA 41803	C							
BOTA 41813	C							
BOTA 41823	C							
BOTA 42776	C							
BOTA 42853	C							
BOTA 42864	C							
BOTA 42873	C							
BOTA 43838	C							
BOTA 43842	C							
CHEM 31511	C			C	C	C		
CHEM 31522	O			O	O	O		
CHEM 31532	O		C	O	O	O		
CHEM 32542	O			O	O	O		
CHEM 32552	O			O	O	O		
CHEM 32561	O		C	O	O	O		
CHEM 43764		C						C
CHEM 43774		C						
CHEM 43784		C						
CHEM 43794		C						C
CHEM 43804		C						
CHEM 43812		C						C
CHEM 43822		C						
CHEM 43833		C						
CHEM 43843		C						C
CHEM 43853		C						
CHEM 43862		C						
CHEM 43872[1]		C						
CHEM 43884		C						
CHEM 43894		C						
CHEM 43904		C						
CHEM 43914		C						C
CHEM 43924		C						

Course code	Course combination (HDBS)							
	1	2	3	4	5	6	7	8
CHEM 43934		C						
CHEM 43948		C						
CHEM 43951		C						
COST 31153							C	
COST 31523							C	
COST 32532							C	
COST 32543							C	
COST 31554							C	
COST 31562							C	
COST 32574							C	
COST 41013							O	
COST 42022							C	
COST 41164[2]							O	
COST 41174[2]							O	
COST 44033							C	
COST 44092							C	
COST 44102							C	
COST 44112							O	
COST 44122							C	
COST 44132							C	
COST 44143							C	
COST 44152							C	
COST 44043							C	
COST 44053							C	
COST 44062							C	
COST 44072							O	
COST 44083							C	
COST 44193							C	
COST 44203							O	
COST 44213							O	
COST 44223							O	
COST 43238							C	
ENCM 31522			C					
ENCM 31532			C		O			
ENCM 31543			C					
ENCM 31552			C					
ENCM 32572[6]			O		O			
ENCM 32582[6]			O					
ENCM 32592			C					
ENCM 41512			C					
ENCM 41523			C					
ENCM 41564			C					
ENCM 41574			C					
ENCM 41583			C					
ENCM 41592			C					
ENCM 42542			C					
ENCM 42553			C					
ENCM 42604			C					
ENCM 42612			C					
ENCM 42622			C					
ENCM 42632			C					
ENCM 42642			C					
ENCM 43532			C					
ENCM 43654			C					
ENCM 43668			C					
MIBI 31514			C					
MIBI 31522			C					

Course code	Course combination (HDBS)							
	1	2	3	4	5	6	7	8
MIBI 32556				O				
MIBI 33534				C				
MIBI 33541				C				
MIBI 33562				O				
MIBI 43764				C				
MIBI 43774				C				
MIBI 41784				C				
MIBI 43794				C				
MIBI 41804				C				
MIBI 43814				C				
MIBI 41824				C				
MIBI 43834				C				
MIBI 43846				C				
MIBI 43852				C				
MIBI 43868				C				
MBBT 31513					C			
MBBT 31522					C			
MBBT 32534					C			
MBBT 32542					C			
MBBT 41766					C			
MBBT 41784					C			
MBBT 41794					C			
MBBT 41805					C			
MBBT 41813					C			
MBBT 42776					C			
MBBT 42853					C			
MBBT 43824					C			
MBBT 43832					C			
MBBT 43848					C			

Course code	Course combination (HDBS)							
	1	2	3	4	5	6	7	8
ZOOL 31512						C		
ZOOL 31532						C		
ZOOL 32543						C		
ZOOL 32552						C		
ZOOL 32563						C		
ZOOL 41512						C		
ZOOL 41524						C		
ZOOL 41574						C		
ZOOL 41584						C		
ZOOL 41592						C		
ZOOL 41612[5]						O		
ZOOL 41622[5]						O		
ZOOL 42542						O		
ZOOL 42554[4]						C		
ZOOL 42564[4]						C		
ZOOL 42632						C		
ZOOL 42642						C		
ZOOL 42654						C		
ZOOL 42662[5]						O		
ZOOL 42672[5]						O		
ZOOL 42684[5]						O		
ZOOL 42692[5]						O		
ZOOL 43532						O		
ZOOL 43608						C		

1 **Credits not counted for the GPA calculation.**
2 Students are allowed to register to follow either COST 41164 or COST 41174, but not both in Semester I of Level 4.
3 Students must follow one of the two course units.
4 Zoology Honours students must follow one of the two level 4 optional course units in the 3rd year.
5 The student should accumulate only 8 credits from level 4 optional ZOOL course units in the 4th year.
6 Students should accumulate for at least one optional course units offered in Level 3

4.2 Honours Degree – Course Structure
Computer Science, Computer Studies, Mathematics, Mathematical Physics, Physics and Statistics

Course Units	Course combination (HDPS)							
	1	2	3	4	5	6	7	8
AMAT 21562				O	O			
AMAT 31613		O	C					
AMAT 32643	O	O						
AMAT 41763	C	O						
AMAT 41773	C	O						
AMAT 42783	C	O						
AMAT 42793	C		C					
AMAT 42803	O	O						
AMAT 41813	O	O						
AMAT 41823	C							
AMAT 41833	C							
AMAT 42843	O		C					
AMAT 42853	O		C					
AMAT 43976[1]	C		C					
COSC 31522							O	
COSC 31542							O	
COSC 32562							O	
COSC 32572							O	
COSC 32582							O	
COSC 31513							C	
COSC 32553						O	O	
COSC 31533							O	
COSC 44063							C	
COSC 44073							C	
COSC 44042						C	C	
COSC 44052						O	C	
COSC 44083							C	
COSC 44103							C	
COSC 44143							O	
COSC 44123							C	
COSC 44133							O	
COSC 44163							O	
COSC 44093							C	
COSC 44243							C	
COSC 44233							O	
COSC 44153							O	
COSC 44173							O	
COSC 44193							O	
COSC 44183							O	
COSC 43268							C	
COSC 41022							O	
COSC 42032							C	
COSC 44203							O	
COSC 44214							O	
COSC 44224							O	
COSC 41254							O	
COSC 44112							C	
COST 31562								C
COST 31513								C
COST 31523								C
COST 31554[1]								C
COST 41013								O
COST 32532								C
COST 32543								C
COST 32574[2]								C
COST 42022								C
COST 41164								O

Course Unit	Course combination (HDPS)							
	1	2	3	4	5	6	7	8
COST 41174								O
COST 43238								C
COST 44033								C
COST 44092								C
COST 44102								C
COST 44112								O
COST 44122								C
COST 44132								C
COST 44143								C
COST 44184								O
COST 44203								O
COST 44213								O
COST 44223								O
COST 44152								C
COST 44043								C
COST 44053								C
COST 44062								C
COST 44072								O
COST 44083								C
COST 44193								C
ELEC 31513					C			
ELEC 31521					C			
PHYS 31512			C	C	C			
PHYS 31521			C	C	C			
PHYS 31532			O	C	C			
PHYS 31544			C	C	C			
PHYS 32551			C	C				
PHYS 32562			C	C				
PHYS 32572			O	C	C			
PHYS 32582			C	C	C			
PHYS 44764			C	C	C			
PHYS 44774			C	C	C			
PHYS 44784			C					
PHYS 44793				C	C			
PHYS 43804			C	C	C			
PHYS 44814					C			
PHYS 44824			C	C	C			
PHYS 44834	C		C	C	C			
PHYS 44854			C	C	C			
PHYS 43864			C	C	C			
PHYS 43875				C	C			
PHYS 43888			C	C	C			
PMAT 31593				C	C			
PMAT 32612			C	C				
PMAT 32622		C	C			C	C	
PMAT 32632	O	O	O					
PMAT 41763	C	C	C					
PMAT 41772	O	O	O					
PMAT 41783	O	O	O					
PMAT 42793	O	O	O					
PMAT 42802	C	C						
PMAT 41813	C	C	C					
PMAT 41823[4]	C	C	O					
PMAT 41962	C	C	O					
PMAT 43976	C	C	O					
PMAT 42833	C	C						

Course Units	Course combination (HDPS)							
	1	2	3	4	5	6	7	8
PMAT 42843	O	O						
PRPL 31992			O	O	O	O	O	O
STAT 31513						C		
STAT 31522						O		
STAT 32543						O		
STAT 32552						O		
STAT 32562						O		
STAT 31532						O		
STAT 41763						C		
STAT 44774						C		
STAT 41783						C		

Course Units	Course combination (HDPS)							
	1	2	3	4	5	6	7	8
STAT 44794						C		
STAT 42803						C		
STAT 42813						C		
STAT 41823						C		
STAT 44833						C		
STAT 42843						C		
STAT 44854						O		
STAT 44864						O		
STAT 43876						C		
STAT 44884						O		
STAT 44893						O		

1 Compulsory only for students entered to the Honours Degree Programme from the Biological Science stream.
2 Compulsory for all students who have not followed the course units STAT 11514 and STAT 11521 in   Level 1.
3 Students are allowed to register to follow either COST 41164 or COST 41174, but not both in Semester I of Level 4.
4 Students in the Mathematical Physics program are strongly advised to attend this course.

Combination 1: A student should take either AMAT 43976 or PMAT 43976.
Combination 3: A student should take either AMAT 43976 or PHYS 43888.

Note: Some of the optional course units will be offered depending on the staff availability. Students are requested to consult the Head of the Department prior to their registrations for the level 4 course units.

4.3 Honours Degree – Course Structure
Information Technology, Management and Technology

Course Units	Course Combination (HDMIT)				Course Units	Course Combination (HDMIT)			
	1	2	3	4		1	2	3	4
DELT 11212	C	C	C	C	MGTE 11213	C	C	C	C
DELT 12212	C	C	C	C	MGTE 11222	C	C	C	C
GNCT 13212[a]	C	C	C	C	MGTE 11232	C	C	C	C
GNCT 23212[a]	C	C	C	C	MGTE 12212	C	C	C	C
GNCT 32216	C	C	C	C	MGTE 12222	C	C	C	C
INTE 11213	C	C	C	C	MGTE 21212	C	C	C	C
INTE 11223	C	C	C	C	MGTE 21222	C	C	C	C
INTE 12213	C	C	C	C	MGTE 21233	C	C	C	C
INTE 12223	C	C	C	C	MGTE 21243	C	C	C	C
INTE 21213	C	C	C	C	MGTE 22212	C	C	C	C
INTE 21223	C	C	C	C	MGTE 22222	C	C	C	C
INTE 22213	C	C	C	C	MGTE 31212	C	C	C	C
INTE 22222	C	C	C	C	MGTE 31222	C	C	C	C
INTE 22232	C	C	C	C	MGTE 34213	C	C	C	C
INTE 22243	C	C	C	C	MGTE 31233			C	
INTE 24213	C	C	C	C	MGTE 31243			C	O
INTE 31213	C	C	C	C	MGTE 31252			C	C
INTE 31222	C	C	C	C	MGTE 31262			O	O
INTE 31232	O	O	O	O	MGTE 31272			O	O
INTE 31243	O	O	O	O	MGTE 31283			O	O
INTE 34212	C	C	C	C	MGTE 31293			O	O
INTE 31253	C				MGTE 31303				C
INTE 31262	C				MGTE 41212	C	C	C	C
INTE 31273	C				MGTE 41222		O	C	
INTE 31283	O				MGTE 41233			C	O
INTE 31293	O				MGTE 41243		O	O	O
INTE 31303	C				MGTE 42213			C	
INTE 31312	C				MGTE 42223			O	O
INTE 31322	O	O			MGTE 42232			O	
INTE 31332		O			MGTE 42243			O	
INTE 44212			O	O	MGTE 43216[b]	C	C	C	C
INTE 41282		C		O	MGTE 44212			O	
INTE 41213	C				MGTE 44223			O	O
INTE 41223	O	O			MGTE 41252				C
INTE 41233	O				MGTE 41262				C
INTE 41242	C				MGTE 42252				C
INTE 41252	O				MGTE 42262				C
INTE 41263	O	O			MGTE 42272				O
INTE 42213	C	O			MGTE 42282				O
INTE 42232	O				MGTE 44223			O	O
INTE 42242	O	O			MGTE 42292	C			
INTE 42253	O				PMAT 11212	C	C	C	C
INTE 44222	O				PMAT 12212	C	C	C	C
INTE 41273		C							
INTE 42263		C							
INTE 42272		O							
INTE 42282		O							
INTE 43216[b]	C	C	C	C					

[a] Credits earned will not be considered for GPA
[b] Students should offer either MGTE 43216 or INTE 43216

4.4   Honours Degree Course Structure
Software Engineering

Course Units	Course Combination (HDSE)
DELT 11212	C
DELT 12212	C
GNCT 13212[a]	C
PMAT 11212	C
PMAT 12212	C
SENG 11213	C
SENG 11223	C
SENG 11232	C
SENG 11243	C
SENG 12213	C
SENG 12223	C
SENG 12233	C
SENG 12242	C
GNCT 23212 [a]	C
PMAT 22213	O
SENG 21213	C
SENG 21222	C
SENG 21233	C
SENG 21243	C
SENG 21253	C
SENG 21263	O
SENG 21272	C
SENG 22212	C
SENG 22223	C
SENG 22233	C
SENG 22243	C
SENG 22253	O
SENG 24213	C
SENG 31212	C
SENG 31222	C
SENG 31232	C
SENG 31242	C
SENG 31252	C
SENG 31262	C
SENG 31272	O
SENG 31282	O
SENG 31292	O

[a] Credits earned will not be considered for GPA

Application Domains	AD1	AD2	AD3	AD4	AD5	AD6
SENG 31313	C					
SENG 31323		C				
SENG 31333			C			
SENG 31343				C		
SENG 31353					C	
SENG 31363						C
SENG 32216				C		
SENG 34213				C		
SENG 34222				C		

Application Domains	AD1	AD2	AD3	AD4	AD5	AD6
SENG 41212				C		
SENG 41222				C		
SENG 41233				O		
SENG 41242				O		
SENG 41252				O		
SENG 41262				O		
SENG 41272				O		
SENG 41283	C					
SENG 41293		C				
SENG 41303			C			
SENG 41313				C		
SENG 41323					C	
SENG 41333						C
SENG 42212				C		
SENG 42222				O		
SENG 42232				O		
SENG 42242				O		
SENG 42252				O		
SENG 42273	C					
SENG 42283		C				
SENG 42293			C			
SENG 42303				C		
SENG 42313					C	
SENG 42323						C
SENG 43216				C		

[a] Credits earned will not be considered for GPA

5.   COURSE UNITS

Course Units offered for BSc, BSc in PHEL, BSc in ENCM, BSc Honours in MIT and BSc Honours in SENG programmes.

	Compulsory Course Units for Biological Science Stream	
	Course Units	**Status**
Year 1 Sem 1	BIOL 11512 Scope and Fundamentals of Microbiology	C
	BIOL 11522 Genetics	C
	BIOL 11532 Basic Biochemistry	C
	BIOL 11542 Animal Form, Function and Behaviour	C
	DELT 11222 English for Biology[1]	C
Year 2 Sem 2	DELT 22232 English for Communication and Further Studies[1]	C
Year 1 Year 2 or Year 3	MGMT 11022 Communication Skills and Personality Development[1,2]	C

1 Credits not counted for the GPA calculation.
2   Should offer during the three-year period of the Degree Programme.

	Compulsory Course Units for Physical Science Stream	
	Course Units	**Status**
Year 1	DELT 12262[1] English for Physical Science	C

1 Credits not counted for the GPA calculation.

	Stream Compulsory Course Units for BSc Degree in Physics and Electronics Programme	
	Course Units	**Status**
Year 1 Se- I	DELT 12262[1] English for Physical Science	C
	BFIN 12333[2] Management Functions and Practices	C
Year 2 Se- II	BFIN 22333[2] Strategic Management	C
Year 3 Se- I	BFIN 31623[2] Organizational Behaviour	C

1 Credits not counted for the GPA calculation.
2 Offered by the Faculty of Commerce & Management Studies.

Compulsory Course Units for BSc Honours Degree in MIT and SE Programmes		
	Course Units	**Status**
Year 1 Sem 1	DELT 11212 English for Professionals	C
Year 1 Sem 2	DELT 12212 Communication Skills for Professionals	C

Compulsory Course Units for BSc ENCM Programme		
	Course Units	
Year 1 Sem 1	DELT 11242 English for Environmental Science	C

	Subject: Applied Mathematics (AMAT)			
BSc				
	Course Units	**Status**	**Pre-requisite**	**Co-requisite**
Year 1 Sem 1	AMAT 11513 Vector Analysis	C	A/L Combined Mathematics	
	AMAT 11522 Mechanics I	C	A/L Combined Mathematics	
Year 1 Sem 2	AMAT 12532 Vector Methods in Geometry	C	AMAT 11513	
	AMAT 12543 Numerical Methods I	C	AMAT 11513	
Year 2 Sem 1	AMAT 21552 Scientific Computing using Appropriate Software I	C	AMAT 11513	
	AMAT 21562 Mechanics II	C	PMAT 11522	PMAT 21552
Year 2 Sem 2	AMAT 22572 Numerical Methods II	C	AMAT 21543	
	AMAT 22582 Scientific Computing using Appropriate Software II	C	AMAT 21552	AMAT 22572
Year 3 Sem 1	AMAT 31593 Mathematical Modelling	C		
	AMAT 31603 Mathematics for Finance I	O	PMAT 12522	
	PRPL 31992 Professional Placement	O	All AMAT course units offered in Level 1 & 2	
	AMAT 31613 Computational Mathematics	C	AMAT 31582	
Year 3 Sem 2	AMAT 32623 Introduction to Fluid Dynamics	O	complex	PMAT 31583
	AMAT 32633 Mathematics for Finance II	O	AMAT 31603	
	AMAT 32643 Mechanics III	O	AMAT 21562	
Honours				
	Course Units	**Status**	**Pre-requisite**	**Co-requisite**
Year 3 Sem 1	AMAT 41763 Qualitative and Quantitative Behaviour of the Solutions of Ordinary Differential Equations	C	AMAT 22562	
	AMAT 41773 Advanced Computational Mathematics	C	PMAT 21552	
Year 3 Sem 2	AMAT 42783 Advanced Mathematical Modelling	C	AMAT 41763	
	AMAT 42793 Fluid Dynamics	C	complex	PMAT 41763
	AMAT 42803 Graph Theory	O	PMAT 21543	
Year 4 Sem 1	AMAT 41813 Finacial Mathematics	O	PMAT 12522	
	AMAT 41823 Quantum Mechanics	O	PMAT 41542	
	AMAT 43976 [1]Research/ Study Project	C/O		
	AMAT 41833 Linear & Non – Linear Progamming	C	PMAT 21543	
Year 4 Sem 2	AMAT 42843 Quantum Field Theory	O	AMAT41823	
	AMAT 42853 Tensors and General Relativity	O	PMAT 21543	

1 Compulsory for the student who have not offered PMAT 43976

Subject: Biochemistry[1] (BIOC)				
BSc				
	Course Units	**Status**	**Pre-requisite**	**Co-requisite**
Year1 Sem 1	BIOL 11532 Basic Biochemistry (Lecture cum Laboratory) - (for BS stream)	C	A/L Chemistry and Biology	
Year 1 Sem 2	BIOC 12513 Functional Biochemistry[2]	C/O	BIOL 11532	BIOC 12531
	BIOC 12522 Metabolism of Biomolecules[2]	C/O	BIOL 11532	BIOC 12531
	BIOC 12531 Functional Biochemistry Laboratory[2]	C/O	BIOL 11532	BIOC 12513
Year 2 Sem 1	BIOC 21512 Molecular Biology[2]	C/O	BIOC 12513	BIOC 21521
	BIOC 21522 Analytical Biochemistry[2]	C/O	BIOC 12513	BIOC 21531
	BIOC 21531 Molecular Biochemistry Laboratory[2]	C/O	BIOC 12531	BIOC 21512 BIOC 21522
Year 2 Sem 2	BIOC 22542 Biotechnology[2]	C/O	BIOC 21512	BIOC 22561
	BIOC 22552 Environmental and Agricultural Biochemistry[2]	C/O	BIOC 21513	BIOC 22561
	BIOC 22561 Environmental and Agricultural Biochemistry Laboratory[2]	C/O	BIOC 21531	BIOC 22552/ BIOC 22542
Year 3 Sem 1	BIOC 31511 Seminar	C	BIOC 22552	
	BIOC 31522 Immunochemistry & Neurochemistry[2]	C/O	BIOC 22542	
	BIOC 31532 Pharmaceutical Chemistry[2]	C/O	BIOC 31522	BIOC 31541
	BIOC 31541 Pharmaceutical Chemistry Laboratory[2]	C/O	BIOC 21531	BIOC 31532
	PRPL 31992 Professional Placement	O	All BIOC compulsory units offered in Levels 1 & 2	
Year 3 Sem 2	BIOC 32552 Food and Nutritional Biochemistry	O	BIOC 12513/ CHEM 22152	BIOC 32561
	BIOC 32561 Food and Nutritional Biochemistry Laboratory	O	BIOC 12513/ CHEM 22152	BIOC 32552

1 Restricted enrolment.
2 Compulsory for students following Biochemistry as a subject.

Subject: Biochemistry (BIOC)		
Honours		
	Course Units	**Status**
Year 3	BIOC 43764 Advanced Tools in Molecular Biology and Bioinformatics	C
	BIOC 43774 Medicinal Chemistry	C
	BIOC 43784 Advanced Molecular Genetics and Cell Biology	C
	BIOC 43794 Biophysics and Molecular Modeling	C
	BIOC 43802 Clinical Biochemistry	C
	BIOC 43812 Advanced Biochemistry Laboratory	C
	BIOC 43822 Advanced Molecular Biology Laboratory	C
	BIOC 43832 Concepts in Biochemistry	C
	BIOC 43841 Industrial training[1]	C
Year 4	BIOC 43854 Food Technology and Nutrition	C
	BIOC 43863 Current Topics in Biochemistry and Molecular Biology	C
	BIOC 43874 Molecular Markers and Transgenic Technology	C
	BIOC 43884 Bioprocess Technology	C
	BIOC 43891 Seminar	C
	BIOC 43908 Research Project/ Dissertation	C

1 Credits not counted for the GPA calculation.

	Subject: Botany (BOTA)			
BSc				
	Course Units	**Status**	**Pre-requisite**	**Co-requisite**
Year 1 Sem 1	BIOL 11522 Genetics	C	G.C.E. A/L (Biology)	
	BOTA 11532 Organic Gardening[1]	A		
Year 1 Sem 2	BOTA 12514 Morphology, Anatomy and Taxonomy of Angiosperms	C	All BIOL course units	BOTA 12522
	BOTA 12522 Morphology, Anatomy and Taxonomy of Angiosperms Laboratory	C		BOTA 12514
Year 2 Sem 1	BOTA 21513 Plant Physiology	C	BOTA 12514	BOTA 21522
	BOTA 21522 Plant Physiology Laboratory	C		BOTA 21513
	BOTA 21531 Statistics and Data Analysis	C		
Year 2 Sem 2	BOTA 22544 Plant Evolution and Diversity	C	BOTA 12514	BOTA 22552
	BOTA 22552 Plant Evolution and Diversity Laboratory	C		BOTA 22544
	BOTA 22563 Floristic Resources and Management[2]	C	ENCM 11512 & ENCM 11522	
	BOTA 22573 Plant Diversity[2]	C	ENCM 11512 & ENCM 11522	
Year 3 Sem 1	BOTA 31514 Ecology and Environmental Resources Management	C	BOTA 22544	BOTA 31522
	BOTA 31522 Ecology and Environmental Resources Management Laboratory	C		BOTA 31514
	PRPL 31992 Professional Placement	O		
Year 3 Sem 2	BOTA 32534 Plant Pathology, Tissue Culture and Gene Technology	O	BOTA 21513	BOTA 32542
	BOTA 32542 Plant Pathology, Tissue Culture and Gene Technology Laboratory	O		BOTA 32534
	BOTA 32554 Horticulture and Post -harvest Biology	O	BOTA 21513	
Honours				
	Course Units	**Status**	**Pre-requisite**	
Year 3 Sem 1	BOTA 41766 Plant Systematics and Bioinformatics	C	All BOTA compulsory course units	
Year 3 Sem 2	BOTA 42776 Plant Physiology and Biochemistry			
Year 4 Sem 1	BOTA 41784 Plant Pathology	C	All BOTA compulsory course units and BOTA 32534	
	BOTA 41793 Applied Microbiology			
	BOTA 41803 Economic Botany			
	BOTA 41813 Plant Breeding			
	BOTA 41823 Forest Management and Soil Nutrient Dynamics			
	BOTA 43838 Research Project			
	BOTA 43842 Term Paper			
Year 4 Sem 2	BOTA 42853 Ecology of Sustainability			
	BOTA 42864 Molecular and Microbial Genetics			
	BOTA 42873 Fungal Ecophysiology and Applied Mycology			

1 Offered during alternate academic years for non-Biology students.
2 For ENCM Programme.

Subject: Chemistry (CHEM)				
BSc				
	Course Units	**Status**	**Pre-requisite**	**Co-requisite**
Year1 Sem 1	CHEM 11511 Calculations in Chemistry [1, 2]	C/O	A/L Chemistry	
	CHEM 11522 General Chemistry and Basic Analytical Chemistry	C	A/L Chemistry	
	CHEM 11532 Basic Physical Chemistry	C	A/L Chemistry	
	CHEM 11541 Basic Chemical Analysis Laboratory	C	A/L Chemistry	CHEM 11522
Year1 Sem 2	CHEM 12552 Basic Inorganic Chemistry I	C	CHEM 11522	
	CHEM 12562 Basic Organic Chemistry	C	CHEM 11522	
	CHEM 12571 Introductory Organic Chemistry Laboratory	C	CHEM 11541	CHEM 12562
Year 2 Sem 1	CHEM 21512 Basic Physical Chemistry II	C	CHEM 11532	
	CHEM 21522 Analytical Chemistry	C	CHEM 11522	
	CHEM 21531 Physical Chemistry Laboratory	C	CHEM 11541/ CHEM 11532	CHEM 21512
Year 2 Sem 2	CHEM 22542 Basic Inorganic Chemistry II	C	CHEM 12552	
	CHEM 22552 Organic Spectroscopy, Synthetic and Natural Product Chemistry	C	CHEM 12562	CHEM 22561
	CHEM 22561 Organic Spectroscopy, Synthetic and Natural Product Chemistry Laboratory	C	CHEM 12571	CHEM 22552
	CHEM 22571 Analytical Chemistry Laboratory	C	CHEM 21522	
Year 3 Sem 1	CHEM 31511 Inorganic Synthesis and Analysis Laboratory	C	CHEM 11541	
	CHEM 31522 Material Chemistry and Introduction to Quality Management	O	CHEM 22542	
	CHEM 31532 Applied Organic Chemistry	O	CHEM 22552	
	PRPL 31992 Professional Placement	O	All CHEM compulsory course units offered in Levels 1 & 2	
Year 3 Sem 2	CHEM 32542 Polymer Chemistry	O	CHEM 21522	
	CHEM 32552 Introduction to Environmental Chemistry	O	CHEM 11522/ CHEM 22522	CHEM 32561
	CHEM 32561 Environmental Chemistry Laboratory	O		CHEM 32552

1 Compulsory for biological science stream.
2 Credits not counted for the GPA calculation.

Subject: Chemistry (CHEM)		
Honours		
	Course Units	**Status**
Year3	CHEM 43764 Advanced Analytical Chemistry[2]	C
	CHEM 43774 Advanced Biochemistry I	C
	CHEM 43784 Advanced Inorganic Chemistry I	C
	CHEM 43794 Advanced Organic Chemistry I[2]	C
	CHEM 43804 Advanced Physical Chemistry I	C
	CHEM 43812 Analytical and Environmental Chemistry Laboratory[2]	C
	CHEM 43822 Biochemistry Laboratory	C
	CHEM 43833 Inorganic Chemistry Laboratory	C
	CHEM 43843 Organic Chemistry Laboratory[2]	C
	CHEM 43853 Physical Chemistry Laboratory	C
	CHEM 43862 Concepts in Chemistry	C
	CHEM 43872 Industrial / Professional Placement[1]	C
Year 4	CHEM 43884 Advanced Biochemistry II	C
	CHEM 43894 Advanced Environmental Chemistry	C
	CHEM 43904 Advanced Inorganic Chemistry II	C
	CHEM 43914 Advanced Organic Chemistry II[2]	C
	CHEM 43924 Advanced Physical Chemistry II	C
	CHEM 43934 Materials Chemistry	C
	CHEM 43948 Research Project - Dissertation	C
	CHEM 43951 Seminar	C

1 Credits not counted for the GPA calculation.
2 Course units offered for the Honours degree programme in Biochemistry and Chemistry.

Subject: Computer Science[1] (COSC)			
	Course Units	**Status**	**Pre-requisite**
Year 1 Sem 1	COSC 11513 Introduction to Computer Science	C	G.C.E. A/L
	COSC 11522 Introduction to Programming Concepts		G.C.E. A/L
Year 1 Sem 2	COSC 12533 Programming in C	C	COSC 11522, COSC 11513
	COSC 12542 Systems Analysis & Design	C	COSC 11522
Year 2 Sem 1	COSC 21513 Data structures and Algorithms	C	COSC 12533
	COSC 21523 Database Management Systems	C	COSC 12533
Year 2 Sem 2	COSC 22532 Object Oriented Programming	C	COSC 12533
	COSC 22543 Computer Organization and Operating Systems	C	COSC 11513
Year 3 Sem 1	PRPL 31992 Professional Placement	O	All Level 1and 2 course modules
	COSC 31513 Data communication and Networks	C	COSC 11513
	COSC 31522 Software Project Management	O	COSC 12542
	COSC 31533 Visual Programming	O	COSC 12533
	COSC 31542 Information Security	O	COSC 31513
Year 3 Sem 2	COSC 32553 Web & Internet Technologies	O	COSC 12533, COSC 31513
	COSC 32562 Mobile Application Development	O	COSC 31513
	COSC 32572 Systems and Network Administration	O	COSC 31513, COSC 22543
	COSC 32582 Introduction to Artificial Intelligence	O	COSC 11513
Honours			
	Course Units	**Status**	**Pre-requisite**
Year 3 and Year 4	COSC 41022 Human-Computer Interaction	O	COSC 32553
	COSC 42032 Theory of Programming Languages	C	COSC 12533
	COSC 44042 Advanced Database Concepts	C	COSC 21523
	COSC 44052 Advanced Database Applications	C	COSC 21523
	COSC 44063 Object-Oriented Analysis and Design	C	COSC 22532
	COSC 44073 Computer Architecture and Design	C	COSC 22543
	COSC 44083 Logic Programming and Deductive Reasoning	C	COSC 12533
	COSC 44093 Wireless Communication and Networks	C	COSC 31513
	COSC 44103 Machine Learning	C	COSC 32582
	COSC 44112 Research Methodology and Scientific Communication	C	COSC 11513
	COSC 44123 Network and Information Security	C	COSC 31513
	COSC 44133 Software Engineering	O	COSC 12533
	COSC 44143 Theoretical Aspects of Computer Graphics	C	COSC 11513
	COSC 44153 Digital Image Processing and Computer Vision	O	COSC 32582
	COSC 44163 Multimedia Systems Development	O	COSC 31513, COSC 32553
	COSC 44173 Data mining and Warehousing	O	COSC 44042
	COSC 44183 Natural Language Processing	O	COSC 44083
	COSC 44193 e-Business Technologies	O	COSC 32553
	COSC 44203 Semantic Web and Ontological Modeling	O	COSC 32553
	COSC 44214 Distributed Systems and Cloud Computing	O	COSC 31513
	COSC 44224 Emerging Technologies in Computer Science	O	All COSC Compulsory course units of Level 3
	COSC 44233 Theory of Compilers	O	COSC 22543
	COSC 44243 Theory of Computation	C	COSC 11513
	COSC 41254 Industrial Training	O	All COSC Compulsory course units of Level 3
	COSC 43268 Research Project	C	

Subject: Computer Studies[1] (COST)			
BSc			
	Course Units	**Status**	**Pre-requisite**
Year 1 Sem 1	COST 11513 Introduction to Computer Science	C	G.C.E. (A/L)
	COST 11522 Introduction to Programming Concepts	C	G.C.E. (A/L)
Year 1 Sem 2	COST 12533 Programming in C	C	COSC 11513, COST 11522
	COST 12542 Internet and its Services	C	COSC 11513
Year 2 Sem 1	COST 21513 Database Management Systems	C	COST 12533
Year 2 Sem 2	COST 22523 Structured Systems Analysis and Design	C	COST 11522
	COST 22534 Web Technology and e-Commerce Applications	C	COST 12533, COST 12542
Year 3 Sem 1	COST 31513 Visual Programming	C	COST 12533
	COST 31523 Management Information Systems	C	COSC 11513
	PRPL 31992 Professional Placement	O	All COST course units in Levels 1 & 2
Year 3 Sem 2	COST 32532 Web Programming	C	COST 22534
	COST 32543 Multimedia Technologies	C	COST 22534

1 Restricted Enrolment .

Subject: Computer Studies[3] (COST)			
Honours			
	Course Units	**Status**	**Pre-requisite**
Year 3 Sem 1	COST 31513 Visual Programming	C	COST 12533
	COST 31523 Management Information Systems	C	COSC 11513
	COST 31554 Mathematics for Information Technology[1]	C	G.C.E.(A/L)
	COST 41013 Data Structures and Algorithms	O	COST 12533
	PRPL 31992 Professional Placement	O	All COST course units in level 1 and 2
	COST 31562 Social and Professional Issues in Computing	C	COSC 11513
Year 3 Sem 2	COST 32532 Web Programming	C	COST 22534
	COST 32543 Multimedia Technologies	C	COSC 11513
	COST 32574 Statistics for Information Technology[2]	C	G.C.E.(A/L)
	COST 42022 Object Oriented Programming	C	COST 12533,
Year 3/4 Sem 1 and Sem 2	COST 44033 Operating Systems	C	COSC 11513
	COST 44043 Object Oriented Analysis and Design	C	COST 42022
	COST 44053 Computer Architecture and Organization	C	COSC 44033
	COST 44062 Advanced Database Concepts	C	COST 21513
	COST 44072 Advanced Database Applications	O	COST 21513
	COST 44083 Logic Programming	C	COSC 11513
	COST 44092 Human-Computer Interaction	C	COST 22534
	COST 44102 Research Methodology and Scientific Communication	C	COSC 11513
	COST 44112 Mobile Application Development	O	COST 12533
	COST 44122 Software Quality Assurance	C	COST 22523
	COST 44132 Software Project Management	C	COST 22523
	COST 44143 Data Communication and Networks	C	COST 12542
	COST 44152 Network and Systems Administration	C	COST 44143, COST 44033
	COST 41164 e-Business Technologies	O	COST 22534
	COST 41174 Industrial Training	O	All COST course units in level 1, 2 and 3
	COST 44184 Distributed Systems and Cloud Computing	O	COST 44143
	COST 44193 Information Security	C	COST 44143
	COST 44203 Data mining and Warehousing	O	COST 44062
	COST 44213 Semantic Web and Ontological Modeling	O	COST 22534
	COST 44223 Emerging Technologies in IT	O	All COSC compulsory course units of Level 3
	COST 43238 Research Project	C	All COST compulsory course units

Note:
Students are allowed to register to follow either COST 41164 or COST 41174, but not both in Semester I of Level 4.
Other Level 4 course units will be offered either in Semester I or Semester II of Level 3 or Level 4.

1 Compulsory only for students entered to the Honours Degree Programme from the Biological Science stream.
2 Compulsory for all students who have not followed the course units STAT 11514 and STAT 11521 in Level 1
3 Restricted enrolment.

Subject: Electronics[1] (ELEC)					
BSc					
		Course Units	**Status**	**Pre-requisite**	**Co-requisite**
Year 1 Sem 1	ELEC 11513	Basic Electronics	C	A/L Physics	ELEC 11521
	ELEC 11521	Basic Electronics Laboratory	C	A/L/ Physics	ELEC 11513
Year 1 Sem 2	ELEC 12534	Analogue Electronics	C	A/L/ Physics	ELEC 12541
	ELEC 12541	Analogue Electronics Laboratory	C	ELEC 11521	ELEC 12534
Year 2 Sem 1	ELEC 21513	Digital Electronics	C	ELEC 12534	ELEC 21521
	ELEC 21521	Digital Electronics Laboratory	C	ELEC 12541	ELEC 12534
Year 2 Sem 2	ELEC 22534	Signal Processing and Data Acquisition	C	ELEC 21513	ELEC 22541
	ELEC 22541	Signal Processing and Data Acquisition Laboratory	C	ELEC 21521	ELEC 21513
Year 3 Sem 1	PRPL 31992	Professional Placement	O		
	ELEC 31513	Computer Organization and Architecture	C	ELEC 22534	ELEC 31521
	ELEC 31521	Computer Architecture Laboratory	C	ELEC 22541	ELEC 31514
	ELEC 32534	Special Topics in Electronics	O	ELEC 31514	
Year 3 Sem 2	ELEC 33542	Research Project	C	All ELEC Compulsory Course Units	

1 Restricted enrolment.

	Subject: Environmental Conservation and Management (ENCM)			
BSc in ENCM				
	Course Units	**Status**	**Pre-requisite**	**Co-requisite**
Year 1 Sem1	ENCM 11512 Evolution of Earth and Biogeography	C	G.C.E. (A/L) Biology	-
	ENCM 11522 Introduction to Environmental Management	C	G.C.E. (A/L) Biology	-
	ENCM 11532 Hydrology and Meteorology	C	G.C.E. (A/L) Biology	-
	ENCM 11543 Soil and Mineral Resources	C	G.C.E. (A/L) Biology	-
Year 1 Sem 2	ENCM 12553 Pollution and Environmental Health	C	ENCM 11522	-
	ENCM 12562 Sustainable Utilization of Energy Resources	C	ENCM 11522	-
	ENCM 12572 Forest Resources	C	ENCM 11522	-
Year 2 Sem1	ENCM 21513 Principles of Geo-informatics	C	ENCM 11522	-
	ENCM 21522 Environmental Policies and Legislations	C	ENCM 11522	-
	ENCM 21533 Applied Ecology	C	ZOOL 12523	ENCM 21542
	ENCM 21542 Applied Ecology Laboratory	C	ZOOL 12531	ENCM 21533
	ENCM 21552 Parasites, Vectors and Environmental Health	C	ZOOL12523	-
	ENCM 21562 Solid Waste Management	C	ENCM 12553	-
Year 2 Sem2	ENCM 22572 Waste Water Management	C	ENCM 11522	-
Year 3 Sem 1	ENCM 31513 Environmental Economics[1]	C	ENCM 11522 & ENCM 12553	-
	ENCM 31522 Environmental Impact Assessment	C	ENCM 21533/ ZOOL 22543	-
	ENCM 31532 Environmental Monitoring	C	ENCM 21542	-
	ENCM 31543 Environment Management Systems and Green Technology	C	ENCM 11522 & ENCM 21522	-
	ENCM 31552 Hazardous Waste Management	C	ENCM 22572	-
	ENCM 33564 Environmental Project[1]	C	All level I & II ENCM course units	-
Year 3 Sem 2	ENCM 32572 Natural Disaster Management[2]	O	ENCM 11512 & ENCM 11532	-
	ENCM 32582 Urban Environment Management[2]	O	ENCM 11522	-
	ENCM 32592 Water Resources Management	C	ENCM 21533	-
	ENCM 32605 In-Plant Training[1]	C	All level I & II ENCM course units	-

1 Not offered for the BSc Honours in ENCM Degree programme.
2 Students should accumulate credits for at least one optional course units offered in the third year.

	Course Units	Status	Pre-requisite	Co-requisite
Subject: Environmental Conservation and Management (ENCM)				
Honours in ENCM				
Year 3 Sem 1	ENCM 31522 Environmental Impact Assessment	C	ENCM 21533/ ZOOL 22543	-
	ENCM 31532 Environmental Monitoring	C	ENCM 21542	-
	ENCM 31543 Environment Management Systems and Green Technology	C	ENCM 11522 & ENCM 21522	-
	ENCM 31552 Hazardous Waste Management	C	ENCM 22572	-
	ENCM 41512 Statistics for Environmental Management	C	ENCM 21542	-
	ENCM 41523 Forest Resources Management	C	ENCM 12572 & ENCM 21522	-
	ENCM 43532 Essay and Seminar on Special Topics in Environmental Management	C	ENCM 21522	-
Year3 Sem 2	ENCM 32572 Natural Disaster Management[1]	O	ENCM 11512 & ENCM 11532	-
	ENCM 32582 Urban Environment Management[1]	O	ENCM 11522	-
	ENCM 32592 Water Resources Management	C	ENCM 21533	-
	ENCM 42542 Research Methodology and Scientific Writing	C	ENCM 41512	-
	ENCM 42553 Geo-informatics for Environmental Management	C	ENCM 21523	-
Year 4 Sem 1	ENCM 41564 Applications in Environmental Economics	C	ENCM 31543	-
	ENCM 41574 Ecological Interactions and Behavioral Ecology	C	ENCM 21542	-
	ENCM 41583 Reserve Design and Protected Area Management	C	ZOOL 32563	-
	ENCM 41592 Professional Placement	C	All level II & III ENCM course units	-
Year 4 Sem 2	ENCM 42604 Ecology and Management of Wetlands	C	ENCM 21533	-
	ENCM 42612 Social Responsibility in Environmental Management	C	ENCM 31522	-
	ENCM 42622 Air Quality Management	C	ENCM 31543	-
	ENCM 42632 Global Climate Change	C	ENCM 21533	-
	ENCM 42642 Marine and Coastal Resources Management	C	ENCM 21533	-
	ENCM 43654 Environmental Toxicology and Risk Assessment[2]	C	ENCM 31532	-
	ENCM 43668 Research Project[2]	C	ENCM 41512 & ENCM 42542	-

1 Students should accumulate credits for at least one optional course units offered in the third year.
2 Offered throughout the year.

Subject: Generic Competencies (GNCT)		
Honours		
	Course Units	**Status**
Year 1 Sem 1	GNCT 11012 Philosophy of Science	C
Year 1 Sem 1 & 2	GNCT 13212 Personal Progress Development I	C
Year 2 Sem 1 & 2	GNCT 23212 Personal Progress Development II	C
Year 3 Sem 2	GNCT 32216 Internship	C

Subject: Industrial Management (IMGT)		
	Course Units	**Status**
Year 1	IMGT 14512 Management Theory and Practice[1]	A
Year 2	IMGT 21511 Introduction to Intellectual Property	A

1 Can take either IMGT 14512 or MGMT 11012.

Subject: Information Technology (INTE)		
Honours in MIT		
	Course Units	**Status**	**Pre-requisite**
Level 1	INTE 11213 Fundamentals of Computing	C	None
	INTE 11223 Programming Concepts	C	None
	INTE 12213 Object Oriented Programming	C	INTE 11223
	INTE 12223 Database Design and Development	C	INTE 11213
Level 2	INTE 21213 Information Systems Modeling	C	INTE 11213
	INTE 21223 Interactive Application Development	C	INTE 12213 INTE 22232
	INTE 22213 Web Application Development	C	INTE 11213
	INTE 22222 Business Information Systems	C	INTE 11213
	INTE 22232 Human Factors in Information Technology	C	INTE 11213
	INTE 22243 Computer Architecture and Operating Systems	O	INTE 11213
	INTE 24213 Data Structures and Algorithms	C	INTE 11223
Level 3	INTE 31213 Computer Networks	C	INTE 11213
	INTE 31222 System Design Project	C	INTE 21213
	INTE 31232 Data Science	O	INTE 22222
	INTE 31243 Embedded Systems Development	O	INTE 22243
	INTE 34212 System Development Project)	C	INTE 31222
	INTE 31253 Software Engineering Concepts	C	INTE 21213
	INTE 31262 Advanced Web Application Development	C	INTE 22213
	INTE 31273 Integrative Programming and Technologies	C	INTE 21213
	INTE 31283 Mobile Application Development	O	INTE 12213
	INTE 31293 Multimedia Technologies	O	INTE 22232
	INTE 31303 Requirement Engineering	C	INTE 21213
	INTE 31312 Information Technology Infrastructure	C	INTE 11213

	Course Units	Status	Pre-Requisite
	INTE 31322 Enterprise Systems	O	INTE 22222
	INTE 31332 IS Auditing and Control	O	INTE 22222
Level 4	INTE 41213 System Administration and Maintenance	C	INTE 11213
	INTE 41223 Advanced Databases	O	INTE 12223
	INTE 41233 Software Verification and Validation	O	INTE 31253
	INTE 41242 Artificial Intelligence	C	INTE 22222
	INTE 41252 Advanced Networking	O	INTE 31212
	INTE 41263 Data Mining & Warehousing	O	INTE 12223
	INTE 41273 Enterprise Architecture	C	INTE 31312
	INTE 41282 E-Business	C	INTE 22222
	INTE 42213 Information Assurance and Security	O	INTE 22222
	INTE 42232 Usability Engineering	O	INTE 22232
	INTE 42242 Distributed Systems	O	INTE 31262
	INTE 42253 Semantic web and Ontological Engineering	O	INTE 31262
	INTE 42263 Information Systems Strategy& Management	C	INTE 22222
	INTE 42272 Information Technology Resource Management	O	INTE 31312
	INTE 42282 Knowledge Management	O	INTE 22222
	INTE 43216 Research Project	C	MGTE 31222
	INTE 44212 Systems Modeling & Simulation	O	MGTE 12222
	INTE 44222 Internet of Things	O	INTE 31242

a Depending on the pathway the particular course would be a compulsory (C) or an Optional (O) course.

Subject: Management and Technology (MGTE)			
Honours in MIT			
	Course Units	**Status**	**Pre-Requisite**
Level 1	MGTE 11213 Statistics	C	None
	MGTE 11222 Principles of Management	C	None
	MGTE 11232 Industry & Technology	C	None
	MGTE 12212 Economics	C	None
	MGTE 12222 Optimization Methods in Management Science I	C	None
Level 2	MGTE 21212 Leadership and Management Communication	C	None
	MGTE 21222 Marketing Management	C	None
	MGTE 21233 Operations Management	C	None
	MGTE 21243 Accounting Concepts and Costing	C	None
	MGTE 22212 Human Resource Management	C	None
	MGTE 22222 Management of Technology	C	None
Year 3 Sem 1	MGTE 31212 Project Management	C	None
	MGTE 31222 Research Methods	C	None
	MGTE 31233 Strategic Management	C	MGTE 21222 MGTE 34213
	MGTE 31243 Optimization methods for Management Science II	C	
	MGTE 31252 Advanced Operations Management	C	MGTE 21233
	MGTE 31262 Statistical Techniques for Data Analysis	C	MGTE 11213

	MGTE 31272 Computer based tools for Management Applications	O	
	MGTE 31283 Strategic Marketing and International Trade	O	MGTE 21222
	MGTE 31293 Computer Integrated Manufacturing	O	MGTE 21233
	MGTE 31303 Procurement/Supply Management	C	MGTE 21233
	MGTE 34213 Managerial Finance	C	MGTE 21243
Level 4	MGTE 41212 Professional Practice	C	None
	MGTE 41222 Business Process Engineering	C	MGTE 31252
	MGTE 41233 Corporate Finance	C	MGTE 34213
	MGTE 41243 Enterprise Resources Planning and Control Systems	O	MGTE 31252
	MGTE 41252 Logistics Systems and Transportation Management	C	MGTE 31252
	MGTE 41262 Supply Chain Financing	C	MGTE 31303
	MGTE 42213 Industrial and Systems Engineering	C	MGTE 21233
	MGTE 42223 Investment Management	O	MGTE 41233
	MGTE 42232 Advanced Statistical Techniques for Industry	O	MGTE 11213
	MGTE 42243 Advanced Planning and Scheduling	O	MGTE 31252
	MGTE 42252 Strategic Quality Management and Lean Six Sigma	C	
	MGTE 42262 Warehouse and Distribution Management	C	MGTE 31252
	MGTE 42272 Management of Occupational Health, Safety and Environment	O	None
	MGTE 42282 Customer Service and Sales Management	O	MGTE 21222
	MGTE 42292 Business and IT Law	C	INTE 22222
	MGTE 44212 Advanced Optimization methods in Management Science	O	MGTE 31243
	MGTE 44223 Innovation and New Product Development	O	MGTE 21222
	MGTE 43216 Research Project	C	MGTE 31222

a   Depending on the pathway the particular course would be a compulsory (C) or an Optional (O) course.

Subject: Microbiology[1] (MIBI)				
BSc				
	Course Units	**Status**	**Pre-requisite**	**Co-requisite**
Year 1 Sem 1	BIOL 11512 Basic Microbiology (Lecture cum Laboratory)	C	A/L Biology	
Year 1 Sem 2	MIBI 12514 Diversity of Bacteria,Virus and Fungi	C	BIOL 11512	MIBI 12522
	MIBI 12522 Laboratory Techniques on taxonomy of Bacteria, Virus and Fungi	C	BIOL 11512	MIBI 12514
Year 2 Sem 1	MIBI 21514 Microbial Biochemistry and Physiology, Bacterial Genetics and its applications	C	MIBI 12514 MIBI 12522	MIBI 21522
	MIBI 21522 Laboratory aspects of Microbial Biochemistry and Physiology, Bacterial Genetics	C	MIBI 12514 MIBI 12522	MIBI 21514
Year 2 Sem 2	MIBI 22534 Fundamentals and Applications of Environmental and Agricultural Microbiology	C	MIBI 21514 MIBI 21522	MIBI 22542
	MIBI 22542 Laboratory aspects of Environmental and Agricultural Microbiology	C	MIBI 21514 MIBI 21522	MIBI 22534
	MIBI 22554 Microbiology for Environmental Management[2]	C	ENCM 12553	MIBI 22562
	MIBI 22562 Laboratory Microbiology for Environmental Management[2]	C	ENCM 12553	MIBI 22554
Year 3 Sem 1	PRPL 31992 Professional placement	O	All MIBI compulsory units offered in Levels 1 & 2	
	MIBI 31514 Food Microbiology and Food Hygiene, Microbiology of Food Processing and Preservation	C	MIBI 21514 MIBI 21522	MIBI 31522
	MIBI 31522 Laboratory aspects of Food Microbiology, Food Processing and Preservation	C	MIBI 21514 MIBI 21522	MIBI 31514
Year 3 Sem 2	MIBI 32556 Industrial Training in Microbiology[3]	C/O	MIBI 31514 MIBI 31522	
	MIBI 33534 Medical and Veterinary Microbiology, Microbial Technology[3]	C/O	MIBI 21514 MIBI 21522	MIBI 33541
	MIBI 33541 Laboratory aspects of Medical and Veterinary Microbiology[3]	C/O	MIBI 21514 MIBI 21522	MIBI 33534
	MIBI 33562 Special topics in Microbiology	O	MIBI 31514 MIBI 31522	MIBI 33534

1 Restricted enrolment.
2 Compulsory only for the students who follow the BSc Degree Programme in Environmental Conservation and Management.
3 Compulsory only for the Microbiology Honours students.

Subject: Microbiology[1] (MIBI)			
Honours			
	Course Units	**Status**	**Pre-requisite**
Year 3	MIBI 43764 Advanced study on selected taxonomic groups of Bacteria and Archaea, Applied Virology and Applied Mycology	C	All MIBI compulsory course units
	MIBI 43774 Advanced Bacterial Genetics, Bioethics and Biosafety, Bioinformatics, Molecular Biology and Gene Technology		
Year 4	MIBI 41784 Industrial Microbiology and Environmental Biotechnology		
	MIBI 41804 Food Technology and Nutrition		
	MIBI 41824 Microbiology of Fish Diseases, Advanced Bacterial Biochemistry and Physiology		
	MIBI 43794 Specific Microbiological Standards and Testing, Quality Assurance of Foods		
	MIBI 43814 Medical Microbiology and Immunology, Pharmaceutical Microbiology		
	MIBI 43834 Veterinary Microbiology and Plant Pathology		
	MIBI 43846 Studies on contemporary research in Microbiology		
	MIBI 43852 Laboratory Microbiology		
	MIBI 43868 Research Project		

1 Restricted enrolment.

Subject: Molecular Biology and Plant Biotechnology[1] (MBBT)				
BSc				
	Course Units	**Status**	**Pre-requisite**	**Co-requisite**
Year 1 Sem 1	BIOL 11522 Genetics	C	G.C.E. (A/L) Biology	
Year 1 Sem 2	MBBT 12513 Introduction to Molecular and Cellular Biology	C	All BIOL course units	MBBT 12522
	MBBT 12522 Introduction to Molecular and Cellular Biology Laboratory	C		MBBT 12513
Year 2 Sem 1	MBBT 21513 Plant Biochemistry	C	BIOL 11532	
	MBBT 21523 Principles of Gene Expression	C	MBBT 12513	
Year 2 Sem 2	MBBT 22533 Microbial Biology	C	BIOL 11512	
	MBBT 22543 Molecular Plant Breeding	C	MBBT 12513	
Year 3 Sem 1	MBBT 31513 Principles and Techniques in Plant Biotechnology	C	MBBT 12513	MBBT 31522
	MBBT 31522 Principles and Techniques in Plant Biotechnology Laboratory	C		MBBT 31513
	PRPL 31992 Professional Placement	O		
Year 3 Sem 2	MBBT 32534 Plant Pathology and Tissue Culture	O	MBBT 22533	MBBT 32542
	MBBT 32542 Plant Pathology and Tissue Culture Laboratory	O		MBBT 32534

1 Restricted enrolment.

Subject: Molecular Biology and Plant Biotechnology[1] (MBBT)			
Honours			
	Course Units	**Status**	**Pre-requisites**
Year 3 Sem 1	MBBT 41766 Plant Genetic Engineering		All MBBT compulsory course units
Year 3 Sem 2	MBBT 42776 Advanced Microbial Genetics		
Year 4 Sem 1	MBBT 41784 Molecular Plant Pathology	C	All MBBT compulsory course units and MBBT 32534
	MBBT 41794 Genetic Manipulation of Microorganisms		
	MBBT 41805 Developmental Gene Regulation		
	MBBT 41813 Bioinformatics in Molecular Biology		
	MBBT 43824 Modern Trends in Molecular Biology		
	MBBT 43832 Term Paper		
	MBBT 43848 Research Project		
Year 4 Sem 2	MBBT 42853 Ethics of Biotechnology, biosafety and intellectual property rights		
	MBBT 42864 Plant Genomics and Proteomics		

1 Restricted enrolment.

		Course Code	Title	Status	Pre-requisite	Co-requisite
		Subject: Physics[1] (PHYS)				
Year 1	Se – I	PHYS 11512	Mechanics and Properties of Matter	C	A/L Physics	PHYS 11521
		PHYS 11521	Elementary Physics Laboratory I	C	A/L Physics	PHYS 11512 PHYS 11532
		PHYS 11532	Electric Circuit Fundamentals	C	A/L Physics	PHYS 11521
	Se – II	PHYS 12542	Atomic and Nuclear Physics	C	A/L Physics	PHYS 12561
		PHYS 12552	Special Theory of Relativity & Quantum Mechanics	C	A/L Physics	PHYS 12561
		PHYS 12561	Elementary Physics Laboratory II	C	PHYS 11521	PHYS 12542 PHYS 12552
Year 2	Se - I	PHYS 21513	Waves and Optics	C	PHYS 12542 PHYS 12552	PHYS 21521
		PHYS 21521	General Physics Laboratory I	C	PHYS 12561	PHYS 21513
	Se - II	PHYS 22533	Solid State and Thermodynamics	C	PHYS 21513	PHYS 22541
		PHYS 22541	General Physics Laboratory II	C	PHYS 21521	PHYS 22553
		PHYS 22553[2]	Environmental Physics	O	A/L Physics or Chemistry	
Year - 3	Se - I	PRPL 31992	Professional Placement	O		
		PHYS 31512	Electromagnetic Theory	C	PHYS 11532	PHYS 31521
		PHYS 31521	General Physics Laboratory III	C	PHYS 22541	PHYS 11532
		PHYS 31532[3]	Introductory Biophysics	O/C	A/L Physics	
		PHYS 31544[3]	Mathematical Methods in Physics	O/C	All Level 1 and 2 PHYS Compulsory Units	
		PHYS 32551[4]	Electronics Laboratory	C	PHYS 31521	PHYS 31512
	Se - II	PHYS 32562[4]	Electronics	C	PHYS 31512	PHYS 31521
		PHYS 32572[3]	Nanoscience	O/C	PHYS 12542 PHYS 12552	
		PHYS 32582[3,5,6]	Introduction to Cosmology and Astrophysics[5]	O/C	A/L Physics	

1 Restricted enrolment.
2 Compulsory for students who have followed Electronics as a subject.
3 Compulsory for students following BSc Honours Degree in Physics.
4 Offered for students who have **not** followed Electronics as a subject.
5 Availability of the course unit will be announced by the Department at the beginning of the each academic year.
6 Compulsory for students following BSc Honours Degree in Mathematical Physics.

Subject: Physics (PHYS)				
Honours				
	Course Units		**Status**	**Pre-requisite**
Level - 4	PHYS 44764	Classical Mechanics	C	All AMAT/PHYS Compulsory Course units
	PHYS 44774	Quantum Mechanics		
	PHYS 44784[1]	**Advanced Electronics**		
	PHYS 43793	Advanced Physics Laboratory - I		
	PHYS 44804	Statistical Physics		
	PHYS 44814[2]	**Special Topics in Physics**		
	PHYS 44824	Condensed Matter Physics		
	PHYS 44834	Theory of Relativity and Cosmology		
	PHYS 44854	Electrodynamics		
	PHYS 44864	Nuclear Physics and Fundamental Particles		
	PHYS 43875	Advanced Physics Laboratory - II		
	PHYS 43888	Research Project		

1 Offered for students who have **not** followed Electronics as a subject.
2 Offered for students who have followed Electronics as a subject.

Subject: Pure Mathematics (PMAT)				
BSc				
	Course Units	**Status**	**Pre-requisite**	**Co-requisite**
Year 1 Sem 1	PMAT 11513 Discrete Mathematics I	C	A/L Combined Mathematics	
	PMAT 11522 Matrix Algebra	C	A/L Combined Mathematics	
	PMAT 11212 Discreet Mathematics for Computing I [a]	C		
	PMAT 11703 Topics in Basic Mathematics[1]	A		
Year 1 Sem 2	PMAT 12532 Discrete Mathematics II	C	PMAT 11513	
	PMAT 12543 Theory of Calculus	C	PMAT 11513	
	PMAT 12212 Discreet Mathematics for Computing II [b]	C		
	PMAT 12713 Introduction to Calculus[1]	A		
Year 2 Sem 1	PMAT 21553 Linear Algebra	C	PMAT 12522	
	PMAT 21562 Infinite Series	C	PMAT 12543	
Year 2 Sem 2	PMAT 22572 Ordinary Differential Equations	C	PMAT 12543	
	PMAT 22583 Functions of Several Variables	C	PMAT 21553	
	PMAT 22213 Mathematical Methods for Computing [c]	O		
Year 3 Sem 1	PMAT 31593 Complex Variables	C	PMAT 22583	
	PMAT 31602 Abstract Algebra	O	PMAT 21553	
	PRPL 31992 Professional Placement	O		
Year 3 Sem 2	PMAT 32612 Theory of Riemann Integration	O	PMAT 12543	
	PMAT 32622 Mathematical Methods	O	PMAT 22583	
	PMAT 32632 Geometry	O	PMAT 22583	

1   Available only for students who have not offered combined Mathematics for GCE (A/L) Examination.
a For BSc in MIT and SE programmes
b For BSc in MIT and SE programmes
c For BSc in SE programme

Subject: Pure Mathematics (PMAT)			
Honours			
	Course Units	**Status**	**Pre-requisite**
Year 3 Sem 1	PMAT 41763 Complex Analysis Functions of Several Variables	C	PMAT 22583
	PMAT 41772 Advanced Mathematical Methods I	O	PMAT 22583
	PMAT 41783 Differential Geometry	O	PMAT 22583
Year 3 Sem 2	PMAT 42793 Advanced Theory of Riemann Integration	C	PMAT 12543
	PMAT 42802 Advanced Mathematical Methods II	O	PMAT 41772
Year 4 Sem 1	PMAT 41813 Functional Analysis	C	
	PMAT 41823 Topology[1]	C	
	PMAT 41962 Research Methodology	C	
	PMAT 43976 Research Project[2]	C	
Year 4 Sem 2	PMAT 42833 Measure Theory	C	PMAT 42793
	PMAT 42843 Group Theory	C	PMAT 21553

1   Students in the Mathematical Physics program are strongly advised to attend these lectures.
2   Compulsory for the student who have not offered AMAT 43976.

	Subject: Software Engineering (SENG)		
Honours in SENG			
	Course Units	Status	Pre-requisite
Year 1 Sem 1	SENG 11213 Fundamentals of Computing	C	None
	SENG 11223 Programming Concepts	C	None
	SENG 11232 Engineering Foundation	C	None
	SENG 11243 Statistics	C	None
Year 1 Sem 2	SENG 12213 Data Structures andAlgorithms	C	SENG 11223
	SENG 12223 Database Design and Development	C	None
	SENG 12242 Management for Software Engineering I	C	None
	SENG 12233 Object Oriented Programming	C	SENG 11223
Year 2 Sem 1	SENG 21213 Computer Architecture and Operating Systems	C	SENG 11213, SENG 11223
	SENG 21222 Software Construction	C	SENG 12213, SENG 12233
	SENG 21233 Requirement Engineering	C	SENG 12223, SENG 12233
	SENG 21243 Software Modeling	C	SENG 11213
	SENG 21253 Web Application Development	C	SENG 11233, SENG 12223
	SENG 24213 Computer Networks	C	SENG 11213
	SENG 21272 Management for Software Engineering II	C	SENG 12242
	SENG 21263 Interactive Application Development	O	SENG 12233
Year 2 Sem 2	SENG 22223 Human Computer Interaction	C	SENG 11223, SENG 12233
	SENG 22212 Software Architecture and Design	C	SENG 21233
	SENG 22233 Software Verification and Validation	C	SENG 21533, SENG 34222, SENG 22212
	SENG 22243 Mobile Application Development	C	SENG 12233
	SENG 22253 Embedded Systems Development	O	SENG 21213
	SENG 22283 Computer Networks	C	SENG 11213
	SENG 22652 System Design Project	O	SENG 21553
Year 3 Sem 1	SENG 31212 Software Quality	C	SENG 21533, SENG 34222, SENG 22212
	SENG 31322 Information Security	C	SENG 24213, SENG 21213, SENG 12223, SENG 11223
	SENG 31232 Software Project Management	C	SENG 12242, SENG 21272
	SENG 31243 System Design Project	C	All SENG Modules
	SENG 31252 Professional Practice	C	None
	SENG 31262 Research Methods	C	SENG 11243
	SENG 31272 Internet of Things	O	SENG 22253

	SENG 31282 Computer Network Management	O	SENG 24213
	SENG 31292 Enterprise Information Systems	O	SENG 11213
	SENG 31313 Advanced Web Applications Development	C	SENG 21253
	SENG 31323 Mobile Computing Technology	C	SENG 22243
	SENG 31333 Business Intelligence and Management Support Systems	C	SENG 12233
	SENG 31343 Health Information Management	C	SENG 21233
	SENG 31353 Game Development Technology	C	SENG 11213
	SENG 31363 Business Systems Modeling and Optimization	C	SENG 11243
Year 3 Sem 1/2	SENG 34213 System Development Project	C	SENG 31242
	SENG 32216 Internship	C	All Previous SENG Modules
	SENG 34222 Software Process	C	SENG 21533
Year 4 Sem 1	SENG 41212 Software Evolution	C	SENG 22212
	SENG 41222 Software Metrics and Measurements	C	SENG 21533, SENG 22233
	SENG 41233 Digital Image Processing	O	SENG 11213, SENG 11223, SENG 12233, PMAT 22213
	SENG 41242 Advanced Databases	O	SENG 12223
	SENG 41252 Advanced Computer Networks	O	SENG 24213
	SENG 41262 Speech Interfaces	O	SENG 22223, SENG 22212
	SENG 41272 Formal Methods	O	SENG 12213
	SENG 41283 Distributed and Cloud Computing	C	SENG 31313
	SENG 41293 Mobile Web Application Development	C	SENG 12233, SENG 22243
	SENG 41303 Big Data Infrastructure	C	SENG 31333
	SENG 41313 Health Information Systems Design and Development	C	SENG 31343
	SENG 41323 Games Design, Artwork and Programming	C	SENG 12213, SENG 31353
	SENG 41333 Computer-based Operations Management	C	SENG 31363
Year 4 Sem 2	SENG 42232 Software Management	C	SENG 22212
	SENG 42222 Usability Engineering	C	SENG 22223
	SENG 42212 Software Safety and Reliability	C	SENG 22212, SENG 22233
	SENG 42242 Machine Learning	O	SENG 12213
	SENG 42252 Computer Graphics	O	SENG 11213, SENG 11223, SENG 12233, PMAT 11212, PMAT 21042, PMAT 2213
	SENG 42273 Semantic Web and Ontological Engineering	C	SENG 41283

SENG 42283 Mobile Networks	O	SENG 24213, SENG 22243, SENG 31323
SENG 42293 Big Data Analytics	C	SENG 41303
SENG 42303 Medical Imaging and Biomedical Signal Processing	C	SENG 41313
SENG 42313 Advanced Topics in Game Design and Animation	C	SENG 41323
SENG 42323 Business Process Engineering	C	SENG 41333
SENG 43216 Software Engineering Research Project	C	SENG 31262

Subject: Statistics[1] (STAT)			
BSc			
	Course Units	**Status**	**Pre-requisite**
Year 1 Sem 1	STAT 11514 Fundamentals of Statistics	C	A/L Combined Mathematics/ Mathematics
	STAT 11521 Statistical Laboratory	C	A/L Combined Mathematics/ Mathematics
Year 1 Sem 2	STAT 12533 Probability Distributions and Applications I	C	STAT 11514
	STAT 12542 Optimization I	C	A/L Combined Mathematics/ Mathematics
Year 2 Sem 1	STAT 21513 Probability Distributions and Applications II	C	STAT 12533
	STAT 21522 Optimization II	C	STAT 12542
Year 2 Sem 2	STAT 22533 Inferential Statistics	C	STAT 21513
	STAT 22542 Survey Methods and Sampling Techniques	C	STAT 21513
Year 3 Sem 1	STAT 31513 Statistical Models	C	STAT 22533
	STAT 31522 Statistical Simulation	O	STAT 22533
	STAT 31532 Statistical Quality Control	O	STAT 12533, STAT 22542
	PRPL 31992 Professional Placement	O	Core courses covered in the first two years
Year 3 Sem 2	STAT 32543 Research Methodology, Data Analysis & Report Writing*****	O	-
	STAT 32552 Non- parametric Statistics	O	STAT 22542
	STAT 32562 Time Series Analysis*****	O	STAT 31513

* Compulsory for BSc. Honors in Statistics

Subject: Statistics (STAT)			
Honours			
	Course Units	**Status**	**Pre-requisite**
Year 3	STAT 41763 Advanced Topics in Time Series Analysis	C	Core courses covered in the first two years and STAT 32562
	STAT 44774 Categorical Data Analysis	C	Core courses covered in the first two years and STAT 22542
	STAT 41783 Mathematical Optimization	C	STAT 21522
	STAT 44794 Actuarial Mathematics	C	STAT 22533
	STAT 42803 Bayesian Inference & Decision theory	C	STAT 22533
	STAT 42813 - Stochastic Processes I	C	STAT 42803
Year 4	STAT 41823 Stochastic Processes II	C	STAT 42813
	STAT 44833 Multivariate Data Analysis	C	Core courses covered in the first three years
	STAT 42843 Design and Analysis of Experiments	C	STAT 31513
	STAT 44854 Econometrics	O	STAT 31513
	STAT 44864 Special Topics in Statistics	O	Core courses covered in the first three years
	STAT 43876 Research Project/ Independent Study	C	Core courses covered in the first three years
	STAT 44884 Industrial Training	O	Core courses covered in the first three years
	STAT 44893 Statistical Data Mining	O	STAT 31513 & STAT 42803

Subject: Zoology (ZOOL)				
BSc				
	Course Units	**Status**	**Pre-requisite**	**Co-requisite**
Year 1 Sem 1	BIOL 11542 Animal Form, Function and Behaviour	C	G.C.E. (A/L) Biology	-
Year 1 Sem 2	ZOOL 12512 Evolutionary Biology and Zoogeography	C	G.C.E. (A/L) Biology	-
	ZOOL 12523 Animal Diversity and Sri Lankan Fauna	C	G.C.E. (A/L) Biology	ZOOL 12531
	ZOOL 12531 Animal Diversity and Sri Lankan Fauna Laboratory	C	G.C.E. (A/L) Biology	ZOOL 12523
Year 2 Sem 1	ZOOL 21512 Animal Histology and Physiology	C	BIOL 11542	ZOOL 21521
	ZOOL 21521 Animal Histology and Physiology Laboratory	C	BIOL 11542	ZOOL 21512
	ZOOL 21532 Developmental Biology and Human Genetics	C	BIOL 11542	-
Year 2 Sem 2	ZOOL 22543 Applied Ecology	C	ZOOL 12523	ZOOL 22552
	ZOOL 22552 Applied Ecology Laboratory	C	ZOOL 12531	ZOOL 22543
	ZOOL 22561 Geo-informatics for Zoological Studies	C	BIOL 11542	ZOOL 22543
Year 3 Sem 1	ZOOL 31512 Fisheries Biology and Management[1]	C/O	ZOOL 12523	-
	ZOOL 31523 Entomology and Insect and Acarine Pest Management [1,2]	O	ZOOL 12523	-
	ZOOL 31532 Environmental Impact Assessment[1]	C/O	ZOOL 22543/ ENCM 21543	-
	PRPL 31992 Professional Placement	O	All level 1 & 2 ZOOL course units	-
Year 3 Sem 2	ZOOL 32543 Aquaculture[1]	C/O	ZOOL 12523	-
	ZOOL 32552 Parasitology[1]	C/O	ZOOL 12523	-
	ZOOL 32563 Conservation Biology and Wildlife Management[1]	C/O	ZOOL 12523 & ZOOL 22543	-

1 Compulsory for the BSc Honours Degree programme in Zoology In order to claim Zoology as a subject for the BSc Degree programme, student should accumulate a minimum of 7 credits from the Level 3 ZOOL optional course units.

2 Not offered for the BSc Honours Degree programme in Zoology.

Subject: Zoology (ZOOL)				
BSc Honours				
	Course Units	**Status**	**Pre-requisite**	**Co-requisite**
Year 3 Sem 1	ZOOL 41512 Statistical Methods in Zoology	C	ZOOL 22543	-
	ZOOL 41524 Insect Systematics and Biology	C	ZOOL 12523	-
	ZOOL 43532 Essay and Seminar on Special Topics in Zoology	C	ZOOL 12523 & ZOOL 22543	-
Year 3 Sem 2	ZOOL 42542 Research Methodology and Scientific Writing	C	ZOOL 41512	-
	ZOOL 42554 Molecular Genetics[1]	O	ZOOL 21532	-
	ZOOL 42564 Environmental Physiology and Ecotoxicology[1]	O	ZOOL 21512	-
Year 4 Sem 1	ZOOL 41574 Aquaculture Management	C	ZOOL 32543	-
	ZOOL 41584 Ecological Interactions and Behavioural Ecology	C	ZOOL 22543	-
	ZOOL 41592 Zoology in Practice	C	All level 1 & 2 ZOOL course units	
	ZOOL 41612 Herpetology[2]	O	ZOOL 12523	-
	ZOOL 41622 Nematode Pest Management[2]	O	ZOOL 12523	-
	ZOOL 43608 Research Project	C	ZOOL 41512 & ZOOL 42542	
Year 4 Sem 2	ZOOL 42632 Agricultural Entomology	C	ZOOL 41524	-
	ZOOL 42642 Medical and Veterinary Entomology	C	ZOOL 41524	-
	ZOOL 42654 Fish Stock Assessment and Fisheries Management	C	ZOOL 31512	-
	ZOOL 42662 Immunology[2]	O	ZOOL 21512	-
	ZOOL 42672 Ornithology[2]	O	ZOOL 12523	-
	ZOOL 42684 Ecology and Management of Wetlands[2]	O	ZOOL 22543	-
	ZOOL 42692 Marine and Coastal Resources Management[2]	O	ZOOL 22543	-

1 In the second semester, the student should accumulate only 4 credits from level 4 optional ZOOL course units.

2 The student should accumulate only 8 credits from level 4 optional ZOOL course units in the 4th year.

6.   List of Course Units Offered by Other Faculties to the Students in the Faculty of Science

Auxiliary Course Units Offered by the Faculty of Humanities

BUDDHIST CULTURE
Level One
BUCU 11032   Ancient Buddhist Monasteries of Sri Lanka

BUCU 12062   Buddhist Art and Architecture in Sri Lanka

Level Two

BUCU 21033   Buddhist Concept of Counseling (Anusasana)

BUCU 21042   An Introduction to Buddhist Art and Antiquities in South Asia

BUCU 21544   Buddhist Orders of Monks and Nuns Introduction

BUCU 22073   Buddhist Concept of Management

BUCU 22083   Astrology and Buddhist Culture

BUCU 22092   An Introduction to Buddhist Rights and Ceremonies

BUCU 22584   Buddhist Art and Antiquities in Sri Lanka – Introduction

BUCU 23596   Theravada and Mahayana

Level Three

BUCU 31032   Buddhism and Environment

BUCU 31042   An Introduction to Development of Buddhist Culture in Sri Lanka

BUCU 31544   Buddhist Culture in Sri Lanka – Early Period – An Introduction

BUCU 32073   Buddhist Culture and Ayurveda

BUCU 32082   An Introduction to Buddhism and other Religions

BUCU 32584   Buddhist Rites, Rituals and Ceremonies- An Introduction

BUDDHIST PHILOSOPHY
Level One
BUPH 11033   Buddhist Psycho-Physical Analysis

BUPH 12063   Buddhist Concept of Psychiatry

BUPH 12072   Buddhism and Social Issues

Level Two

BUPH 21544   Buddhist Ethics – Fundamentals

BUPH 22584   Contemporary Views on Buddhism

BUPH 21032   The Buddhist Concept of Communication

BUPH 22062   The Buddhist Attitude Towards Law, Crime and Punishment

Level Three

BUPH 31033   Buddhist Meditation

PUPH 31544   Introduction to Mahayana Buddhist Thought

BUPH 32062   Buddhist Attitude to the Economy, Politics and Health.

BUPH 32584   Buddhism and World Religions

CHINESE

Level One

CHIN 13252   Chinese Language and Culture I

Level Two

CHIN 23252   Chinese Language and Culture II

Level Three

CHIN 33052   Chinese Language and Culture III

CHRISTIAN CULTURE

Level One

CHCU 12052   Introduction to the Bible

CHCU 12062   Introduction to Christianity

FRENCH

Level One

FREN 13252   French Grammar & Vocabulary

Level Two

FREN 23252   Grammar, Composition and Expression

Level Three

FREN 33052   French Grammar, Expression and Culture

GERMAN

Level One

GERM 13252   German Language and Culture I

Level Two

GERM 23252   German Language and Culture II

Level Three

GERM 33052   German Language and Culture III

HINDI

Level One

HIND 11232   Proficiency in Hindi language I

HIND 12262   Proficiency in Hindi language II

Level Two

HIND 21232   Proficiency in Hindi language III

HIND 22262   Proficiency in Hindi language IV

Level Three

HIND 31232   Introduction to North Indian Culture

HIND 32262   Introduction to Modern Hindi Prose & Verse (Prescribed)

JAPANESE

Level One

JPNS 13252   Japanese Grammar & Vocabulary I

Level Two

JPNS 23252   Japanese Grammar & Vocabulary II

Level Three

JPNS 33052   Japanese Grammar & Vocabulary III

KOREAN

Level One

KORE 13252   Korean Language and Culture I

Level Two

KORE 23252   Korean Language and Culture II

Level Three

KORE 33052   Korean Language and Culture III

PALI

Level One

PALI 11032   Source Criticism

PALI 11043   Psychotherapy in Suttapitaka

PALI 12073   Points of Controversy

PALI 12083   Introduction to Pali Tipitaka

Level Two

PALI 21032   Pali Grammer - II

PALI 21545   Pali Tipitaka Studies II

PALI 22072   Sri Lankan Historical Sources in Pali

PALI 22083   Conceptual Trends in Early Buddhism

PALI 22585   Controversial Issues

Level Three

PALI 31032   Preaching Skills

PALI 31043   Personality Development in Tipitaka

PALI 315 45   Pali literary criticism

PALI 32073   Pali Teaching Skills

PALI 32585   Preaching Skills

PALI 21043   Human Resource Management in Tipitaka

RUSS

Level One

RUSS 13252   Russian Language & Culture I

Level Two

RUSS 23252   Russian Language & Culture II

Level Three

RUSS 33052   Introduction to Russian Literature III

SANSKRIT

Level One

SANS 11032   Introduction to Sanskrit Language and Literature I

SANS 12062   Introduction to Sanskrit Language and Literature II

Level Two

SANS 21032   Sanskrit Composition and Literature I

SANS 22062   Sanskrit Composition and Literature II

Level Three

SANS 31032   Sanskrit Dramaturgy and literary Criticism

SANS 32062   Sanskrit Technical Terms

SINHALA

Level One

SINH 13234   Practical Sinhala I

Level Two

SINH 22232   Practical Sinhala II

SINH 22242   Modern Sinhala Writing Skills

WESTERN CLASSICAL CULTURE

Level One

WCCU 11032   Appreciating Greek and Roman Art

Level Two

WCCU 22052   Greek and Roman Drama

Level three

WCCU 32052   Greek and Roman Literary Theory/ Criticism

Auxiliary Course Units Offered by the English Language Teaching Unit (DELT)

Level Two

DELT 21212	English in Today's World
DELT 22222	Introduction to Literature

Level Three

DELT 33212	English for Professional Purposes

General Education (GE) Course Units Offered by the Faculty of Social Sciences

Level One

GESO 11212	Social Integration
GESR 11222	Japanese Management Practices Tools
GESR 11232	Fitness and Wellness
GESO 12242	Contemporary Social issues in Sri Lanka
GEAR 12252	Basic concept of Tourism
GEAR 12262	Adventure Tourism

Level Two

GEGE 21212	Map Reading
GESS 21222	Sri Lankan Economy
GEEC 21232	Elements of Mathematics
GEAR 21242	Archeological Tourism
GEAR 22252	Archeological Heritage of Sri Lanka
GEGE 22262	Geo-Environment and Natural Resources of Sri Lanka
GEPH 22272	Child Psychology
GEHI 22282	History of Sri Lanka
GEAR 22292	Hospitality Management

Level Three

GEIN 31012	International Organization
GESR 31022	Event Management
GEAR 31032	Tourism in Asia Countries
GEGE 32042	Introduction to Geographical Information System (GIS)
GESR 32052	Personality and Leadership Development
GEPE 32062	Conflict and Conflict Management
GESR 32072	Olympic Movement and Olympism
GEAR 32082	Anthropological Tourism

Auxiliary Course Units Offered by the Faculty of Commerce & Management

Level One

MGMT 11012[1]	Principles of Management
MGMT 11022	Communication Skills and Personality Development
MGMT 12012	Fundamentals of Organizational Behavior
MGMT 12022	Business Accounting

Level Two

MGMT 21012	Human Resource Management
MGMT 22022	Marketing Management

Level Three

MGMT 32012	Japanese Management Approach
MGMT 32022	Financial Management

1 Can take either IMGT 14512 or MGMT 11012

7. List of Certificate Courses Offered by Other Faculties to the Students in the Faculty of Science

The students may register for the courses, which are not considered for the award of the (BSc / Honours) Degree.

Certificate Courses Offered by the Faculty of Humanities

Certificate Course in Modern Languages (two years) Offered by the Department of Modern Languages

French	Japanese	German	Chinese	Russian
Korean	Spanish			

The Certificate Course in Hindi Language (two years) Offered by the Department of Hindi Studies

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