



FACULTY OF SCIENCE
UNIVERSITY OF JAFFNA, SRI LANKA

2012/2013

**Undergraduate
Student Handbook**

April 2014

Vice-Chancellor's Message



Firstly, I wish to congratulate the 39th Batch of Students who are entering the Faculty of Science in April 2014 to commence their university education. The Faculty of Science is a well established faculty in the University of Jaffna, having competent and devoted staff with conducive environment for teaching and learning.

So, I consider that the new entrants of the Faculty of Science are very fortunate to pursue their undergraduate programme in such a well reputed faculty. The University of Jaffna has been committed and continuously developing sports and leisure facilities for the students to engage themselves in sports and cultural activities.

12th Sri Lanka University Games in 2016 (SLUG-2016) shall be organized by the University of Jaffna and the preparation are already underway. I take this opportunity to encourage you all to actively partake in SLUG-2016 and bring glory to the University.

May God bless you all to enjoy fruitful University life.

Prof. (Ms.) V. Arasaratnam
Senior Professor in Biochemistry
University of Jaffna

Dean's Message



My Dear Students,

The Faculty of Science welcomes you and takes pleasure in wishing you a successful and rewarding period of stay in the Faculty.

Your purpose in entering the Faculty of Science is to cultivate knowledge in basic sciences (Physical and Biological Sciences and Computer Science) leading to the award of a Bachelor of Science Degree.

The Faculty of Science is ready to serve your purpose and desires to mould you as a competent Graduate, capable of making useful contributions to the local and global scientific communities.

This handbook contains a collection of information that the new entrants to the Faculty of Science, University of Jaffna should know for them to begin their university career with confidence leading to success at the Faculty of Science. Moreover you are advised to consult the Lecturers, Student counsellors, Academic advisors and Head of the Departments for seeking guidance whenever you face any difficulties.

With best wishes,

Prof. S. Srisatkunarajah
Dean/Faculty of Science
University of Jaffna

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1. University Education

1.1. The University of Jaffna

1.1.1. *Brief History*

The Jaffna Campus of the University of Sri Lanka was established in 1974 with a ceremonial inauguration on 6th October 1974 with the late Professor Kailasapathy as its first President. Under the University Act No. 16 of 1978, the Jaffna Campus gained the status of an independent University in January 1979 and became the University of Jaffna.

To know more about the history of the University you may visit the following URL: www.jfn.ac.lk/aboutUs.html

1.1.2. *Vision*

“To be a leading centre of excellence in teaching, learning, research and scholarship”.

The University of Jaffna is committed to the search for truth in a diverse field of subjects, as has been emphasized in its motto “Meipporul kanpatharivu” (Discernment is Wisdom).

1.1.3. *Mission*

“To produce intellectual, professionally competent and capable graduates to meet the emerging needs of the national and international community, with a special emphasis on the social, economic and cultural needs of Northern Sri Lanka”.

1.1.4. *Crest*



The crest of the university, shown above, has the ‘NANTHI’ (bull) symbol at its centre. Nanthi adorned the flag of the Jaffna Kingdom that existed in the Northern Sri Lanka until it was dismantled by the

Portuguese in the 15th century. The traditional oil lamp symbolizes the light of wisdom. The whole emblem is surrounded by 64 flames. These flames depict the sixty four varieties of art that adorns the Tamil culture. The crest is therefore symbolizes the growth of wisdom along with culture.

1.2. Faculty of Science, University of Jaffna

1.2.1. Brief History

The Faculty of Science was set up in October 1974 at Vaddukoddai in the premises taken over from the Undergraduates' Section of the Jaffna College. The first batch of students numbering 103 was admitted to the Faculty on 25th October 1974 and only a course in Mathematics and Statistics was provided initially. The late Professor Kanagasabapathy functioned as the first Dean of the Faculty and the Head of the Department of Mathematics and Statistics. After the appointment of Heads of Departments and a few Assistant Lecturers for some of the other disciplines in Science, courses in physical science and bioscience were started in 1975. Thirty five students were admitted to these courses in the academic year 1975/76. As the facilities available in the small laboratories at Vaddukoddai were grossly inadequate for work beyond the First Year Courses and future development at Vaddukoddai was not possible due to acute shortage of fresh water and space, a decision was taken to put up new Faculty buildings at Thirunelvely where the Faculty of Humanities and the administrative offices were sited.

The Faculty shifted to the Thirunelvely premises in June 1978 soon after the completion of work on the Natural Science Block (Stage 1), the foundation for which was laid on 07 May 1975. In 1977, funds were voted for a Physics building and this building came into occupation in September 1980. Funds were also voted for two other buildings in 1979, one for Chemistry and the other for Mathematics and Statistics. The Mathematics and Statistics building was completed in 1985. The Chemistry Block was completed in 1988.

The annual intake of students to the Faculty had increased over the years and it was about 250 in mid-eighties. The Faculty had on its roll over 700 students in mid-eighties. The annual intake started to decline in early nineties.

Since 2009, the Faculty is enjoying intake of students from all parts of the Island representing all ethnic which added greater multicultural environment for the Faculty to foster and promote social harmony. Moreover, the students' population at the Faculty has now reached about 850.

1.2.2. Vision

“To be a recognised centre of science learning in Sri Lanka”.

1.2.3. Mission

“To produce competent graduates who excel in learning and research in basic sciences and who could contribute to the development of the nation”.

1.2.4. Objectives

- To attain an internationally recognisable level of teaching and research.
- To disseminate science knowledge and popularise science.
- To improve the quality of science education.
- To provide services directed towards the environmental, social and technological needs of the region.
- To be a regional research centre in Science, developing indigenous scientific methods using local resources to improve the economic and social conditions of the local population.

1.2.5. Teaching Framework

Instruction in each course unit may take place in the form of lectures, tutorials, discussions, practical, seminars, projects, assignments, self-study exercises and/or other forms approved by the Faculty Board of Science and the University Senate which are the authorities that decides the methods of teaching.

It is the responsibility and the duty of undergraduates to attend and participate in lectures, tutorials, practical and other work assigned to the undergraduates, to register his/her attendance by signing the attendance list, and to maintain the required percentage of attendance of 80% in each course unit. It should be noted that no undergraduate can keep away

from attending classes (i.e., lectures, tutorials etc.) for more than three consecutive days without informing and obtaining the written approval of the Head of Department. Undergraduates who are unable to attend lectures, tutorials etc. for three consecutive days or more due to illness must submit a valid medical certificate.

Strict measures will be taken by the Departments of studies to monitor the attendance of undergraduates at lectures, tutorials etc., for evaluating their performance as well as for permitting them to take the respective End of Course examinations. Therefore continued attendance at classes is essential.

2. Supportive Facilities for Learning and Sports

2.1. The Main Library

The University Library is situated in front of the Students Centre. It is named after Prof. S.Vithiananthan, the first Vice-Chancellor of the Jaffna University, as 'Vithiananthan Library'. Access to this building is from the Western side of the building facing the Science Faculty. There are branch libraries in the Faculty of Agriculture, Faculty of Engineering, Faculty of Medicine, Ramanathan Academy of Fine Arts (RAFA) and the Sidha Medicine Unit.

Opening hours:

- Week days 8.30 am to 6.15 pm; Saturdays 8.30 am to 2.30 pm.
- The Library is closed on Sundays and public Holidays.

2.2. The Computer Centre

This centre, located at the Faculty of Science premises, serves as the provider of computer services for the whole university. It helps in the teaching of computer courses in all the Faculties and units. The centre has internet access facilities for both students and staff.

The Information Technology Resource Centre (ITRC) was established in 2004 in Level 2 of the main Vithyananthan Library to expand the IT services provided to the staff and students of the whole university. The centre has four teaching laboratories and one Internet Laboratory. The four labs have about 195 computers. The Internet lab has 40 computers. It also houses servers for running the network related services.

2.3. Facilities for Collaborative Learning

Old Science Library building located behind the Chemistry Block is now renovated to provide collaborative learning facilities to encourage combined studies.

2.4. The Physical Education Unit

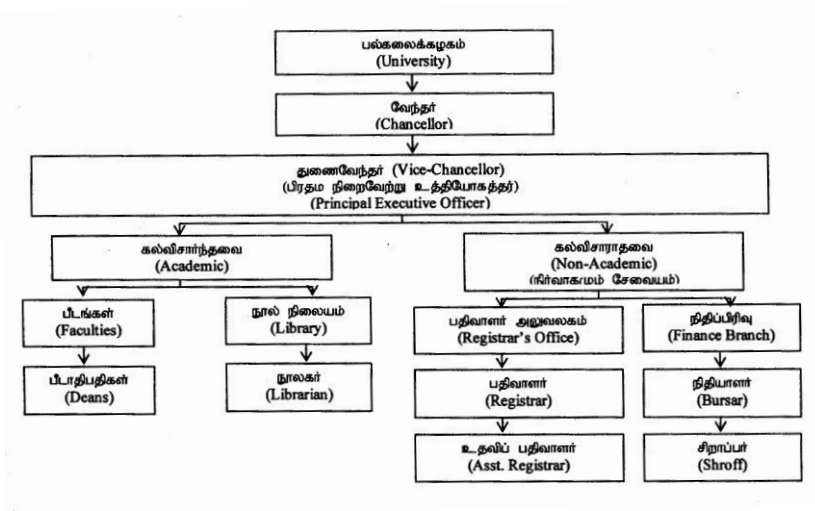
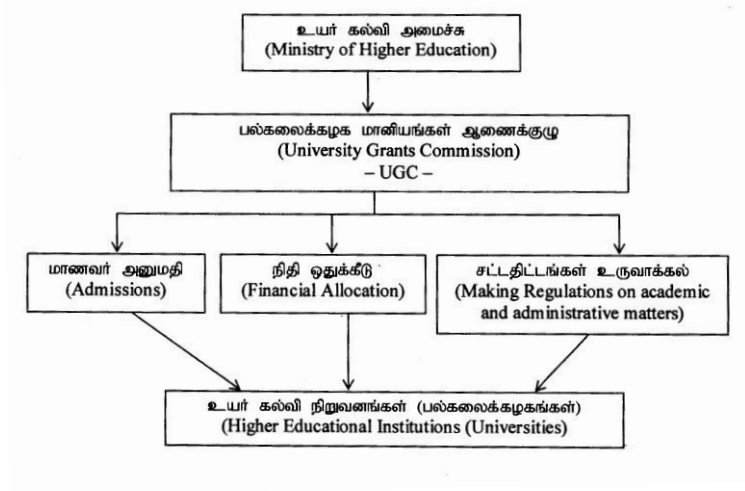
The students are encouraged to take part in Sports to keep themselves physically fit and develop sports skills. The Physical Education Unit situated behind the Medical Faculty Complex handles the following:

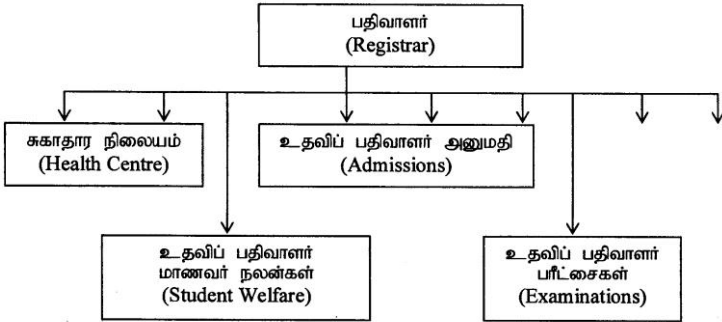
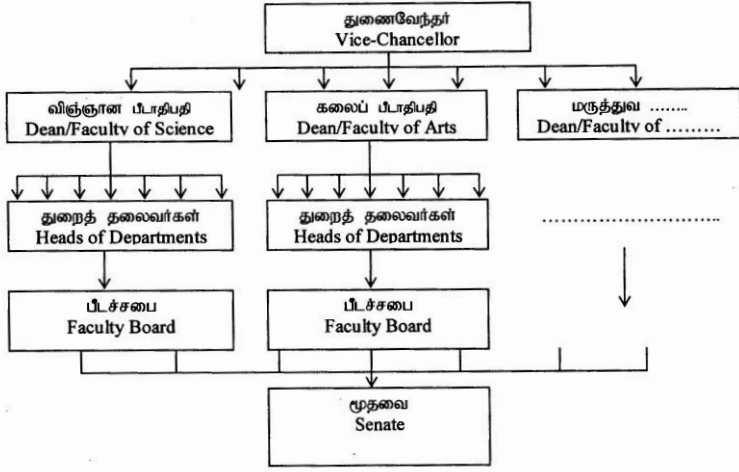
- Providing Sports facilities.
- Maintaining the sports equipment and materials.
- Facilitating friendly matches and tournaments.
- Conducting tournaments.
- Conducting colours awarding ceremony.
- Making arrangements for participation in the inter university games.
- Affiliating with outside sports associations and coordinating with them.

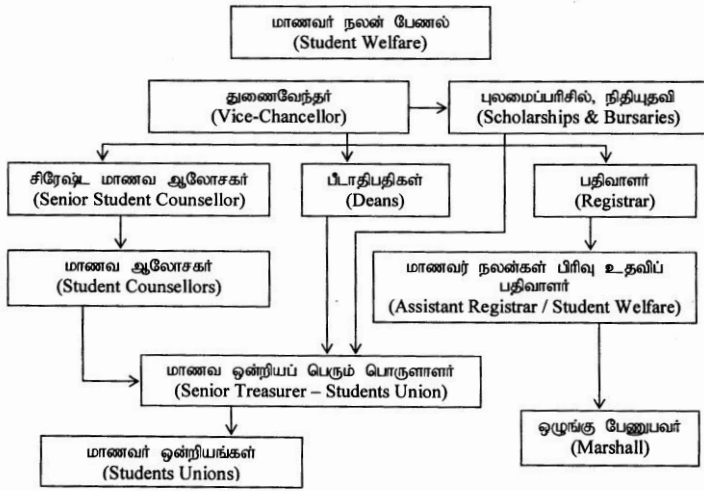
The Sports Complex has a large playground where Courts for Tennis, Basketball, Hockey, Cricket, Soccer, Netball, Volley ball & Elle have been set up and maintained.

The Physical Education Unit provides about more than 26 games to the students: Athletic, Badminton, Basketball, Carom, Chess, Cricket, Elle, Gymnastic, Hockey, Karate, Netball, Rugby, Soccer, Table tennis, Volleyball, Weightlifting, etc.

3. Administrative Setup of the University







3.1. The role of the University Grants Commission and the Ministry of Higher Education

There are fifteen universities in Sri Lanka and although they are autonomous universities, the financial allocations for the universities, admission of students to the universities, rules and regulations regarding governance and staff recruitments and infrastructure and academic developments of the universities are controlled by the Ministry of Higher Education of the Government through the University Grants Commission (UGC). HE the President of Sri Lanka appoints the Chairman and members of the UGC.

3.2. The Chancellor and Officers of the University

- Every University has a Chancellor appointed by HE The President. The *Chancellor is the Head of the University* and chairs the Annual Convocation of that university.
- The Principal Executive Officer of a University is its *Vice-Chancellor* who is also appointed by HE the President.
- The University administration is divided into two sectors: Academic and non-academic.
- Although the Vice-Chancellor is in overall charge of both academic and non-academic matters, the *Registrar* is the Principal Executive

Officer for all non-academic matters. The officer responsible for the financial sector is the *Bursar*. There are several Senior Assistants Registrars, Assistant Registrars, Senior Assistant Bursars and Assistant Bursars assisting the Vice-Chancellor/ Registrar/Bursar.

3.3. The Faculties and Academic Departments

There are seven Faculties in the University of Jaffna and two in the Vavuniya Campus of the University of Jaffna. They are:

1. Faculty of Agriculture (Ariviyal Nagar, Kilinochchi)
2. Faculty of Applied Sciences (Vavuniya Campus)
3. Faculty of Arts
4. Faculty of Business Studies (Vavuniya Campus)
5. Faculty of Engineering (Ariviyal Nagar, Kilinochchi)
6. Faculty of Graduate Studies
7. Faculty of Management Studies and Commerce
8. Faculty of Medicine
9. Faculty of Science

Each Faculty has academic Departments of Study. The Faculty of Science, University of Jaffna has the following seven academic Departments:

1. Department of Botany
2. Department of Chemistry
3. Department of Computer Science
4. Department of Fisheries
5. Department of Mathematics and Statistics
6. Department of Physics
7. Department of Zoology

3.4. Administration of the Faculties

Each Department is comprised of academic staff (Senior Professors, Professors, Associate Professors, Senior Lecturers, Lecturers and Probationary Lecturers). The list of Academic Staff in the Departments of the Faculty of Science are given on Page 49.

Heads of Departments are appointed by the Vice-Chancellor from among the Senior academic staff.

A *Faculty Board*, comprising of all the Permanent academic staff of the Faculty, three members elected from among prominent persons working in disciplines related to the Faculty and two representatives of the students make recommendations/decisions regarding academic matters in the Faculty.

Each Faculty has a *Dean*, who is the Head of the Faculty concerned. The Dean is elected by the Faculty Board from among the Heads of Departments. All Faculty Board members excluding the two student representatives are eligible to vote in the election of the Dean. The Dean is the academic and administrative head of the Faculty concerned and the Chairman of the Faculty Board.

The Office of the Dean of the Faculty of Science is located on the western side of the Physics Block. Each Faculty has an Assistant Registrar to assist the Dean with Faculty administration. The names of the Dean, the Heads of Departments and the Assistant Registrar of the Faculty of Science are given on Page 48. Their contact details are given on Page 51-52.

The Vice-Chancellor, the Deans, the Registrar, the Bursar and the Librarian are the Principal Officers of the University. The names of the Principal Officers along with that of the Chancellor of the University are given on Page 48. Students are encouraged to seek assistance from the Office of the Dean and the Heads of Departments regarding their study programmes and appropriate subject combinations.

3.5. The University Senate

The University Senate is the highest academic body of the university. All the Deans, Professors, Heads of Departments and two academics elected from each Faculty are the members of the Senate. The Vice-Chancellor is the Chairman of the Senate. All recommendations made by the Faculty Board regarding academic matters are referred to the Senate for approval.

3.6. Other Academic Entities

Apart from the Faculties, the university has some academic units. They are:

1. External Examinations Unit
2. Extra Mural Studies Unit

3. Media Resource and Training Centre (MRTC)
4. Siddha Medicine Unit
5. Workers Education Unit

3.7. Administrative Branches of the University

A brief account of the work carried by the different administrative organs of the university is given below:

3.7.1. *Administration Branch*: Administration branch handles many matters including postal, communication and transport services which are services relevant to the students.

3.7.2. *Establishments Branch*: The Establishments branch handles the works relating to university employees and are therefore not relevant to the students.

3.7.3. *Examinations and Admissions Branch*: Examinations and Admissions branch handles the work of students registrations, examinations and release of results. This branch prepares the Degree certificates and maintains the academic records and register of graduates. It also issues the transcripts and details of examination results at the request of the students.

3.7.4. *Welfare Services Branch*: This branch looks after the welfare of the university students and hence one of the most important administrative organs of the university as far as the students is concerned. It handles matters such as providing accommodation to students at the university hostels and helping the students to get accommodation outside the university, providing canteen facilities, maintaining social harmony among the students, student counselling, health services and the matters relating to student discipline in the university. It also handles the work relating to the Vice-Chancellors Fund, the Mahapola Bursaries etc.

3.7.5. *Academic and Publication Branch*: The Academic branch engages itself with the working relating to the Senate meetings, publication of annual reports, books, etc., making arrangements for the convocation and handling the endowments for scholarships, prizes and Gold Medals.

3.7.6. *Finance Branch*: The Finance Branch handles all the financial matters including purchases and supplies.

3.7.7. *Planning and Maintenance Branch*: This branch is responsible for utilities such as Water and Electricity Supply, maintenance of buildings and structures etc.

3.7.8. *Security Department*: This Department headed by a Chief Security Officer (CSO) has more than fifty security personnel to protect the properties of the university and give security to the university community.

4. The Structure of the Bachelor Degree Programmes in the Faculty of Science, University of Jaffna

Academic Programmes of the Faculty of Science, University of Jaffna operates on a modularized credit valued, semester based course unit system.

4.1. General

4.1.1. Admission to Bachelor Degree Programmes

Students are admitted by the University Grants Commission under the Physical and Biological Science streams. Students are also admitted to the Faculty directly for a four year Degree Programme in Computer Science.

4.1.2. Degrees

The Faculty offers Degrees in Physical and Biological Sciences of four years duration with an exit point at the end of the third year.

The different types of four year degree programmes that are offered at present are as follows:

- (i). B.Sc. (Special) Degree
- (ii). B.Sc. (Subject Specific) Degree

The Selection to Special Degree courses (programme (i)) is done at the end of the second year of study.

Programme (ii) covers one or more subjects including components offered by different departments in the Faculty of Science as well as departments in other Faculties.

At present two Subject Specific Degrees are offered. One is *B.Sc. in Science and Education*. It is offered by the Faculty of Science with the assistance and participation of the Department of Education, Faculty of Arts of the University. The selection to this Degree programme is done at the end of the second year of study.

The other subject specific degree is the *B.Sc. in Computer Science*. Students are admitted directly by the UGC for the subject specific degree B.Sc. in Computer Science of four years duration.

An exit at the end of the third year of study is possible in the degree programmes (i) and (ii). Students, other than those admitted by the UGC directly for the subject specific degree B.Sc. in Computer Science, exiting a four year degree programme at the end of the third year and students not admitted to any of the four year degree programmes will be awarded a *B.Sc. (General Degree)* if they satisfy the stipulated conditions.

Students admitted to the *Bachelor of Science in Computer Science* degree by the UGC directly for the Subject Specific Degree B.Sc. in Computer Science may exit at the end of the third year and they will be awarded a *Bachelor of Computer Science* degree if they satisfy the stipulated conditions.

A student who has fulfilled the following requirements is deemed to have satisfied the conditions for the award of *B.Sc. (General Degree)* or *Bachelor of Computer Science Degree*:

- (i). Possess Grade C or above in the Auxiliary Course English Language and Grade D+ or above in each of the three Auxiliary Course units: SLS102GA0, MES301GA0 and CSK302GA0.
- (ii). Obtains an overall GPA of not less than 2.0.

4.1.3. Names of the Degrees

4.1.3.1. *Name of the four year degrees*: The four year degrees are named according to the type of the programmes and the subjects that are supplicated.

4.1.3.2. *Special Degrees*: These programmes would involve specialisation in one single Principal Subject. The Special Degrees are named according to the subjects that are supplicated. The name of the Degree shall be B.Sc. (Special) Degree in 'X'.

E.g.: B. Sc. (Special) Degree in Chemistry

4.1.3.3. *Subject Specific Degrees*: These programmes would cover one or more subjects including components offered by different departments of study.

The name of the Degree shall be B.Sc. Degree in 'X' or B.Sc. Degree in 'X' and 'Y'.

E.g.: B.Sc. Degree in Computer Science

B.Sc. Degree in Science and Education

A list of four year courses offered by the Faculty of Science at present is given below:

Special Degree courses in Principal subjects

| No. | Name of the Degree | Abbreviation |
|-----|---|---|
| 1. | Bachelor of Science (Special) Degree in Chemistry | B.Sc. (Special) Degree in Chemistry |
| 2. | Bachelor of Science (Special) Degree in Computer Science | B.Sc. (Special) Degree in Computer Science |
| 3. | Bachelor of Science (Special) Degree in Mathematics | B.Sc. (Special) Degree in Mathematics |
| 4. | Bachelor of Science (Special) Degree in Physics | B.Sc. (Special) Degree in Physics |
| 5. | Bachelor of Science (Special) Degree in Botany | B.Sc. (Special) Degree in Botany |
| 6. | Bachelor of Science (Special) Degree in Statistics | B.Sc. (Special) Degree in Statistics |
| 7. | Bachelor of Science (Special) Degree in Zoology | B.Sc. (Special) Degree in Zoology |
| 8. | Bachelor of Science (Special) Degree in Fisheries Science | B.Sc. (Special) Degree in Fisheries Science |

Subject Specific Degree courses

| No. | Name of the Degree | Abbreviation |
|-----|---|--------------------------------|
| 1. | Bachelor of Science Degree in Computer Science | B.Sc. in Computer Science |
| 2. | Bachelor of Science Degree in Science and Education | B.Sc. in Science and Education |

The name of the three year degrees:

This degree programme is offered for the following category of students:

- (a) students opting for a three year degree.
- (b) students following a four year degree programme who opt to exit at the end of the third year.
- (c) students who have failed to gain admission to four year degree programmes.

The name of the three year degrees shall be *B.Sc. (General) Degree*.

Note: If a student admitted by the UGC directly for the B.Sc. in Computer Science course of four years duration opt to exit at the end of the third year, the name of the degree he/she will be awarded is *Bachelor of Computer Science Degree*.

4.1.4. Academic year

An Academic year consists of two semesters, Semester 1 and Semester 2. The duration of a Semester is 15 weeks.

4.1.5. Credit valued course unit system

A *course unit* is a subject module that has a credit value. A *credit* is a time based quantitative measure assigned to course units on the basis of number of contact hours and is defined in Section 4.1.6. The performance of students in the course units are divided into a sequence of sub-ranges designated by symbols called *Grades* (see Section 4.4.3.) and each Grade is assigned a *Grade Point Value* (GPV). *Grade Point Average* (GPA) is defined in Section 4.4.4. The credit rating of course units offered by the Faculty may vary from one credit (minimum) to six credits (maximum). The course units are organised at the following levels:

- Level 1G (General Degree Level)----- First year
- Level 1S (Subject Specific Degree Level) ----- First year
- Level 2G (General Degree Level) ----- Second year
- Level 2S (Subject Specific Degree Level) ----- Second year
- Level 3G (General Degree Level) ----- Third year
- Level 3S (Subject Specific Degree Level)----- Third year
- Level 3M (Special Degree Level)----- Third year
- Level 4S (Subject Specific Degree Level) ----- Fourth year
- Level 4M (Special Degree Level) ----- Fourth year

The abbreviations G, M and S refer to course units at the General Degree, Special Degree, and Subject Specific Degree, respectively. The Auxiliary/Enhancement course units which are defined in Section 4.1.7.1 form a part of the General Degree course units and are abbreviated by “G” as well. There could be overlapping between the course units of Levels 3M, 3S, 4M and 4S.

4.1.6. Definition of a credit

- For course units consisting of theory only, 15 hours of lectures and tutorials is equivalent to one credit.
- For course units involving laboratory work, 15 practical sessions each of two to three hours duration is equivalent to one credit.
- The credit values of courses that have both theory and practical components are calculated by giving due weightage to the components accordingly, as stipulated above.
- For course units involving field work, the assigned credit value shall be given in the approved syllabi.
- For Research Projects of one semester duration the assigned credit value shall be between 3 and 6.

4.1.7. The Subject Areas

The course units are derived from the following categories:

- (a) Auxiliary and Enhancement subject areas.
- (b) Principal subject areas.
- (c) Supplementary subject areas.
- (d) Subject Specific Areas.
- (e) Inter-Faculty Subject Areas.

Credits earned in all course units, excluding the Auxiliary course units shall be considered in computing GPAs (Please see Section 4.4.4 for the definition of the GPA). However, obtaining a minimum grade in the Auxiliary Course Units shall be a requirement for the award of a degree.

4.1.7.1. Auxiliary and Enhancement Subject Areas: The Auxiliary and Enhancement Course units are designed to provide basic knowledge on a wide-range of disciplines that an undergraduate should possess in the present era.

The Auxiliary Course Units are treated as non-credit valued course units as they are not taken for the computation of the GPA. The Enhancement course units are credit valued and taken for the computation of the GPA. However all the auxiliary course units shall be evaluated and considered for the award of degrees. The Auxiliary Course Units offered and the Letter Codes assigned to them are given in the following table:

| Topics in Auxiliary Courses | Letter Code |
|---------------------------------------|-------------|
| English Language | ENG |
| Sri Lankan Studies and Social Harmony | SLS |
| Management and Entrepreneurial Skills | MES |
| Career Guidance | CAG |
| Communication Skills | CSK |

The Enhancement Course Units offered and the Letter Codes assigned to them are given in the following table:

| Topics in Enhancement Courses | Letter Code |
|---|-------------|
| Computer Literacy | COM |
| Mathematics for Biological Science students | MBS |
| Biology for Physical Science students | BPS |
| Science and Society | SAS |

4.1.7.2. *Principal Subject Areas*: The Faculty, at present, offers courses in ten Principal Subject areas. The subjects offered and the Letter Codes assigned to them are given in the following table:

| Principal Subject | Letter Code |
|---------------------|-------------|
| Applied Mathematics | AMM |
| Botany | BOA |
| Chemistry | CHE |
| Computer Science | CSC |
| Fisheries Science | FIS |
| Mathematics | MMT |
| Physics | PHY |
| Pure Mathematics | PMM |
| Statistics | STA |
| Zoology | ZOL |

- Note:** (a) Students who have offered Pure Mathematics and Applied Mathematics as Principal subjects in Levels 1G and 2G only could be admitted for the Special Degree course in Mathematics.
- (b) Courses in Mathematics are offered at Levels 3M and 4M only.

4.1.7.3. *Supplementary Subject areas*: The Faculty offers courses in many supplementary subject areas depending on the availability of resources, and the courses offered may change from year to year.

The Supplementary Subject Areas offered at present and their corresponding Letter Codes are listed in the following table:

| Supplementary Subject area | Letter Code |
|----------------------------|-------------|
| Basic Computing | BAC |
| Biotechnology | BTE |
| Electronics | ELE |
| Environmental Science | ENS |
| Food Science & Nutrition | FSN |

4.1.7.4. *Subject Specific Areas*: At present the Faculty offers only one course in Subject Specific area. It is in Science and Education. The Letter Code for Education is EDU. This B.Sc. Degree in Science and Education is conducted with the assistance of staff from the Department of Education of the Faculty of Arts.

4.1.7.5. *Inter Faculty Subject Areas*: The students with the prior approval of the Faculty Board of Science may also select course units offered by another Faculty of this University, if the timetable permits. For example course units in Management from the Faculty of Management Studies and Commerce or Course units in Economics from the Faculty of Arts.

4.1.8. Classification of Course Units, Course Codes and the Syllabi

4.1.8.1. *Classification of Course Units*: All the course units other than Auxiliary Course units are classified into two; namely,

- Core (C) course units
- Elective (E) course units

Core course units of a Principal Subject / Subject Specific Area are considered as essential core of the subject and the students would be required to select all the core course units of two or three Principal Subjects (see Section 4.2).

The *Elective course units* of a Principal Subject are course units outside the core course units of that Principal Subject and are subject modules offered in addition to the core course units to provide broader knowledge of the subject.

The credit value of all the core course units in a *Principal Subject* and the minimum credit value of the Elective Course units offered in that Principal Subject at different levels are given in the following table:

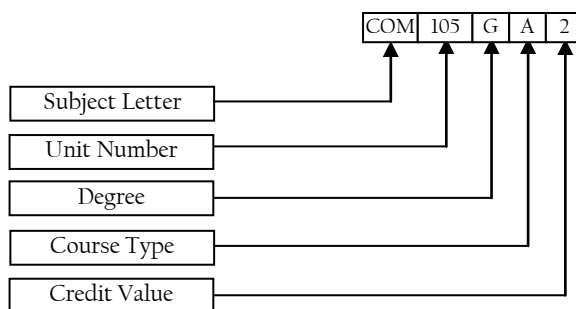
| Credit Value of a Principal Subject | | |
|-------------------------------------|---|---|
| Level | Total Credit Value of Core Course Units | Minimum Credit Value of the Elective Course Units |
| 1G | 8 | 0 |
| 2G | 8 | 4 |
| 3G | 8 | 4 |
| 3M | 16 | 0 |
| 4M | Between 20 and 24 | Between 10 and 6 |

The course units offered in Supplementary Subject areas and Inter-Faculty Subject areas are also treated as Elective.

4.1.8.2. *The Course Codes*: A three-letter prefix, followed by a three-digit number, followed by two letters and a single digit is used to identify the course units offered.

- The first three letters indicate the Letter Code of the Subject/ Subject Area.
- The first digit of the three-digit number indicates the level (1, 2, 3 or 4) at which the course unit is given.
- The other two digits is the identification number assigned to that particular course unit.
- The first letter of the two-letters that follow the three digit number indicates whether the course unit is a unit at General (G), Special (M) or Subject Specific (S).
- The second letter of the two letters that follow the three digit number indicate whether the course is Auxiliary/Enhancement (A), Core (C) or Elective (E).
- The last digit indicates the credit value of the course unit.

The Course Codes and the titles of all course units offered by the Faculty with their credit values at all levels are given in Annexure A1 to A10 (Pages 34 – 47).



4.1.8.3. *Syllabi of the Course Units*: The objectives, syllabus and the method of evaluation of each course unit available at the various levels are given in the Faculty publication named “Structure and Syllabi of the Bachelor Degree Programmes” copies of which are made available in the Main (Vithiananthan) Library and the Departmental Libraries for reference.

4.1.9. Medium of Instruction

The medium of instruction is only English.

4.1.10. Selection of Course Units at various levels and Registration

4.1.10.1. *Level 1G (First Year)*: Students in the First year of study shall register for three Principal Subjects and relevant Auxiliary/ Enhancement course units stipulated in Section 4.2.1. The allowed subject combinations from Principal subject areas are given in the following table:

Allowed Subject Combinations – Level IG

| Serial No. | Principal Subject | | |
|------------|-------------------|------------------|------------------|
| | 1 | 2 | 3 |
| 1. | Botany | Zoology | Chemistry |
| 2. | Botany | Zoology | Fisheries |
| 3. | Botany | Chemistry | Fisheries |
| 4. | Chemistry | Zoology | Fisheries |
| 5. | Pure Maths | Applied Maths | Statistics |
| 6. | Pure Maths | Applied Maths | Computer Science |
| 7. | Pure Maths | Applied Maths | Physics |
| 8. | Pure Maths | Applied Maths | Chemistry |
| 9. | Statistics | Pure Maths | Chemistry |
| 10. | Statistics | Pure Maths | Computer Science |
| 11. | Statistics | Applied Maths | Chemistry |
| 12. | Statistics | Applied Maths | Physics |
| 13. | Computer Science | Pure Maths | Physics |
| 14. | Computer Science | Applied Maths | Physics |
| 15. | Computer Science | Applied Maths | Chemistry |
| 16. | Pure Maths | Physics | Statistics |
| 17. | Chemistry | Computer Science | Pure Maths |
| 18. | Chemistry | Computer Science | Statistics |

There may be a limit on the number of students who could be admitted to a particular subject or subject combination. At such instances the admission to those subjects or subject combinations will be made on merit and will be based on G.C.E. (A/L) performance.

Academic Advisors appointed by the Faculty Board of Science will help the students in selecting the subject combinations judiciously. The Names of the Academic Counsellors are given on Page 52.

Students will be allowed to change a registered subject combination *only within the first two weeks* of the commencement of the first semester.

4.1.10.2. *Level IS (First Year)*: Students admitted by the UGC directly for the Subject Specific Degree B.Sc. in Computer Science shall register for the three Principal Subjects Computer Science, Pure Mathematics and Statistics and relevant Auxiliary/Enhancement course units stipulated in Section 4.2.1.

4.1.10.3. *Level 2G (Second Year)*: Students in the Second year (Level 2G) shall register at the beginning of an academic year for course units in two or three Principal Subjects, Supplementary Subject Areas and Inter-Faculty Subject Areas, if any, and the relevant Auxiliary/Enhancement subject areas stipulated in Section 4.2.2. The total number of credits of the registered course units of the level shall not be less or greater than the number stipulated for the level (Please see the Table in Page 24 for details).

Academic advisors appointed by the Faculty Board of Science will help the students in selecting the course units judiciously. Students will be allowed to withdraw from a registered course unit, *only within the first two weeks* of the commencement of the first semester, provided that the minimum credit requirement is not violated. Withdrawals after this period cannot be effected, except on medical grounds or due to other valid reasons.

There will be a minimum and a maximum number of students who could be accommodated to a given course. The departments decide on this number based on the availability of resources.

4.1.10.4. *Level 2S (Second Year)*: Students admitted by the UGC directly for the Subject Specific Degree B.Sc. in Computer Science in their Second year (Level 2S) shall register at the beginning of the academic year for all core course units (aggregating to twelve credits) in Computer Science at Level 2S and all core course units (aggregating to eight credits) and elective course units (aggregating to four credits) in Computer Science at Level 2G and the relevant Auxiliary/Enhancement subject areas stipulated in Section 4.2.2. The students shall also register for course units aggregating to four to eight credits chosen from Level 2G course units in Pure Mathematics and/or Statistics so that the total number of credits of the registered course units of the level shall not be less or greater than the number stipulated for the level.

4.1.10.5. *Level 3G, 3M, 3S (Third Year)*: Applications for Special, Joint Major and Subject Specific programmes (other than the B.Sc. in Computer Science programme for which students are admitted directly by the UGC) shall be invited at the beginning of the third year of studies. The admission to these programmes is based on the performance of the applicants in the course units of Levels 1G and 2G and the availability of places.

Special Degree Programmes are offered in the following Principal subjects:

- Botany,
- Chemistry,
- Computer Science,
- Fisheries Science,
- Mathematics,
- Physics,
- Statistics and
- Zoology.

Subject Specific Degree Programmes are offered in identified special areas. At present it is offered in

- Computer Science and
- Science and Education

This list shall be updated subject to the availability of resources.

4.1.10.6. *Level 4M and 4S* (Fourth Year): Students in Levels 3M and 3S shall proceed to the fourth year of studies by registering to the appropriate course units at the beginning of the fourth year.

4.1.10.7. The minimum requirements for admission to four year degree programmes are given in Section 4.3.

4.2. Credit Requirements

Students will be evaluated in all registered course units including those in auxiliary subject areas but only the credits earned in the credit-valued course units (i.e., excluding the Auxiliary Course units) shall be considered for the calculation of GPA (please see Section 4.4.4 for the definition of GPA).

The minimum credit requirements for a three year degree shall be ninety (90) and for four year degrees one hundred and twenty (120).

Students proceeding to the fourth year of study must have offered course units aggregating to at least ninety credits (90) and all the stipulated Auxiliary Course units during the first three years.

In each semester, a student should offer course units aggregating to at least ten credits.

The **minimum/maximum** aggregate of the credits of the credit valued course units (i.e., All course units other than Auxiliary Course units) that shall be followed at the various levels in a General / Special and Subject Specific Degree programmes are given in the following table:

| Degree | Number of Credits | | | | | | | | | |
|--|-------------------|-----|-------------|-----|----------|-----|-------------|-----|----------------|-----|
| | Level 1G/1S | | Level 2G/2S | | Level 3G | | Level 3M/3S | | Level 4M/4S/4X | |
| | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max |
| General | 30 | 30 | 28 | 32 | 28 | 32 | - | - | - | - |
| Special (subjects other than Mathematics) | 30 | 30 | 28 | 32 | 16 | 16 | 16 | 16 | 30 | 33 |
| Special (Mathematics) | 30 | 30 | 28 | 32 | 16 | 16 | 16 | 16 | 30 | 33 |
| Subject Specific degree (Computer Science) | 30 | 30 | 28 | 32 | 14 | 16 | 16 | 16 | 30 | 33 |
| Subject Specific degrees (other than Computer Science) | 30 | 30 | 28 | 32 | 16 | 20 | 12 | 16 | 30 | 33 |

The details of the course units to be followed at each level of the various degree programmes are given in the following sections.

4.2.1. Course Units Offered in Level I

In Level 1G, the students offer Level 1G credit valued course units aggregating to **thirty** credits and the two auxiliary course units listed below. Only the thirty credits earned in the credit valued course units shall be used to compute the overall or any other GPA.

The students offer the following:

- a). Two *Auxiliary* course units:
 - (i).English Language.
 - (ii).Sri Lankan Studies and Social Harmony.
- b). *Enhancement* course units aggregating to six credits:
 - (i).Course unit in either Mathematics for Biological Science students or Biology for Physical Science students having a credit value two.
 - (ii).Course unit in Science and Society having a credit value two.
 - (iii).Course unit in Computer Literacy having credit value two.

- c). All Level 1G core course units in **three** Principal subjects (the allowed subject combinations are given on Page 21) aggregating to **twenty four** credits.

In Level 1S, **Direct Intake Computer Science** students admitted by the UGC directly for the Subject Specific Degree B.Sc. in Computer Science in their First year (Level 1S) shall follow all Level 1G Course Units in the Principal Subjects Computer Science, Pure Mathematics and Statistics (aggregating to **twenty four credits**), the two Auxiliary course units and the three Enhancement Course Units (aggregating to **six credits**) listed above.

4.2.2. Course Units offered in Level 2

In Level 2G, all students offer Level 2G credit valued course units aggregating to a minimum of **twenty eight** credits and a maximum of **thirty two** credits. They also follow the two auxiliary course units listed below. Only the twenty eight to thirty two credits earned in credit-valued course units shall be used to compute the overall or any other GPA.

The students offer:

- a). Level 2G Auxiliary course unit in English Language.
- b). An Auxiliary course unit in Career Guidance.
- c). Either all Level 2G core course units (eight credits) of each of **three** Principal subjects **or** all Level 2G core course units (eight credits) and elective course units aggregating to four credits in each of **two** principal subjects so that the total number of credits earned is **twenty four**.
- d). Course units whose credit value aggregate between **four and eight** credits by offering course units from the remaining core / elective course units of the Principal Subject(s) offered and/or the list of Supplementary course units available for Level 2G or approved Inter-Faculty course units.

All Principal Subjects must be chosen from the ones offered in Level 1G.

In Level 2S, Direct Intake Computer Science students admitted by the UGC directly for the Subject Specific Degree B.Sc. in Computer Science offer credit valued course units aggregating to a minimum of **twenty eight** credits and a maximum of **thirty two** credits in addition to the two non-credit valued Auxiliary course units of Level 2G.

The students offer:

- a). Level 2S Core course units in Computer Science (aggregating to **twelve credits**).
- b). All Level 2G Computer Science Core course units (aggregating to **eight credits**) and Elective course units (aggregating to **four credits**).
- c). Course units in Pure Mathematics and/ or Statistics aggregating to **four to eight credits**.
- d). Level 2G Auxiliary course unit in English Language.
- e). An Auxiliary course unit in Career Guidance.

4.2.3. Course Units offered in Level 3G/3S

In Level 3G, the students offer Level 3G credit valued course units aggregating to a minimum of **twenty eight** credits and a maximum of **thirty two** credits. They also follow the three auxiliary course units listed below. Only the twenty eight to thirty two credits earned in credit-valued course units shall be used to compute the overall or any other GPA.

The students offer:

- a). An Auxiliary course unit in Management and Entrepreneurial skills.
- b). An Auxiliary course unit in Communication Skills.
- c). An Auxiliary course unit in Career Guidance.
- d). Either all Level 3G core course units (**eight credits**) of each of **three** Principal Subjects or all Level 3G core course units (**eight credits**) and elective course units aggregating to **four credits** in each of **two** Principal Subjects offered at level 2G so that the total number of credits earned is **twenty four**.
- e). Course units whose credit value aggregate between **four and eight** credits by offering course units from the remaining core / elective course units in the Principal Subjects and/or the list of Supplementary course units available for Level 3G or approved Inter-Faculty course units.

In Level 3S, Direct Intake Computer Science students admitted by the UGC directly for the Subject Specific Degree B.Sc. in Computer Science offer credit valued course units aggregating to a minimum of **thirty** credits and a maximum of **thirty two** credits in addition to three non-credit valued Auxiliary course units of Level 3G.

The students offer:

- a). An Auxiliary course unit in Management & Entrepreneurial skills.
- b). An Auxiliary course unit in Communication Skills.
- c). An Auxiliary course unit in Career Guidance.
- d). Level 3G Core course units aggregating to **eight** credits and elective course units aggregating to **four** credits in Computer Science.
- e). Level 3G Course units aggregating up to **two to four** credits from Level 3G Course units in Pure Mathematics and/or Statistics in consultation with the Department of Computer Science.
- f). Course units chosen from Level 3M/4M in Computer Science aggregating to **sixteen** credits.

In Level 3S, all students **other than Direct Intake Computer Science** students offer course units aggregating to **thirty-two** credits in credit valued course units. They also follow the three auxiliary course units listed below. Only the twenty eight to thirty two credits earned in the credit-valued course units shall be used to compute the overall or any other GPA.

The students offer:

- a). An Auxiliary course unit in Management & Entrepreneurial skills.
- b). An Auxiliary course unit in Communication Skills.
- c). An Auxiliary course unit in Career Guidance.
- d). Level 3G Course units aggregating to a minimum of **sixteen** and a maximum of **twenty** from among the Principal Subjects offered in Level 2G and specified as compulsory for the specific subject.
- e). Level 3S Course units aggregating to a minimum of **twelve** and a maximum of **sixteen** credits.

4.2.4. Course Units offered in Level 3M

In Level 3M, students offer course units aggregating to **thirty-two** credits in credit valued course units choosing course units from Level 3G aggregating to **sixteen credits** and course units from Level 3M/4M

aggregating to **sixteen credits** in the subject of specialisation. They also follow the three auxiliary course units listed in the previous section. Only the thirty two credits earned in the credit-valued course units shall be used to compute the overall or any other GPA.

In **Level 3M**, for special degree in **subjects other than Mathematics** students offer:

- a). An Auxiliary course unit in Management and Entrepreneurial skills.
- b). An Auxiliary course unit in Communication Skills.
- c). An Auxiliary course unit in Career Guidance.
- d). Level 3G Core course units aggregating to **eight** credits and elective course units aggregating to **four** credits in the subject of specialisation.
- e). Level 3G Course units aggregating to **four** credits from other Principal Subject(s) in consultation with the department of the subject of specialization and
- f). Course units chosen from Level 3M/4M in the subject of specialisation aggregating to **sixteen** credits.

In **Level 3M**, for special degree in **Mathematics** students offer:

- a). An Auxiliary course unit in Management and Entrepreneurial skills.
- b). An Auxiliary course unit in Communication Skills.
- c). An Auxiliary course unit in Career Guidance.
- d). Level 3G Core course units aggregating to **eight** credits in **each** of the subjects Pure Mathematics and Applied Mathematics.
- e). Course units chosen from Level 3M/4M in Mathematics aggregating to **sixteen** credits.

4.2.5. Course Units offered in Level 4S

- 1). In Level 4S, **Direct Intake Computer Science** students admitted by the UGC directly for the Subject Specific Degree B.Sc. in Computer Science in their Fourth year (Level 4S) offer course units chosen from the course units of Level 3M/4M such that the total credit values of Level 3M and 4M course units offered in the third and fourth year aggregates between **forty six** and **forty nine**. The course units offered should include all the core course units of Levels 3M and 4M. All the course units offered by a student shall be used to compute the overall or any other GPA of that student.

- 2). In Level 4S, all students **other than Direct Intake Computer Science** students offer Level 4S course units aggregating between **thirty** and **thirty three** credits by choosing all the compulsory course units specified in the approved syllabi. All the course units offered by a student shall be used to compute the overall or any other GPA of that student.

4.2.6. Course Units offered in Level 4M

The students offer course units chosen from the course units of Level 3M/4M such that the total credit values of Level 3M and 4M course units offered in the third and fourth year aggregates between **forty six** and **forty nine**. The course units offered should include all the core course units of Levels 3M and 4M. All the course units offered by a student shall be used to compute the overall or any other GPA of that student.

4.3. Selection to Four Year Degree Programmes

4.3.1. The minimum requirement for selection to **Special Degree programmes other than Mathematics** is as follows:

- a). Have obtained at least Grade B in Level 1G and Level 2G course units aggregating to **eight** credits, in the subject of specialisation. Of these eight credits, at least six should be earned in core course units.
- b). Have obtained a GPA of not less than 2.50 calculated for the course units in the subject of specialisation at levels 1G and 2G.
- c). Have obtained a GPA of not less than 2.25 calculated for all the course units of Levels 1G and 2G.

4.3.2. The minimum requirement for selection to **Special Degree programme in Mathematics** is as follows:

- a). Have obtained at least Grade B in Levels 1G and 2G course units aggregating to **sixteen** credits in Pure Mathematics and Applied Mathematics.
- b). Have obtained a GPA of not less than 2.50 calculated for the course units in Pure Mathematics and Applied Mathematics of Levels 1G and 2G.

- c). Have obtained a GPA of not less than 2.25 calculated for all the course units of Levels 1G and 2G.

4.3.3. The minimum requirement for selection to the B.Sc Subject specific Degree Programmes (other than Computer Science (Direct Intake) Programme) is as follows:

- a). Have obtained a GPA of not less than 2.50 calculated for the course units of Levels 1G and 2G in the two subjects that form the basis to the subject specific degree.
- b). Have obtained a GPA of not less than 2.25 calculated for all the course units of Levels 1G and 2G.

4.4. Evaluation Procedures and Examinations

A course unit shall be evaluated by means of:

- a). an in-course assessment consisting of suitable combinations of assignments, reports, oral presentations, oral examinations, quizzes, Spot examinations in Practical, continuous assessment, in-course assessment examinations, etc., and
- b). an end of course examination.

The method of evaluation of each course unit is given along with the syllabus in the Faculty publication named “Structure and Syllabi of the Bachelor Degree Programmes” copies of which are made available in the Main (Vithiananthan) Library and the Departmental Libraries for reference.

The performance of a student in English as a Second Language shall be calculated by giving a weight of one for ENG101GA0 and three for ENG201GA0. The marks thus obtained will be graded according to a grading system decided by the Faculty Level Examination Board.

For those course units in Botany and Zoology which have a practical component, students should obtain at least a D* Grade in each of the theory component and the practical component to secure any grade higher than ‘E’.

4.4.1. In-Course Assessments

All in-course assessments of any course unit (assignments, reports, oral presentations, quizzes, Spot examinations in Practical, continuous assessments, in-course assessment examination) shall be carried out during the period of that course unit.

In-course assessments of course units shall be carried out at the dates and times determined by the Office of the Dean in consultation with the department offering that course unit. The Head of the Department concerned is responsible for the marks awarded to all components of the in-course assessment of course units offered by the respective department.

The marks scored by a student in the various components of the in-course assessment of any course unit shall be displayed in the Notice Board of that department by the Head of that department.

4.4.2. End of Course Examinations

An end of course examination shall be conducted for each course unit at the end of the course or at the end of the semester in which the teaching of the course is completed.

The end of course examinations shall be conducted by the Examination Branch of the University. The date and time of the end of course examinations shall be decided at the beginning of each semester by the Dean in consultation with the Heads of Departments.

An Examination Board of the Faculty constituted for each course unit shall finalise the results of that course unit.

The *Grades* obtained by the students in the end of course examination and the overall Grades obtained by the students for that particular course shall be displayed by the Head of the Department concerned after ratification by the Examination Board. The Dean shall send Grades List to the Examination Branch.

When the results of the examinations on all the course units of a particular Level of an academic year are received by the Examination Branch, the Examination Branch will summon a meeting of the

Examination Board chaired by the Vice-Chancellor. The Board will release the overall performance of the students in that Level of that academic year giving the GPA scored by the students in that Level. The Board shall also release the overall GPA scored by the students up to that Level.

The Examination Board chaired by the Vice-Chancellor will also release the overall GPA and the Class of Honours obtained by the students who have completed that course of study in that academic year.

4.4.3. Grading System

Performance of students in respect of a course unit is graded according to the following grading system. A Grade Point Value (GPV) as indicated in the following table is assigned to each grade:

| Grade | GPV |
|----------------|-----|
| A ⁺ | 4.0 |
| A | 4.0 |
| A ⁻ | 3.7 |
| B ⁺ | 3.3 |
| B | 3.0 |
| B ⁻ | 2.7 |
| C ⁺ | 2.3 |
| C | 2.0 |
| C ⁻ | 1.7 |
| D ⁺ | 1.3 |
| D | 1.0 |
| E | 0.0 |

4.4.4. Grade Point Average (GPA)

During the study period, a student accumulates grade points from various courses offered. From the grade points accumulated, a Grade Point Average (GPA) may be calculated at any stage: for a level or more or for a subject or more as may be necessary. The GPA is calculated using the formula

$$\text{GPA} = \frac{\sum c_n g_n}{\sum c_n}$$

where c_n and g_n are the credit value and the grade point value respectively of the n^{th} course unit. Any calculated GPA shall be rounded to the second decimal place.

4.4.5. Attendance

Attendance at 80% of the lectures and practical classes is compulsory. Absence on medical grounds must have the recommendation of the University Medical Officer. Absence due to medical grounds or any other valid reason should be approved by the Faculty Board and the Senate.

4.4.6. Repeating Examinations

- No student will be allowed to repeat In-Course Assessments of any Course Unit. If a student is unable to sit for an In-Course Assessment examination for valid reasons he/she shall inform the Head of the Department concerned within three days of the date of resumption of attending the classes. If the reasoning is acceptable to the Head of the Department, the particular In-Course Assessment could be conducted on a different date determined by the Head of the Department. However no such opportunity shall be given after the completion of the End of Course Examination of that particular course unit.
- A student shall take the end of course examination of a course unit at the first available opportunity. If a student fails to sit an end of course examination without giving valid reasons acceptable to the Faculty Board of Science and the Senate, he/she shall be considered to have forfeited a chance to sit that examination and will be given the grade E for the end of course examination of that course unit.
- A student whose attendance is satisfactory, but obtains a grade B⁻ or below for a course unit may re-sit the end of course examination of that course unit in order to improve his/her grade.
 - a). If a student obtains a lower grade while repeating, he/she is entitled to keep the previous grade.
 - b). The highest grade that could be awarded for a repeated course unit is B.
 - c). A student will not be allowed to repeat a course unit more than two times.
 - d). The maximum period allowed for completing the three year degrees shall be 10 semesters (five academic years) and the four year degrees shall be 12 semesters (six academic years). Students are allowed to repeat examinations only within this period. This would exclude periods of absence caused by medical or other valid reasons acceptable to the Faculty Board and the Senate.

- e). At the end of each level of study, accumulated GPA of a student should be greater than 1.75 to progress to the next level.
- For students repeating the End of Course Examination of a Course Unit, the marks obtained for In-Course Assessment component at their first attempt shall be used to determine the Final Grade for that Course Unit.

Annexure A: Course Codes, Titles and Credit Values of the Course Units

A1: Auxiliary / Enhancement Units

| Level | Course Code | Course Title | Credit Value | No. of Hrs | |
|-------|-------------|---|--------------|--------------|-------------------|
| | | | | Lect. & Tute | Prac. / Fieldwork |
| 1G | ENG101GA0 | English Language I | 00 | 45 | |
| | SLS102GA0 | Sri Lankan Studies and Social Harmony | 00 | 15 | - |
| | MBS103GA2 | Mathematics for Biological Science students | 02 | 30 | - |
| | BPS104GA2 | Biology for Physical Science students | 02 | 30 | - |
| | COM105GA2 | Computer Literacy | 02 | 20 | 20 |
| | SAS106GA2 | Science and Society | 02 | 30 | - |
| 2G | ENG201GA0 | English Language II | 00 | 135 | |
| | CAG202GA0 | Career Guidance | 00 | 05 | - |
| 3G | MES301GA0 | Management & Entrepreneurial Skills | 00 | 30 | - |
| | CSK302GA0 | Communication skills | 00 | 15 | - |
| | CAG303GA0 | Career Guidance | 00 | 05 | - |

Note: The performance of a student in English Language shall be calculated by giving a weight of one for ENG101GA0 and three for ENG201GA0. The marks thus obtained will be graded according to a grading system decided by the Faculty Level Examination Board.

A2: Supplementary Subject Areas

| Subject Area | Level | Course Code | Course Title | Credit Value | No. of Hrs | |
|---|-------|-------------|--------------------------------------|--------------|--------------|-------------------|
| | | | | | Lect. & Tute | Prac. / Fieldwork |
| Basic Computing (for students not offering Computer Science as a subject) | 2G | BAC241GE2 | Computer Applications I | 02 | 30 | |
| | 3G | BAC341GE2 | Computer Applications II | 02 | 30 | |
| Biotechnology | 2G | BTE241GE2 | Biotechnology I | 02 | 30 | - |
| | 3G | BTE341GE2 | Biotechnology II | 02 | 30 | - |
| Bioinformatics | 3G | BIF341GE2 | Bioinformatics | 02 | 22 | 24 |
| Electronics (for students not offering Physics as a subject) | 2G | ELE241GE2 | Basic Electronics | 02 | 20 | 30 |
| | | ELE242GE2 | Analogue Electronics I | 02 | 20 | 30 |
| | 3G | ELE341GE2 | Analogue Electronics II | 02 | 20 | 30 |
| | | ELE342GE2 | Digital Electronics | 02 | 20 | 30 |
| Environmental Science | 2G | ENS241GE2 | Environmental Biology | 02 | 30 | - |
| | 2G | ENS242GE2 | Environmental Chemistry | 02 | 30 | - |
| | 3G | ENS341GE2 | Environmental Physics | 02 | 30 | - |
| | 3G | ENS342GE2 | Environmental Pollution & Management | 02 | 30 | - |
| Food Science & Nutrition | 2G | FSN241GE2 | Food Science & Nutrition I | 02 | 30 | - |
| | 3G | FSN341GE2 | Food Science & Nutrition II | 02 | 30 | - |

A3: Principal Subjects for Level IG

| Subject | Course Code | Course Title | Credit Value | No. of Hrs | |
|-------------------|-------------|--|--------------|--------------|-------------------|
| | | | | Lect. & Tute | Prac. / Fieldwork |
| Botany | BOA101GC2 | Basic Biology | 02 | 22 | 24 |
| | BOA102GC2 | Plant Diversity I | 02 | 22 | 24 |
| | BOA103GC2 | Plant Diversity II | 02 | 22 | 24 |
| | BOA104GC2 | General Microbiology | 02 | 22 | 24 |
| Zoology | ZOL101GC2 | Origin of Life and Evolutionary Biology | 02 | 22L+T | 24P |
| | ZOL102GC2 | Ecosystems, distribution and characteristics | 02 | 22L+T | 24P |
| | ZOL103GC2 | Animal cell biology and Bio-molecules | 02 | 22L+T | 24P |
| | ZOL104GC2 | Animal diversity | 02 | 22L+T | 24P+F |
| Fisheries Science | FIS101GC2 | Principles of Fisheries | 2 | 30 | - |
| | FIS102GC2 | Fish Evolution and Diversity | 2 | 22 | 24 |
| | FIS103GC2 | Marine & Coastal Environment and Oceanography | 2 | 22 | 24 |
| | FIS104GC2 | Introductory Aquaculture | 2 | 22 | 24 |
| Chemistry | CHE101GC2 | General Chemistry and Chemistry of main group elements | 02 | 30 | - |
| | CHE102GC2 | Introductory Physical Chemistry | 02 | 30 | - |
| | CHE103GC2 | Stereochemistry and Reaction Mechanisms | 02 | 30 | - |
| | CHE105GC2 | Practical Chemistry I | 02 | - | 90 |
| Computer Science | CSC101GC2 | Foundations of Computer Science | 02 | 30 | - |
| | CSC102GC2 | Object Oriented Programming | 02 | 30 | - |
| | CSC104GC2 | Practical Computing I | 02 | - | 90 |
| | CSC105GC2 | Computer Networks and Internet Computing | 02 | 30 | - |

| | | | | | |
|---------------------|-----------|---|----|----|----|
| Physics | PHY101GC2 | Practical Physics I | 02 | - | 90 |
| | PHY102GC3 | Mechanics, Relativity and Structure of Matter | 03 | 45 | - |
| | PHY103GC3 | Fields, Vibrations and Waves | 03 | 45 | - |
| Pure Mathematics | PMM101GC2 | Set Theory | 02 | 30 | - |
| | PMM102GC2 | Limit Process | 02 | 30 | - |
| | PMM103GC2 | Algebra | 02 | 30 | - |
| | PMM104GC2 | Calculus | 02 | 30 | - |
| Applied Mathematics | AMM101GC2 | Vector Analysis | 02 | 30 | - |
| | AMM102GC2 | Dynamics | 02 | 30 | - |
| | AMM103GC2 | Ordinary Differential Equations | 02 | 27 | 06 |
| | AMM104GC2 | Matrices & Statics | 02 | 30 | - |
| Statistics | STA104GC3 | Probability Theory | 03 | 45 | - |
| | STA105GC3 | Basic Statistical Inference | 03 | 40 | 10 |
| | STA106GC2 | Applied Statistics | 02 | 25 | 10 |

A4: Principal Subjects for Level 2G

| Subject | Course Code | Course Title | Credit Value | No. of Hrs | |
|-------------------|-------------|--|--------------|--------------|------------------|
| | | | | Lect. & Tute | Prac./ Fieldwork |
| Botany | BOA201GC2 | Plant Morphology and Anatomy | 02 | 22 | 24 |
| | BOA202GC2 | Plant Systematics | 02 | 22 | 24 |
| | BOA203GC2 | Biochemistry | 02 | 22 | 24 |
| | BOA204GC2 | Genetics | 02 | 22 | 24 |
| | BOA221GE2 | Molecular Biology and Biotechnology | 02 | 30 | - |
| | BOA222GE2 | Economically Important Plants | 02 | 30 | - |
| Zoology | ZOL201GC2 | Invertebrate Phylogeny and Biology | 02 | 22 L + T | 24 P |
| | ZOL202GC2 | Vertebrate Phylogeny and Biology | 02 | 22 L + T | 24 P |
| | ZOL203GC2 | Comparative Anatomy and Physiology | 02 | 22 L + T | 24 P |
| | ZOL204GC2 | Animal Ecology | 02 | 22 L + T | 24 P+F |
| | ZOL221GE2* | Animal Genetics | 02 | 30 L+T | |
| | ZOL222GE2* | Animal Histology | 02 | 22 L+T | 24P |
| | ZOL223GE2 | Animal Behaviour | 02 | 30 L+T+F | - |
| | ZOL224GE2 | Zoo-Geography and Sri Lankan Fauna | 02 | 30 L+T+F | - |
| Fisheries Science | FIS201GC2 | Laboratory techniques | 2 | 22 | 24 |
| | FIS202GC2 | Aquatic Fauna and Flora | 2 | 22 | 24 |
| | FIS203GC2 | Principles of Aquatic Ecology and Behaviour | 2 | 22 | 24 |
| | FIS204GC2 | Fish Biology and Embryology | 2 | 22 | 24 |
| | FIS221GE2 | Ornamental Fish / Plant Culture and Fish Feeds | 2 | 30 | - |
| | FIS222GE2 | Fish Parasitology and Diseases | 2 | 30 | - |

* Compulsory for Zoology Special Students

| | | | | | |
|------------------|------------------------|---|----|----|-----|
| Chemistry | CHE201GC2 | Application of Spectroscopic Methods and Coordination Chemistry | 02 | 30 | - |
| | CHE202GC3 | Atomic and Molecular Structure and Basic Principles of Molecular Spectroscopy | 03 | 45 | - |
| | CHE203GC3 | Practical Chemistry II (Inorganic & Organic Chemistry) | 03 | - | 120 |
| | CHE221GE2 | Chemistry of electron deficient compounds, transition and inner-transition elements | 02 | 30 | - |
| | CHE222GE2 | Chemistry of polynuclear aromatic hydrocarbons, carbonyl and alicyclic compounds. | 02 | 30 | - |
| Computer Science | CSC201GC2 | Data Structures and Algorithms | 02 | 30 | - |
| | CSC202GC2 | Database Management Systems | 02 | 30 | - |
| | CSC203GC2 | Software Engineering | 02 | 30 | - |
| | CSC204GC2 | Practical Computing II | 02 | - | 90 |
| | CSC221GE2 [†] | Numerical Computing | 02 | 30 | - |
| | CSC222GE2 [†] | Programming in Logic | 02 | 30 | - |

[†]This unit is a prerequisite for those aiming to do Special Degree in Computer Science.

| | | | | | |
|------------------|-----------|--|----|----|----|
| Physics | PHY201GC2 | Practical Physics II | 02 | - | 90 |
| | PHY202GC3 | Solid State Physics and Electronics | 03 | 45 | - |
| | PHY203GC3 | Electromagnetism and Optics | 03 | 45 | - |
| | PHY221GE2 | Industrial Materials | 02 | 30 | - |
| | PHY222GE2 | Computational Physics (Theory and Practical) | 02 | 20 | 30 |
| Pure Mathematics | PMM201GC4 | Linear Algebra | 04 | 60 | - |
| | PMM202GC4 | Analysis | 04 | 60 | - |
| | PMM221GE2 | Advanced Calculus | 02 | 30 | - |
| | PMM222GE2 | Number Theory and Cryptography | 02 | 30 | - |

| | | | | | |
|---------------------|-----------|------------------------|----|----|----|
| Applied Mathematics | AMM201GC4 | Mathematical Methods | 04 | 60 | - |
| | AMM202GC4 | Optimization | 04 | 60 | - |
| | AMM221GE2 | Numerical Analysis | 02 | 30 | - |
| | AMM222GE2 | Fluid Dynamics | 02 | 30 | - |
| Statistics | STA203GC4 | Statistical Theory | 04 | 60 | - |
| | STA204GC4 | Design of Experiments | 04 | 55 | 10 |
| | STA223GE2 | Sampling Theory | 02 | 30 | - |
| | STA224GE2 | Non parametric Methods | 02 | 25 | 10 |

A5: Principal Subjects for Level 3G

| Subject | Course Code | Course Title | Credit Value | No. of Hrs | |
|---------|------------------------|---|--------------|--------------|------------------|
| | | | | Lect. & Tute | Prac./ Fieldwork |
| Botany | BOA301GC2 | Plant Developmental Physiology and Tissue Culture | 02 | 22 | 24 |
| | BOA302GC2 | Basic Ecology | 02 | 22 | 24 |
| | BOA303GC2 | Plant Pathology | 02 | 22 | 24 |
| | BOA304GC2 | Plant Physiology | 02 | 22 | 24 |
| | BOA321GE2 | Biometry | 02 | 30 | |
| | BOA322GE2 | Natural Vegetation Types of Sri Lanka | 02 | 30 | |
| | BOA323GE2 | Soil Fertility and Sustainable Soil Management | 02 | 30 | |
| | BOA324GE2 [†] | Scientific Writing and Presentation Skills | 02 | 30 | |
| Zoology | ZOL301GC2 | Developmental Biology | 02 | 22L+T | 24P+F |
| | ZOL302GC2 | Environmental Biology and Pollution Monitoring | 02 | 22L + T | 24P+F |
| | ZOL303GC2 | Parasitology and Vector Biology | 02 | 22L+T | 24P+F |
| | ZOL304GC2 | Entomology and Pest biology | 02 | 22L+T | 24P+F |
| | ZOL321GE2* | Introductory Molecular Biology | 02 | 30 L+T | |
| | ZOL322GE2 | Conservation Biology | 02 | 30L+ T+F | |
| | ZOL323GE2 | Ichthyology | 02 | 30 L+T | |
| | ZOL324GE2* | Biostatistics** | 02 | 30 L+T | |

[†]To be confirmed

| | | | | | |
|-------------------|-----------|---|---|----|----|
| Fisheries Science | FIS301GC2 | Fish Harvest Technology I | 2 | 22 | 24 |
| | FIS302GC2 | Fish Harvest Technology II | 2 | 22 | 24 |
| | FIS303GC2 | Fishery Management and Extension | 2 | 22 | 24 |
| | FIS304GC2 | Post Harvest Technology | 2 | 22 | 24 |
| | FIS321GE2 | In Field Training | 2 | 60 | |
| | FIS322GE2 | Fisheries Law | 2 | 30 | - |
| | FIS323GE2 | Conservation of Living Resources and Recreation | 2 | 30 | - |
| | FIS324GE2 | Introductory Population Dynamics | 2 | 30 | - |
| | FIS325GE2 | Biostatistics** | 2 | 30 | - |

* Compulsory for Zoology Special Students; ** These units cannot be taken together

| | | | | | |
|------------------|-----------|---|----|----|----|
| Chemistry | CHE301GC2 | Analytical Chemistry | 2 | 30 | |
| | CHE302GC3 | Electrochemistry, Chemical kinetics and Surface Chemistry | 3 | 45 | |
| | CHE303GC3 | Practical Chemistry III (Physical, Inorganic and Organic Chemistry) | 3 | - | |
| | CHE321GE2 | Industrial Chemistry and Chemistry of Biomolecules | 2 | 30 | |
| | CHE322GE2 | Rearrangement reactions and Heterocyclic chemistry | 2 | 30 | |
| Computer Science | CSC303GC2 | Operating Systems | 2 | 30 | - |
| | CSC305GC2 | Rapid Application Development | 2 | 30 | - |
| | CSC306GC2 | Practical Computing III | 2 | - | 90 |
| | CSC307GC2 | Graphics and Visual Computing | 2 | 30 | - |
| | CSC322GE2 | Multimedia Technologies | 2 | 30 | - |
| | CSC323GE2 | Bioinformatics Computing | 2 | 30 | |
| Physics | PHY301GC2 | Practical Physics III | 02 | | 90 |
| | PHY302GC3 | Modern Physics | 03 | 45 | - |
| | PHY303GC3 | Thermal and Statistical Physics | 03 | 45 | - |
| | PHY321GE2 | Medical Physics (Theory and Clinical site visits) | 02 | 25 | 15 |
| | PHY322GE2 | Astrophysics | 02 | 30 | - |

| | | | | | |
|---------------------|-----------|---------------------------|---|----|----|
| Pure Mathematics | PMM301GC4 | Group Theory and Topology | 4 | 60 | - |
| | PMM302GC4 | Complex Analysis | 4 | 60 | - |
| | PMM321GE2 | Functional Analysis | 2 | 30 | - |
| | PMM322GE2 | Differential Geometry | 2 | 30 | - |
| Applied Mathematics | AMM301GC4 | Mathematical Programming | 4 | 60 | - |
| | AMM302GC4 | Classical Mechanics | 4 | 60 | - |
| | AMM321GE2 | Numerical Methods | 2 | 30 | - |
| | AMM322GE2 | Mathematical Modelling | 2 | 30 | - |
| Statistics | STA303GC3 | Regression Analysis | 3 | 40 | 10 |
| | SAT304GC2 | Statistical Inference | 2 | 30 | - |
| | STA305GC3 | Stochastic Processes | 3 | 45 | - |
| | STA323GE2 | Quality Control | 2 | 25 | 10 |
| | STA324GE2 | Statistical Computing | 2 | - | 60 |

A6: Principal Subjects for Level 3M

| Subject | Course code | Course Title | Credit Value | No. of Hrs | |
|---------|-------------|---------------------------------------|--------------|--------------|------------------|
| | | | | Lect. & Tute | Prac./ Fieldwork |
| Zoology | ZOL301MC3 | Pest Management | 03 | 33L+T | 36 P+ F |
| | OL302MC3 | Limnology | 03 | 33L+T | 36 P+ F |
| | ZOL303MC3 | Endocrinology | 03 | 33L+T | 36 P+ F |
| | ZOL304MC3 | Molecular Biology and Immunology | 03 | 33L+T | 36 P+ F |
| | ZOL305MC2 | Wild Life Conservation and Management | 02 | 30 L+T+F | |
| | ZOL306MC2 | Environmental Toxicology | 02 | 30 L+T+F | |

Note: 3M and 4M syllabi for Botany and Fisheries yet to be decided.

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|------------------|-----------|--|---|----|--------------------------|
| Chemistry | CHE301MC3 | Advanced analytical and spectroscopic techniques | 3 | 45 | - |
| | CHE302MC3 | Applications of group theory and Diffraction Methods | 3 | 45 | - |
| | CHE303MC3 | Pericyclic Reactions and Photochemistry | 3 | 45 | - |
| | CHE304MC3 | Aromaticity and Conformational Analysis | 3 | 45 | - |
| | CHE305MC2 | Advanced Inorganic Chemistry Laboratory | 2 | - | 120 |
| | CHE306MC2 | Advanced Physical Chemistry Laboratory | 2 | - | 120 |
| Computer Science | CSC301MC3 | Advanced Database Design and Systems | 3 | 45 | - |
| | CSC302MC3 | Artificial Intelligence I | 3 | 45 | - |
| | CSC303MC4 | Data Communication and Computer Networks | 4 | 60 | - |
| | CSC304MC3 | Digital Image Processing | 3 | 45 | - |
| | CSC305MC3 | Practical computing 3M | 3 | - | 90-110 |
| Mathematics | MMT301MC4 | Numerical Linear Algebra | 4 | 60 | |
| | MMT302MC4 | Differential Equations | 4 | 60 | |
| | MMT303MC4 | Relativity and Electromagnetic Theory | 4 | 60 | |
| | MMT304MC4 | Topology | 4 | 60 | |
| Statistics | STA301MC3 | Advanced Design of Experiment | 3 | 45 | |
| | STA302MC3 | Medical Statistics | 3 | 45 | |
| | STA303MC3 | Categorical Data Analysis | 3 | 45 | |
| | STA304MC3 | Computational Statistics | 3 | 45 | |
| | STA305MC4 | Time Series Analysis | 4 | 60 | |
| Physics | PHY301MC4 | Practical Physics IV and Library Work | 4 | - | 135P+ 45 Library Work |
| | PHY302MC3 | Classical Mechanics Relativity | 3 | 45 | - |
| | PHY303MC3 | Quantum Mechanics | 3 | 45 | - |
| | PHY304MC3 | Advanced Electronics | 3 | 45 | - |
| | PHY305MC3 | Statistical Physics and Thermodynamics | 3 | 45 | - |

A7: Principal Subjects for Level 4M

| Subject | Course Code | Course Title | Credit Value | No. of Hrs | |
|---------|------------------------|---|--------------|--------------|------------------|
| | | | | Lect. & Tute | Prac./ Fieldwork |
| Zoology | ZOL401MC3 | Advanced Parasitology and Vector Control | 03 | 33L+T | 36P+F |
| | ZOL402MC3 | Insect Structure and Functions | 03 | 33L+T | 36P+F |
| | ZOL403MC3 | Insect Ecology | 03 | 33L+T | 36P+F |
| | ZOL404 MC6 | Research Project | 06 | | 30 weeks |
| | ZOL405 MC3 | Marine Biology | 03 | 33L+T | 36P+F |
| | ZOL406 MC2 | Seminar and Essay | 02 | | 30hrs |
| | ZOL407MC3 | Aquaculture | 03 | 33L+T | 36P+F |
| | ZOL408ME2 | Coastal and Mangrove Conservation and Management | 02 | 30L+T+F | |
| | ZOL409ME2 | Herpetology | 02 | 30L+T+P+F | |
| | ZOL410ME2 | Ornithology and Mammalogy | 02 | 30L+T+P+F | |
| | ZOL411ME2 | Advanced Animal Physiology | 02 | 22L+T | 24P |
| | ZOL 412 ME2 | Advanced Evolutionary Biology and Molecular Systematics | 02 | 22L+T | 24P |
| | ZOL413ME2 | Research Methodology and Data Analysis | 02 | 30L+T | |
| | ZOL414ME2 [†] | Scientific Writing and Presentation | 02 | 30L+ T | |

[†]To be confirmed

| | | | | | |
|-----------|-----------|--|---|-------------------|-----|
| Chemistry | CHE401MC4 | Advanced Coordination Chemistry, Magneto Chemistry, Organometallic Chemistry and Reaction Mechanism | 4 | 60 | - |
| | CHE402MC4 | Quantum Chemistry, Statistical Thermodynamics, Advanced Surface Chemistry, Macromolecules and Aggregates | 4 | 60 | - |
| | CHE403MC4 | Retro synthesis, Advanced Heterocyclic Chemistry and Advanced Chemistry of Primary Metabolites | 4 | 60 | - |
| | CHE404MC4 | Advanced Organic Chemistry Laboratory | 4 | - | 240 |
| | CHE405MC4 | Research Project (Laboratory or Industry based) | 4 | 20 weeks research | |
| | CHE406MC1 | Library-based seminar | 1 | - | - |

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|------------------|-----------|---|---|----------|-----|
| | CHE421ME3 | Bioinorganic chemistry, Nuclear and Radio-chemistry, Advanced chemistry of inner-transition elements, Clusters and Clathrates | 3 | 45 | - |
| | CHE422ME3 | Advanced topics in Thermodynamics, Kinetics and Electrochemistry | 3 | 45 | - |
| | CHE423ME3 | Chemistry of Secondary Metabolites and Therapeutic Agents | 3 | 45 | - |
| Computer Science | CSC401MC4 | Advanced Algorithms | 4 | 60 | - |
| | CSC402MC2 | Artificial Intelligence II | 2 | 30 | - |
| | CSC403MC4 | Numerical Linear Algebra and Solutions of Differential Equations | 4 | 60 | - |
| | CSC404MC4 | Project | 4 | - | 200 |
| | CSC405MC3 | Parallel computing | 3 | 45 | - |
| | CSC406MC3 | System Design, Analysis and Project Management | 3 | 45 | - |
| | CSC407MC4 | Data mining and Machine Learning | 4 | 60 | - |
| | CSC421ME3 | Compiler Design | 3 | 45 | - |
| | CSC422ME3 | Mobile Computing | 3 | 45 | - |
| Mathematics | MMT401MC4 | Numerical Solutions of Differential Equations | 4 | 60 | - |
| | MMT402MC6 | Measure Theory | 6 | 90 | - |
| | MMT403MC6 | Functional Analysis | 6 | 90 | - |
| | MMT404MC4 | Real and Complex Analysis | 4 | 60 | - |
| | MMT405MC2 | Project | 2 | 15 Weeks | |
| | MMT421ME4 | Quantum Mechanics and Continuum Mechanics | 4 | 60 | - |
| | MMT422ME4 | Ring Theory | 4 | 60 | - |
| | MMT423ME4 | Group Theory | 4 | 60 | - |
| | MMT424ME4 | Mathematical Biology | 4 | 60 | - |
| | MMT425ME4 | Financial Mathematics | 4 | 60 | - |
| | MMT426ME4 | Optimization | 4 | 60 | - |
| | MMT427ME4 | Finite Element Analysis & Applications | 4 | 45 | 45 |

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|------------|-----------|---|---|----------|----|
| Statistics | STA401MC4 | Multivariate Analysis | 4 | 60 | - |
| | STA402MC6 | Measure Theory | 6 | 90 | - |
| | STA404MC3 | Practical | 3 | - | 90 |
| | STA405MC3 | Project | 3 | 15 Weeks | |
| | STA406MC3 | Markov Processes for Stochastic Modelling | 3 | 45 | - |
| | STA407MC3 | Non-parametric Methods | 3 | 45 | - |
| | STA422ME3 | Non-parametric Inference | 3 | 45 | - |
| | STA424ME6 | Advanced Probability Theory | 6 | 90 | - |
| | STA425ME3 | Advanced Statistical Theory | 3 | 45 | - |
| Physics | PHY401MC6 | Project and Workshop Technology | 6 | | |
| | PHY402MC3 | Advanced Electromagnetism | 3 | 45 | - |
| | PHY403MC3 | Advanced Solid State Physics | 3 | 45 | - |
| | PHY404MC3 | Nuclear Physics | 3 | 45 | - |
| | PHY405MC3 | Laser Physics | 3 | 45 | - |
| | PHY406MC3 | Atomic and Molecular Spectra | 3 | 45 | - |
| | PHY407MC3 | Particle Physics | 3 | 45 | - |
| | PHY421ME3 | Instrumentation and characterization | 3 | 30 | 15 |
| | PHY422ME3 | Nanoscience and Nanotechnology | 3 | 45 | - |
| | PHY423ME3 | Energy Physics | 3 | 45 | - |

A8: Subject Specific Areas of Level 2S

| Subject | Course Code | Course Title | Credit Value | No. of Hrs | |
|------------------|-------------|-------------------------------------|--------------|--------------|------------------|
| | | | | Lect. & Tute | Prac./ Fieldwork |
| Computer Science | CSC201SC3 | Principles of Computer Architecture | 03 | 30 | 30 |
| | CSC202SC3 | Concepts of Programming Languages | 03 | 30 | 30 |
| | CSC203SC3 | Cryptography and Data Security | 03 | 30 | 30 |
| | CSC204SC3 | E-technologies | 03 | 30 | 30 |

A9: Subject Specific Areas of Level 3S

| Subject | Course Code | CourseTitle | Credit Value | No. of Hrs | |
|-----------|-------------|---|--------------|--------------|------------------|
| | | | | Lect. & Tute | Prac./ Fieldwork |
| Education | EDU301SC3 | Philosophical and Social Bases of Education | 03 | 45 | - |
| | EDU302SC3 | Psychological Bases of Education | 03 | 45 | - |
| | EDU303SC3 | Educational Assessment and Evaluation | 03 | 45 | - |
| | EDU304SC3 | Policies and Problems of Education | 03 | 45 | - |

A10: Subject Specific Areas of Level 4S

| Subject | Course Code | Title | Credit Value | No. of Hrs | |
|-----------|-------------|---|--------------|--------------|------------------|
| | | | | Lect. & Tute | Prac./ Fieldwork |
| Education | EDU401SC3 | General Methods of Teaching | 03 | 45 | - |
| | EDU402SC3 | Methodology of Teaching two Selected Science Subjects | 03 | 45 | - |
| | EDU403SC3 | Research Methodology and Computer Literacy | 03 | 45 | - |
| | EDU404SC3 | School Based Planning and Management | 03 | 45 | - |
| | EDU405SC3 | Educational Guidance and Counselling | 03 | 45 | - |
| | EDU406SC3 | Curriculum Studies | 03 | 45 | - |
| | EDU407SC6 | Practicum | 06 | - | 10 weeks |
| | EDU408SC4 | Project and Dissertation | 04 | - | - |
| | EDU421SE2 | Educational Planning | 02 | 30 | - |
| | EDU422SE2 | Sociology of Education | 02 | 30 | - |
| | EDU423SE2 | Pre-school and Primary school education | 02 | 30 | - |
| | EDU424SE2 | Issues and Policies in Tertiary Education | 02 | 30 | - |
| | EDU425SE2 | Computers in Education | 02 | 30 | - |
| | EDU426SE2 | Educational Technology | 02 | 30 | - |
| | EDU427SE2 | Educational Statistics | 02 | 30 | - |

Note: Students should offer all the core course units (28 credits) and any two elective course units (total of 4 credits).

B: Applied Science Degree Programme

The Faculty of Science is in the process of introducing an extended four year General Degree programme, B.Sc. (Applied Sciences) degree with the support from the Quality and Innovation Grant (QIG) of the Higher Education for the Twenty-First Century (HETC) Project. The new degree programme is being designed to meet the demand of Industrial/Private sectors which are looking for graduates with readymade knowledge in industrial processes and management.

The degree programme will consist of four major components:

- (i). Industrial training,
- (ii). Laboratory/project work,
- (iii). Compulsory courses and
- (iv). Subject specific courses.

The following degrees shall be offered by the various Departments of the Faculty under B.Sc in Applied Sciences:

- B.Sc. Applied Science in Chemistry
- B.Sc. Applied Science in Computing
- B.Sc. Applied Science in Financial Mathematics and Industrial Statistics
- B.Sc. Applied Science in Physics
- B.Sc. Applied Science in Botany
- B.Sc. Applied Science in Zoology
- B.Sc. Applied Science in Biology

C. The Chancellor and the Principal Officers of the University of Jaffna

Head of the University

The Chancellor

Emeritus Prof. S. Pathmanathan

Officers

| | |
|---|----------------------------|
| The Vice-Chancellor | Prof. (Ms.) V. Arasaratnam |
| Rector, Vavuniya Campus | Mr. K. K. Arulvel |
| Dean/Agriculture (Ariviyal Nagar) | Dr. (Mrs.) S. Sivachandran |
| Dean/Arts | Prof. V.P. Sivanathan |
| Dean/Engineering (Ariviyal Nagar) | Dr. A. Atputharajah |
| Dean/Graduate Studies | Prof. S. Sathiaselvan |
| Dean/Managements Studies & Commerce | Prof. T. Velnamby |
| Dean/Medicine | Dr. S. Balakumar |
| Dean/Science | Prof. S. Srisatkunarajah |
| Dean/Applied Science (Vavuniya Campus) | Mr. S. Kuhanesan |
| Dean/Business Studies (Vavuniya Campus) | Dr. A. Pushpanathan |
| Registrar | Mr. V. Kandeepan |
| Librarian | Miss. S. Arulanantham |
| Acting Bursar | Mr. A. Sivanadarajah |

D. Principal Officers of the Faculty of Science, University of Jaffna

DI.

Dean: Prof. S. Srisatkunarajah

Heads of Departments:

| | |
|------------------------------------|----------------------------|
| Dept. of Botany: | Mrs. K. Niranjana |
| Dept. of Chemistry: | Dr. T. Manoranjan |
| Dept. of Computer Science: | Mr. K. Thabotharan |
| Dept. of Fisheries: | Prof. (Mrs.) S. Kuganathan |
| Dept. of Mathematics & Statistics: | Prof. R. Vigneswaran |
| Dept. of Physics: | Prof. P. Ravirajan |
| Dept. of Zoology: | Dr. (Mrs.) R. Gnaneswaran |

Head/Computer Centre: Dr. S. Mahesan

Asst. Registrar: Mr. A. Philips Vijajaratnam

D2. Academic Staff of the Faculty of Science

- Department of Botany

| | |
|------------------------|------------------------|
| Mrs. K. Niranjan | Senior Lecturer Gr. I |
| Mrs. N. Ravimannan | Senior Lecturer Gr. I |
| Mrs. J. Nandakumar | Senior Lecturer Gr. I |
| Mr. A.C. Thavaranjit | Senior Lecturer Gr. I |
| Miss. N. Krishnapillai | Senior Lecturer Gr. I |
| Mr. R. Kapilan | Senior Lecturer Gr. II |
| Dr. P. Sevvel | Senior Lecturer Gr. II |
| Dr. (Mrs). G. Rajkumar | Senior Lecturer Gr. II |
| Mr. A. Vengadaramana | Lecturer |
| Mr. E.C. Jeyaseelan | Lecturer |
| Miss. T. Sivanantham | Lecturer |

- Department of Chemistry

| | |
|-------------------------------|------------------------|
| Dr. N. Sivapalan | Senior Lecturer Gr. I |
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| Dr. R. Srikanan | Senior Lecturer Gr. I |
| Dr. J.P. Jeyadevan | Senior Lecturer Gr. I |
| Dr. T. Manoranjan | Senior Lecturer Gr. II |
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| Dr. G.Sashikesh | Senior Lecturer Gr. II |
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Department of Botany
- Mr. K. Thabotharan
Senior Lecturer
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Senior Lecturer
Department of Chemistry

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