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

BACHELOR OF SCIENCE
SOFTWARE ENGINEERING
HONOURS DEGREE PROGRAMME

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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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1. BSc 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 six BSc Degree Programmes viz, Two BSc Degree Programmes of 3 year duration and four Honours Degree Programmes of 4 year duration. The BSc Degree Programmes are BSc Degree and BSc Degree in Environmental Conservation and Management (ENCM). 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 on 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
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

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

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. In the first semester of the first year, all the Physical Science students are required to follow the compulsory course units PMAT 11042 and AMAT 11032 and, the course units available in the subjects they intend to follow in their degree programme, subject to the condition that they accumulate not less than 13 and not more than 19 credits. For details refer Section 3.2.1.

All the Biological and Physical Science students have the option of following the Computer Science course unit COSC 11014 during the first semester of the first academic year. Furthermore, the Physical Science students can take two more Computer Science course units COSC 22025 and COSC 32025 in academic years 2 and 3 respectively in addition to their selected subjects. Those who wish to follow Computer Studies as a subject are required to take COSC 11014 during the first semester of the first academic year.

Selection of students for preferred subjects in the Biological Science and Physical 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. In the Physical Sciences, Computer Science (COSC), Computer Studies (COST), Electronics (ELEC), Physics (PHYS) and Statistics (STAT) subjects have limited enrolment.

The BSc Degree 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 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 or the BSc in ENCM Degree Programme **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

Biological Science students

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 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. 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 grades of B or better in Level 1 and Level 2 compulsory course units in Chemistry aggregating to 21 credits counted for GPA. 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.

(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 19 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 19 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. 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.

(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 grades of B or better in Level 1 and Level 2 compulsory course units, aggregating to 19 credits in each of the subjects Pure Mathematics & Applied Mathematics, and aggregating to 20 credits in Physics. 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.

(ix) Mathematics (Pure Mathematics and Applied Mathematics)

A student should have obtained grades of B or better for Level 1 and Level 2 compulsory course units aggregating to 19 credits in each of the subjects Pure Mathematics and Applied Mathematics. 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.

(x) Mathematics (Pure Mathematics and Statistics)

A student should have obtained grades of B or better in Level 1 and Level 2 compulsory course units, aggregating to 19 credits in Pure Mathematics, and 20 credits in Statistics. 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.

(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, BIOL 11522

Genetics, and BIOL 11532 Basic Biochemistry 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.

(xiii) Physics

A student should have obtained grades of B or better in Level 1 and Level 2 compulsory course units aggregating to 20 credits in Physics 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.

(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".

ASSESSMENT CRITERIA

2.

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 resit 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.

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

Grade Point Average = 2□48

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

To be eligible for the BSc Degree 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 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 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 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 ENCM

2.6.1 Eligibility for the Award of the BSc Degree in ENCM

To be eligible for the BSc Degree in ENCM 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 Degree in ENCM 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 compulsory course units, totalling to a minimum of 120 credits, with
  (a) a minimum aggregate of at least 30 credits, each in the first and second academic year respectively, and
  (b) a minimum aggregate of at least 24 credits in the third academic year, and aggregating to a minimum of 60 credits in the third and fourth years and
  (c) 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 96 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 84 credits with at least D grades for the remaining compulsory course units, and
(iv) obtain grades of C or better for either MGTE 43566 or INTE 43696 course units and for GNCT 32536 course unit, and
(v) Pass GNCT 13522 and GNCT 23512 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 2.9.1 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 2.9.1 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 (SENG)

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

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

(i) accumulate grades of D or better, in course units aggregating to at least 30 credits, including all compulsory course units in each academic year, totalling to a minimum of 120 credits, and
(ii) obtain grades of C or better in course units totalling to at least 96 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 84 credits with at least D grades for the remaining compulsory course units, and
(iv) obtain grades of C or better for either SENG 44696 or SENG 44706 course units and for GNCT 32536 course unit, and
(v) pass GNCT 13522 and GNCT 23512 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 2.10.1 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 2.10.1 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 Honours Degree, BSc Degree in ENCM, BSc Honours Degree in ENCM, BSc Honours Degree in MIT and BSc Honours Degree in SENG, 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
BIOL 11512	C	C	C	C	C	C	C	C	C
BIOL 11522	C	C	C	C	C	C	C	C	C
BIOL 11532	C	C	C	C	C	C	C	C	C
BIOL 11542	C	C	C	C	C	C	C	C	C
ELTU 11222[1]	C	C	C	C	C	C	C	C	C
BIOC 12513						C		C	C
BIOC 12522						C		C	C
BIOC 12531						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
CHEM 11522	C	C	C	C	C	C	C	C	C
CHEM 11532	C	C	C	C	C	C	C	C	C
CHEM 11541	C	C	C	C	C	C	C	C	C
CHEM 12552	C	C	C	C	C	C	C	C	C
CHEM 12562	C	C	C	C	C	C	C	C	C
CHEM 12571	C	C	C	C	C	C	C	C	C
COSC 11014	O	C	C	O	O	O	O	O	O
COST 12115		C	C						
IMGT 14512	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
PHYS 14222	A	A	A	A	A	A	A	A	A
PMAT 11083	A	A	A	A	A	A	A	A	A
PMAT 12093	A	A	A	A	A	A	A	A	A
PMAT 14102	A	A	A	A	A	A	A	A	A
STAT 14142	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**	**30**	**30**	**30**

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**
BIOC 21512						C		C	C
BIOC 21522						C		C	C
BIOC 21531						C		C	C
BIOC 22542						C		C	C
BIOC 22552						C		C	C
BIOC 22561						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
CHEM 21522	C	C	C	C	C	C	C	C	C
CHEM 21531	C	C	C	C	C	C	C	C	C
CHEM 22542	C	C	C	C	C	C	C	C	C
CHEM 22552	C	C	C	C	C	C	C	C	C
CHEM 22561	C	C	C	C	C	C	C	C	C
CHEM 22571	C	C	C	C	C	C	C	C	C
COST 21123		C	C						
COST 22133		C	C						
COST 22144		C	C						
ELTU 22232[1]	C	C	C	C	C	C	C	C	C
IMGT 14512	A	A	A	A	A	A	A	A	A
IMGT 21511	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
PHYS 14222	A	A	A	A	A	A	A	A	A
PMAT 14102	A	A	A	A	A	A	A	A	A
PMAT 11083	A	A	A	A	A	A	A	A	A
PMAT 12093	A	A	A	A	A	A	A	A	A
STAT 14142	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**

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.

BSc Degree Programme –

3.1.3 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**
BIOC 31511						C		C	C
BIOC 31522						O		O	O
BIOC 31532						O		O	O
BIOC 31541						O		O	O
BIOC 32552						O		O	O
BIOC 32561						O		O	O
BOTA 31514	C	C		C			C	C	
BOTA 31522	C	C		C			C	C	
BOTA 32534[1]	O	O		O				O	
BOTA 32542[1]	O	O		O				O	
BOTA 32554[1]	O	O		O			O	O	
CHEM 31511	C	C	C	C	C	C	C	C	C
CHEM 31522	O	O	O	O	O	O	O	O	O
CHEM 31532	O	O	O	O	O	O	O	O	O
CHEM 32542	O	O	O	O	O	O	O	O	O
CHEM 32552	O	O	O	O	O	O	O	O	O
CHEM 32561	O	O	O	O	O	O	O	O	O
COST 31153		C	C						
COST 31163		C	C						
COST 32172		O	O						
COST 32183		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[2,3]	C	C	C	C	C	C	C	C	C
PHYS 14222	A	A	A	A	A	A	A	A	A
PHYS 32312	O	O	O	O	O	O	O	O	O
PHYS 32322	O	O	O	O	O	O	O	O	O
PMAT 11083	A	A	A	A	A	A	A	A	A

BSc Degree Programme –

PMAT 12093	A	A	A	A	A	A	A	A	A
PRPL 31992	O	O	O	O	O	O	O	O	O
STAT 14142	A	A	A	A	A	A	A	A	A
ZOOL 31512[4]	O		O		O				O
ZOOL 31523[4]	O		O		O				O
ZOOL 31532[4]	O		O		O				O
ZOOL 32543[4]	O		O		O				O
ZOOL 32552[4]	O		O		O				O
ZOOL 32563[4]	O		O		O				O
No of Credits from Compulsory Units	**7**	**13**	**7**	**13**	**7**	**8**	**11**	**8**	**2**

1 Students are permitted to select either BOTA 32534 & BOTA 32542 or BOTA 32554.
2 Should offer during the three year period of the Degree Programme.
3 **Credits not counted for the GPA calculation.**
4 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 Course Structure for BSc Degree Physical Sciences

3.2.1 BSc Degree Programme – Year 1 – Semester I Physical Sciences Available combinations to select course units

Course code	Course unit combination (PSY1SI)								
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
AMAT 11032	C	C	C	C	C	C	C	C	C
CHEM 11511[1]	O	O	O	O	O				
CHEM 11522	C	C	C	C	C				
CHEM 11532	C	C	C	C	C				
CHEM 11541	C	C	C	C	C				
COSC 11014[2]	C	C	C			C	C		C
ELEC 11134				C		C		C	
ELEC 11141				C		C		C	

BSc Degree Programme –

PHYS 11162		C		C	C	C	C	C	C
PHYS 11172		C		C	C	C	C	C	C
PHYS 11181		C		C	C	C	C	C	C
PMAT 11042	C	C	C	C	C	C	C	C	C
STAT 11014			C						C
STAT 11021			C						C
No of Credits	**13**	**18**	**18**	**19**	**14**	**18**	**13**	**14**	**18**

1 Credits not counted for the GPA calculation.
2 Those who wish to follow Computer Studies as a subject should follow COSC 11014.

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 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**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
AMAT 11032	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
AMAT 12042	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
AMAT 12053	C	C	C	C	C					C			C	C	C	C	C
AMAT 12062	C	C	C	C	C												
ELTU 12262[1]	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
BOTA 11532[2]	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
CHEM 11511[3]	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
CHEM 11522	C	O	O	O	O	C	C	C	C	C	C	O	O	O	O	O	O
CHEM 11532	C	O	O	O	O	C	C	C	C	C	C	O	O	O	O	O	O
CHEM 11541	C	O	O	O	O	C	C	C	C	C	C	O	O	O	O	O	O
CHEM 12552	C					C	C	C	C	C	C						
CHEM 12562	C					C	C	C	C	C	C						
CHEM 12571	C					C	C	C	C	C	C						
COSC 11014	O	C	C	O	O	C	O	C	C	O	O	C	C	C	C	O	O
COSC 12025		C						C				C	C				
COST 12115			C			C			C					C	C		
ELEC 11134[4]	O	O	O	C	O	O	O	O	O	C	O	O	C	C	C	C	C
ELEC 11141[4]	O	O	O	C	O	O	O	O	O	C	O	O	C	C	C	C	C
ELEC 12154														C		C	
ELEC 12161														C		C	
IMGT 14512	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

BSc Degree Programme –

IMGT 21511	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
PHYS 11162	O	O	O	C	O	O	O	O	O	C			C	C	C	C	C
PHYS 11172	O	O	O	C	O	O	O	O	O	C			C	C	C	C	C
PHYS 11181	O	O	O	C	O	O	O	O	O	C			C	C	C	C	C
PHYS 12194	C	C	C	C	C					C			C	C	C	C	C
PHYS 12201				C						C			C	C	C	C	C
PHYS 14222	A	A	A		A	A	A	A	A		A	A					
PMAT 11042	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
PMAT 12052	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
PMAT 12062	C	C	C	C	C	O	C	C	C	C	C	C	C	O	C	C	C
PMAT 12073	C	C	C	C	C	O	C	C	C	C	C	C	C	O	C	C	C
PMAT 14102	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
STAT 11014	O	O	O	O	C	O	O	O	O	O	C	C	O		O	O	C
STAT 11021	O	O	O	O	C	O	O	O	O	O	C	C	O		O	O	C
STAT 12033					C						C	C					C
STAT 12042					C						C	C					C
STAT 14142	A	A	A	A		A	A	A	A	A			A	A	A	A	
No of Credits from Compulsory Units	**32**	**30**	**30**	**32**	**31**	**27**	**23**	**31**	**32**	**41**	**33**	**31**	**39**	**39**	**39**	**35**	**41**

1 Credits not counted for the GPA calculation.

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

3 Students who are following Chemistry as a subject should follow during the first year or the second year. 4 Students who are following Physics as a subject should offer during the first, second or the third year.

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

3.2.3 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**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
AMAT 21035	C	C	C	C	C												
AMAT 22045	C	C	C	C	C												
BOTA 11532[1]	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
CHEM 21512	C					C	C	C	C	C	C						
CHEM 21522	C					C	C	C	C	C	C						
CHEM 21531	C					C	C	C	C	C	C						
CHEM 22542	C					C	C	C	C	C	C						
CHEM 22552	C					C	C	C	C	C	C						
CHEM 22561	C					C	C	C	C	C	C						

BSc Degree Programme –

CHEM 22571	C					C	C	C	C	C	C						
COSC 21015		C						C				C	C				
COSC 22025		C			O			C			O	C	C				O
COSC 22035		O						O				O	O				
COST 21123			C			C			C					C	C		
COST 22133			C			C			C					C	C		
COST 22144			C			C			C					C	C		
ELEC 11134[2]				O						O			O		O		O
ELEC 11141[2]				O						O			O		O		O
ELEC 21174														C		C	
ELEC 21181														C		C	
ELEC 22194														C		C	
ELEC 22201														C		C	
IMGT 14512	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
IMGT 21511	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
PHYS 14222	A	A	A		A	A	A	A	A		A	A					
PHYS 21234				C						C			C	C	C	C	C
PHYS 21241				C						C			C	C	C	C	C
PHYS 22252				C						C			C	C	C	C	C
PHYS 22262				C						C			C	C	C	C	C
PHYS 22271				C						C			C	C	C	C	C
PMAT 14102	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
PMAT 21035	C	C	C	C	C	O	C	C	C	C	C	C	C	O	C	C	C
PMAT 22045	C	C	C	C	C	O	C	C	C	C	C	C	C	O	C	C	C
STAT 14142	A	A	A	A		A	A	A	A	A	A	A	A	A		A	A
STAT 21053					C						C	C					C
STAT 21062					C						C	C					C
STAT 22073					C						C	C					C
STAT 22082					C						C	C					C
No of Credits from Compulsory Units	**31**	**30**	**30**	**30**	**30**	**21**	**21**	**31**	**31**	**31**	**31**	**30**	**30**	**30**	**30**	**30**	**30**

1 Availability of the course unit will be announced by the Department at the beginning of the each academic year.
2 Students who are following Physics as a subject should offer during the first, second or the third year.

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

3.2.4 Year 3

Physical Sciences

Available combinations to select course units

Course code	Course unit combination (PSY3)

BSc Degree Programme –

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
AMAT 31053	O	O	O	O	O												
AMAT 31063	O	O	O	O	O												
AMAT 31073	O	O	O	O	O												
AMAT 31083	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
AMAT 32093	O	O	O	O	O												
AMAT 32103	O	O	O	O	O												
AMAT 32113	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
BOTA 11532[1]	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
CHEM 31511	C					C	C	C	C	C	C						
CHEM 31522	O					O	O	O	O	O	O						
CHEM 31532	O					O	O	O	O	O	O						
CHEM 32542	O					O	O	O	O	O	O						
CHEM 32552	O					O	O	O	O	O	O						
CHEM 32561	O					O	O	O	O	O	O						
COSC 31014		C						C				C	C				
COSC 32025		O			O			O			O	O	O				O
COSC 32035		O						O				O	O				
COST 31153			C			C			C					C	C		
COST 31163			C			C			C					C	C		
COST 32172			O			O			O					O	O		
COST 32183			O			O			O					O	O		
ELEC 11134[2]				O						O			O		O		O
ELEC 11141[2]				O						O			O		O		O
ELEC 31214														C		C	
ELEC 31221														C		C	
ELEC 33232														C		C	
ELEC 32244														O		O	
IMGT 14512	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
IMGT 21511	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
PHYS 14222	A	A	A		A	A	A	A	A		A	A					
PHYS 31282				C						C			C	C	C	C	C
PHYS 31292				C						C			C	C	C	C	C
PHYS 31301				C						C			C	C	C	C	C
PHYS 32312				O						O			O	O	O	O	O
PHYS 32322[1]				O						O			O	O	O	O	O
PHYS 32331				C						C			C	C	C	C	C
PMAT 14102	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
PMAT 31073	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
PMAT 31083	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
PMAT 32123	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
PMAT 31103	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
PMAT 32113	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O

BSc Degree Programme –

PMAT 31093	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
PMAT 32133	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
PRPL 31992	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
STAT 14142	A	A	A	A		A	A	A	A	A			A	A	A	A	
STAT 31094					O						O	O					O
STAT 31101					O						O	O					O
STAT 32112					O						O	O					O
STAT 32123					C						C	C					C
STAT 32131					O						O	O					O
No of Credits from Compulsory Units	**1**	**4**	**6**	**6**	**3**	**7**	**1**	**5**	**7**	**7**	**4**	**7**	**10**	**19**	**12**	**13**	**9**

1 Availability of the course unit will be announced by the Department at the beginning of the each academic year. 2 Students who are following Physics as a subject should offer during the first, second or the third year.

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

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	
ELTU 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	

BSc Degree Programme –

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**	**29**

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, Computer Studies, Chemistry, 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							
BIOC 32561	O							
BIOC 43764								
BIOC 43774								
BIOC 43784								
BIOC 43794								
BIOC 43802								
BIOC 43812								
BIOC 43822								
BIOC 43832								
BIOC 43841[1]								
BIOC 43854								
BIOC 43863								
BIOC 43874								
BIOC 43884								
BIOC 43891								
BIOC 43908								
PRPL 31992	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 42776	C							
BOTA 42853	C							
BOTA 42864	C							
BOTA 42873	C							
BOTA 43838	C							
BOTA 43842	C							
CHEM 31511	C			C	C			
CHEM 31522	O			O	O			
CHEM 31532	O		C	O	O			
CHEM 32542	O			O	O			
CHEM 32552	O			O	O			
CHEM 32561	O		C	O	O			
CHEM 43764		C						C

Course code	Course combination (HDBS)							
	1	2	3	4	5	6	7	8
CHEM 43914		C						C
CHEM 43924		C						
CHEM 43934		C						
CHEM 43948		C						
CHEM 43951		C						
COST 31153							C	
COST 31163							C	
COST 31414							C	
COST 31424							C	
COST 32172							C	
COST 32183							C	
COST 32434							C	
COST 32444							C	
COST 41604[2]							O	
COST 41614[2]							O	
COST 44513							C	
COST 44522							C	
COST 44532							C	
COST 44542							C	
COST 44554							C	
COST 44562							C	
COST 44574							C	
COST 44584							C	
COST 44594							C	
COST 44624							C	
COST 44634							C	
COST 44644							C	
COST 43656							C	
ENCM 31522			C					
ENCM 31532			C			O		
ENCM 31543			C					
ENCM 31582			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					

CHEM 43774		C				ENCM	41592			C								
CHEM 43784		C				ENCM	42542			C								
CHEM 43794		C				ENCM	42553			C								
CHEM 43804		C				ENCM	42604			C								
CHEM 43812		C				ENCM	42612			C								
CHEM 43822		C				ENCM	42622			C								
CHEM 43833		C				ENCM	42632			C								
CHEM 43843		C				ENCM	42642			C								
CHEM 43853		C				ENCM	43532			C								
CHEM 43862		C				ENCM	43654			C								
CHEM 43872[1]		C				ENCM	43668			C								
CHEM 43884		C																
CHEM 43894		C																
CHEM 43904		C																

Course code	Course combination (HDBS)					Course code			Course combination (HDBS)							
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
MIBI 31514				C		ZOOL 31512								C		
MIBI 31522				C		ZOOL 31532								C		
MIBI 32556				O		ZOOL 32543								C		
MIBI 33534				C		ZOOL 32552								C		
MIBI 33541				C		ZOOL 32563								C		
MIBI 33562				O		ZOOL 41512								C		
MIBI 43764				C		ZOOL 41524								C		
MIBI 43774				C		ZOOL 41574								C		
MIBI 41784				C		ZOOL 41584								C		
MIBI 43794				C		ZOOL 41592								C		
MIBI 41804				C		ZOOL 41612[5]								O		
MIBI 43814				C		ZOOL 41622[5]								O		
MIBI 41824				C		ZOOL 42542								O		
MIBI 43834				C		ZOOL 42554[4]								C		
MIBI 43846				C		ZOOL 42564[4]								C		
MIBI 43852				C		ZOOL 42632								C		
MIBI 43868				C		ZOOL 42642								C		
MBBT 31513					C	ZOOL 42654								C		
MBBT 31522					C	ZOOL 42662[5]								O		
MBBT 32534					C	ZOOL 42672[5]								O		
MBBT 32542					C	ZOOL 42684[5]								O		
MBBT 41766					C	ZOOL 42692[5]								O		
MBBT 41784					C	ZOOL 43532								O		
MBBT 41794					C	ZOOL 43608								C		
MBBT 41805					C											
MBBT 41813					C											
MBBT 42776					C											
MBBT 42853					C											
MBBT 43824					C											
MBBT 43832					C											
MBBT 43848					C											

1 Credits not counted for the GPA calculation.

2 Students are allowed to register to follow either COST 41604 or COST 41614, 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 21035				O	O			
AMAT 31053	C	O	C					
AMAT 31063	O	O		C	C			
AMAT 41053	C	O						
AMAT 41063	C	O						
AMAT 42073	C	O						
AMAT 42083	C		C					
AMAT 42093	O	O						
AMAT 41244	C	O	O					
AMAT 41254	C							
AMAT 42264	C		C					
AMAT 42274	C		C	O	O			
AMAT 43288	C		C					
COSC 11014						C		
COSC 22025						C		
COSC 31014							C	
COSC 32025						O	C	
COSC 44014							C	
COSC 32035							C	
COSC 44024							C	
COSC 44034							C	
COSC 44045						O	C	

Course Units	Course combination (HDPS)							
	1	2	3	4	5	6	7	8
COST 44574								C
COST 44584								C
COST 44594								C
COST 44624								C
COST 44634								C
COST 44644								C
ELEC 31214				O	O			
ELEC 32244					O			
PRPL 31992							O	
PHYS 13212				C	C			
PHYS 31282			C	C	C			
PHYS 31292			C	C	C			
PHYS 31301			C	C	C			
PHYS 32312				C	C			
PHYS 32331			C	C	C			
PHYS 44014			C	C	C			
PHYS 44024			C	C	C			
PHYS 44034				C				
PHYS 44044	C		C		C			
PHYS 43053				C	C			
PHYS 44064			C	C	C			
PHYS 44074			C	C	C			

COSC 44055							C	
COSC 44064						O	C	
COSC 44074							O	
COSC 44084							O	
COSC 44094							O	
COSC 44104							O	
COSC 44114							O	
COSC 44124							O	
COSC 44134							O	
COSC 44144							O	
COSC 44154							O	
COSC 44164							O	
COSC 44174							O	
COSC 44184							O	
COSC 44194							O	
COSC 43206							C	
COSC 43214							O	
COST 31153								C
COST 31163								C
COST 31414[1]								C
COST 31424								C
COST 32172								C
COST 32183								C
COST 32434[2]								C
COST 32444								C

PHYS 44084			C	C	C			
PHYS 44094	O		C	C	C			
PHYS 43104				C	C			
PHYS 43115				C	C			
PHYS 43128			C	C	C			
PMAT 31073				C	C			
PMAT 31093	C	O	C	C	C	C	C	
PMAT 32113				C	C			
PMAT 32123	O	O	O					
PMAT 32133	C	C	C	C	C	C	C	
PMAT 41063	C	C	C					
PMAT 41073	C	C	C					
PMAT 41083	C	C	O					
PMAT 42093	C	C	C					
PMAT 42103	O	O	O					
PMAT 41284[4]	C	C	O					
PMAT 41294	C	C	C					
PMAT 41304	C	C	C					
PMAT 42314	C	C						
PMAT 42324	O	O	O					
PMAT 42334	O	O						
PMAT 42344		C						
PMAT 43358	C	C						
STAT 11014							C	
STAT 11021							C	

COST 41604[3]								O
COST 41614[3]								O
COST 43656								C
COST 44513								C
COST 44522								C
COST 44532								C
COST 44542								C
COST 44554								C
COST 44562								C

STAT 31094		O				C		
STAT 31101		O				C		
STAT 32112		O				C		
STAT 32123		C				C		
STAT 32131		O				C		
STAT 41013		C				C		
STAT 41033		C				C		
STAT 42053		C				C		
STAT 42084		C				C		

Course Units	**Course combination (HDPS)**							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
STAT 43066		C				C		
STAT 43116						C		
STAT 44024		C				C		
STAT 44044		C				C		
STAT 44073		C				C		
STAT 44093		O				O		
STAT 44103		O				O		
STAT 44124						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 11014 and STAT 11021 in Level 1. 3 Students are allowed to register to follow either COST 41604 or COST 41614, 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 43288 or PMAT 43358. Combination 3: A student should take either AMAT 43288 or PHYS 43128.

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)[c]				Course Units	Course combination (HDMIT)[c]			
	1	2	3	4		1	2	3	4
ELTU 11232[a]	C	C	C		MGTE 11512	C	C	C	C
ELTU 31222[a]	C	C	C		MGTE 11513	C	C	C	C
GNCT 13522[a]	C	C	C		MGTE 11532	C	C	C	C
GNCT 23512[a]	C	C	C		MGTE 11562	C	C	C	C
GNCT 32536	C	C	C		MGTE 12543	C	C	C	C
INTE 11512	C	C	C		MGTE 12552	C	C	C	C
INTE 11523	C	C	C		MGTE 21572	C	C	C	C
INTE 12533	C	C	C		MGTE 21532	C	C	C	C
INTE 12543	C	C	C		MGTE 21543	C	C	C	C
INTE 12553	C	C	C		MGTE 22552	C	C	C	C
INTE 21533	C	C	C		MGTE 22562	C	C	C	C
INTE 21543	C	C	C		MGTE 22572	C	C	C	C
INTE 22522	C	C	C		MGTE 31532	C	C	C	C
INTE 22543	C	C	C		MGTE 31543			C	C
INTE 22552	C	C	C		MGTE 31552			C	C
INTE 22562	C	C	C		MGTE 31572			O	O
INTE 31512	C	C	C		MGTE 31583				C
INTE 31522	C	C	C		MGTE 31593			C	O
INTE 31533	C	C			MGTE 31603			O	O
INTE 31542	C				MGTE 34512	C	C	C	C
INTE 31553	C				MGTE 34522			O	O
INTE 31563	O	O			MGTE 41522	C	C	C	C
INTE 31573	O				MGTE 41533		O	O	O
INTE 31582	O				MGTE 41573			C	O
INTE 31593		C			MGTE 41642				C
INTE 31602		C			MGTE 41672				C
INTE 31612		O			MGTE 41702		O	C	
INTE 41512			O		MGTE 42512	C			
INTE 41522		C			MGTE 42543			O	
INTE 41533	C				MGTE 42582			O	
INTE 41543		C							
INTE 41553	O	O							

INTE 41563	O	O		MGTE 42603			C	
INTE 41573	O			MGTE 42613			O	O
INTE 41582	O			MGTE 42632				C
INTE 42593	C	O		MGTE 42652				C
INTE 42602	O			MGTE 42662				O
INTE 42613		O		MGTE 42682			O	
INTE 41622	C			MGTE 43566[b]	C	C	C	C
INTE 42633	O			MGTE 44533				O
INTE 42642	O			MGTE 44733			O	O
INTE 42653		C		PMAT 12012	C	C	C	C
INTE 42662	O	O		PMAT 21042	C	C	C	C
INTE 42672		O						
INTE 42682		O						
INTE 43696[b]	C	C	C	C				
INTE 34622		O	O					

a Credits earned will not be considered for GPA

b Either INTE 43696 or MGTE 43566 c HDMIT values are 1- IT, 2 – IS, 3- BSE, 4 – OSCM

4.4 Honours Degree Course Structure
Software Engineering

4.4.1 Honours Degree Course Structure – Year 1
Software Engineering

Course Units	Status
GNCT 11012	C
GNCT 13522[a]	C
MGTE 11532	C
MGTE 11572	C
MGTE 11573	C
MGTE 12543	C
PMAT 12012	C
SENG 11512	C
SENG 11523	C
SENG 12533	C
SENG 12543	C
SENG 12553	C

4.4.2 Honours Degree Course Structure – Year 2
Software Engineering

Course Units	Application Domains (HDSE)					
	AD1	AD2	AD3	AD4	AD5	AD6
GNCT 23512[a]	C	C	C	C	C	C
MGTE 21552	C	C	C	C	C	C
MGTE 22582[1]						O
PMAT 21042	O	O	O	O	O	O
SENG 21512	C	C	C	C	C	C
SENG 21522	O	O	O	O	O	O
SENG 21533	C	C	C	C	C	C
SENG 21553	C	C	C	C	C	C

SENG 21562	C	C	C	C	C	C
SENG 21593	C	C	C	C	C	C
SENG 22543	C	C	C	C	C	C
SENG 22572	C	C	C	C	C	C
SENG 22582	C	C	C	C	C	C
SENG 22602[1]	O					
SENG 22612[1]		O				
SENG 22622[1]			O			
SENG 22632[1]				O		
SENG 22642[1]					O	

4.4.3 Honours Degree Course Structure – Year 3 Software Engineering

Course Units	**Application Domains (HDSE)**					
	AD1	**AD2**	**AD3**	**AD4**	**AD5**	**AD6**
GNCT 32536	C	C	C	C	C	C
MGTE 31612[2]						O
MGTE 34512	C	C	C	C	C	C
MGTE 34522						O
SENG 31513	C	C	C	C	C	C
SENG 31522	C	C	C	C	C	C
SENG 31533[2]	O					
SENG 31543[2]		O				
SENG 31553[2]				O		
SENG 31563[2]					O	
SENG 31573	O	O	O	O	O	O
SENG 31582	O	O	O	O	O	O
SENG 34593[2]			O			
SENG 34602	O	O	O	O	O	O
SENG 34612	O	O	O	O	O	O
Course Units from 3rd Year Optional Course Units/Any Other Department	O	O	O	O	O	O

4.4.4 Honours Degree Course Structure – Year 4

Software Engineering

Course Units	Application Domains (HDSE)					
	AD1	**AD2**	**AD3**	**AD4**	**AD5**	**AD6**
MGTE 41522	C	C	C	C	C	C
MGTE 41533[3]						O
MGTE 42543[3]						O
SENG 41512	C	C	C	C	C	C
SENG 41522	C	C	C	C	C	C
SENG 41532	C	C	C	C	C	C
SENG 41542	C	C	C	C	C	C
SENG 41553[3]	O					
SENG 41563[3]		O				
SENG 41573[3]			O			
SENG 41583[3]				O		
SENG 41593[3]					O	
SENG 41603[3]					O	
SENG 42612	C	C	C	C	C	C
SENG 42622	C	C	C	C	C	C
SENG 42632	C	C	C	C	C	C
SENG 42642	C	C	C	C	C	C
SENG 42653[3]	O					
SENG 42663[3]		O				
SENG 42673[3]			O			
SENG 42683[3]				O		
SENG 44696	C	C	C	C	C	C
SENG 44706	C	C	C	C	C	C

Application Domains:

AD1 -Net centric applications

AD2 -Mobile computing
AD3 -Business intelligent systems
AD4 -Health informatics
AD5 -Digital games and animations
AD6 -Business engineering

Notes:

a Credits earned will not be considered for GPA.

1 Three course units from this group should be selected based on the preference of three application domains.
2 Two course units from this group should selected based on the preference of two application domains.
3 Two course units from this group should selected based on the preferred application domain.

5.
COURSE UNITS

Course Units offered for BSc, 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
	ELTU 11222 English for Biology[1]	C
Year 2 Sem 2	ELTU 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	ELTU 12262 English for Physical Science[1]	C

1 Credits not counted for the GPA calculation.

Compulsory Course Units for BSc Honours Degree in MIT and SE Programmes		
	Course Units	**Status**
Year 1 Sem 1	ELTU 11232 English for Management Professionals[1]	C
Year 3 Sem 1	ELTU 31222 Communication Skills for Management Professionals	C

1 Credits not counted for the GPA calculation.

Compulsory Course Units for BSc ENCM Programme		
	Course Units	**Status**
Year 1 Sem 1	ELTU 11242 English for Environmental Science	C

Subject: Applied Mathematics (AMAT)				
BSc				
	Course Units	**Status**	**Pre-requisite**	**Co-requisite**
Year 1 Sem 1	AMAT 11032 Vector Algebra[1]	C	A/L Combined Mathematics	
Year 1 Sem 2	AMAT 12042 Elementary Ordinary Differential Equations[1]	C	A/L Combined Mathematics	
	AMAT 12053 Vector Analysis[2]	C	AMAT11032	
	AMAT 12062 Mechanics I	C		AMAT12053

Year 2 Sem 1	AMAT 21035 Mechanics II	C	AMAT12062	
Year 2 Sem 2	AMAT 22045 Numerical Methods	C	PMAT 12062 PMAT 12073	
Year 3 Sem 1	AMAT 31053 Numerical Methods using Appropriate Software	O	AMAT 22045	
	AMAT 31063 Mechanics III	O	AMAT 21035	
	AMAT 31073 Mathematical Modelling	O	PMAT 12073	
	AMAT 31083 Mathematics for Finance I	O	PMAT 12062	
	PRPL 31992 Professional Placement	O	All AMAT compulsory units offered in Levels 1 & 2	
Year 3 Sem 2	AMAT 32093 Computational Mathematics	O	AMAT31053	
	AMAT 32103 Introduction to Fluid Dynamics	O	PMAT 31073	PMAT 32113
	AMAT 32113 Mathematics for Finance II	O	AMAT31083	

Honours

	Course Units	**Status**	**Pre-requisite**	**Co-requisite**
Year 3 Sem 1	AMAT 41053 Qualitative and Quantitative Behaviour of the Solutions of Ordinary Differential Equations	C	AMAT22045	
	AMAT 41063 Advanced Mathematical Modelling	O	PMAT 12073	
Year 3 Sem 2	AMAT 42073 Advanced Computational Mathematics	C	AMAT41053	
	AMAT 42083 Fluid Dynamics	C	PMAT 41063	PMAT 42093
	AMAT 42093 Financial Mathematics	O	PMAT 12062	
Year 4 Sem 1	AMAT 41244 Boundary Values Problems[3]	C/O	PMAT 41073	
	AMAT 41254 Quantum Mechanics	C	AMAT31063	
	AMAT 43288 Research/ Study Project[4]	C		
Year 4 Sem 2	AMAT 42264 Quantum Field Theory	C	AMAT41254/ PHYS 44014	
	AMAT 42274 Tensors and General Relativity	C	PHYS 12194 PMAT 21035	

1 Compulsory for the Physical Science students.

2 Compulsory also for the students offering Physics as a subject.

3 Compulsory for the students in the Honours Degree Programme in Mathematics (Pure & Applied Mathematics stream).

4 Compulsory for the student who have not offered PMAT 43358.

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	GCE 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		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]	C	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	
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 units offered in Levels 1 & 2	
Year 3 Sem 2	CHEM 32542 Polymer Chemistry	O	CHEM 21512	
	CHEM 32552 Introduction to Environmental Chemistry	O	CHEM 11522/ 22522	CHEM 32561
	CHEM 32561 Environmental Chemistry Laboratory	O	CHEM 31532	

1 Compulsory for biological science stream.

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)			
BSc			
	Course Units	**Status**	**Pre-requisite**
Year 1 Sem 1	COSC 11014 Theoretical Foundations of Computer Science	C	A/L
Year 1 Sem 2	COSC 12025 Introduction to Programming and Program Design	C	COSC 11014
Year 2 Sem 1	COSC 21015 Data Structures and Algorithms	C	COSC 12025
Year 2 Sem 2	COSC 22025 Database Management Systems	C	COSC 11014
	COSC 22035 Object Oriented Programming	O	COSC 12025
Year 3 Sem 1	COSC 31014 Data Communication and Networks	C	COSC 11014
	PRPL 31992 Professional Placement	O	All COSC compulsory units offered in Levels 1 & 2
Year 3 Sem 2	COSC 32025 Web and Internet Technologies	O	COSC 11014
	COSC 32035 Visual Programming	O	COSC 12025
Honours			
	Course Units	**Status**	**Pre-requisite**
Year 3 and Year 4	COSC 44014 System Analysis and Design	C	COSC 11014
	COSC 44024 Object Oriented Analysis and Design	C	COSC 12025
	COSC 44034 Computer Architecture and Design	C	COSC 11014
	COSC 44045 Advanced Database Systems with Applications	C	COSC 22025
	COSC 44055 Logic Programming	C	COSC 12025
	COSC 44064 Machine Learning	C	COSC 11014
	COSC 44074 Theoretical Aspects of Computer Graphics	O	COSC 12025
	COSC 44084 Data Security	O	COSC 31014
	COSC 44094 Software Engineering	O	COSC 44014
	COSC 44104 Software Project Management	O	COSC 44014 or COSC 44094
	COSC 44114 Multimedia Systems Development	O	COSC 31014
	COSC 44124 Wireless Communication and Networks	O	COSC 31014
	COSC 44134 Theory of Computation	O	COSC 11014
	COSC 44144 Compiler Theory	O	All COSC compulsory course units
	COSC 44154 Digital Image Processing	O	COSC 44074

	COSC 44164 Data Mining and Warehousing	O	COSC 22025 and COSC 44045
	COSC 44174 e-Business Technologies	O	COSC 11014
	COSC 44184 Natural Language Processing	O	All COSC compulsory course units
	COSC 44194 Special Topics in Computer Science	O	
	COSC 43206 Research Project	C	
	COSC 43214 Industrial Training	O	

1 Restricted enrolment.

Subject: Computer Studies[1] (COST)			
BSc			
	Course Units	**Status**	**Pre-requisite**
Year 1 Sem 1	COSC 11014 Theoretical Foundations of Computer Science	C	G.C.E (A/L)
Year 1 Sem 2	COST 12115 Introduction to Programming	C	COSC 11014
Year 2 Sem 1	COST 21123 Database Management Systems	C	G.C.E (A/L)
Year 2 Sem 2	COST 22133 Structured Systems Analysis and Design	C	COSC 11014
	COST 22144 Web Technology and e-Commerce Applications	C	COSC 12115
Year 3 Sem 1	COST 31153 Visual Programming	C	COSC 12115
	COST 31163 Management Information Systems	C	COSC 11014
	PRPL 31992 Professional Placement	O	All COST compulsory units offered in Levels 1 & 2
Year 3 Sem 2	COST 32172 Web Programming	O	COST 22144
	COST 32183 Multimedia Technologies	O	COSC 11014

1 Restricted enrolment.

Subject: Computer Studies[3] (COST)			
Honours			
	Course Units	**Status**	**Pre-requisite**
	COST 31153 Visual Programming	C	COST 12115

Year 3 Sem 1	COST 31163 Management Information Systems	C	COSC 11014
	COST 31414 Mathematics for Information Technology[1]	C	G.C.E.(A/L)
	COST 31424 Data Structures and Algorithms	C	COST 12115
	PRPL 31992 Professional Placement	O	COSC 11014 and all COST compulsory units offered in Levels 1 & 2
Year 3 Sem 2	COST 32172 Web Programming	C	COST 22144
	COST 32183 Multimedia Technologies	C	COSC 11014
	COST 32434 Statistics for Information Technology[2]	C	COST 31414
	COST 32444 Object Oriented Programming	C	COSC 11014, COST 12115
Year 4 Sem 1 and Sem 2	COST 44513 Operating Systems	C	COSC 11014
	COST 44522 Human-Computer Interaction	C	COST 22144, COST 31153
	COST 44532 Software Quality Assurance	C	COSC 11014, COST 22133
	COST 44542 Software Project Management	C	COST 22133
	COST 44554 Data Communication and Networks	C	COSC 11014
	COST 44562 Systems and Network Administration	C	COSC 11014, COST 44513, COST 44553
	COST 44574 Object Oriented Analysis and Design	C	COST 32444
	COST 44584 Computer Architecture and Organization	C	COSC 11014, COST 44513
	COST 44594 Advanced Database Systems with Applications	C	COST 21123
	COST 41604 e-Business Technologies	O	COSC 11014, COST 22144
	COST 41614 Industrial Training	O	All COST compulsory course units
	COST 43656 Research Project	C	All COST compulsory course units
	COST 44624 Computer Graphics	C	COST 12115, COST 31414
	COST 44634 Logic Programming	C	COST 12115, COST 31414
	COST 44644 Information Security	C	COST 44554

Note:
Students are allowed to register to follow either COST 41604 or COST 41614, 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 11014 and STAT 11021 in Level 1 3 Restricted enrolment.

Subject: Electronics[1] (ELEC)				
BSc				
	Course Units	**Status**	**Pre-requisite**	**Co-requisite**
Year 1 Sem 1	ELEC 11134 Basic Electronics[2]	C	A/L Physics	ELEC 11141
	ELEC 11141 Basic Electronics Laboratory[2]	C	A/L Physics	ELEC 11134
Year 1 Sem 2	ELEC 12154 Analogue Electronics	C	ELEC 11134	ELEC 12161
	ELEC 12161 Analogue Electronics Laboratory	C	ELEC 11141	ELEC 12154
Year 2 Sem 1	ELEC 21174 Digital Electronics	C	ELEC 12154	ELEC 21181
	ELEC 21181 Digital Electronics Laboratory	C	ELEC 12161	ELEC 21174
Year 2 Sem 2	ELEC 22194 Signal Processing and Data Acquisition	C	ELEC 21174	ELEC 22201
	ELEC 22201 Signal Processing and Data Acquisition Laboratory	C	ELEC 21181	ELEC 22194
Year 3 Sem 1	ELEC 31214 Computer Architecture[3]	C/O	ELEC 22194/ ELEC 11134 & PHYS 44034	ELEC 31221
	ELEC 31221 Computer Architecture Laboratory	C	ELEC 22201	ELEC 31214
	PRPL 31992 Professional Placement	O	All ELEC compulsory units offered in Levels 1 & 2	
	ELEC 33232 Research Project	C	All ELEC Compulsory Course units	
Year 3 Sem 2	ELEC 32244 Special Topics in Electronics	O	ELEC 31214	

1 Restricted enrolment.
2 Compulsory for PHYS stream.
3 No Co-requisite for students following BSc Honours Degree in Physics.

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	GCE A/L Biology	-
	ENCM 11522 Introduction to Environmental Management	C	GCE A/L Biology	-
	ENCM 11532 Hydrology and Meteorology	C	GCE A/L Biology	-
	ENCM 11543 Soil and Mineral Resources	C	GCE 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.

Subject: Environmental Conservation and Management (ENCM)				
Honours in ENCM				
	Course Units	**Status**	**Pre-requisite**	**Co-requisite**
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 13522 Personal Progress Development I	C
Year 2 Sem 1 & 2	GNCT 23512 Personal Progress Development II	C
Year 3 Sem 2	GNCT 32536 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**
Year 1 Sem 1	INTE 11512 Computing Fundamentals	C	
	INTE 11523 Programming Concepts	C	
Year 1 Sem 2	INTE 12533 Data Structures and Algorithms	C	
	INTE 12543 Database Management Systems	C	
	INTE 12553 Object Oriented Programming	C	
Year 2 Sem 1	INTE 21533 Information Systems Modeling	C	
	INTE 21543 Interactive Application Design & Development	C	
Year 2 Sem 2	INTE 22522 Business Information Systems	C	
	INTE 22543 Web Application Development	C	
	INTE 22552 Human Factors in Information Technology	C	
	INTE 22562 System Design Project (Individual)	C	
Year 3 Sem 1	INTE 31512 Computer Networks	C	
	INTE 31522 System Development Project (group)	C	
	INTE 31533 Software Engineering Concepts	C	

	INTE 31542 Operating Systems & Computer Organization	C	INTE 11512
	INTE 31553 Integrative Programming and Technologies	C	None
	INTE 31563 Mobile Computing	O	None
	INTE 31573 Multimedia Technologies	O	INTE 21543
	INTE 31582 Web Technology	O	INTE 22543
	INTE 31593 Requirement Engineering	C	INTE 21533
	INTE 31602 IT Infrastructure	C	INTE 11512
	INTE 31612 IS Auditing and Control	O	None
Year 3 Sem 1/2	INTE 34622 Enterprise Systems	O	INTE 22522
Year 4 Sem1	INTE 41512 Systems Modeling & Simulation	O	None
	INTE 41522 E-Business[a]	C/O	None
	INTE 41533 System Administration and Maintenance	C	None
	INTE 41543 Enterprise Architecture	C	None
	INTE 41553 Advanced Databases	O	
	INTE 41563 Data Mining & Warehousing	O	INTE 12543
	INTE 41573 Software Verification and Validation	O	INTE 31533
	INTE 41582 Advanced Networking	O	INTE 31512
	INTE 41622 Artificial Intelligence	C	None
Year 4 Sem 2	INTE 42593 Information Assurance and Security	O	None
	INTE 42602 Usability Engineering	O	None
	INTE 42613 Business Intelligence and Decision Support System	O	None
	INTE 42622 Artificial Intelligence	O	None
	INTE 42633 Semantic web and Ontological Engineering	O	
	INTE 42642 Advanced Computer Architecture	O	
	INTE 42653 Information Systems Strategy& Management	C	None
	INTE 42662 Distributed Systems	O	None
	INTE 42672 IT Resource Management	O	None
	INTE 42682 Knowledge Management	O	None
Year 4 Sem 1 & 2	INTE 43696 Research Project	C	MGTE 34012

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**
Year 1 Sem 1	MGTE 11512 Economics	C
	MGTE 11523 Business Statistics	C
	MGTE 11532 Principles of Management	C
	MGTE 11562 Industry & Technology	C
	MGTE 11572 Engineering Foundation for Technology	C
	MGTE 11573 Statistics for Computing Professionals	C
Year 1 Sem 2	MGTE 12543 Accounting Concepts and Costing	C
	MGTE 12552 Optimization Methods in Management Science I	C
Year 2 Sem 1	MGTE 21522 Leadership and Management Communication	C
	MGTE 21532 Marketing Management	C
	MGTE 21543 Operations Management	C
	MGTE 21552 Economics	C
Year 2 Sem 2	MGTE 22552 Human Resource Management	C
	MGTE 22562 Managerial Finance	C
	MGTE 22572 Management of Technology	C
	MGTE 22582 Operations Research I	O
Year 3 Sem 1	MGTE 31532 Project Management	C
	MGTE 31543 Strategic Management	C
	MGTE 31552 Advanced Operations Management	C

	MGTE 31573 Strategic Marketing and International Trade	O
	MGTE 31583 Procurement/Supply Management	C
	MGTE 31593 Optimization methods in Management Science II[a]	C/O
	MGTE 31572 Computer based tools for Management Applications	O
	MGTE 31603 Computer Integrated Manufacturing	O
	MGTE 31612 Computer-based Operations Management	O
Year 3 Sem 1 or 2	MGTE 34512 Research Methods	C
	MGTE 34522 Statistical Techniques for Data Analysis	O
Year 4 Sem 1	MGTE 41522 Professional Practice	C
	MGTE 41533 Enterprise Resources Planning and Control Systems	O
	MGTE 41573 Corporate Finance[a]	C/O
	MGTE 41642 Supply Chain Financing	O
	MGTE 41672 Logistics Systems and Transportation Management	C
	MGTE 41702 Business Process Engineering[a]	C/O
	MGTE 44553 Advanced Optimization methods in Management Science	O
	MGTE 44713 Innovation and New Product Development	O
Year 4 Sem 2	MGTE 42512 Business and IT Law	C
	MGTE 42543 Advanced Planning and Scheduling	O
	MGTE 42582 Advanced Statistical Techniques for Industry	O
	MGTE 42592 Entrepreneurship and Innovation	O
	MGTE 42603 Industrial and Systems Engineering	C
	MGTE 42613 Investment Management	O
	MGTE 42622 Strategic Marketing	O
	MGTE 42632 Strategic Quality Management and Lean Six Sigma	C
	MGTE 42652 Warehouse and Distribution Management	C
	MGTE 42662 Customer Service and Sales Management	O
	MGTE 42682 Management of Occupational Health, Safety and Environment	O
	MGTE 43566 Research Project	C

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	GCE 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		
	MBBT 32534 Plant Pathology and Tissue Culture	O	MBBT 22513	MBBT 32542

Year 3 Sem 2	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	C	All MBBT compulsory course units
Year 3 Sem 2	MBBT 42776 Advanced Microbial Genetics		
Year 4 Sem 1	MBBT 41784 Molecular Plant Pathology		All MBBT compulsory course units and MBBT 32524
	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.

Subject: Physics[1] (PHYS)				
BSc				
	Course Units	**Status**	**Pre-requisite**	**Co-requisite**
Year 1 Sem 1	PHYS 11153 Basic Physics for Audiology[2]	C	O/L Mathematics & Science	
	PHYS 11162 Mechanics and Properties of Matter	C	A/L Physics	PHYS 11181
	PHYS 11172 Electric Circuit Fundamentals	C	A/L Physics	PHYS 11181
	PHYS 11181 Elementary Physics Laboratory – I	C	A/L Physics	PHYS 11162 & PHYS 11172
Year 1 Sem 2	PHYS 12194 Modern Physics[3]	C/O	A/L Physics	PHYS 12201
	PHYS 12201 Elementary Physics Laboratory - II	C	PHYS 11181	PHYS 12194
Year 1	PHYS 14222 Physics for Understanding Nature[4]	A	A/L Physics	

Year 2 Sem 1	PHYS 21234 Physics of Waves and Optics	C	PHYS 12194	PHYS 21241
	PHYS 21241 General Physics Laboratory – I	C	PHYS 12201	PHYS 21234
Year 2 Sem 2	PHYS 22252 Solid State Physics	C	PHYS 21234	PHYS 22271
	PHYS 22262 Thermodynamics	C	PHYS 21234	PHYS 22271
	PHYS 22271 General Physics Laboratory – II	C	PHYS 21241	PHYS 22252 & PHYS 22262
Year 3 Sem 1	PHYS 31282 Electromagnetism	C	PHYS 11172	PHYS 31301
	PHYS 31292 Nanoscience	C	PHYS 12194	PHYS 31301
	PHYS 31301 General Physics Laboratory – III	C	PHYS 22271	PHYS 31282
	PRPL 31992 Professional Placement	O	All PHYS compulsory units offered in Levels 1 & 2	
Year 3 Sem 2	PHYS 32312 Environmental Physics	O	A/L Chemistry or Physics	
	PHYS 32322 Introduction to Cosmology and Astrophysics[5,6]	O	A/L Physics	
	PHYS 32331 General Physics Laboratory – IV	C	PHYS 31301	

1 Restricted enrolment.
2 PHYS 11153 *is offered for the BSc in Speech and Hearing Sciences programme conducted by the Department of Disability Studies,* Faculty of Medicine.
3 No Co-Requisite for students following Applied Mathematics as a subject.
4 Offered for students who have not followed Physics as a subject.
5 Availability of the course unit will be announced by the Department at the beginning of the each academic year.
6 Not offered for students following BSc Honours Degree in Physics.

Subject: Physics (PHYS)

Honours			
	Course Units	**Status**	**Pre-requisite**
Year 3	PHYS 13212 Computer Applications in Physics	C	All AMAT/PHYS Compulsory Course units
	PHYS 43053 Advanced Physics Laboratory – I		
	PHYS 44014 Quantum Mechanics		
	PHYS 44024 Statistical Physics		
	PHYS 44034 Advanced Electronics[1]		
	PHYS 44044 Theory of Relativity[2]		
Year 4	PHYS 43104 Special Topics in Physics		
	PHYS 43115 Advanced Physics Laboratory - II		
	PHYS 43128 Research Project		
	PHYS 44064 Solid State Physics		
	PHYS 44074 Electromagnetic Theory		
	PHYS 44084 Nuclear Physics and Fundamental Particles		
	PHYS 44094 Cosmology and Astrophysics		

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 11042 Discrete Mathematics I[1,2]	C		
	PMAT 11083 Topics in Basic Mathematics[3]	A		
	PMAT 14102 Logic and Reasoning	A		
Year 1 Sem 2	PMAT 12012 Discrete Mathematics for Computing I	C		
	PMAT 12052 Calculus I[1]	C	A/L Combined Mathematics	
	PMAT 12062 Discrete Mathematics II[2]	C	PMAT 11042	
	PMAT 12073 Calculus II	C		PMAT 12052
	PMAT 12093 Introduction to Calculus[3]	A		
Year 2 Sem 1	PMAT 21035 Linear Algebra	C	PMAT 12062	
	PMAT 21042 Discrete Mathematics for Computing II	C		
Year 2 Sem 2	PMAT 22045 Infinite Series and Series of Functions	C	PMAT 12073	
Year 3 Sem 1	PMAT 31073 Introduction to Functions of Several Variables	O	PMAT 22045	
	PMAT 31083 Algebraic Structures	O	PMAT 21035	
	PMAT 31093 Ordinary Differential Equations	O	PMAT 12073	
	PMAT 31103 Riemann Theory of Integration	O	PMAT 22045	
	PRPL 31992 Professional Placement	O		
Year 3 Sem 2	PMAT 32113 Complex Variables	O	PMAT 31073	
	PMAT 32123 Geometry	O	PMAT 21035	
	PMAT 32133 Partial Differential Equations and Integral Transforms	O	PMAT 31093 PMAT 22045	

1 Compulsory for Physical Science students.
2 Compulsory for Management and Information Technology students.
3 Available only for students who have not offered Combined Mathematics for G.C.E. (A/L)Examination.

Subject: Pure Mathematics (PMAT)

Honours			
	Course Units	**Status**	**Pre-requisite**
Year 3 Sem 1	PMAT 41063 Functions of Several Variables	C	PMAT 22045
	PMAT 41073 Mathematical Methods	C	PMAT 22045
	PMAT 41083 Advanced Theory of Riemann Integration	C	PMAT 22045
Year 3 Sem 2	PMAT 42093 Complex Analysis	C	PMAT 31073
	PMAT 42103 Differential Geometry	O	PMAT 22045
Year 4 Sem 1	PMAT 41284 Topology[1]	C	PMAT 41083
	PMAT 41294 Functional Analysis	C	PMAT 31073
	PMAT 41304 Group Theory	C	PMAT 21035
Year 4 Sem 2	PMAT 42314 Measure Theory	C	PMAT 41083
	PMAT 42324 Ring Theory and Field Theory	O	PMAT 41304
	PMAT 42334 Graph Theory and Number Theory	O	PMAT 41304
	PMAT 42344 Special Topics in Mathematics and Statistics	C	PMAT 41083
	PMAT 43358 Research/ Study Project[2]	C	

1 Students in the Mathematical Physics program are strongly advised to attend these lectures. 2 Compulsory for the student who have not offered AMAT 43288.

Subject: Software Engineering (SENG)		
G		
rse Units	**Status**	**Pre-requisite**
G 11512 Essentials of Computing	C	
G 11523 Structured Programming	C	
G 12533 Data Structures, Algorithms Analysis and Design	C	SENG 11523
G 12543 Databases	C	SENG 11512
G 12553 Concepts of Object Oriented Programming	C	SENG 11523
G 21512 Computer Architecture and Operating Systems	C	SENG 11512, SENG 11523
G 21522 Software Construction Technologies and Tools	O	SENG 11512, SENG 12533
G 21533 Requirement Engineering and Management	C	SENG 12543, SENG 12553
G 21553 Software Modeling	C	SENG 11512
G 21562 Basic Computer Networks	C	SENG 11512
G 21593 Interactive Application Design and Development	C	SENG 12543, SENG 12553
G 22543 Human Computer Interaction	C	SENG 11512, SENG 21593
G 22572 Software Process	C	SENG 21533

G 22582 Software Architecture and Design	C	SENG 21533
G 22602 Web Application Development and Technologies	O	SENG 21593, SENG 22543
G 22612 Introduction to Mobile Application Development	O	SENG 12553, SENG 21533
G 22622 Information Systems	O	SENG 11512
G 22632 Telecare, mHealth and Consumer Health rmatics	O	SENG 21533, SENG 21553
G 22642 Basic Animations and Games	O	SENG 11523
G 31513 Software Testing and Verification	C	SENG 21533, SENG 22572, SENG 22582
G 31522 Software Project Management	C	SENG 22622
G 31533 Distributed Computing and Web Security	O	SENG 21562, SENG 22602
G 31543 Mobile Computing Technology	O	SENG 11512, SENG 22543
G 31553 Health Information Management	O	SENG 21533, SENG 22632
G 31563 Data Structures & Algorithms for Games and mation	O	SENG 22642
G 31573 Speech Interfaces	O	SENG 21593, SENG 22582
G 31582 Image Processing and Computer Graphics	O	SENG 11512, SENG 11523, SENG 12553
G 34593 Advanced Database Design	O	SENG 12543
G 34602 Enterprise Information Systems	O	SENG 11512
G 34612 Data Communication	O	SENG 12533
G 41512 Software Quality	C	SENG 21533, SENG 22572, SENG 22582
G 41522 Software Evolution	C	SENG 22582
G 41532 Formal Methods	C	SENG 12533
G 41542 Software Metrics and Measurements	C	SENG 21533, SENG 31513
G 41553 Multimedia Application for Web	O	SENG 31582, SENG 22602
G 41563 Mobile Web Design and Implementation	O	SENG 22582, SENG 22612
G 41573 Data Warehousing and Data Mining	O	SENG 12543
G 41583 Health Information Systems Design and elopment	O	SENG 22582, SENG 22632
G 41593 Computer Game Design	O	SENG 31563
G 41603 Game Engine Design and Implementation	O	SENG 41593
G 42612 Software Management	C	SENG 22582

G 42622 Usability Engineering	C	SENG 21593
G 42632 Software Safety and Reliability	C	SENG 22582, SENG 31513
G 42642 Computer Simulation	C	SENG 22582
G 42653 Semantic Web and Ontological Engineering	O	SENG 22602
G 42663 Mobile Networks	O	SENG 21562, SENG 22612, SENG 31543
G 42673 Business Intelligence and Decision Support tems	O	SENG 22622
G 42683 Medical Imaging and Biomedical Signal Processing	O	SENG 22632, SENG 31553
G 44696 Software Engineering Research Project	C	MGTE 34512
G 44706 Software Development Project	C	All Previous SENG Modules

Subject: Statistics[1] (STAT)				
BSc				
	Course Units	**Status**	**Pre-requisite**	**Co-requisite**
Year 1 Sem 1	STAT 11014 Statistical Modelling	C	A/L Combined Mathematics/ Mathematics	STAT 11021
	STAT 11021 Statistical Laboratory I	C	A/L Combined Mathematics/ Mathematics	STAT 11014
Year 1 Sem 2	STAT 12033 Probability Distributions and Applications I	C	STAT 11014 and STAT 11021	
	STAT 12042 Operational Research I	C		
Year 1	STAT 14142 Statistics for Natural Sciences	A		
Year 2 Sem 1	STAT 21053 Probability Distributions and Applications II	C	STAT 12033	
	STAT 21062 Statistical Inference I	C	STAT 21053	
Year 2 Sem 2	STAT 22073 Statistical Inference II	C	STAT 21062	
	STAT 22082 Survey Methods and Sampling Techniques	C	STAT 22073	
Year 3 Sem 1	STAT 31094 Operational Research II	O	STAT 12042	STAT 31101
	STAT 31101 O.R. Laboratory	O	STAT 12042	STAT 31094
	PRPL 31992 Professional Placement	O	All STAT compulsory units offered in Levels 1 & 2	
Year 3 Sem 2	STAT 32112 Statistical Quality Control	O	STAT 21053	
	STAT 32123 Linear Models	C	STAT 22073	
	STAT 32131 Statistical Laboratory II	O	STAT 11021	

1 Restricted enrolment.

Subject: Statistics (STAT)			
Honours			
	Course Units	**Status**	**Pre-requisite**
Year 3	STAT 41013 Time Series Analysis	C	Compulsory course units covered in the first two years
	STAT 44024 Categorical Data Analysis	C	
	STAT 41033 Optimization	C	STAT 12042
	STAT 44044 Actuarial Mathematics	C	STAT 22073
	STAT 42053 Bayesian Inference & Decision Theory	C	STAT 22073
Year 4	STAT 42084 Design and Analysis of Experiments	C	STAT 32123
	STAT 43066 Stochastic Processes	C	STAT 21062
	STAT 43116 Research Project/Independent Study	C	Compulsory course units covered in first three years
	STAT 44073 Multivariate Data Analysis	C	Compulsory course units covered in first three years
	STAT 44093 Econometrics	O	STAT 32123
	STAT 44103 Special Topics in Statistics	O	Compulsory course units covered in first three years
	STAT 44124 Industrial Training	O	All STAT compulsory units
	COSC 44045 Advanced Database Systems With Applications	O	COSC 22025
	COSC 44064 Machine Learning	O	COSC 11014 COSC 32025

Subject: Zoology (ZOOL)				
BSc				
	Course Units	**Status**	**Pre-requisite**	**Co-requisite**
Year 1 Sem 1	BIOL 11542 Animal Form, Function and Behaviour	C	GCE A/L Biology	-
Year 1 Sem 2	ZOOL 12512 Evolutionary Biology and Zoogeography	C	GCE A/L Biology	-
	ZOOL 12523 Animal Diversity and Sri Lankan Fauna	C	GCE A/L Biology	ZOOL 12531
	ZOOL 12531 Animal Diversity and Sri Lankan Fauna Laboratory	C	GCE 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[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 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 13052 Chinese Language and Culture I

Level Two

CHIN 23052 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 13052 French Grammar & Vocabulary

Level Two

FREN 23052 Grammar, Composition and Expression

Level Three

FREN 33052 French Grammar, Expression and Culture

GERMAN

Level One

GERM 13052 German Language and Culture I

Level Two

GERM 23052 German Language and Culture II

Level Three

GERM 33052 German Language and Culture III

HINDI

Level One

HIND 11032 Proficiency in Hindi language I

HIND 12062 Proficiency in Hindi language II

Level Two

HIND 21032 Proficiency in Hindi language III

HIND 22062 Proficiency in Hindi language IV

Level Three

HIND 31032 Introduction to North Indian Culture

HIND 32062 Introduction to Modern Hindi Prose & Verse (Prescribed)

JAPANESE

Level One

JPNS 13052 Japanese Grammar & Vocabulary I

Level Two

JPNS 23052 Japanese Grammar & Vocabulary II

Level Three

JPNS 33052 Japanese Grammar & Vocabulary III

KOREAN

Level One

KORE 13052 Korean Language and Culture I

Level Two

KORE 23052 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

RUSS

Level One

RUSS 13052	Russian Language & Culture I

Level Two

RUSS 23052	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 I

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 13054	Practical Sinhala I

Level Two

SINH 22052	Practical Sinhala II

SINH 22062 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 (ELTU)

Level Two

ELTU 21212 English in Today‟s World

ELTU 22222 Introduction to Literature

Level Three

ELTU 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

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 31012	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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