HANDBOOK

Academic Year – 2025/2026

Faculty of Science

University of Colombo

DISCLAIMER

This handbook has been compiled with information received up to December 2025.
It is hereby notified that this handbook is only for general information and is not for official purposes. Any information contained herein should be confirmed by reference to the relevant authority.

Vision

The Faculty of Science
to be a center of
scientific and technological excellence
nationally and internationally.

Mission

To develop honest, adaptable productive citizens;
with multidisciplinary knowledge,
creative thinking & analytical skills;
with a high degree of civic consciousness.

To articulate and promote interaction
with public and private sector;
and society at large,
with the view to contributing towards
the development of the nation.

To institute mechanisms
for partnership programmes
for improving resources and infrastructure facilities.

Honour Code - Faculty of Science, University of Colombo

The Honour code is the Faculty of Science's statement on academic and scholarly integrity adopted in 2020. It articulates faculty's expectations of students in establishing and maintaining the highest academic standards so that scholarship and research with integrity can be made a lifelong practice. This will ensure that the quality of the training at the Faculty of Science remains *en par* with the highest global standards and that graduates remain the leaders and examples to the world on ethics and fair practice. We believe that students at the faculty have a great potential to be fair to everyone around them and anticipate that they will voluntarily work to practice fairness to the communities they are in and in whatever they do.

Honour code

1. The Honour code is the practice by the students as individuals and groups of students
   (a) that ensures their honest scholarly practice that they will not give and receive unsolicited aid in examinations, they will not receive unauthorized/disallowed assistance in their class work, in the work of reports and any other material that will be taken for grading by the lecturer/teacher.
   (b) that they will voluntarily work to practice fairness individually and collectively to abide by the values and spirit of the Honour Code.

2. The faculty will assist the students to uphold the lines of the Honour Code and optimize the code if and when required. Also, faculty would anticipate students to be responsible citizens of the country where they can set an example to the future generations of scholars and innovators.

3. The faculty has the right to set the academic requirements *en par* with the cutting-edge of the respective field with the availability of resources. However, the students and the faculty will always work together through dialogue to create the optimal conditions to do honourable academic work and will seek effective communication as and when required.

Violations of the Honour Code

Examples of Honour Code violations are

- Allowing one to copy from one's own paper/answer scripts
- Copying from another person's examination answer scripts
- Using unsolicited resources in examinations including (but not limited to) bringing information related to the exam from outside
- Use of electronic devices that can store and retrieve information during formal examinations (where it is disallowed)
- Plagiarism
- Changing exam answer scripts or quiz answers before submitting for regrading
- Receiving unpermitted assistance in take home examinations
- Submitting someone else's work as their own work

Sanctions for violating the Honour Code

The standard sanctions as stipulated by the university by-laws.

Honour code for remote learning (eLearning)

The students are requested to uphold the spirit and lines of the Honour Code regardless of the mode and technology for learning. If in doubt, please check with the lecturers/teachers for clarifications of the honourable practices in specific courses.

MESSAGE FROM THE DEAN SCIENCE, UNIVERSITY OF COLOMBO

Senior Professor Upul J. Sonnadara
Dean of the Faculty of Science, University of Colombo

It is my pleasure to welcome you to the Faculty of Science, University of Colombo for the academic year 2026.

The University of Colombo is the oldest institution established to provide higher education in Sri Lanka. Science Education at the University of Colombo goes back to the days when Ceylon University College was established in 1921, affiliated to the University of London. The Faculty of Science came into existence soon after the University of Ceylon was formally established in 1942. Today, it is the most sought-after faculty to read for a bachelor's degree in science. The annual intake of the faculty now exceeds 1,300 internal students (700 – internal and 600 – external), and we offer B.Sc. degree programmes in a wide range of subject disciplines relevant to today's context. Currently, over 400 postgraduate students are enrolled in various masters and doctoral degree programmes as well.

I am proud to say that we have achieved great heights due to the solid groundwork laid out by our forefathers and the continuous, timely, and well-planned academic development activities carried out by our faculty. The vital role played by our faculty members in assisting undergraduates to develop soft skills and achieve their career goals, and in modernizing the curriculum to accommodate earning credits outside academic credits such as sports and aesthetics needs to be recognized.

Some of you may initially face problems adjusting to the academic environment and modern teaching/learning techniques we use. But remember, this is where you will meet new friends, develop skills and gain experiences that will help you to succeed in your life.

I wish you all the best and much success in completing the enrolled degree programmes.

Message from the Director, Undergraduate Studies

Prof. Chandrika Nanayakkara
Director Undergraduate Studies & Professor, Faculty of Science

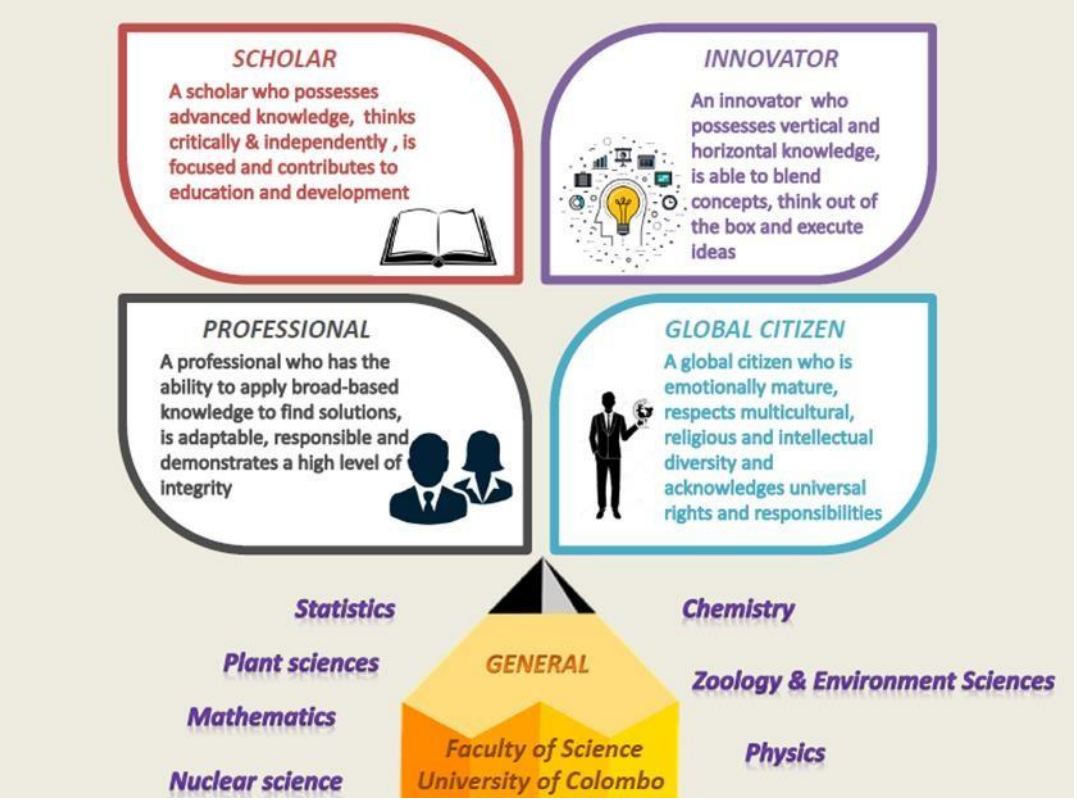
The Faculty of Science at the University of Colombo offers a broad range of programs to suit the diverse interests and needs of the current era. The seven main disciplines you can explore in this faculty are Chemistry, Mathematics, Nuclear Science, Physics, Plant Sciences, Statistics, and Zoology & Environmental Sciences. Additionally, the Career Guidance Unit and the IT Services Centre of the faculty will enhance your learning experience and soft skills by offering various degree programs and courses. Levels I and II of all study programs comprise introductory courses that teach the fundamentals related to the various subjects required for each respective program.

After successfully completing the first two years, you have the opportunity to pursue more specific areas of interest by registering for an honours degree program: research oriented or industry oriented. All B. Sc. Honours degree programs span four years, allowing you to explore a particular subject area in depth. The Honours degree programs provide the opportunity to carry out research under the guidance of a senior academic with expertise in your chosen discipline. This flexibility allows you to choose a suitable honours degree program for your career path or the academic journey. Alternatively, you can complete your program in three years and obtain a general degree. Students following this programme have the opportunity to undertake internships in leading private sector companies to make them fit for diverse career paths.

I wish you all the best in pursuing a degree from this prestigious Faculty of Science in Sri Lanka and hope you have an enjoyable journey towards becoming a successful human being.

Luck favours the prepared mind!

THE GRADUATE PROFILES AND INTENDED LEARNING OUTCOMES OF THE DEGREE PROGRAMMES OF THE FACULTY OF SCIENCE



BSc DEGREE PROGRAMME

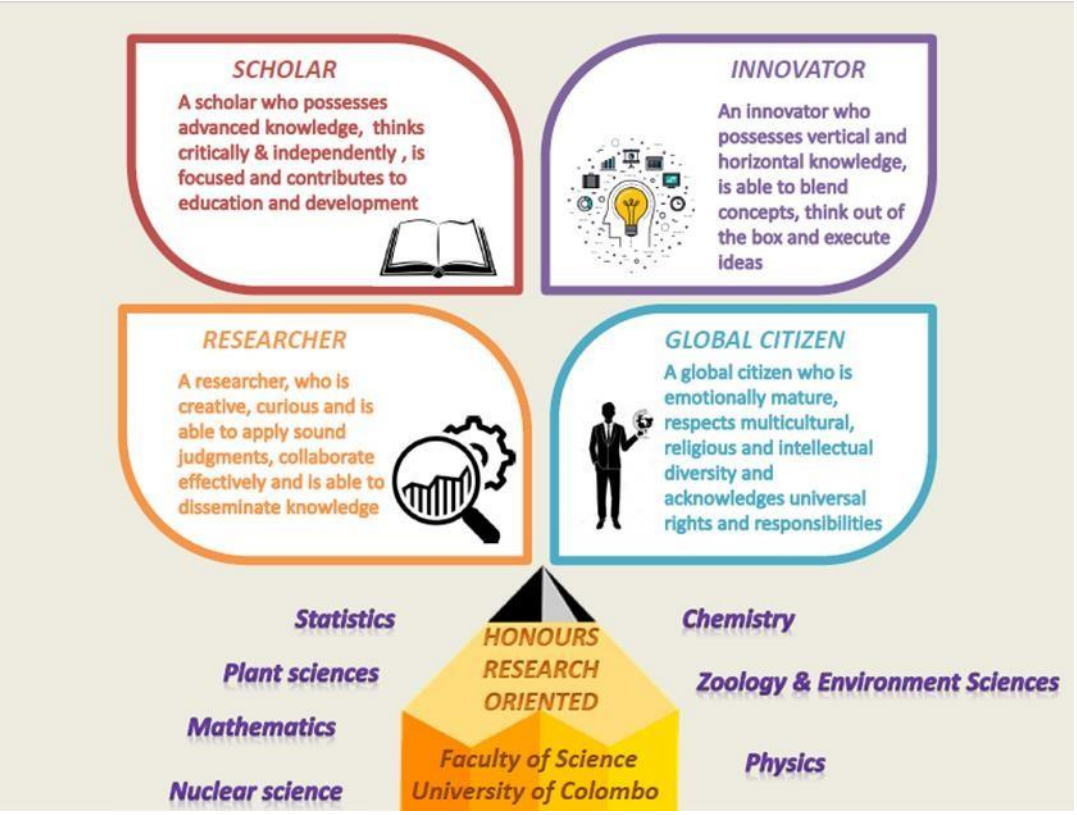
Introduction

The objective of the BSc Degree Programme (03-year duration) is to produce graduates with a broad knowledge on theory, practice and methodology of disciplines that enable them to bear responsibility in a professional environment.

Intended Learning Outcomes

At the end of the 03 years (SLQF Level 5) BSc Degree holders should be able to;

- demonstrate broad conceptual understanding in the fields of study
- apply practical skills across a wide range of disciplines
- effectively communicate & disseminate knowledge, information and ideas to specialist and a wider society
- develop attitudes and skills required for employment and life-long learning
- practice professionalism and uphold ethical standards
- function independently as well as interdependently
- demonstrate leadership skills
- express emotional and intellectual maturity in a global setting



BSc HONOURS (RESEARCH ORIENTED) DEGREE PROGRAMME

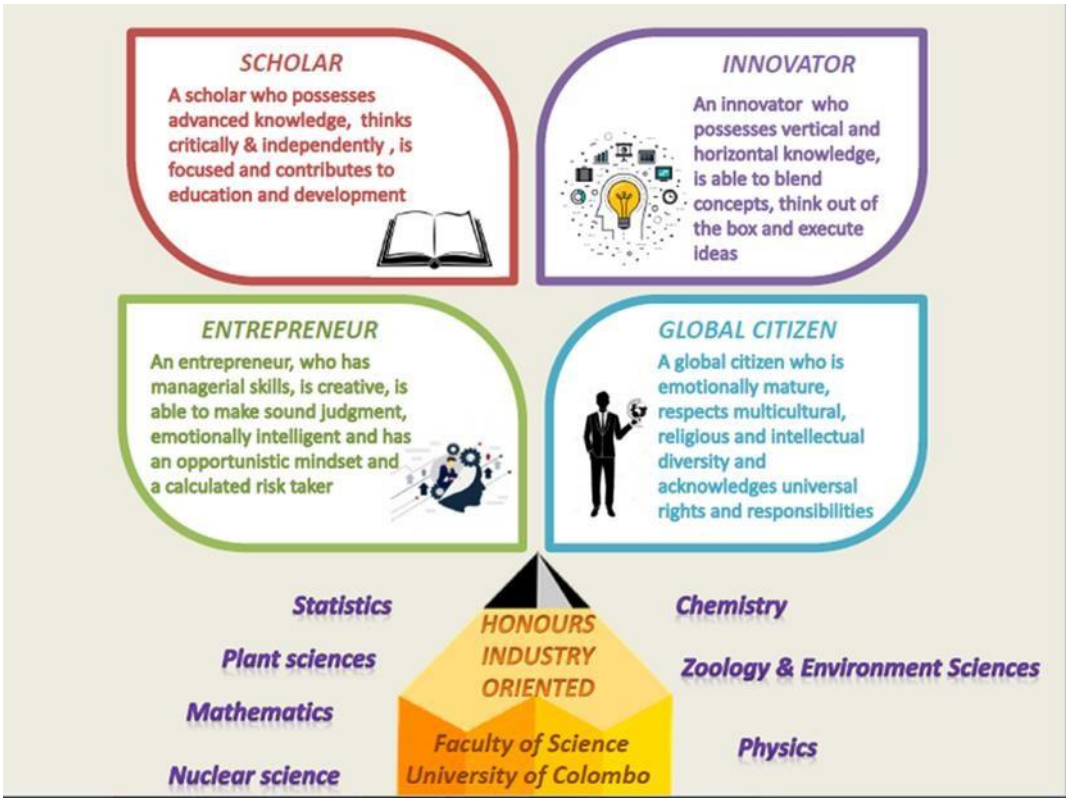
Introduction

Objective of the BSc Honours (research oriented) Degree Programme is to produce graduates with knowledge, practice and methodology that enable them to obtain appropriate academic status/qualification and develop their research capacity and skills.

Intended Learning Outcomes

The end of the 4 years (SLQF Level 6) BSc Honours (research oriented) Degree holders should be able to;

- demonstrate thorough and systematic understanding of advanced concepts in the field of study.
- demonstrate practical skills in the field and related disciplines, through the use of established techniques and development of new techniques
- develop hypotheses, construct and sustain arguments in the context of research and investigation
- eloquently communicate & disseminate knowledge, information and ideas to specialist and non-specialist audiences
- practice professionalism and uphold ethical standards
- function independently as well as interdependently
- demonstrate leadership skills
- express emotional and intellectual maturity in a global setting
- carry out independent and further learning



BSc HONOURS (INDUSTRY ORIENTED) DEGREE PROGRAMME

Introduction

Objective of the BSc Honours (industry oriented) Degree Programme is to produce graduates with knowledge, practice and methodology that enable them to obtain appropriate entrepreneur status/qualification and develop their industrial based research capacity and skills.

Intended Learning Outcomes

The end of the 4 years (SLQF Level 6) BSc Honours (industry oriented) Degree holders should be able to;

- demonstrate thorough and systematic understanding of advanced concepts in the field of study
- demonstrate practical skills in the field and related disciplines, through the use of established techniques and development of new techniques
- demonstrate creativity through innovation
- effectively communicate information and ideas to a wider audience
- recognize and act on opportunities
- practice professionalism and uphold ethical standards
- function independently as well as interdependently
- demonstrate leadership skills
- express emotional and intellectual maturity in a global setting

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INTRODUCTION TO THE FACULTY OF SCIENCE

A Brief History

The Faculty of Science was formed with the founding of the University College, Colombo in 1913. The Ceylon University College was formally declared open in 1921 in the present location in Cumarathunga Munidasa Mawatha, in the iconic building (which now houses the Mathematics Department) that was originally the main building of Royal College, Colombo. The University College became the University of Ceylon in 1942 with only four Faculties; Medicine, Science, Arts and Oriental Studies. Although a section of the University was moved to Peradeniya in 1949, the Faculty of Science continued to remain in Colombo. In 1967, the Faculty became a part of the University of Ceylon, Colombo Campus. In 1972, the University was re-named as University of Sri Lanka, Colombo Campus. Finally, in 1978, the Colombo campus became an independent University with autonomous status and came to be identified by its present name, University of Colombo, Sri Lanka. Therefore, the Faculty of Science traces its origins to the very beginning of modern higher education in Sri Lanka and is the oldest Science Faculty in the entire University System.

The Present Faculty

Presently the Faculty of Science has a student population of approximately 2000 undergraduates with an annual intake of about 650 students. The Faculty also has about 250 postgraduate students, 120 academic staff members and 100 non-academic staff members.

The Faculty consists of seven Departments of study, namely, Chemistry, Mathematics, Nuclear Science, Physics, Plant Sciences, Statistics and Zoology & Environment Sciences. The Information & Technology Service Centre (ITSC) and the Career Guidance Unit (CGU) also contribute towards conducting academic programmes in Faculty of Science.

The Faculty conducts study programmes leading to the BSc Degree (03-year duration), BSc Honours degree (04-year duration) and BSc degree (external, 03-year duration). A comprehensive range of subject combinations are available in the BSc degree and BSc Honours degree programmes.

The Faculty of Science conducts several postgraduate study programmes leading to the Postgraduate Diploma and Master of Science degree. The Faculty also plays a very active role in research. There are many research students reading for M.Phil. and Ph.D. degrees. Through the research programmes, the Faculty and the Departments have established strong links with both Sri Lankan and foreign research organizations and have received many national and international research awards. The academic members of the Faculty also play a prominent role in national development. Many members act as resource persons, consultants and board members in government and non-government organizations.

Students of the Faculty have many advantages. These include the lively metropolitan location, a wide variety of campus clubs & societies and good facilities for sports. Furthermore, the Faculty provides a conducive learning environment. The Faculty enjoys an enviable reputation for maintaining high academic and ethical standards, both within and outside the country. The graduates of the Faculty readily find employment as well as postgraduate opportunities in leading universities world-wide.

Future Outlook

The Faculty will continue to work towards enhancing facilities of the newly constructed buildings for the Department of Statistics, Information and Learning Centre, and a Student Service Centre. The Faculty plans to add extensions to the Department of Zoology & Environment Sciences and the Department of Plant Sciences Furthermore, renovations to historical buildings are carried out to enable their restoration and preservation as heritage sites,

as well as utilization of these premises for current purposes. The academic programmes and curricula are revised periodically in order to incorporate the most recent advances in Science, and new programmes are introduced to meet the current trends and demands of society. Thus, a student entering the Faculty of Science can aspire to be a fully-fledged graduate and a well-rounded human being, who is ready to take up a leading role in society and contribute to human progress through his or her knowledge, skills and positive attitudes.

Message to Students

You are welcome to the Faculty of Science of the University of Colombo. Please read this handbook carefully and be aware of the rules and regulations governing academic life as well as the opportunities available to you in the Faculty. For further information about academic matters or other facilities available, you may contact the Dean, Senior Assistant Registrar of the Faculty, Heads of Departments, Director of Undergraduate Studies, Academic Advisors, Student Counselors and/or Academic Mentors.

UNIVERSITY OF COLOMBO ADMINISTRATION

College House

94 Cumaratunga Munidasa Mawatha, Colombo 3

Chancellor

Ven. Muruththettuwe Ananda Nayaka Thero

Vice-Chancellor

Professor IM Karunathilake

MBBS (Colombo), CTHE (Col.), DMedEd (Dundee), MMedEd (Dundee), FCGP (Hon., SL), FHEA (UK), FCME (SL), FRCP (Edin.)

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BSc (USJP), PGDBM (Colombo), MBS (Colombo)

Bursar

Ms. JTL Dharmasena

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MPAM (UOC), FCA, CPFA (UK), APFA (Sri Lanka)

Librarian (Acting)

Dr. (Ms.) PKS Manatunga

PhD (Colombo), MISM (Colombo), BSc (Colombo)

Deputy Registrar / Examinations

Ms. Vajira Hapuhinna Jayarathne

BA (Hons) (Delhi), PGDip (Colombo), MBA (Colombo)

Senior Assistant Registrar/Student and Staff Affairs

Mrs. LDGG de Silva

BSc, MSc (Open Uni), MSc (SLIDA)

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Senior Professor Upul Sonnadara

BSc (Hons) (Colombo), MS, PhD (Pittsburgh)

Senior Assistant Registrar

Ms. K.Tharminth

BSc (UOP),

MSc (UOP), MBA (Col.)

Deputy Librarian

Ms. Sajeewanie D. Somaratna

BSc (Colombo), PGDip (Colombo), MLISc (Colombo)

Deputy Bursar

Ms. RAVS Perera

BCom (Colombo), APFA, MAAT

THE UNDERGRADUATE STUDY PROGRAMMES – A BRIEF OVERVIEW

The Faculty of Science admits students to several study programmes in the fields of Biological Sciences, Physical Sciences, Biochemistry & Molecular Biology, Industrial Statistics & Mathematical Finance and Medical Imaging Technology. The study programmes are conducted by the seven academic Departments of the Faculty, University of Colombo School of Computing (UCSC) and where necessary with experts from outside the University. The study programmes lead to either a BSc Degree (03-year duration) or two types of BSc Honours degrees (04-year duration), namely, BSc Honours degree (research oriented) and BSc Honours degree (industry oriented).

The courses offered in the first two years provide the basic knowledge required in various subjects. All students who enter the Faculty will follow such basic courses in their respective subjects during the first two years. At the end of the second year, students have the opportunity to enroll in one of 23 BSc Honours degree programmes (research oriented) or in any one of 08 BSc Honours degree programmes (industry oriented), provided the eligibility and selection criteria are satisfied. The students who do not wish to pursue a BSc Honours degree (or are not eligible to do so) will follow the 03-year degree programme.

In addition, the faculty offers the BSc Honours degree (Medical Imaging Technology), a profession oriented degree programme (04-year duration). Courses for the BSc Honours degree in Medical Imaging Technology are offered by the Department of Nuclear Science. This programme is available exclusively for students with a background in Biology. Further details are given in the Handbook for the MIT degree.

THE STRUCTURE OF ACADEMIC PROGRAMMES

Academic Calendar & Academic Year

The academic programme of the Faculty of Science is based on a Semester system with two semesters per year. Each semester is of 15-weeks duration. Each semester runs through 15 calendar weeks, usually with a one-week break in mid-semester. The year plan is scheduled so that minimum disturbance occurs due to festivals and holidays. The general scheme of the year plan is given below.

Semester 1	Semester 2
First half (08 weeks)	First half (08 weeks)
Mid semester break (01 week)	Mid semester break (01 week)
Second half (07 weeks)	Second half (07 weeks)
Study leave (01 week)	Study leave (01 week)
Examinations (04 weeks)	Examinations (04 weeks)
Vacation (03 weeks)	Vacation (07 weeks)

The academic programmes conducted by the Faculty of Science are organized into four Levels; Level I, Level II, Level III and Level IV, which represent the first year, second year, third year and fourth year of study, respectively.

Study Streams

The students enter the Faculty of Science through five different study streams or intakes, namely;

- Biological Sciences
- Physical Sciences
- Biochemistry & Molecular Biology
- Industrial Statistics & Mathematical Finance
- Medical Imaging Technology

Main Subjects

Academic courses offered by the seven academic Departments of the Faculty come under 18 main subjects. Each main subject is identified by a two-letter code. The subjects offered and the letter codes assigned to each subject are given below.

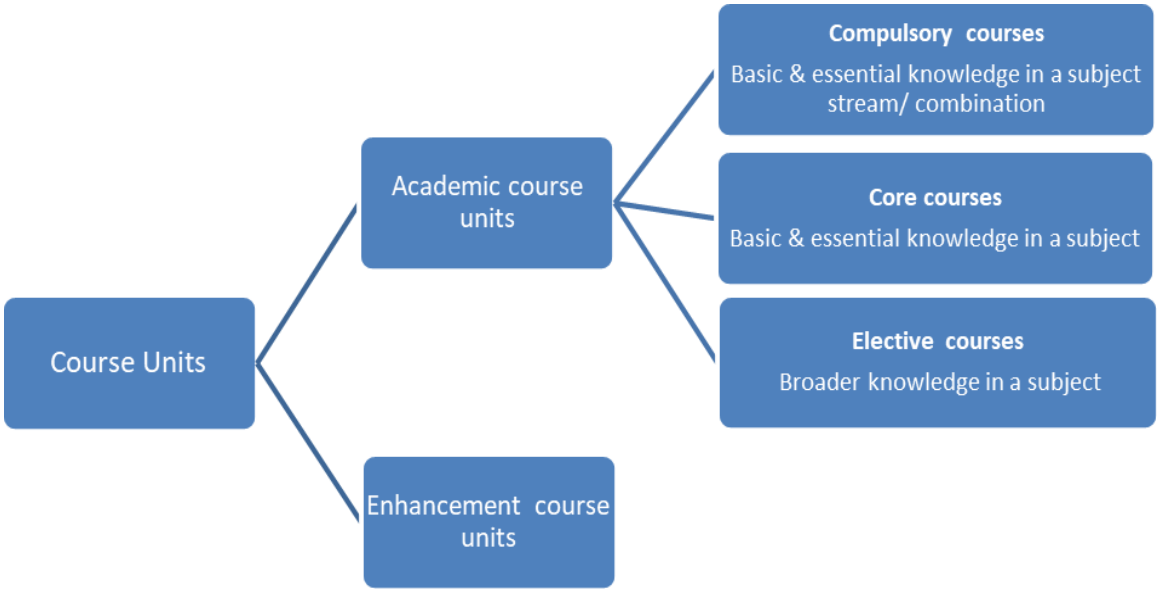
Academic Department	Main Subjects (Letter Codes)
Chemistry	Chemistry (CH) Biochemistry (BC) Molecular Biology (MB)
Mathematics	Applied Mathematics (AM) Pure Mathematics (PM) Financial Mathematics (FM) Management Science (MS)
Nuclear Science	Nuclear Science (NS) Medical Imaging (MI)
Physics	Physics (PH)
Plant Sciences	Plant Science (BT) Applied Microbiology (MC)
Statistics	Statistics (ST) Data Science (DS) Industrial Statistics (IS) Management Science (MS)
Zoology & Environment Sciences	Zoology (ZL) Environmental Science (EN)

In addition, Computer Science (CS) and Information Technology (IT) are offered as subjects to all students through the University of Colombo School of Computing (UCSC) and the Faculty of Science, respectively. The courses coordinated by the Faculty are identified by the code FS.

Course Units

The academic programmes in the Faculty operate on a “course unit” and a “credit” rating system. Each main subject provides a number of course units in each year of the degree programme. A course unit is a subject module and has an assigned credit value based on the volume of learning. That is, one credit is equal to 15 hours of lectures or 30 hours of practical (laboratory classes/clinical demonstrations) or a proportionate combination of lectures and practicals. The minimum and the maximum credit value of a course may vary from 01 to 08 credits.

The course units are identified as either academic or enhancement courses. The academic courses deal with subject knowledge and skills pertaining to the main subjects. Enhancement courses provide opportunities for students to improve their soft skills and participate in extra-curricular activities. Academic courses are further divided as compulsory courses or core courses that provide fundamental knowledge of a subject and elective courses that cover a wider scope of the subject.



Compulsory courses provide the essential knowledge necessary to build the foundation of any given subject combination (study stream) and are stream-specific. Students in a given study stream must be offered all courses specified as such in Levels I & II.

Core courses also provide basic knowledge in a particular subject. These may be compulsory or elective according to the requirements of a given study stream.

Elective courses are offered in addition to compulsory and core courses to provide broader knowledge on different subjects. Students may select from a basket of such courses in order to make up the required number of credits.

Enhancement courses (EC) are courses that provide knowledge on a wide range of disciplines as well as soft skills that are required in today's society. Enrollment in enhancement courses will enable students to improve their inherent skills and gain competencies in activities of their liking. At present, the Faculty of Science offers several enhancement courses. Details on EC courses are given in Annex 24 & 25.

Course Codes

Each course is identified by its unique course code comprising two letters followed by a 4-digit number. The two letters refer to the main subject to which the course belongs (i.e. BT = Plant Science, CH = Chemistry). The first digit refers to the Level of the course.

- 1000 range courses are Level I courses
- 2000 range courses are Level II courses
- 3000 range courses are Level III courses
- 4000 range courses are Level IV courses

Course Credit Requirements

The degree is awarded upon the completion of a prescribed number of credits from the subject courses and enhancement courses offered in the three or four academic years.

In each Level (academic year) a student must register for courses totaling a minimum of 30 academic credits (a maximum of 33 credits), usually from three main subjects. For a student to be considered as having studied a particular main subject for his/her degree, he/she should have completed a minimum of 06 core credits in that subject at each Level of the academic programme. To complete the 03-year degree, a minimum of 90 academic credits (maximum 99 credits) are required. To complete the 04-year degrees, a minimum of 120 academic credits (maximum 132 credits) are required. In addition, students must complete at least 04 credits from enhancement courses during their study programme in order to graduate.

Medium of Instruction

All lectures, practicals and examinations pertaining to the courses in the degree programmes are conducted in the English medium.

Time Limit to Complete the Degree Programme

The students must complete their degree programmes within the specified number of semesters. The maximum period allowed to complete both 03-year and 04-year degrees is 12 semesters (06 academic years) from the date of first registration.

DEGREE PROGRAMMES

Degree Programmes and Title of the Degree

The Faculty offers its students four undergraduate degree programmes, namely;

- BSc degree programme (03-year duration)
- BSc Honours degree programme- 04-year duration (research oriented)
- BSc Honours degree programme- 04-year duration (industry oriented)
- BSc Honours degree in Medical Imaging Technology-04-year duration (clinical oriented)

The 03-year study programme leads to the degree of **Bachelor of Science (BSc).**

The 04-year study programmes lead to the degree of **Bachelor of Science Honours (BSc Hons).**

BSc Degree Programme (03-year duration)

The BSc degree programme is designed for students who wish to complete the degree in three years and enter into the job market. This programme can be followed under four specific streams; namely, Biological Science, Physical Science, Biochemistry & Molecular Biology and Industrial Statistics & Mathematical Finance. Students who have studied in a particular stream in the first two Levels of their academic programme must continue in the same stream in Level III. Students who are in this programme have the opportunity to undertake Internship Training or Service Learning in Level III (final year), provided they satisfy the selection criteria.

BSc Honours degree programme- 04-year duration (research oriented)

Students will be selected to follow a 04-year BSc Honours degree programme (research oriented), based on the results of the first two Levels. The programme is designed to enhance research skills in students as well as to help them develop independent thinking & decision-making, encourage creativity & life-long learning while providing students with a thorough background on subject matter that is necessary for further learning at post- graduate level. Thus, students who register for the 04-year BSc Honours degree programmes are required to conduct a research project in Level IV (final year). The research project will be a comprehensive in-depth study on a selected topic in a particular subject area.

Although the programmes are designed mainly for students who wish to pursue a career in academia and/or engage in a research career, students in these programmes will be multi-faceted individuals who will be able to fit into many different career paths and not necessarily be restricted to careers in academia or research.

At present, the Faculty offers 23 BSc Honours degree programmes (research oriented).

BSc Honours Degree Programme-04-year duration (industry oriented)

The 04-year BSc Honours degree programme (industry oriented) is designed for students who wish to pursue a career in industry. The programme is focused on developing skills that are necessary to secure employment or for entrepreneurship. Students in the BSc Honours degree programme (industry oriented) are also required to carry out a research project in Level IV (final year). The research project may deal with industry-related research problems. The programme also provides in-depth knowledge in thematic academic areas for those students who may decide to pursue postgraduate studies in specialized fields. Furthermore, students in the BSc Honours degree programmes (industry oriented) are required to undergo industrial training in the final year.

At present, the Faculty provides 9 BSc Honours degree programmes (industry oriented).

BSc Honours degree programme in Medical Imaging Technology-04-year duration (clinical oriented)

The primary objective of this degree program is to equip students for a rewarding career in the field of imaging science, offering a comprehensive education encompassing various facets of medical imaging technologies. Through this program, students will cultivate problem-solving and critical thinking abilities within a spectrum of medical imaging competencies essentials for their future professional roles. Moreover, this curriculum fosters effective communication, patient care, proficiency and ethical behavior through a combination of focused coursework and hands-on experiences in the medical imaging procedures.

Note: More details on courses pertaining to various study streams and degree programmes are given in the section on Registration for Courses.

REGISTRATION FOR COURSES

Levels I & II

Biological Science Stream and Biochemistry & Molecular Biology Stream

All students in the Biological Science and Biochemistry & Molecular Biology streams shall offer core courses (a minimum of 06-07 core credits) from the three main subjects; Plant Sciences (BT), Chemistry (CH) and Zoology (ZL) as given in Annexes 4 & 5. Students, if they wish, may consider Computer Science (CS) or Nuclear Science (NS) as a fourth main subject, in which case they have to register for a minimum of 06 core credits from that subject. (Note: Both CS and NS cannot be selected as main or elective subjects, together). Furthermore, all courses marked "compulsory" as given in Annexes 4 & 5 must also be taken. To make up the required minimum of 30 academic credits (maximum 33) per year, students can register for elective courses of their choice. It is also necessary to register for enhancement courses that add up to the required number of enhancement credits (Annexes 24 & 25).

Physical Science Stream

Physical Science students are expected to select one of the 06 subject combinations (P1 – P6) given below. Each subject combination consists of three main subjects from a pool of five subjects; Applied Mathematics (AM), Chemistry (CH), Physics (PH), Pure Mathematics (PM) and Statistics (ST). In addition, Computer Science (CS) may be considered as a main subject for the subject combinations P1 – P6. Nuclear Science (NS) may also be considered as a main subject for the subject combinations P1 – P5. Students must choose a subject combination, and a minimum of 06 core/ compulsory credits from at least three main subjects within that combination as specified in Annexes 1 & 2. (Note: Both CS and NS cannot be selected as main or elective subjects together).

Subject combination	Main subjects
P1	Applied Mathematics, Physics, Chemistry, Computer Science / Nuclear Science
P2	Applied Mathematics, Physics, Statistics, Computer Science / Nuclear Science
P3	Applied Mathematics, Pure Mathematics, Physics, Computer Science / Nuclear Science
P4	Applied Mathematics, Chemistry, Statistics, Computer Science / Nuclear Science
P5	Applied Mathematics, Pure Mathematics, Chemistry, Computer Science / Nuclear Science
P6	Applied Mathematics, Pure Mathematics, Statistics, Computer Science

To make up the required minimum 30 academic credits (maximum 33), students can select courses from within or outside their subject combination, provided it is permitted by the time table, space availability and other degree requirements. It is also necessary to register for enhancement courses that add up to the required number of enhancement credits (Annexes 24 & 25).

Industrial Statistics & Mathematical Finance Stream

Industrial Statistics & Mathematical Finance students shall offer Industrial Statistics, Financial Mathematics and Management Science as their main subjects. Computer Science is also available as an additional (fourth) subject. Students should register for a minimum of 06 core credits from each main subject and to make up the required minimum of 30 academic credits (maximum 33) per year, students should register for elective courses as given in Annexes 8 & 9. It is also necessary to register for enhancement courses that add up to the required number of enhancement credits (Annexes 24 & 25).

Level III (BSc Degree Programme, 03-year duration)

Biological Science and Physical Science Streams

Students who follow the 03-year BSc degree programme are required to register for at least 06 core credits from each of **two main subjects** of the three they followed in Levels I & II. To make up the required minimum of 30 academic credits (maximum 33), the remaining credits can be selected from any subject, provided time and space are available. In addition, students have the opportunity (provided the selection criteria are satisfied), to select **either** Internship Training **or** Service Learning in the sixth (final) semester of their degree programme. More information is given under the Career Guidance Unit on page 96.

Biochemistry & Molecular Biology and Industrial Statistics & Mathematical Finance Streams

Students in the two study streams, Biochemistry & Molecular Biology and Industrial Statistics & Mathematical Finance, must follow in Level III, the specified core courses given for their streams in Annexes 7 and 10 respectively. To make up the required minimum of 30 academic credits (maximum 33) per year, students should select and register for elective courses from those given in the respective Annexes. In addition, students have the opportunity (provided the selection criteria are satisfied), to select **either** Internship Training **or** Service Learning in the sixth (final) semester of their degree programme. More information is given under the Career Guidance Unit on page 96.

The BSc degree programme (03–year duration) will span a total of **six semesters** with 90-99 academic credits and at least 04 enhancement credits.

Levels III & IV (BSc Honours Degree Programmes, 04-year duration)

Students following the BSc Honours degree programme (research oriented) will be required to follow in Levels III & IV, the specified courses given under the relevant BSc Honours degree programme, including a research project. To make up the required minimum of 30 academic credits (maximum 33) per year, students should also register for elective courses from those given in the respective Annexes. (Annexes 11 – 21).

Students following the BSc Honours degree programme (industry oriented) will be required to follow in Levels III & IV, the prescribed core courses of the specific programme including a research project and industrial training. They should also register for elective courses from that programme to make up the minimum 30 academic credit (maximum 33) per year requirement (Annex 22).

The 04-year BSc Honours degree programmes will span a total of eight **semesters** with 120-132 academic credits and at least 04 enhancement credits.

Levels I - IV (BSc Honours Degree Programme in Medical Imaging Technology, 04-year duration)

Degree of Bachelor of Science Honours in Medical Imaging Technology consists of four Levels spread over four academic years. All courses offered for the programme are compulsory. In each Level of the programme, a student shall register for Course Units carrying a minimum of 30 and a maximum of 33 academic credits, totaling a minimum of 124 academic credits for the four Levels. In addition, during the four academic years, the students shall register for Enhancement Course Units carrying a minimum of 04 credits It is also necessary to register for enhancement courses that add up to the required number of enhancement credits (Annex 22).

Course Registration Period

Registration for courses for the **entire academic year** commences **one week prior to the start of the first semester** and continues during the first two weeks of this semester. Selection of courses must be done very carefully as students will not be permitted to change their courses once the period of registration is over.

Note: Elective courses with less than five registered students may not be conducted. This condition applies only to courses in the 03-year BSc degree programme. Students who have registered for such courses are permitted to register for other available courses during the registration period. **No changes in courses are permitted after the registration period.**

Mode of Registration

Registration for courses is done online through the Student Information System (SIS) of the Faculty of Science (http://sis.cmb.ac.lk/sci/). Students may visit the IT Unit of the Faculty for assistance if required.

The Add-Drop Period

During the first two weeks of the second semester students are given an opportunity to revise their course registrations for the second semester. During this time, they can add/drop a limited number of courses to/from the list that they have submitted at the beginning of the academic year. **However, students are not allowed to change subject combinations or drop compulsory courses.** Changes are only allowed on condition that the students maintain the prescribed number of main subjects and compulsory & core courses.

Attendance in Class

Students are strongly advised to attend all lectures and practical classes of all courses that they have registered for. For practical courses or courses with a practical component which are evaluated through a practical examination, a **minimum of 80% attendance at practical classes** and sitting the final practical examination are required to obtain a C grade or better in that course. Practical courses that are evaluated through continuous assessment require a minimum of 80% attendance at practical classes to obtain a C grade or better.

Students in the 04-year degree programmes must have 80% attendance in all lectures and practical classes. Students who do not fulfill this requirement shall not be allowed to sit the corresponding final examination/ assessment that year and will have to sit the final examination/assessment in the following year as repeat candidates after having fulfilled the attendance requirement.

Students following BSc Honours in Medical Imaging Technology degree programme shall not be permitted to take an end of semester (or final) examination unless the Head of the Department of Nuclear Science have certified that he/ she has satisfied all the requirements of the relevant Course Units, including but not limited to regular attendance at **lectures/practical classes (at least 80%)** and submission of assignments at the appropriate time, as prescribed by the Senate on the recommendation of the Faculty Board. It is mandatory to have **100% attendance** in hospital-based/clinical training components of all relevant courses. Those who are unable to attend during the regular clinical sessions due to a valid excuse, as defined in university By-Laws should complete the respective component with the approval of the relevant Head of the Department of Nuclear Science before sitting the end-semester examination.

Very Important

Although students are permitted to register for more than 30 academic course credits per year (up to 33) this option has to be used very cautiously as the performance in all the registered courses will be taken into consideration when determining the final result. Students will not be permitted to drop any course once the period of registration is over.

Students are also advised to register for the pre-requisites (if any) specified in their study programmes and to pay attention to the requirements of the eligibility criteria for BSc Honours degree programmes.

Some public institutions may not recognize a particular subject/discipline as part of a graduate's BSc degree programme (03-year duration), unless he/she has completed **a minimum of 24 credits** in that discipline over Levels I, II and III. Students interested in keeping open the option of employment in the public sector (secondary education, banks, government ministries and institutions etc.) or in pursuing postgraduate education in a particular field, should take sufficient electives in their main subjects in order to meet this requirement.

Students are expected to obtain advice from Faculty appointed Academic Advisors if they have any queries regarding their study programmes.

EVALUATION PROCEDURE

Grading System for Academic Courses

Academic courses may be evaluated by theory/practical examinations (mid semester, end of semester or continuous), assignments, reports, presentations and oral examinations or a combination of any of the above. The method of evaluation of courses will be announced by the relevant academic Departments at the beginning of each semester.

Unless otherwise approved by the Faculty Board, marks obtained for the academic courses are graded according to the standard grading scheme given below. For each course for which a student sits an examination, a final grade will be assigned. Each grade carries a **Grade Point Value (GPV)** as specified in the table below. The academic transcript of a student includes the grades obtained for all the courses taken by him/her together with their respective credit ratings but not the actual marks.

Marks range	Grade	Grade Point Value (GPV)	Attainment
85 – 100	A+	4.00	
70 – 84	A	4.00	Superior
65 – 69	A-	3.70	
60 – 64	B+	3.30	
55 – 59	B	3.00	Meritorious
50 – 54	B-	2.70	
45 – 49	C+	2.30	
40 – 44	C	2.00	Adequate
35 – 39	C-	1.70	
30 – 34	D+	1.30	
25 – 29	D	1.00	Minimal
00 – 24	E	0.00	Failure

When calculating the **Grade Point Average (GPA)**, all courses are weighted according to their corresponding credit values. GPA is computed to the second decimal place. Grades of all registered academic courses in a study programme are taken into account when calculating the GPA, except the grade earned for the industrial training component in the 04-year BSc Honours Degree programme (industry oriented). The non-GPA credits of the industrial training component, however, will count towards the total number of credits earned by a student.

Completion of a Course

Students must participate in and complete all the assessment procedures for each course for which he/she has registered and obtain **a final grade for it to be considered as complete**.

If the student is absent for the final examination of a course, **AB** (Absent) shall be assigned instead of a grade. If a student does not complete any or all assessment procedures of a course and has not repeated them thereafter, the course shall be considered as incomplete, and **NC** (Not Complete) shall be assigned. This shall be changed to the “earned” grade once the student has completed the course.

A student of Bachelor of Science Honours in Medical Imaging Technology shall obtain a grade of at least C in all Course Units to complete the programme. Also shall obtain totaling a minimum of 15 academic credits in a level other than the last level of a Bachelor of Science Honours in Medical Imaging Technology Degree Programme to be eligible to admitted to the next level of the programme.

Grading System for Enhancement Courses

Enhancement courses carry only a letter grade as specified below and do not carry a Grade Point Value. For non-sports courses the range of marks corresponding to various letter grades are given in the table below. For courses associated with various sports, the corresponding descriptors will be used.

Marks range/ Descriptor	Letter grade	Attainment
70 – 100 **Exceptional performance including participation at national level**	**H**	Honours
55 – 69 **Above-average performance including participation at inter-university level**	**M**	Meritorious
40 – 54 **Minimum level of acceptable achievement or participation**	**S**	Satisfactory
0 – 39 **Unacceptable level of achievement or participation**	**U**	Unsatisfactory
Withdrawal	**W**	

For the 03-year and 04-year degree programmes a student is required to obtain a grade of S or better **for a minimum of four credits from enhancement courses** in order to complete the requirements of the degree.

Details of enhancement courses are given in Annexes 24 & 25.

EXAMINATIONS

All examinations are conducted and completed within a given semester except courses having practical or research projects. No theory course in the 03-year BSc degree programme is conducted over two semesters.

The duration of the end of semester theory examinations vary from one hour (for one credit courses) to a maximum of three hours (for courses of three or more credits). The academic Departments decide the duration of practical and oral examinations.

The results of all examinations are released usually within two months of completion of examinations.

Repeating Examinations

A student obtaining a grade below C may re-sit the course examination for the purpose of improving the grade. The grades obtained in the first and subsequent attempts shall all be listed in the academic transcript. The highest grade obtained is used for the calculation of the final GPA. However, the highest grade considered for the determination of award of a class, as well as for the determination of eligibility for the BSc Honours degree programmes, is a C.

Rules

(1) A student shall be considered to have sat the first scheduled examination irrespective of whether he/she has actually sat or not, unless he/she has been prevented from sitting the examination due to illness or any other reasonable cause, which must be accepted as valid by the Faculty Board.

(2) A student who fails to complete any course in the first attempt shall be eligible to repeat it in two more attempts only. In counting the number of attempts, (1) above shall also be taken into account.

Students should be aware that they can re-sit an examination only within the time limit specified to complete the degree programme (**maximum of 06 academic years**). Therefore, students are strongly advised to obtain good grades from the very beginning of their study programmes.

Medical Certificates

If a student has been prevented from sitting an examination due to illness, the student should submit a Medical Certificate (MC) to the Chief Medical Officer/University Medical Officer, within the stipulated period of time. Students are strongly advised to read the University guidelines for submission of MCs, since a MC can be rejected if specific requirements are not fulfilled. See pages 91 - 92 for details.

In the event that the medical certificate is accepted as valid, the student may sit the examination at the next immediately available opportunity without a penalty, and the earned grade shall appear in the transcript. If a student fails to submit a valid medical certificate on being absent for an examination, or does not sit the examination at the next available opportunity, it shall be recorded as “AB” in the transcript and subsequent attempts shall be considered as repeat attempts.

Examination Offenses

Examination offenses fall into any of the following misconducts that may be committed by students during the conduct of an examination.

- Possession of unauthorized documents and/or devices
- Removal of examination stationary from the examination hall
- Copying
- Obtaining or attempting to obtain improper assistance
- Cheating or attempting to cheat
- Impersonation
- Disorderly conduct
- Aiding and abetting the commission of any of the above offenses

When submitting reports/dissertations which will be evaluated (e.g., research projects, laboratory or field reports) committing **plagiarism** is considered a serious offense, equivalent to an examination offense. Plagiarism is:

- Submitting another person's work as your own
- Including another person's work (language, ideas, results, data, graphics, images etc.) in your submissions without proper acknowledgement or citation
- Copying another person's paragraphs or sentences into your work without any changes, even when the sources are cited
- In cases where it is necessary to quote (copy word to word) a sentence or two of someone else's language, failure to put such sentences within quotation marks

Any candidate who is found guilty of an examination offense or plagiarism is liable to any one or more of the following punishments:

- Removal of his/her name from the pass list
- Cancellation of his/her candidacy from the whole or part of the examination
- Suspension from any University examination for such period as the Senate may decide, or indefinitely
- Suspension from the University for such period as the Senate may decide, or **expulsion** from the University

SELECTION FOR HONOURS DEGREE PROGRAMMES

BSc Honours Degree (research oriented)

At present, 23 BSc Honours degree programmes (research oriented) are offered in various disciplines. Each programme consists of taught courses and an independent research project in a selected area of the subject. The 23 programmes and their availability to students from different study streams are given below.

BSc Honours degree programme	Availability to study streams
Applied Mathematics	Physical Science (P3, P5, P6)
Applied Microbiology	Biological Science
Biochemistry & Molecular Biology	Biological Science / Biochemistry & Molecular Biology
Bioinformatics	Biological Science / Biochemistry & Molecular Biology
Biomolecular Sciences & Industrial Biotechnology	Biological Science / Biochemistry & Molecular Biology
Chemistry	Biological Science / Physical Science (P1, P4, P5) / Biochemistry & Molecular Biology
Computational Chemistry	Biological Science / Physical Science (P1, P4, P5)
Computational Physics	Physical Science (P1, P2, P3)
Computational Mathematics	Physical Science
Engineering Physics	Physical Science (P1, P2, P3)
Environmental Science	Biological Science
Immunology & Integrative Molecular Biology	Biological Science
Industrial Statistics	Industrial Statistics & Mathematical Finance
Mathematical Finance	Industrial Statistics & Mathematical Finance
Mathematics	Physical Science (P3, P5, P6)
Nuclear Medical Science (Proposed name: Nuclear Science and Technology)	Biological Science / Physical Science (P1, P2, P3,P4, P5), Biochemistry & Molecular Biology
Pharmacy	Biological Science / Biochemistry & Molecular Biology
Physics	Physical Science (P1, P2, P3)
Plant Biotechnology	Biological Science
Plant Science	Biological Science
Data Science	Physical Science (P2, P4, P6)
Statistics	Physical Science (P2, P4, P6)
Zoology	Biological Science

Eligibility for BSc Honours degree programme (research oriented)

There is only one entry point to the 04-year BSc Honours degree programme (research oriented), which is after completion of Level II. Students wishing to apply to these programmes must fulfill the following basic eligibility criterion **together with further requirements for selection, specified under each programme (given on pages** 20-23)

Basic eligibility criterion: A minimum GPA of 2.00 at the end of Level II for **all** registered academic courses.

How to apply

The list of students who are eligible to follow the 04-year BSc Honours degree programme (research oriented) will be displayed after completion of Level II. A student on the eligibility list may apply (on the prescribed application form), to a programme of his/her choice. If more than one programme is selected by a student, then he/she must indicate the order of preference on the application form. The application form must be submitted to the Dean's Office of the Faculty by the stipulated deadline.

Selection to a programme and registration for courses

Some programmes may restrict the number of student admissions due to resource limitation. In such cases the selection will be based on the total weighted mark obtained for the relevant academic courses in Levels I and II. Students will be notified of their acceptance to a programme in due course (within the first week of the new Semester). Students will then register in the SIS for the courses prescribed for that specific programme (See Annexes 11 – 21).

Additional criteria for BSc Honours degree programmes (research oriented)

BSc Honours degree programmes (research oriented) currently available are given below with specific eligibility/selection criteria and student intake for each specific programme. Course catalogues pertaining to different programmes are given in Annexes 11 - 21.

Biochemistry & Molecular Biology
Student Intake: 24 (18 from direct intake of Biochemistry & Molecular Biology; 6 from Biological Science)
Coordinating Department: Chemistry
Eligibility: GPA of 3.00 for CH core courses and a minimum C grade each for CH 2013, CH 2014, BT 1011 and AM 1108.
Selection: Total weighted mark obtained for CH core and compulsory courses.

Biomolecular Sciences & Industrial Biotechnology
Student Intake: 20
Coordinating Department: Faculty of Science
Eligibility: GPA of 2.70 for all BT, CH and ZL core courses for the first and second year of study at the university and obtaining a minimum C grade for AM 1108 and CH 2014 courses.
Selection: Total weighted marks obtained for all BT, CH and ZL core courses of the first and second year of study at the university.

Chemistry

Student Intake: 24 (20 from Biological and Physical Science; 4 from direct intake of Biochemistry & Molecular Biology)
Coordinating Department: Chemistry
Eligibility: GPA of 3.00 for CH core courses and a minimum C grade for AM 1108 for those who are not offering AM core courses at Levels I and II.
Selection: Total weighted mark obtained for CH core courses.

Computational Chemistry

Student Intake: 10
Coordinating Department: Chemistry
Eligibility: GPA of 3.00 for CH core courses and a minimum C grade each for CS 1201, CS 2202 and also for AM 1108 for those who are not offering AM core courses at Levels I and II.
Selection: Total weighted mark obtained for CH core courses.

Pharmacy

Student Intake: 12 (Priority is for Biological Sciences. Vacancies arising will be allocated to Biochemistry & Molecular Biology direct intake)
Coordinating Department: Chemistry
Eligibility: GPA of 3.00 for CH core courses and a minimum C grade for AM 1108.
Selection: Total weighted mark obtained for CH core courses.

Physics

Student Intake: 10
Coordinating Department: Physics
Eligibility: GPA of 3.00 for PH core courses and GPA of 3.00 for AM core courses and at least a B grade for PH 1022.
Selection: Total weighted mark obtained for PH core courses.

Computational Physics

Student Intake: 10
Coordinating Department: Physics
Eligibility: GPA of 3.00 for PH core courses and GPA of 3.00 for AM core courses and at least a C grade for CS 1201.
Selection: Total weighted mark obtained for PH core courses.

Engineering Physics

Student Intake: 10
Coordinating Department: Physics
Eligibility: GPA of 3.00 for PH core courses and GPA of 3.00 for AM core courses and at least a B grade for PH 2022.
Selection: Total weighted mark obtained for PH core courses.

Mathematics

Student Intake (Physical Science): 10
Coordinating Department: Mathematics
Eligibility: GPA of 3.00 for AM core courses and GPA of 3.00 for PM core courses.
Selection: Total weighted mark obtained for PM core courses.

Applied Mathematics

Student Intake (Physical Science): 10

Coordinating Department: Mathematics

Eligibility: GPA of 3.00 for AM core courses and GPA of 3.00 for PM core courses.

Selection: Total weighted mark obtained for AM and PM core courses.

Computational Mathematics

Student Intake (Physical Science): 15

Coordinating Department: Mathematics

Eligibility: GPA of 3.00 for all AM core courses.

Selection: Total weighted mark obtained for AM core courses.

Mathematical Finance

Student Intake (IS & FM): 15

Coordinating Department: Mathematics

Eligibility: GPA of 3.00 for FM core courses and MS core courses (offered by Department of Mathematics) taken together.

Selection: Total weighted mark obtained for FM and MS courses taken together.

Nuclear Medical Science (Proposed name: Nuclear Science and Technology)

Student Intake: 15

Coordinating Department: Nuclear Science

Eligibility: GPA of 2.50 for all CH or PH core courses **AND** minimum B grade for NS 1004 and NS 2105.

Selection: Total weighted mark obtained for relevant core courses listed in the eligibility section.

Statistics

Student Intake: 15

Coordinating Department: Statistics

Eligibility: GPA of 3.00 for ST core courses and GPA of 3.00 for AM core courses.

Selection: Total weighted mark obtained for ST core courses.

Data Science

Student Intake: 15

Coordinating Department: Statistics

Eligibility: GPA of 3.00 for each of ST and CS core courses and GPA of 3.00 for AM core courses.

Selection: Total weighted mark obtained for ST and CS core courses taken together.

Industrial Statistics

Student Intake: 12

Coordinating Department: Statistics

Eligibility: GPA of 3.00 for IS and ST core courses and GPA of 2.00 for each FM 1023 and FM 2021.

Selection: Total weighted mark obtained for IS and ST core courses.

Plant Biotechnology

Student Intake: 15

Coordinating Department: Plant Sciences

Eligibility: GPA of 3.00 for BT core courses.

Selection: Total weighted mark obtained for BT core courses.

Plant Science

Student Intake: 08

Coordinating Department: Plant Sciences

Eligibility: GPA of 3.00 for BT core courses.

Selection: Total weighted mark obtained for BT core courses.

Bioinformatics

Student Intake: 10

Coordinating Department: Plant Sciences

Eligibility: GPA of 3.00 for BT core courses and a minimum of C grade each for CS 1201, CS 1202, CS 2201 and AM1108.

Selection: Total weighted mark obtained for BT core courses and CS courses.

Applied Microbiology

Student Intake: 10

Coordinating Department: Plant Sciences

Eligibility: GPA of 3.00 for BT core courses.

Selection: Total weighted mark obtained for BT core courses.

Zoology

Student Intake: 10

Coordinating Department: Zoology and Environmental Sciences

Eligibility: GPA of 3.00 for ZL core courses.

Selection: Total weighted mark obtained for ZL core courses.

Environmental Science

Student Intake: 10

Coordinating Department: Zoology and Environmental Sciences

Eligibility: GPA of 3.00 for EN 1008 and GPA of 2.70 for core courses either of ZL, BT or CH.

Selection: Total mark obtained for EN 1008.

Immunology & Integrative Molecular Biology

Student Intake: 10

Coordinating Department: Zoology and Environmental Sciences

Eligibility: GPA of 3.00 for ZL core courses and GPA of 2.70 for BT 1015, BT 1016, CH 1012 and CH 2013. Selection: Total weighted mark obtained for ZL core courses and BT 1015, BT 1016, CH 1012 and CH 2013

BSc Honours Degree (industry oriented)

At present 08 BSc Honours degree programmes (industry oriented) are offered in various disciplines. Each programme consists of taught courses, a research project and an industrial training component relevant to a particular discipline. In addition, some programmes may offer courses relevant to industry, such as management and accounting.

Eligibility for BSc Honours degree programme (industry oriented)

There is only one entry point to the 04-year BSc Honours degree programme (industry oriented), which is after completion of Level II. Students wishing to apply to these programmes must fulfill the following basic eligibility criterion.

Eligibility: A minimum GPA of 2.50 at the end of Level II for **all** registered academic courses

How to apply

The list of students who are eligible to follow the 04-year BSc Honours degree programme (industry oriented) will be displayed after completion of Level II. A student on the eligibility list may apply (on the prescribed application form), to a programme/s of his/her choice. If more than one programme is selected by a student, then he/she must indicate the order of preference on the application form. The application form must be submitted to the Dean's Office of the Faculty by the stipulated deadline.

Selection to a programme and registration for courses

Some programmes may restrict the number of student admissions due to resource limitation. In such cases the selection will be based on the total averaged weighted mark obtained for **all** academic courses registered in Levels I and II. The students will be notified of their acceptance to a programme in due course (within the first week of the new Semester). Students will then register in the SIS for the courses prescribed for that specific programme (See Annex 22).

Brief description of BSc Honours degree programmes (industry oriented)

BSc Honours Degree programmes (industry oriented) that are currently available are given below with a brief description on each specific programme. Course catalogues pertaining to different programmes are given in Annex 22.

Information Technology & Management

Student Intake (Physical science, IS & FM): 20

Coordinating Unit: ITU- 2

This programme takes an integrated approach to provide students with a broad knowledge in Information Technology (industry oriented) experience. The programme was designed with the help of experts from industry.

Eligibility: A minimum GPA of 2.50 at the end level II for all registered courses including CS core courses.

Electronics & Information Technology

Student Intake: 20

Coordinating Department: Physics

Introduced by the Department of Physics, the programme in Electronics & IT is aimed at developing essential skills in the application of electronics and information technology. The in-depth training will enable students to pursue careers in related industry.

Eligibility: A minimum GPA of 2.50 at the end of level II for all registered academic courses, including PH core courses and AM core courses, and at least a C grade for PH 2022.

Applied Statistics

Student Intake: 20

Coordinating Department: Statistics

The Applied Statistics programme was introduced with the intention of enhancing the employability of science graduates by developing management and data-driven decision-making skills. This programme was designed with the collaboration of industry personnel.

The IS & FM students and Physical Science students who have taken Statistics as a main subject in Levels I & II (i.e. P2, P4 and P6 combinations) are eligible to follow this programme.

Finance and Insurance

Student Intake (Physical science and IS & FM): 20

Coordinating Departments: Mathematics

Finance and Insurance are areas with a great potential of applicable advanced research and rewarding career options in a wide range of industries. These fields have shown substantial growth despite the recent economic downturn. Therefore, there is a high degree of guaranteed employability in comparison with other areas. Studying finance and insurance could be a good choice for potential students who wish to pursue their career either in postgraduate research or in the insurance sector. These fields are dense with job opportunities in a growing knowledge economy.

Courses are designed to provide insight into insurance, banking, finance and fundamentals of management in aspects of both theory and practice. The degree in Finance and Insurance will enable students to pursue a wide range of careers in the financial services industry and to gain professional qualifications.

Eligibility: A minimum GPA of 2.50 at the end level II for all registered courses including CS core courses.

Business and Environment

Student Intake: 15

Coordinating Department: Zoology & Environment Sciences

The Department of Zoology & Environment Sciences is offering a 4-year BSc Honours degree program (industry oriented) to provide opportunities in this newly emerging sector of employment. Rapid development of tourism and its associated service sectors, and gradual mainstreaming of sustainable development in the corporate sector, the inclusion of climate change impacts and adaptations in every sphere of activity has created a need for university graduates who can fulfill the demands created by these. This new programme has been designed in close collaboration with the private sector that relies on the products and services of the ecosystems in Sri Lanka, and those who have successfully marketed their organizations to a global clientele. The courses are designed to include student-centered learning which in turn will provide a richer and more interactive teaching and learning environment. Leaders from the corporate world will teach alongside university academics and others who have much experience in molding persons for the world of work. The inclusion of group projects and industrial training is especially helpful to provide a wide range of competencies essential in the modern-day workplace and opportunities for employment.

Horticulture and Sustainable Landscaping

Student Intake: 20

Coordinating Department: Plant Sciences

Introduced by the Department of Plant Sciences, this 4-year BSc Honours degree programme (industry oriented) will focus on horticulture and landscaping with a strong emphasis on maintaining the sustainability of human-modified landscapes. Students following this theme will be provided with opportunities to understand basic landscape design and landscape management practices for urban and suburban areas. In addition, students will be trained to develop entrepreneurial skills and computer literacy in this discipline. The programme will be taught by academic and professional experts and will include a component of industrial training.

Science and Management

Student Intake: 30

Coordinating Unit: Career Guidance Unit

The Career Guidance Unit, Faculty of Science offers a four-year degree programme on the theme “Science and Management”. This programme is designed to provide students with a solid background in science as well as a grounding in managerial skills. The Science and Management theme aims to prepare students for executive careers in public / private corporations and institutions which are technology-oriented. The students following this theme will learn the principles in their specific track (Environmental Science, Chemistry, Physics or other fields) and are expected to acquire the ability to apply them to solve problems and gain knowledge on fundamental principles of management, economics and accounting, experience in the world outside the classroom, and the background necessary for a career focused on science and management with the development of adequate soft skills.

Molecular Biology and Biotechnology

Student Intake: 20

Coordinating Department: Chemistry

The Molecular Biology and Biotechnology programme is aimed at providing students with a more application-oriented programme in biotechnology with a view to enhancing the employment opportunities of students while also benefiting those who want to pursue graduate studies. The programme will consist of several courses with lectures, tutorials, laboratory classes and a group project. The lectures will cover the scientific fundamentals of Molecular Biology and Biotechnology in the fields of Medicine, Agriculture, Industry and Environment while the laboratory classes and the group project will provide training in some of the basic skills and techniques in Molecular Biology and Biotechnology with an emphasis on those relevant to the country. All students in their final year will also enroll in an approved internship programme which will help students to get on-the-job experience and prepare them for future employment in industry.

DEGREE AWARDING CRITERIA

BSc Degree (03-year duration)

To be eligible for the BSc Degree (03-year duration), a student must **complete** a minimum of **90** academic credits with at least **30** credits from each of Level I, Level II and Level III.

For students in the Physical Science stream, at least **48** credits of the 90 should be from the core courses, with a minimum of 06 credits each from the three main subjects (07 in the case of Chemistry) totaling 18 – 19 credits in each of Levels I & II, and 06 credits each from two of the main subjects totaling 12 credits in Level III.

For students in the Biological Science stream, at least **54** credits of the 90 should be from the core courses, with a minimum of 07 credits each from the three main subjects totaling 21 credits in each of Levels I and II, and 06 credits each from two of the main subjects totaling 12 credits in Level III.

Furthermore, a student must have

(1) obtained a grade **not lower than C in courses aggregating to a minimum of 72 academic credits**, with a minimum of 24 academic credits in each of Levels I, II and III.

(2) obtained **no** grade of NC (not complete). However, in the event of a candidate being unable to sit the final examination of a course for approved medical or other unavoidable reasons **during his/ her final year only**, an E grade may be assigned to such final examination at the request of the candidate and with the approval of the Faculty Board. This is applicable for courses **totaling no more than 06 credits**.

(3) not obtained grades of E (including any from (2) above) in **more than 06** academic credits

(4) obtained a grade of S (Satisfactory) or better in enhancement courses totaling a minimum of 04 credits

(5) obtained a minimum GPA of 2.00

(6) completed the relevant requirements within a period of **06** academic years.

Award of Classes

A student shall be awarded a **First Class** provided that he/she has

1) obtained grades **not lower than C** in academic courses aggregating to **at least 80** academic credits

2) obtained a minimum GPA of **3.70**

3) completed the relevant requirements within a period of **03 consecutive** academic years

A student shall be awarded a **Second Class in the Upper Division** provided that he/she has

1) obtained grades **not lower than C** in academic courses aggregating to **at least 75** academic credits

2) obtained a minimum GPA of **3.30**

3) completed the relevant requirements within a period of **03 consecutive** academic years

A student shall be awarded a **Second Class in the Lower Division** provided that he/she has

1) obtained grades **not lower than C** in academic courses aggregating to **at least 75** academic credits

2) obtained a minimum GPA of **3.00**

3) completed the relevant requirements within a period of **03 consecutive** academic years

BSc Honours Degree (research oriented) and BSc Honours Degree (industry oriented)

To be eligible for the BSc Honours degree (four-year duration), a student must **complete** a minimum of **120** academic credits with at least **30** credits from each of Levels I, Level II, Level III and Level IV, **including the research project** (and where relevant the industrial training component).

For students in the Physical Science stream, at least 36 credits of the 120 should be from the core courses, with a minimum of 06 credits each from the three main subjects (07 in the case of Chemistry) totaling 18 – 19 credits in each of Levels I & II.

For students in the Biological Science stream, at least 42 credits of the 120 should be from the core courses, with a minimum of 07 credits each from the three main subjects totaling 21 credits in each of Levels I and II.

Level III and IV credits must be from the courses specified for the respective four-year degree programme.

Furthermore, a student must have

(1) obtained a grade **not lower than C in courses aggregating to a minimum of 96 academic credits** with a minimum of 24 academic credits in each of Levels I, II, III and IV.

(2) obtained a grade not lower than C in the research project and where relevant in the industrial training

(3) obtained **no** grade of NC (not complete). However, in the event of a candidate being unable to sit the final examination of a course for approved medical or other unavoidable reasons **during his/ her final year only**, an E grade may be assigned to such final examination at the request of the candidate and with the approval of the Faculty Board. This is applicable for courses **totaling no more than 08 credits**.

(4) not obtained grades of E (including any from (2) above) in **more than 08** academic credits

(5) obtained a grade of S (Satisfactory) or better in enhancement courses totaling a minimum of 04 credits

(6) obtained a minimum GPA of 2.00

(7) completed the relevant requirements within a period of **06** academic years

(8) fulfilled any other requirements approved by the Faculty Board. E.g. Professional requirements*

BSc Honours Degree in Medical Imaging Technology (clinical oriented)

To be eligible for the BSc Degree in Medical Imaging Technology a student must complete course Units totalling a minimum of 120 academic credits, with a minimum of 30 academic credits each from Levels I, II, III, and IV, including the Research Project and, where relevant, the Industrial Training component in Level IV.

Furthermore, a student must have

(1) obtained a Grade C or above in all academic course units (including non-GPA credits) of the Medical Imaging Technology program in order to be eligible to obtain the degree.
(2) obtained a grade of S (Satisfactory) or better in enhancement courses totaling a minimum of 04 credits
(3) obtained a minimum GPA of 2.00
(4) completed the relevant requirements within a period of 06 academic years

Award of Classes

A student shall be awarded a **First Class** provided that he/she has

1) obtained grades **not lower than C** in academic courses aggregating to **at least 105** academic credits
2) obtained a minimum GPA of **3.70**
3) completed the relevant requirements within a period of **04 consecutive** academic years

A student shall be awarded a **Second Class in the Upper Division** provided that he/ she has

1) obtained grades **not lower than C** in academic courses aggregating to **at least 100** academic credits
2) obtained a minimum GPA of **3.30**
3) completed the relevant requirements within a period of **04 consecutive** academic years

A student shall be awarded a **Second Class in the Lower Division** provided that he/ she has

1) obtained grades **not lower than C** in academic courses aggregating to **at least 100** academic credits
2) obtained a minimum GPA of **3.00**
3) completed the relevant requirements within a period of **04 consecutive** academic years

***Professional requirement for BSc Honours in Pharmacy**

The BSc Honours in Pharmacy is a professional degree, which qualifies graduates to practice the profession of Pharmacy. To be eligible for this degree, a student must have obtained a **C grade or better** in each of the following courses, in addition to the criteria specified for the award of the BSc Honours degrees.

Level III courses

1) CH 3071 Pharmaceutics I
2) CH 3074 Pharmacology I

Level IV courses

1) CH 4070 Pharmaceutics II
2) CH 4071 Pharmacology II
3) CH 4075 Pharmaceutical Law and Ethics

Option to Revert to BSc Degree from BSc Honours Degree

A student reading for a BSc Honours Degree (04-year) may request in writing for the award of the BSc Degree (03-year), upon satisfying the requirements for the award of the BSc Degree (03-year). This request should be made to the Dean of the Faculty after completing Level III or during Level IV or within 2 weeks of the release of the Level IV examination results

Award of the Degree

A student should apply for the award of a Degree, on satisfying the requirements. On completion of the BSc or BSc Honours Degree, a student is entitled to an official transcript giving grades in the respective courses after the confirmation of results by the University Senate.

Fallback Options

The Faculty of Science of the University of Colombo, in accordance with the UGC circular 04/2021 of 07th April 2021, has now introduced the Fallback qualifications leading to the award of the **Higher Diploma in Science** and **Diploma in Science**. The options are available to all batches from the 2012/2013 intake.

Higher Diploma in Science; HDip (Sc)

A student reading for the BSc degree or BSc Honours degree except BSc Honours degree in Medical Imaging Technology may request the award of the Higher Diploma, if he/she is unable to fulfill the criteria required for the award of the BSc or BSc Honours degree for which he/she was registered. ***The request shall be made after the completion of three academic years (six academic years for BSc Honours in Medical Imaging Technology) from initial registration, provided that he/she has***

(i) obtained a grade not lower than C in courses aggregating to a minimum of 60 academic credits after SLQF Level 2
(ii) completed the prescribed number of academic credits within a period of six academic years from the date of first registration

Diploma in Science; Dip (Sc)

A student reading for the BSc degree or BSc Honours degree except BSc Honours degree in Medical Imaging Technology may request the award of the Diploma, if he/she is unable to fulfill the criteria required for the award of the BSc or BSc Honours degree for which he/she was registered. ***The request shall be made after the completion of three academic years (six academic years for BSc Honours in Medical Imaging Technology) from initial registration, provided that he/she has***

(i) obtained a grade not lower than C in courses aggregating to a minimum of 30 academic credits after SLQF Level 2
(ii) completed the prescribed number of academic credits within a period of six academic years from the date of first registration

IMPORTANT: In any event, a student shall not request for multiple qualifications.

MEDALS, PRIZES, AWARDS AND SCHOLARSHIPS

Undergraduate scholarships, awards, medals and prizes are awarded to students on the basis of academic merit and other considerations. A brief outline of the awards offered to students in the Faculty of Science is given below. Details of specific requirements that are necessary to qualify for each award can be obtained from the Examinations Branch of the University and/or the relevant academic Department.

Awards presented at the convocation

Name of the Award	Selection Criteria	Narrative
Awards in Chemistry		
Bhikaji Framji Khan Gold Medal for Chemistry	The medal is awarded to the student who shows the highest competence in Chemistry at the BSc Honours Degree examination.	The Bhikaji Framji Khan Gold Medal for Chemistry was established at the Ceylon University College in 1938 by Mr. F.P. Khan.
Dharmachandra & Tamarasa Gunawardhana Memorial Gold Medal for Analytical Chemistry	The award is presented to the student with the best performance in Analytical Chemistry in the Chemistry BSc Honours Degree programme.	This award was established by Professor H.D. Gunawardhana, Professor of Inorganic Chemistry and Mrs. P.C. Nanayakkara, in memory of their parents, Mr. H. Dharmachandra Gunawardhana and Mrs. Tamarasa Podimenike Handinnapola Gunawardhana.
Professor R.S. Ramakrishna Gold Medal for Inorganic Chemistry	The gold medal is awarded for the best performance in Inorganic Chemistry in the Chemistry BSc Honours Degree programme.	The award was established in 2001 in honor of late Professor R.S. Ramakrishna by his students.
Professor Pearlyn Pereira Memorial Gold Medal for Physical Chemistry	The gold medal is awarded for the best performance in Physical Chemistry in the Chemistry BSc Honours Degree programme	The award was established in 2001 in memory of late Professor Pearlyn Pereira by her students.
Gold Medal for Organic Chemistry	The Gold Medal is awarded to the student who obtains the highest aggregate mark for the course units in Organic Chemistry offered in the BSc Honours Degree programme in Chemistry.	The award was established in 2010 by the 2003/2004 batch of special degree students of the Department of Chemistry.
Professor Stanley Wijesundera Memorial Gold Medal for Biochemistry and Molecular Biology	The award is for the best performance in Biochemistry, Molecular Biology course units in the BSc Honours Degree programme.	This award was established in memory of Prof. Stanley Wijesundera, former Vice Chancellor of the University of Colombo, by his wife Mrs. Anoja Wijesundera.

The Gulamhussein A.J. Noorbhai Gold Medal for Biochemistry and Molecular Biology	Awarded to a student who has shown the highest competence at the BSc Honours Degree examination in Biochemistry and Molecular Biology	The award was established by Dr. Tuwab Fazleabas F.R.C.S. (England) in 1999.
The Gulamhussein A.J. Noorbhai Gold Medal for Pharmacy	Awarded to the student who has shown the highest competence at the BSc Honours Degree examination in Pharmacy.	The award was established by Dr. Tuwab Fazleabas F.R.C.S. (England) in 1999.
CUFSAA Gold Medal for Computational Chemistry	Awarded to the student who shows the highest competence at the BSc Honours Degree examination in Computational Chemistry.	The award was established by CUFSAA, Colombo University Faculty of Science Alumni Association-North America, in 2020.
Professor Mailvaganam Mahendran Gold Medal for Organic Chemistry	Awarded to the student who obtains the highest aggregate mark for the course units in Organic Chemistry in Level III and Level IV offered in the BSc Honours Degree programme in Chemistry.	The award was established by Professor Mailvaganam Mahendran in 2020.
Professor L. M. V. Tillekeratne Gold Medal for Chemistry	This medal is awarded to the student who shows the highest competence in Chemistry at the BSc Honours Degree examination coupled with participation in sports.	The award was established in 2021, in honour of Prof. L. M. V. Tillekeratne, retired Professor of Chemistry, University of Colombo, by his colleagues and students.
Awards in Mathematics		
Dharmadasa Punchihewa Memorial Prize for Mathematics	The prize is awarded for the best performance, with either a First or a Second-class Upper Division, in the BSc Honours Degree examination in Mathematics	The Prize was founded by Mr. & Mrs. G.W. Jayasuriya in 1983, in memory of Mrs. Jayasuriya's father, the late Mr. Dharmadasa Punchihewa.
Mr. & Mrs. D.P. Epasinghe Memorial Gold Medal for Mathematics	The gold medal is awarded to the student who has shown the highest competence in Mathematics at the BSc Honours Degree examination and having a First Class	This award was established in 2004 by Professor Emeritus P.W. Epasinghe in memory of his parents.
Professor Valentine Joseph Memorial Gold Medal for Applied Mathematics	Awarded to the best student with a First-Class pass in the BSc Honours degree in Applied Mathematics programme with the highest GPA.	This gold medal was established in 2018 by Colombo University Faculty of Science Alumni Association of North America in memory of late Professor Valentine Joseph, former Professor, Department of Mathematics, University of Colombo.

Professor Valentine Joseph Memorial Gold Medal for Computational Mathematics	Awarded to the best student with a First-Class pass in the BSc Honours degree in Computational Mathematics programme with the highest GPA.	This gold medal was established in 2018 by Colombo University Faculty of Science Alumni Association of North America in memory of late Professor Valentine Joseph, former Professor, Department of Mathematics, University of Colombo.
Douglas Amarasekera Prize for the Best Student in Mathematics	Awarded to the student who performs best in the BSc Honours degree Pure Mathematics courses with at least a Second-Class Upper Division.	The prize was established in 2004 in memory of the late Douglas Amarasekera, former Professor of Mathematics, University of Colombo
The Gulamhussein A.J. Noorbhai Gold Medal for Mathematics	Awarded to a student who has shown the highest competence at the BSc Honours Degree examination in Mathematical Finance	The award was established by Dr. Tuwab Fazleabas F.R.C.S. (England) in 1999.
J.K.B. Abeysinghe Memorial Gold Medal for the Most Outstanding Student in the Department of Mathematics	Awarded to the most outstanding student in the Department of Mathematics.	The award was established by the alumni members of Finance, Business and Computational Mathematics special degree programme 98/99 intake.
Awards in Physics		
Dr. C. A. Hewavitharana Memorial Gold Medal for Physics	The medal shall be awarded on the results of the B.Sc. Honours Degree Examination in Physics to a student who has obtained a First Class, and has been placed first in the order of merit in terms of the overall GPA.	Two Prizes were founded in 1951 by Mrs. C.A. Hewavitharana. One prize is awarded for Sanskrit and one for Physics, in memory of her husband, the late Dr. C.A. Hewavitharana, FRCS (Eng.) LRCP (Lond), a member of the Ceylon University College Council.
Mailvaganam Memorial Gold Medal for Physics	The medal shall be awarded on the results of the B.Sc. Honours Degree Examination in Physics to a student who has obtained at least a Second Class (Upper Division), and has been placed first in the order of merit in terms of the overall GPA.	The Award was established in 1987 in memory of the late Professor A.W. Mailvaganam, Professor of Physics at the University of Ceylon and University of Colombo by Mr. H.D.S.A. Gunawardena (a student of Professor A.W. Mailvaganam),

Mr.A.G.W. Perera Memorial Gold Medal for Engineering Physics	The medal shall be awarded on the results of the B.Sc. Honours Degree Examination in Engineering Physics to a student who has obtained a First Class and has been placed first in the order of merit in terms of the overall GPA.	This Medal was established in memory of Mr. A.G.W. Perera.
Dr. Sarath Gunapala Gold Medal for Computational Physics	The medal shall be awarded on the results of the B.Sc. Honours Degree Examination in Computational Physics to a student who has obtained a First Class and has been placed first in the order of merit in terms of the overall GPA.	This Medal was established by Dr. Sarath Gunapala.
Gulamhusein A. J. Noorbhai Gold Medal for the Best Research Project in Physics	The medal shall be awarded to the student who has been placed first in the order of merit in terms of marks for the Research Project of the B.Sc. Honours Degree Programme in Physics and has obtained a grade 'A' or above. The student should have obtained at least a Second Class (Lower Division).	The award was established by Dr.Tuwab Fazleabas F.R.C.S. (England) in 1999.
Prof. Osmund Jayaratne Memorial Gold Medal for the Best Research Project in Engineering Physics	The medal shall be awarded to the student who has been placed first in the order of merit in terms of marks for the Research Project of the B.Sc. Honours Degree Programme in Engineering Physics and has obtained a grade 'A' or above. The student should have obtained at least a GPA of 3.00	This Medal was established in memory of Prof. Osmund Jayaratne.

Professor M. L. T. Kannangara Gold Medal for the Most Outstanding Physics Student of the Year	The medal shall be awarded to the best student with a first-class in any of the honors degree programs conducted by the Department of Physics, and has made a considerable contribution to the University of Colombo at large, the Department of Physics, or the student community, through various extracurricular activities such as exemplary conduct and character as demonstrated by various positive acts committed, contributions to the cultural, community, and social activities and/or scientific advancements, proven leadership qualities among peers and sportsmanship.	This award was established in 2022 by Colombo University Faculty of Science Alumni Association of North America (CUFSAA-NA) in memory of the late Professor M L T Kannangara, former Professor, and a Head of the Department of Physics, University of Colombo.

Awards in Plant Sciences		
Professor B.L.T. de Silva Memorial Award in Plant Sciences	The award is for the student who shows the best performance in the BSc Honours Degree programmes in Plant Science or Plant Biotechnology.	The Award was established in memory of the late Professor, B.L.T. de Silva, Professor of Botany, University of Ceylon, by his colleagues and students.
Professor P.C. Sarbadhikari Award for Plant Sciences	The award is for the best performance in Plant Sciences in the BSc Degree programme (03-year duration)	This award was established in memory of the late Professor P.C. Sarbadhikari by Professor B.A. Abeywickrema. Professor Sarbadhikari, MSc (Calcutta), PhD, DSc (London) was appointed as a Lecturer in Botany at the University College in 1925 and the Professor of Botany in 1943 in the University of Ceylon.
Sir Nigel Ball Award for Plant Sciences	The award is for the best performance in Advanced Plant Physiology and Plant Biochemistry in the BSc Honours Degree programmes of the Department of Plant Sciences.	This award was established in memory of Sir Nigel Ball, M.A., Sc.D. (Dub.) by Professor B.A. Abeywickrema. Sir Nigel Ball was appointed the Professor of Botany in the University College in 1924 and in 1942 in the University of Ceylon.

Professor B.A. Abeywickrema Award for Plant Sciences	This award is for the best performance in Plant Systematics and Ecology related courses (as specified by the Department) in the Plant Sciences BSc Honours Degree Programme.	The staff members of the Department of Plant Sciences established this award in recognition of the excellent service rendered by Prof. B.A. Abeywickrema, former Professor of Botany, University of Colombo.
Dr. Swarna Senathirajah Memorial Prize for Genetics and Plant Breeding	The prize is awarded to a student in the BSc Honours Degree programmes in the Department of Plant Sciences, who performs best in the Genetics and Plant Breeding courses.	The University of Colombo Science Teachers Association established this endowment in 1985 in memory of Dr. (Mrs.) Swarna Senathirajah of the Department of Plant Sciences.
Professor R. L. C. Wijesundera Gold Medal for Plant Pathology and Microbiology	The Gold Medal is for the best performance in Plant Pathology and Microbiology in the BSc Honours Degree programmes in Plant Science or Plant Biotechnology.	Professor RLC Wijesundera and family established this gold medal in 2020 to recognize the outstanding performance in Plant Pathology and Microbiology.
Gold Medal for Bioinformatics	The Gold Medal is for the student who performs best in the BSc Honours Degree programme in Bioinformatics.	The Department of Plant Sciences established this gold medal in 2020 to recognize the academic excellence of students following the BSc Honours Degree Programme in Bioinformatics.
Dr. Ananda Samarakoon Memorial Gold Medal for Biostatistics	This Gold Medal is awarded to a student in the BSc Honours Degree programmes offered by the Department of Plant Sciences who performs best in course modules in the subject area of Biostatistics (as specified by the Department).	This gold medal is established in 2024, in memory of Late Dr. Ananda Samarakoon, who was an academic staff member of the Department of Plant Sciences from 1974 to 1989, by his family.
Dr. Anil Jayasekera Memorial Gold Medal for Molecular Biology	This Gold Medal is awarded to a student in the BSc Honours Degree programmes offered by the Department of Plant Sciences who performs best in course modules in the subject area of Molecular Biology (as specified by the Department).	This gold medal is established in 2025, in memory of Late Dr. G. A. U. Jayasekera, who was an academic staff member of the Department of Plant Sciences from 1993 to 2017.

Awards in Statistics		
CR and Bhargavi Rao Gold Medal for Statistics	The gold medal is awarded to the best student in the BSc Honours Degree programmes (research oriented) of the Department of Statistics, University of Colombo. The best student is selected from amongst the eligible group of First Class research honours students, who has achieved the highest weighted average AND The qualified student should obtain at least an A grade for all the course modules during levels III and IV of the research degree programme	The award was established by the Eminent Scientist and Mathematical Statistician Prof. Calyampudi Radhakrishna Rao in 2018.
Mr. and Mrs. V.W. Samaranayake Memorial Gold Medal for Statistics	The award is made to the student with the highest GPA among those having a GPA of 3.30 and above in the BSc Honours degree programme in Statistics	The award was founded by Professor V.K. Samaranayake, former Professor of Mathematics, University of Colombo, Mrs. V.K. Samaranayake and Mr. V.A. Samaranayake of the Department of Statistics, Kansas University, USA in memory of the late Mr. & Mrs. V.W. Samaranayake.
Professor V.K. Samaranayake Memorial Gold Medal for Data Science	The award is made to the student who obtains the highest GPA among those having a GPA of 3.30 or above in the BSc Honours degree programme in Data Science.	The gold Medal was founded by the Department of Statistics
Gold medal for Industrial Statistics	The Gold medal is awarded to the student who obtains the highest GPA amongst those having a GPA of 3.30 or above in the BSc Honours Degree Programme in Industrial Statistics.	The gold medal was established by the staff of the Department of Statistics.

Gold Medal for the Best Final Year Research Project in Statistics	The gold medal is awarded for the best performance in the final year project with an “A” grade or above in the BSc Honours degree programme in Statistics, having at least a GPA of 3.00.	The gold medal was established by the staff of the Department of Statistics.
Gold medal for the Best Final Year Research project in Data Science	The gold medal is awarded to the student who obtains a minimum GPA of 3.00 and the highest marks for the final year project with an “A” grade or above in the Data Science BSc Honours degree programme.	The gold medal was established by the Department of Statistics.
Gold medal for the Best Final Year Research Project in Industrial Statistics	The Gold medal is awarded to the student who obtains the highest mark for the final year project with a grade “A or above” amongst those having a GPA of 3.00 or above in the BSc Honours Degree Programme in Industrial Statistics.	The gold medal was established by the staff of the Department of Statistics
Gold Medal for the Best Student in Applied Statistics Programme	The gold medal is awarded to the best student who has the highest GPA out of the students who complete the BSc Honours degree programme in Applied Statistics and obtains an overall GPA of 3.30 or above.	The gold medal was established by the Department of Statistics in 2018.
Awards in Zoology & Environment Sciences		
P. B. Karunaratne Memorial Gold Medal for Ornithology	Awarded to the student who has obtained a GPA of 3.3 or better at the Honours Degree Examination in Science (Zoology) and is placed first in the order of merit in the ZL 4063-Ornithology course unit and has obtained an “A” grade for this unit.	The Field Ornithology Group of Sri Lanka established the award in 2001 in memory of the late P.B. Karunaratne, field ornithologist.
The Field Ornithology Group Gold Medal for Business and Environment	Awarded to the student who has obtained a GPA of 3.3 or better at the Honours Degree Examination (industry oriented) in the Business and Environment stream and is placed first in the order of merit.	The Field Ornithology Group of Sri Lanka established the award for an environment related course in 2001.

Professor. S.W. Kotagama Gold Medal for the best student in the BSc Honours Degree Programme in Environmental Science	Awarded to the student who performed best in the BSc. Honours Degree Examination in Environmental Science, as determined by the final overall GPA, with at least Second Class Honours (Upper Division)	The gold medal has been established by the Base for Enthusiasts of Environmental Science and Zoology (BEEZ).
The Gulamhussein A.J. Noorbhai Gold Medal for Research Project in Zoology	Awarded to a student of the Honours (research oriented) Degree in Science (Zoology), who has been placed First in the order for the research project conducted during the 4th year and has obtained at least an “A” grade.	The award was established by Dr.Tuwab Fazleabas F.R.C.S. (England) in 1999.
The Gulamhussein A.J. Noorbhai Gold Medal for Zoology	Awarded to the student who performed best in the BSc. Honours Degree Examination in Zoology, as determined by the final overall GPA, with at least second class Honours (Upper Division)	The award was established by Dr.Tuwab Fazleabas F.R.C.S. (England) in 1999.
The Professor P.C.B. Fernando and Clodagh Fernando gold medal for the Best Undergraduate Research Project in the Immunology & Integrative Molecular Biology Programme	Awarded to a student of the Honours (research oriented) Degree in Science (Immunology and Integrated Molecular Biology), who has been placed First in the order for the research project conducted during the 4th year and has obtained at least an “A” grade.	The award was established by Prof. Preethi Gunaratne in memory of her late parents.
The Dr. Charles & Brenda Herat Gunaratne gold medal for the Best student in the honours degree Programme in Immunology & Integrative Molecular Biology	Awarded to the best performance in the B.Sc. Honours Degree Examination in Immunology and Molecular Biology, as determined by the final overall GPA, with at least Second Class Honours (Upper Division).	The award was established by Prof. Preethi and Gemunu Gunaratne in memory of Prof. Gemunu Gunaratne’s late parents.
The Field Ornithology Group Gold medal for Conservation Biology	The Gold medal is awarded to the student who has obtained a GPA of 3.3 or better at the level III examination in Science and is placed first in the order of merit in the ZL 3069, Fundamentals of Conservation Biology and Wildlife Management course and has obtained an "A" grade for this unit.	The field Ornithology Group of Sri Lanka established the award for the Conservation Biology course in 2015.

The Gold Medal for the Best Final Year Research Project in Environmental Science	Award to a student of the Honours (research oriented) Degree in Science (Environmental Science), who has been placed First in the order for the research project conducted during the 4th year and has obtained at least an "A" grade.	The gold medal was established by the Department Zoology and Environment Sciences in 2020
Other Awards		
Coomaraswamy Prize	The prize is awarded to the student who shows the highest competence in the BSc Degree programme.	The Coomaraswamy Prize was founded at the Ceylon University College in 1922 by the late Sir Ponnambalam Arunachalam in memory of his uncle Sir Mutu Coomaraswamy.
Justin Samarasekara Award for the Most Outstanding Science Student of the Year	The award is for the most outstanding student in the Faculty of Science.	The Award was established in 1979 by Mr. Justin Samarasekara of Justin Samarasekara Associates, Colombo (Architects).
The Award for the Best Student in the BSc Degree Programme in Biological Science	This is awarded to the best student either in the Biological Science or Biochemistry & Molecular Biology streams. The student will be eligible for the award only if he/she has obtained a BSc Degree with a First Class.	
The Award for the Best Student in the BSc Degree in Physical Sciences	The award is made to the best student in the Physical Science or Industrial Statistics & Mathematical Finance streams. The student will be eligible for the award only if he/she has obtained a BSc Degree with a First Class.	Mr. Dhammika Gunasekara and Dr. Maya Gunasekara established this award in1995.
Josep Nalliah Arumugam Memorial Award	The gold medal is awarded to the student who shows the highest competence in the final examination in Science.	Dr. (Mrs.) L.G. Arumugam established, in 1986, an endowment with the UGC in order to award five Scholarships and two Gold Medals to various universities in memory of her late husband Mr. Joseph Nalliah Arumugam, (CBS, CCS, BSc, and Barrister-at-Law).

Prizes and scholarships awarded during the study period

Name of the Award	Selection Criteria	Narrative
Arthur Lambert Rupasinghe Memorial Award for Physics	The award shall be awarded to a student who has been selected for any B.Sc. Honours Degree Programme offered by the Department of Physics and obtained the highest GPA in Physics core courses at Level I and Level II Examinations in Science.	The scholarship was established at the Ceylon University College in 1933, under the will of the late Mr. G.L. Rupasinghe, in memory of his brother, Arthur Lambert Rupasinghe.
Clarence Amarasinghe Scholarship	The award is for a student following a BSc Honours degree programme and is based on financial need and performance in the first two years.	Mrs. Senehelatha Amarasinghe endowed two scholarships in memory of her parents, the late Mr. & Mrs. NDS Silva and her late husband, Mr. Clarence Amerasinghe
Charles M. Dias Memorial Scholarship	The scholarship is for a male student from the Kalutara District and is based on the performance in the first-year examination in Science.	The scholarship was founded in 1983 by Professor and Mrs. Hiran D. Dias in memory of his late father, Mr. Charles M. Dias.
W. Charlotte Peries Scholarship in Chemistry	The scholarship is awarded to a Physical Science student reading for the BSc Honours Degree in Chemistry and is based on the performance in the first two years.	The scholarship was founded in 1986 by Professor W. Pearlyn Daisy Pereira (nee Peries) of the Department of Chemistry, University of Colombo, in memory of her late mother Mrs. W. Charlotte Peries.
C.L. de Silva Memorial Prize	The prize is awarded to a student reading for the BSc Honours degree in Chemistry and is based on the performance in the first two years.	The prize was established in 1958 in memory of the late C.L. de Silva, Lecturer in Chemistry, University of Ceylon.
Department of Plant Sciences Staff Prize	The prize is awarded to a student reading for a BSc Honours degree in the Department of Plant Sciences and is based on the performance in the first two years.	The prize was established in 1974, with contributions from the members of the academic staff and well-wishers of the Department.

Kirthisinghe Memorial Prize in Zoology	The award is for the best student admitted to the BSc Honours degree programme in Zoology.	The prize was established in 1981 by Dr. D. Kirthisinghe and Mrs. L.R. Amarasuriya in memory of their late father Professor P. Kirthisinghe who was on the staff of the University of Colombo.
Professor J.E. Jayasuriya Prize for Mathematics	The prize is awarded based on the performance in Mathematics in the first- year examination in Science and on potential income.	The prize was established by Mrs. J.E. Jayasuriya in memory of her husband, late Prof. J.E. Jayasuriya, former Professor of Education.
Dr. Shamol Basu Memorial Scholarship	The scholarship is awarded to a student reading for the BSc Honours degree in Chemistry and is based on the performance in Chemistry in the first two years.	The scholarship was established in 1992 by the family of Dr. Shamol Basu, in memory of Dr. Shamol Basu who died whilst in service at the University of Colombo.
P. P. Jayawickrema Memorial Award for Physics	The award shall be awarded on the results of the Level I Examination in Science to a student gaining the highest GPA in Physics core courses, provided the grade earned for each core course is B^+ or above.	The scholarship was established in 1993 by Mrs. Rohini Jayawickrema in memory of her late husband, Mr. P.P. Jayawickrema.
Mr. & Mrs. H. D. P. Gunawardene Memorial Award for Physics and Mathematics	The award shall be awarded on the results of Level I Examination in Science to a student entering from the North Western Province and obtains the highest GPA in Physics and Mathematics core courses taken together, provided the grade earned for each core course is 'B^+' or above.	The prize was established in 1987 by Mr. H.D.S.A. Gunawardena in memory of his parents who were principals of schools in the North-Western Province.
Gulamhussein A.J. Noorbhai Scholarship for Mathematics	Awarded to a third-year student reading for the Mathematics BSc Honours degree and has performed best in Mathematics in the first two years.	The scholarship was established in 1999 by Dr. Tuwab Fazleabas F.R.C.S. (England).

Gulamhussein A.J. Noorbhai Scholarship for Zoology	Awarded to a student who has scored the total highest GPA during the 1st and 2nd year Core courses that are offered by the Department of Zoology and Environment Sciences and should be in the 3rd year and doing the Honours Degree in the Department of Zoology and Environment Sciences.	The scholarship was established in 1999 by Dr. Tuwab Fazleabas F.R.C.S. (England).
Douglas Amarasekera Bursaries	The bursary is given to students following Pure Mathematics as a subject and is based on academic performance and family income.	The bursary was established in memory of the late Douglas Amarasekera, former Professor of Mathematics, University of Colombo.
Kottegoda Gnanalankara Thero Scholarship for Mathematics	This scholarship is given to a student from either the Southern or Western Province and is based on the performance in Pure and Applied Mathematics courses in the first year and on family income.	
Astron Scholarship for Pharmacy	The scholarship is given to the student who performs best at the third year BSc Honours degree examination in Pharmacy.	The scholarship was established in 2004 by Astron Ltd.
Prof. H.D. Gunawardhana Scholarship	The scholarship is awarded to a student following the BSc Honours degree programmes in Chemistry or Computational Chemistry. It is based on the performance at the Level III examination.	The scholarship was established in 2011 by well-wishers of the Department of Chemistry.
Dr. Sujatha Hewage Scholarship	The scholarship is awarded to a student following the BSc Honours degree programmes in Pharmacy or Biochemistry & Molecular Biology. It is based on the performance at the Level III examination.	The scholarship was established in 2011 by well-wishers of the Department of Chemistry.
Professor E. Dilip de Silva Scholarship	The scholarship is awarded to a student following the BSc Honours degree programme in Chemistry. It is based on the performance in the first two years and financial need.	The scholarship was established in 2016 by the former students and well- wishers of Prof. E. Dilip de Silva.

Professor Mailvaganam Mahendran Scholarship	This scholarship is awarded to a student following the BSc Honours degree programme in Chemistry who obtains the highest aggregate in the Organic Chemistry course units in the third year.	This scholarship was established by Professor Mailvaganam Mahendran in 2020.
Professor L. M. V. Tillekeratne Honorary Scholarship	The scholarship is awarded to a student in the second year following BSc Degree, after successful completion of the first year academic requirements and a minimum of 2.5 GPA for all first year course units.	The scholarship was established in 2021, in honour of Prof. L. M. V. Tillekeratne, retired Professor of Chemistry, University of Colombo, by his colleagues and students.

THE DEPARTMENTS OF STUDY

The Faculty of Science comprises seven academic departments that specialize in diverse fields of study. Each department has academics who engage in teaching and multidisciplinary research & development activities. The seven departments of the Faculty of Science are:

- Department of Chemistry
- Department of Mathematics
- Department of Nuclear Science
- Department of Physics
- Department of Plant Sciences
- Department of Statistics
- Department of Zoology & Environment Sciences

The ITSC and the CGU also assist in conducting academic programmes in Faculty of Science.

In addition, the Faculty of Science has "Colombo Science and Technology Cell" which functions as an independent unit.

Department of Chemistry

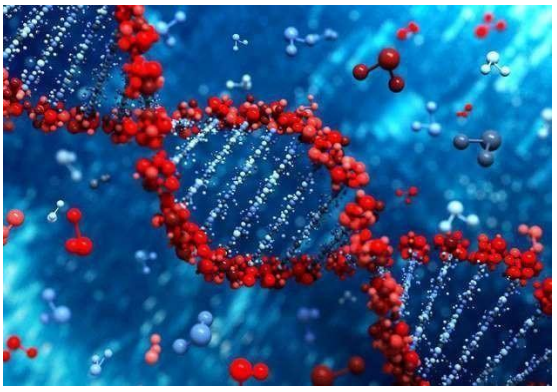
Chemistry is often referred to as the "Central Science" as it stands between and significantly overlaps with mathematics, physics, and biology. Chemistry is an integral component of applied sciences such as pharmaceutical, biomedical, agricultural and environmental science. Students with a strong background in chemistry are at a significant advantage being able to work and apply their knowledge in these areas and a number of other related fields. In this context the Department of Chemistry has designed and offers a carefully planned syllabus to equip the students with the required theoretical knowledge and practical training to face the multifaceted challenges they might encounter on graduation. The department provides the basic background in all areas of chemistry in the first two academic years. BSc Degree students in their third year, are given exposure to more applied and industry-oriented courses while students following BSc Honours Degree programmes are exposed to more specialized and advanced aspects in the respective areas of study. The department also conducts a number of MSc./Diploma programmes with a view to providing an opportunity for postgraduate students, especially for those employed, to enhance their knowledge in areas of their choice. The Department of Chemistry plays a central and a unique role among the seven departments that make up the Faculty of Science.

Academic Programmes

Undergraduate Programmes

BSc Degree:

The Department of Chemistry offers a number of core, compulsory and elective courses in chemistry open to both physical science and biological science students. The core/compulsory courses are designed to provide the foundation not only to further knowledge in chemistry but also in other related areas. The elective courses are designed to cover topics of more general interest.



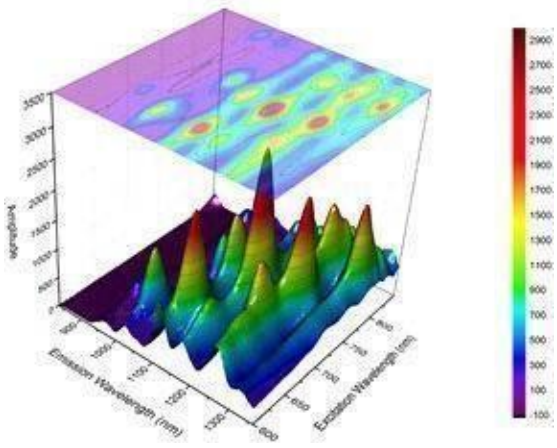
BSc Honours Degree:

The department conducts the following BSc Honours Degree programmes (research oriented):

- Chemistry
- Biochemistry & Molecular Biology
- Computational Chemistry
- Pharmacy

The department has joined hands with the Faculty of Medicine, University of Colombo to conduct the BSc Honours Degree Programme in Pharmacy.

The Department also offers a four-year BSc Honours Degree programme (industry oriented) in Molecular Biology and Biotechnology.



Postgraduate Programmes

MSc/Postgraduate Diploma:

Presently, the Department of Chemistry conducts three MSc / Postgraduate Diploma programmes.

- The MSc/Postgraduate Diploma Programme in Analytical Chemistry was initiated in 1975 and is the oldest and longest running MSc. programme in the country. Currently the annual intake stands around 50 students.

- The MSc/Postgraduate Diploma Programme in Applied Organic Chemistry commenced in April 2006. This programme has an annual intake of 25 students.

- The MSc/Postgraduate Diploma Programme in Chemistry Education commenced in June 2007. The annual intake is around 15 students.

- The MSc/Postgraduate Diploma Programme in Molecular Biology and Biotechnology will commence in July 2024.

MPhil / PhD Degree:

The Department of Chemistry enrolls students to pursue MPhil and PhD degree programmes under the supervision of senior faculty members of the department. The number of students in these programmes varies and depends on the availability of research grants and the facilities in the department.

Centre for Analytical Research and Development (CARD)

The Centre for Analytical Research and Development (CARD) was established in the Department in collaboration with Dalhousie University, Canada in 1980. CARD is a central body that provides analytical and other services to the industry and institutions in Sri Lanka. Over the years the department has been involved in a number of activities including analytical and consultancy services, as well as training and research programmes. This has undoubtedly contributed to the requirements of both the private and the public sectors of the country.

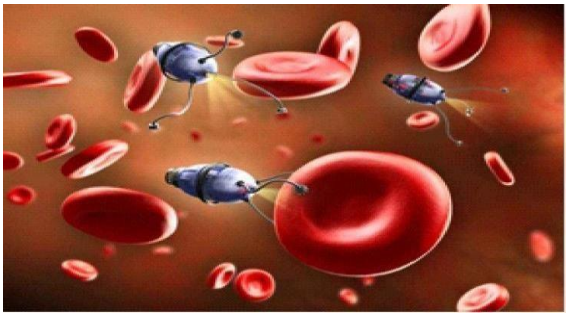
Centre for Advanced Materials and Devices (CAMD)

CAMD established in 2018, is a materials science

research centre with state-of-the art facilities. It is equipped with many sophisticated instruments such as X-ray Diffractometer (XRD), Microwave Plasma Atomic Emission Spectrometer (MPAES) and Electrospinning apparatus. Work at CAMD focuses on research and development of novel materials and technologies related to water purification, drug delivery, textile & apparel, rubber composites and natural resources. The center also provides consultancy services and expertise to industry and other research institutions in numerous areas related to advanced materials and nanotechnology.

Biotechnology Laboratory

The Biotechnology laboratory of the Department of Chemistry offers consultancies, custom services and undertakes contract research in Molecular Biology and Biochemistry. These include cloning, construction and screening of DNA libraries, recombinant protein production *etc*. The laboratory also offers a range of Molecular Biology products and reagents for research and teaching including enzymes, DNA and RNA isolation kits, DNA and protein markers *etc*.



Centre for Advanced Pharmaceutical Research and Industry Solutions (CAPRIS)
(formerly Sri Lanka Pharmaceutical Laboratory)

The Centre for Advanced Pharmaceutical Research and Industry Solutions (CAPRIS) is a collaborative project between the University of Colombo, the Ministry of Industry &Commerce and the Sri Lanka Pharmaceutical Manufacturer's Association. The Laboratory mainly serves the industry, however state of the art facilities are available to undergraduate and postgraduate research students of the department.

Extension Courses

The Department conducts specialized courses / workshops to cater to the individual needs of industrial organizations and research institutes. These workshops are conducted as and when requested and are designed taking into consideration the special requirements of the interested client.

Department information can be accessed through social media using the following links.
https://www.youtube.com/@cmbchemistry/videos
https://www.facebook.com/chemuocfos
https://x.com/Chem_UOC
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Department of Mathematics

The Department of Mathematics has been an integral part of the Sri Lankan University system since its inception in 1921 and is one of the most prestigious and well-recognized mathematics departments of the present-day university system. Until 1967 when the University of Colombo was formed, the Department of Mathematics served both the Science and the Arts Faculties. Mathematics BSc Honours Classes were held from as early as 1922. The department has been housed in the central building of the University, the old Royal College building, since the acquisition of it in 1923.

Mathematics, both an art and a science, provides essential tools for the advancement of many areas not only in the sciences but also in engineering, finance and economics. Pure Mathematics lies at its heart and is a core subject of human thought. It teaches logical and abstract thinking which is essential to form a sound basis for learning. Therefore, Mathematics plays a crucial role in education at the primary and secondary levels. At the tertiary level, a basic knowledge of Mathematics is essential for every graduate in pursuing a successful career in today's society. In view of this, the department strives to design its curricula and organizes its services and activities to realize the full potential of the mathematical ability of its students and staff.

Academic Programmes

Undergraduate Programmes.

BSc Degree (03-year duration):

The department offers courses in Applied Mathematics and Pure Mathematics for Physical Science students in the first, second and third years of the BSc Degree programme. It also offers courses in Financial Mathematics and Management Science for BSc degree students in the Industrial Statistics and Mathematical Finance stream. Many BSc Degree courses are job oriented.

The Pure Mathematics courses offered to the students during the first three years enable them to develop their analytical thinking and logical writing skills. The Applied Mathematics, Financial Mathematics and Management Science courses form the knowledge base for various applications in the Sciences, Engineering, Biology, Finance and Economics.

BSc Honours Degree (research oriented) (04-year duration):

The Department at present offers five programmes that lead to the BSc Honours Degree (research and Industry oriented), namely,

- Mathematics
- Applied Mathematics
- Computational Mathematics
- Mathematical Finance
- Finance and Insurance.

The programmes that lead to the BSc Honours

Degrees (research oriented) (Mathematics, Applied Mathematics and Computational Mathematics) are offered to the students from the Physical Science stream and the programme that leads to the BSc Honours Degree (research oriented) Mathematical Finance is offered to students from the Industrial Statistics and Mathematical Finance stream. These degrees are of high academic quality and are well recognized. Many graduates with a BSc Honours Degree (research oriented) obtain positions in the public and private sectors.

The programme that leads to the BSc Honours Degree (research oriented) (Mathematics) intends to provide a deep and broad understanding of mathematics itself and targets students with strong theoretical interests. It provides a solid preparation for further studies and research in pure and applied mathematics.

The programme that leads to the BSc Honours Degree (research oriented) (Applied Mathematics) is designed to provide an adequate foundation for advanced academic and professional activities in applied mathematics.

Particularly designed to cater to the growing demands in the industry, the programme that leads to the BSc Honours Degree (research oriented) (Computational Mathematics) lays a solid foundation for providing mathematical and computational solutions to real problems.

The programme that leads to the BSc Honours Degree (research oriented) (Mathematical Finance) is designed to provide theoretical, practical and professional knowledge in the field of finance and actuarial sciences. Recently, the department introduced a programme that leads to the BSc Honours Degree (industry oriented) (Finance and Insurance) to students in both the Physical Science and Industrial Statistics & Mathematical Finance streams.

Postgraduate Programmes:

Presently the Department of Mathematics conducts two MSc./ Postgraduate Diploma programmes. They are

- The MSc./Postgraduate Diploma in Financial Mathematics
- The MSc. / Postgraduate Diploma in Mathematics Education.

The Department also conducts the External Degree programme in Financial Engineering.

M.Phil. / Ph.D. Degree:

The Department of Mathematics enrolls students to pursue M.Phil and Ph.D. degrees under the supervision of senior members of the department.

Research Programmes

Mathematical Modelling, Graph Theory, Quantum Algorithm, Group Theory, Associative Algebra and Category Theory are some of the areas in which academic staff members engage in research which results in articles contributed to local / international peer reviewed journals. The department also conducts student /staff projects in collaboration with research centers, as well as government and non-government institutions.

Centre for Mathematical Modelling

The Centre which is affiliated to the department, conducts research on various branches in both theoretical and applied mathematics, and mainly focuses on developing models related to real-world problems of vital importance. Accordingly, the scope of the Centre varies from epidemic modelling and forecasting to discrete modelling and optimization models. The Centre consists of department members, associates and collaborators, who are diligently involved in research activities.

Services

Community Service

Community Service was introduced for level III honors degree students in the Department of Mathematics as an enhancement course in 2023 to provide opportunities to enhance the concepts learned in the classroom, promote personal identity, foster the development of civic responsibility, and work with diverse communities. Under this course, students have completed several community projects and a few of them are “Diwisth Diya”, “Hear the World”, “InfoMotive”, “Perfect Place” and “Decision for Future”.

Under the “Diwiseth Diya” project done by the honors degree students of the 2020/ 21 Batch, installed water filtration systems in Halmillawa village, Kebithigollewa Divisional Secretariat, Anuradhapura District.

The project "Hear the World” done by the honors degree students of the 2019/ 21 Batch, created Audio Books that are resources for gathering knowledge for visually impaired people. Under this project, 5 audiobooks were created by Voicing in Sinhala, English, and Tamil. The books were donated to Blind School Ratmalana and the audiobook library of University of Sri Jayewardenepura.

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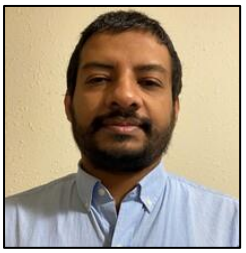

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Department of Nuclear Science

Nuclear Science being the study of the atomic world, is incorporated with a spectrum of wide range of scientific subjects. It consists of radiobiology, radiochemistry, nuclear physics and many other combinations of subjects.

The Department of Nuclear Science of Faculty of Science is the only department within the whole university system which offer training and practical knowledge on Nuclear Science in Sri Lanka. Previously known as the Radio Isotope Centre (RIC), it was established in 1961 through the recommendation made by a preliminary assistance mission of the International Atomic Energy Agency. Since then it has come a long way through, to become the one and only resource center in Sri Lanka with trained competent staff in Nuclear Science to offer a variety of services including teaching and research at undergraduate and post graduate levels.

Academic programmes

Undergraduate

The department offers a variety of course units for undergraduate students not only within the department but also for other departments, faculties and universities.

BSc Degree: The department offers course units in a wide range of combinations for the students reading for the BSc degree from the level I. These include Radiobiology, Medical Physics and Nuclear Technologies.

BSc Honours (research oriented): Our department offers a BSc Honours degree in Nuclear Medical Science which consists of diagnostic and therapeutic nuclear medicine, medical physics, applied nuclear science, health physics and other related disciplines.

BSc Honours Degree in Medical Imaging Technology: Medical Imaging Technology represents a specialized branch of medicine dedicated to harnessing techniques and processes for the purpose of generating diagnostic and treatment-related images of the human body. This degree program has been designed to ensure successful graduates to have sufficient knowledge skills to embark on a career as a professional therapeutic radiographer or radiation therapists locally/ globally in the filed of radiation therapy.

Postgraduate

We offer master's Degrees in Nuclear science and Medical Physics. Medical physics is the branch of applied physics which combines medicine with physics. It's a profession-oriented programme for medical physicists.

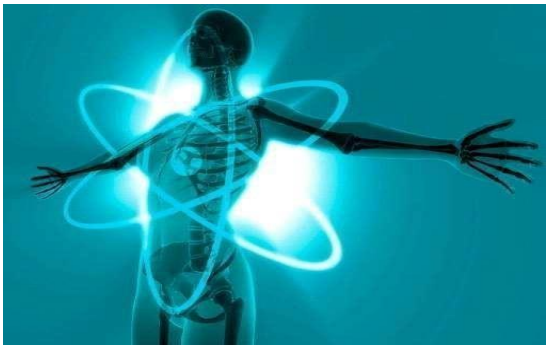
MSc. in Nuclear Science commenced in 1982 in collaboration with the Atomic Energy Authority. The main aim of this course was to meet the needs of the expanding fields of research and industrial applications of nuclear technology in Sri Lanka.

Both MSc. in Medical Physics and MSc. in Nuclear Science degrees are essentially important for professionals attached to related industries.

Research Programmes

Academic staff of the department is specially trained in research in various fields of ionizing radiation. Main areas of research carried out by the researchers in the department are related to environmental radioactivity, nuclear analytical techniques in pollution monitoring with honours reference to heavy metals, medical physics and applications of Nuclear Techniques in elemental analysis.

Our lecturers work in collaboration with the state and private institutions for research and teaching such as Sri Lanka Atomic Energy Board and Sri Lanka Atomic Energy Regulatory Council.



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Department of Physics

Department of Physics of the University of Colombo has its roots going back to 1921 and remains a prestigious institution promoting Physics education in the region. Undergraduate and postgraduate degree programmes under a variety of physics and technology related themes are being currently offered by the Department. The department also actively promotes research & innovation which enriches overall student learning and supports extension programs to uplift skills development.

Academic Programmes

Undergraduate

BSc Honours Degrees

Students are selected on a competitive basis (10 per theme per year) to follow (research oriented) honours degree programmes in Physics, Engineering Physics, and Computational Physics. The programmes enable students to gain contemporary knowledge in Physics and an apt towards research. Graduating students often continue postgraduate studies or take up industrial jobs. The department also offers an (industry oriented) honours degree in IT & Electronics (20 students per year). The aim of the programme is to produce graduates ready to take on 21st century challenges in the industry and the society in general.

Postgraduate

Master's Degree Programmes

Postgraduate diploma/ Masters in Science degree programmes under the themes **Applied Electronics** and **Physics Education** are currently being offered. The programs help students build essential skills as a professional in the respective fields.

Postgraduate research

Currently, around 40 students pursue research degrees (M.Phil. / Ph.D.) at the department. Research programmes are funded by state and international agencies which facilitate collaborative research and outcomes on par with international standards. Graduating students secure positions in academia, R&D or pioneer spinoff companies through research innovation. Active research is conducted under the following research themes.

- Atmospheric and Lightning Physics
- Astronomy & Space Science
- Bio and Molecular Physics
- Condensed Matter Physics
- Computational Physics
- Materials Physics
- Optical Spectroscopy and Microscopy
- Physics Instrumentation
- Remote Sensing
- Robotics & Automation
- Physics Education

Extension Programmes

The department further contributes towards national development by extension programmes. Following custom designed special workshops and courses are conducted by the department on a regular basis;

- Certificate Course in Astronomy
- Advanced Certificate Course in Astronomy
- Diploma in Astronomy
- Workshop on Electronics for A/L Teachers
- Workshop on Electronics & IT for technical staff
- Astronomy workshops for students and teachers

Services

The Department offers a wide range of services and consultancies to the state and private sectors and the general public. The areas include;

- Lightning protection
- Material analysis
- Innovative materials
- Physics teaching aids and lab apparatus

In addition, the department provides national training camps for school students selected for International Physics Olympiad, Asian Physics Olympiad, International Astronomy and Astrophysics Olympiad, Junior Astronomy Olympiad, Junior Science Olympiad, and Nuclear Science Olympiad Competitions.

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Department of Plant Sciences

The Department of Plant Sciences celebrated 100 years of excellence in 2021 as one of the oldest departments dating back to the inception of the Faculty of Science in 1921 under the Ceylon University College. Currently, this is a place where students can experience up-to-date knowledge on all aspects of modern plant science. Teaching and research in the department are amply supported by teaching and research laboratories, lecture theaters with audio visual facilities, plant houses and a herbarium. Facilities are also available for tissue culture, molecular biology, microbiology, ecology, plant identification, phytochemical analyses and computing, as well as for fieldwork.

Academic Programmes

Undergraduate degrees

BSc / BSc Honours Degree Programmes:

The courses a student may offer from the department in the first two years of the BSc or BSc Honours degree programmes are diverse and have been designed to address all aspects of Plant Science at a fundamental level.

BSc Degree

Students opting for the BSc Degree Programme (3-year duration) have the opportunity to select in their third year, courses that cover highly applied aspects of the field, such as plant pathology, horticulture, plant breeding, microbiology, and plant tissue culture.

BSc Honours Degrees

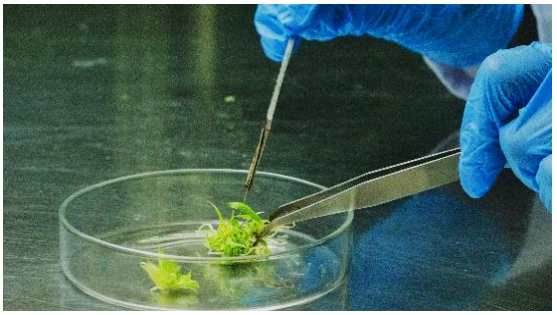
Students who wish to proceed to BSc Honours Degree Programme in Horticulture and Sustainable Landscaping (4-year duration; industry oriented) will be provided courses that cover highly applied aspects of the field such as horticulture, landscaping, plant breeding, tissue culture as well as development of a business plan, and a component of industrial training in the fourth year.

The department offers three research-oriented BSc Honours Degree Programmes (4-year duration) in which students may opt to specialize in one of the following subject areas in their third and fourth years of study:

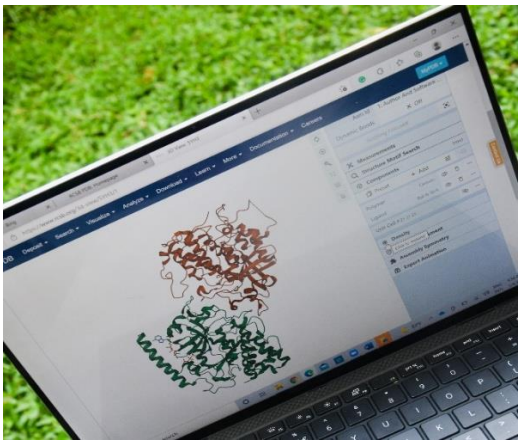
- Plant Science
- Plant Biotechnology
- Bioinformatics
- Applied Microbiology

The BSc Honours Degree Programme in Plant Science provides an excellent training opportunity, especially in field- based plant science courses, and caters to students who wish to develop and enhance their skills in areas of biodiversity conservation, environmental science, taxonomy, ecology, and many other subjects of Plant Sciences.

The BSc Honours Degree Programme in Plant Biotechnology enhances the knowledge and practical skills of the students specifically in a wide array of plant-based industries. Students are exposed to several employment-oriented courses. Industrial exposure and the relevant practical activities of the course modules will advance their careers by broadening their practical skills and understanding of this dynamic field.



The BSc Honours Degree Programme in Bioinformatics is offered for the first time in the country and provides training in analysis and management of biological data using information technology.



The BSc Honours Degree Programme in Applied Microbiology provides a comprehensive, in-depth education in the field of microbiology, blending core scientific principles with advanced practical training, equipping graduates to apply microbiological knowledge across diverse fields.

Postgraduate degrees

The department at present conducts two MSc degree programmes with a strong research component.

- Plant Cell and Tissue Culture
- Agricultural Microbiology

In addition, students work on postgraduate degrees (MPhil/PhD) by research, on different disciplines related to Plant Sciences.

Research programmes

The research conducted in the Department has strong links with research centres, government institutes and industry. Currently there are more than 15 postgraduate students reading for research degrees (MPhil/PhD) working in the department, under the able supervision of senior academic staff.

Academic staff is engaged in projects of the state Ministries and industry through which knowledge is disseminated.

Services offered

Herbarium - The herbarium in the Department of Plant Sciences houses over 3000 plant specimens of higher and lower plant families and about 100 macro fungi species.

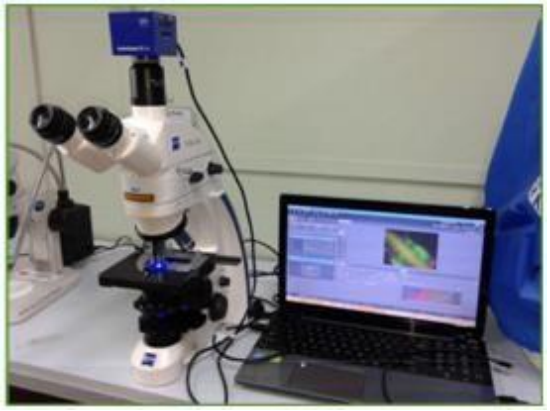
Vegetation surveys and microbial testing of samples of plants, water and soil are offered upon request. The academic staff is heavily engaged with the commercialization-oriented research through the Colombo Science and Technology Cell.

Diploma courses / Extension programmes

The Department conducts the following Diploma and Certificate courses;

- Diploma in Biodiversity Management (DBIOM), jointly with the Department of Zoology & Environment Sciences
- Certificate Course in Bioinformatics
- Certificate Course in Plant Tissue Culture

The certificate course in Bioinformatics offers basics in this newly emerged field in science and bioinformatics, which utilizes computer techniques to understand the behavior, structure and function of Biological molecules. This course provides basic knowledge in Bioinformatics and hands-on experience in the application of techniques and tools in Bioinformatics to real biological data.



The Certificate Course in Plant Tissue Culture provides knowledge, skills and competencies related to *in vitro* culture of plant cells and tissues as a tool in modern biotechnology and horticulture.

The Diploma in Biodiversity Management is a multidisciplinary course intended for persons wishing to pursue a career in the filed of biodiversity assessment, conservation and sustainable development.

The Department hosts a YouTube channel to create awareness and infuse knowledge on common topics of scientific interests to the general public.

[https://www.youtube.com/channel/UCp3wsVk25v1mLBgNl6kIfqg/featured]

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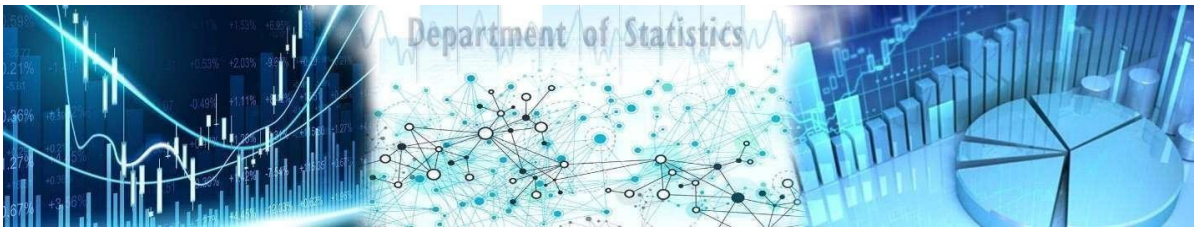
Department of Statistics



The Department of Statistics (DST) is the first Statistics Department formed within a Faculty of Science in the present university system in Sri Lanka.

It was formed in June 2001. Although DST is a young department, it offers many undergraduate and postgraduate statistics courses that are at the forefront of current knowledge and practice. The department originated as a Statistical unit which was first under the Department of Mathematics. The link between this Unit and the Department of Applied Statistics, University of Reading, UK, during the period 1974-1984 led to the major development of Statistics courses in1985.

The vision of the DST is to be a center of excellence in Statistics in Sri Lanka. Statistics plays an important and ever-increasing role in many fields and specializations. The mission of the department is to develop and offer programmes that will produce quality graduates who are highly employable excelling both in the academia and industry, contributing towards the field of statistics.

The department currently offers diverse and flexible tracks and/or double majors that will make its students highly competitive in the job market.

Academic Programmes

Undergraduate Degrees

BSc Degree

The DST offers Statistics subjects from the first year onwards to students in Physical Science in the Faculty and the UCSC. It also offers the degree programme Industrial Statistics & Mathematical Finance (IS&FM) jointly with the Department of Mathematics, for a direct intake of 120 students. The Department offers around 70 course modules for a given year and interacts with around 1200 students.

BSc Honours Degrees

DST currently conducts three (research oriented) BSc Honours Degree programmes namely "Statistics" (ST), “Data Science" (DS) and “Industrial Statistics" (IS) catering both academia and industry. Focusing on the demand by the industry for graduates with a sound knowledge of Statistics, together with computing, management and numerical skills, the DST offers one more (industry oriented) BSc Honours degree programme in Applied Statistics from the year 2015.

Postgraduate Degrees

The DST has been conducting the Postgraduate Diploma/MSc. in Applied Statistics since 1974.

The DST also offers a two-year part-time course leading to an MSc. Actuarial Science. This programme is conducted with the guidance from the Institute and Faculty of Actuaries of the United Kingdom.

The Department also has an M.Phil. / Ph.D. programme with around 10 students currently pursuing research in different areas of Statistics.

Research Programmes

The DST enjoys several areas of strength in research. It has expertise in areas such as Medical Statistics, Operational Research, Sample Surveys, Linear Models & Multivariate Methods, Statistical Modelling, Data Mining, and Quality Control. DST academics have published many research articles in peer-reviewed journals and have made several presentations at international / local fora.

Center for Data Science

The Center for Data Science is established as the research and development unit of the Department of Statistics to engage in and facilitate research and development in Data Science tools and techniques and to bridge the gap between academics and industry in the field of Data Science.

It facilitates collaboration between academics and industry, both foreign and local, through research, enhancement programmes and Consultancy projects. Further it provides opportunities to undergraduates and postgraduates to pursue careers as data scientists who are currently in high demand locally and internationally.

Services

The Department offers a variety of services to both internal university community as well as to the outside community. Namely, it offers,

- assistance in data analysis from simple to advanced problems.
- assistance in designing, conducting, and analyzing surveys.
- statistical advice for researchers on various experiments, and projects.
- assistance in statistical computing.
- short courses, workshops, and seminars on statistics for the public and private sector.
- training courses in statistical computer packages, such as SPSS,R.
- assistance in designing, conducting, and evaluation of recruitment tests.
- the Department, through its newly formed Center for Data Science, are involved with collaborative projects related to date science.

While offering services to the outside community through collaborative projects and consultancies, the Department also offer their services to university internal community free of charge

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Department of Zoology & Environment Sciences

The Department of Zoology and Environment Sciences offers a comprehensive programme for students entering the Faculty of Science, which embodies the subject areas of Zoology, Environmental Science, Immunology and Molecular Biology, and Business and Environment. The programme is so designed not only to provide students with a sound knowledge in these subject areas, but also offers opportunities to develop and improve their communication and other generic skills that would increase their employability.

Curriculum revisions over the years, including one in 2022, have taken into consideration the emerging trends in global education development and national employment, and new subject areas as well as modern teaching, learning and assessment technique have been incorporated. The programme is well balanced and integrates both in-class teaching and field-based learning components. Students also engage in many exciting activities outside their academic programme that helps to vastly improve their communication and interpersonal skills.

The Department of Zoology and Environment Sciences is particularly known for the friendly staff that makes every effort to provide the students with a pleasant and fruitful learning experience in the university.

Academic Programmes

Undergraduate Programme

BSc Degree

Zoology and Environmental Science are offered as subjects for the three-year BSc degree offered by the Faculty of Science. The courses have been designed with a view to provide a fundamental knowledge in Zoology and Environmental Science in the first and second years and introducing the multidisciplinary nature and applied aspects in the third year.

BSc Honours Degrees

The department offers four BSc Honours degrees and students may specialize in any one of the following programmes:

Research Oriented

- Zoology
- Environmental Science
- Immunology & Integrative Molecular Biology

Industry oriented

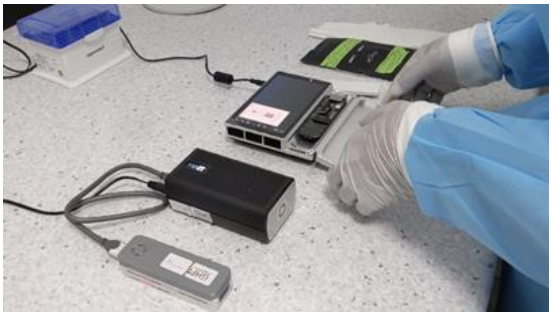
- Business and Environment

Students who are selected to these programmes must follow a set of courses, which cover the necessary fundamental and applied aspects of the specialized areas.

Many final year research projects of our BSc Honours degree students now cover inter- disciplinary areas where our academics, supervise projects with several others who are drawn from diverse fields such as, clinicians from the national hospital system, engineers, research scientists from government and private sector organizations as well as academics from other universities.

Postgraduate Degrees

The Department also offers two Master's Degrees of two years duration, one in Environmental Science and the other in Climate Change & Environmental Management.



The teaching staff of these programmes include members of the department as well as many leading professionals / experts in various related fields of environmental science outside the university, who add value to these programmes due to their professional experience in their relevant field. The programmes cover a multitude of disciplines such as cleaner production, climate change, environmental policies and laws, ecotoxicology, disaster risk reduction and biodiversity and natural resource management.

Postgraduate Research

The Department provides the opportunity for suitably qualified graduates to undertake postgraduate studies leading to both MPhil and PhD degrees, under the supervision of its staff members.

The Department excels in its research capabilities providing research opportunities in diverse fields such as Wildlife Ecology, Eco-tourism, Ornithology, Evolutionary Biology, Ecotoxicology, Natural Disaster Management, Environmental Modeling Climate Change, Immunology & Molecular Biology of human and animal diseases, Stem Cell Research,

Conservation Biology, Entomology, Human Genetics, Reproductive Physiology, Aquatic Biology, aquaculture and marine science under the guidance of its academic staff members.

Much of this research work is published high impact international journals. The postgraduate research programmes of the department enrich the undergraduate programmes by providing opportunities for students selected for the BSc Honours degree programmes to participate in some components of on-going research activities.

Other Programmes

The department also conducts two programmes for external students. The Diploma in Wildlife Conservation (9 months) which is conducted in collaboration with the Department of Wildlife Conservation (DWLC) for park rangers. The other is the Diploma in Biodiversity Management (1 year) which is conducted jointly with the Department of Plant Sciences for nature enthusiasts.

ENvironmental Training and Research Unit for SusTainability (ENTRUST)

ENTRUST will focus on developing skills and knowledge to initiate novel, cutting edge research that is related to advances in environmental sciences aligned with Sustainable Development Goals; providing staff members as well as students with opportunities for leadership in sustainability research, facilitating innovations and policy tools for sustainable development; initiating collaborative research with local, international and industry partners; and creating environmental consciousness in the society through raising awareness among different target groups.

Centre for Immunology and Molecular Biology (CIMB)

Centre for Immunology and Molecular Biology aims to provide courses in Immunology and Molecular Biology for higher degrees (MSc), postgraduate diplomas, BSc Honours courses, higher certificate courses, certificate courses etc.; to engage in and facilitate research, development and innovation in Immunology and Molecular Biology; and to bridge the gap between academics and industry through consultancy work in the fields of Immunology and Molecular Biology.

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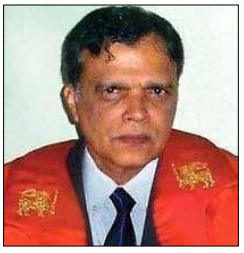

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INFORMATION AND LEARNING CENTRE
(The Library, Faculty of Science)

The Library re-opened as the Information and Learning Centre on 21st January 2021, at the centenary celebrations of the Faculty of Science.

The Library of the Ceylon University College was initiated hundred years ago, in 1921, as a small collection of documents maintained at the College House to serve the then two departments, Science and Arts. In early 1950s, after transferring the Science Collection to the Faculty premises, departmental level libraries were established in the Departments of Botany, Chemistry, Mathematics, Physics and Zoology. In 1984, the Library, Faculty of Science was established as one of the two branch libraries of the Main Library, University of Colombo. It was housed in the 'Old Royal College Building' in the Faculty premises from 1992 to end of 2020.

In 2021, when the Faculty of Science celebrates a century of excellence in its services to the nation, the Library was shifted to its new multistory building and adopted the name **'Information and Learning Centre' (ILC)** to suit its scope of modern services that reach beyond the simple notion of a library. The contemporary learning zones and futuristic facilities of the ILC provide the learner community with a unique experience and a conducive environment for an engaging learning experience. Learning spaces in the ILC are specifically designed to match with different learning styles of students, and include zones for reading, quiet study, collaborative study, interactive study and open study.

Additionally, the library skills lab, e-resource centre and the library studio provide admirable modern facilities which would inspire and enhance students' abilities to discover, experience, study and research.

Resources

Printed material: The Library comprises around 30,000 books and journals in basic science disciplines including Chemistry, Biology, Environmental Science, Mathematics, Nuclear Science, Physics, Statistics and Computer Science. Library materials are maintained under separate categories such as the reference collection, thesis collection, periodicals collection, Sri Lanka collection, rare book collection and the leisure reading collection.

E-Resources: The digital collection of the library includes e-books, e-journals and e-databases that are available through the library network as well as the University network.

The following e-databases can be accessed via the link https://lib.cmb.ac.lk/e-resources-3/

- Taylor & Francis Online
- Oxford Journals
- Emerald publishing
- Jstor

Services

The ILC offers a wide range of services to both staff and students of the Faculty of Science:

- Reader service
- Reference service
- Research support
- Copying and scanning service
- Online Public Access Catalogue (OPAC)
- Ask the Librarian service
- Laptop lending service
- Inter-library Loan service
- Document delivery service
- Database searching facilities
- Internet browsing facilities
- Wi-Fi facilities
- Video conferencing facilities
- Digital recording facilities
- Presentation practicing facility
- Auditorium facilities

User Education Programmes

For Undergraduates

- Orientation programme
- Workshops/ seminars for students reading for Honours Degree programmes on
  - using library resources for thesis writing
  - searching databases
  - citation styles
  - writing literature reviews
- **Enhancement course** (**EC 1004 Information Skill Development; 30P, 1C)**

  This course is conducted for Level I students and the course content include;

  1. How to write successful assignments
  2. Understanding your Library
  3. How to find the information for your assignment from the Library
  4. Effective reading for academic use
  5. Using the E-resources
  6. Using the Internet as an academic tool
  7. Analytical and critical writing skills avoiding plagiarism
  8. How to write successful literature reviews
  9. Citation style of the Faculty

For Postgraduates

Upon request by postgraduate programme coordinators, the Library offers user education workshops for postgraduates on information literacy skills.

Academic staff

Deputy Librarian

Ms. Sajeewanie D. Somaratna

BSc (Colombo), PG Dip. (Bus. Mgt) (Colombo), MLISc.(Colombo)

sajees@lib.cmb.ac.lk

Senior Assistant Librarian

Mr. Madhushan Asanka Lankathilake

BSc (Sri Jayewardenepura), MLS (Colombo)

salsci@lib.cmb.ac.lk

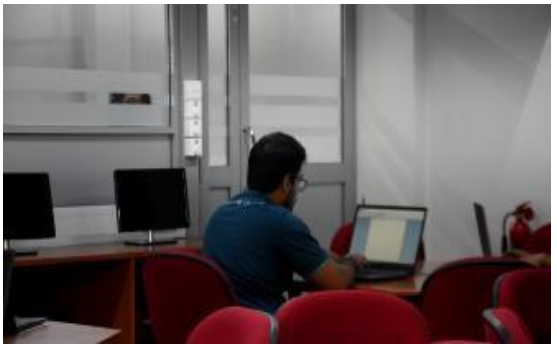
Reading Zone

Interactive Study Zone

Library Skill Lab

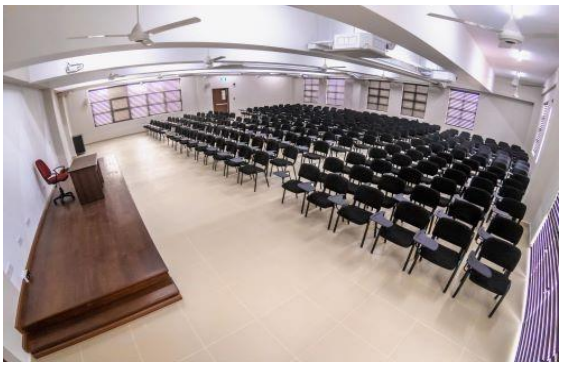
Periodicals section

Leisure Reading Corner



E- Resource Centre

Auditorium



Lecture Theatre

INFORMATION TECHNOLOGY SERVICES CENTRE (ITSC)

The Information Technology Services Centre (ITSC) of the Faculty of Science, was established to provide comprehensive IT support to students, staff, and faculty. ITSC is located on the second floor of the Student Service Centre of the Faculty.

Academic Wing: Deputy Director – Dr Prabath Liyanage (Department of Mathematics)

The main responsibility of this wing is to handle IT and Management honours degree programme and design and development of curricula for IT, Computational Science, and Computer Science courses.

Research Wing: Deputy Director – Dr Monika Madhavi (Department of Physics)

The use of computers in academic activities has now become an indispensable factor in higher education. This wing is responsible for facilitating research activities by providing access to high-performance computing resources and supporting computing-intensive scientific research across disciplines.

Services Wing: Deputy Director – Dr Sachini Amarasekara (Department of Zoology and Environment Sciences)

This wing manages IT Infrastructure and provides system support for academic administrative matters. ITSC is the focal point for students to get support for the following systems.

- Student Information System **(SIS)**
- Learning Management System **(LMS)**
- University email accounts
- University Single Sign On accounts
- Wi-Fi access
- FOS media

SIS and LMS: Coordinator: Dr Sunethra Abeysinghe

SIS - handles student registration, course registration, examination results, hostel, bursary, and Mahapola for almost all the faculties of the university, while the LMS handles the academic resources and activities.

Faculty of Science Media Unit (FOS Media) Coordinator: Dr. Muditha Bandara (Department of Nuclear Science)

FOS Media is the official media unit of the Faculty of Science, equipped with a state-of-the-art media studio. The unit offers a comprehensive range of services to the university community, including photography, videography, photo and video editing, and desktop publishing. For more information, visit http://fos.cmb.ac.lk/, and for the updates, like us on FB (@FOSMedia), follow us on X (@FOSMediaR), or contact us via email at fosmedia@fos.cmb.ac.lk.

Students' Computer Lounge & Library
Senior Treasurer: Dr. R.A.B. Abeygunawardena

- Walk-in IT zone
- 20 computers: Windows XP/7
- Printing & scanning facilities
- Headsets will be provided on request

The Students' Computer Lounge & Library is located next to the ITU 1. It is a fully air- conditioned computer room and has printing and scanning facilities for students. Batch representatives from each batch contribute in steering and maintenance and providing services for fellow students.

Equipped with high speed internet connectivity the Students' Computer Lounge provides a friendly environment to the students in their day to day work and educational activities.

DIRECTORS OF STUDY

Director of Study/Undergraduate Degree Programmes
Prof. Chandrika Nanayakkara
Department of Plant Science

Director of Study/Postgraduate Degree Programmes
Prof. CD Tilakaratne
Department of Statistics

Directors of Study are responsible for the overall conduct of undergraduate and postgraduate degree programmes in the Faculty of Science. The Undergraduate Director of Study is the chairperson of the Curriculum Development and Evaluation Committee (CDEC) of the Faculty of Science. The Postgraduate Director of Study is the chairperson of the Master Study Board of the MSc programmes conducted by the Faculty of Science. Information and clarifications on the degree programmes could be obtained from the Directors of Study.

ACADEMIC ADVISORS

Each academic Department has an academic advisor who will assist students on matters relating to academic courses conducted by the Department. There is a separate academic advisor for the Molecular Biology & Biochemistry Programme offered by the Chemistry Department and for the Computer Science courses offered by the UCSC. The following is the list of academic advisors and their respective Departments.

Prof. LHR Perera (Chemistry)
Prof. SSN Perera (Mathematics)
Dr. KKWH Erandi (Mathematics)
Dr. Jivendra Wickramasinghe (Nuclear Science)
Dr. AM Wickramasuriya (Plant Sciences)
Dr. GHS Karunaratne (Statistics)
Prof. IC Perera (Zoology & Environment Sciences)
Dr. SHRT Sooriyagoda (Physics)

COORDINATORS

Students may contact the following persons for advice on enhancement courses and courses offered by the Career Guidance Unit (CGU) of the Faculty of Science and the UCSC.

Coordinators for the Enhancement Courses
Prof. IC Perera (Zoology & Environment Sciences)
Prof. HIC de Silva (Chemistry)
Dr. AM Wickramasuriya (Plant Sciences)

Coordinators for the Internship Programme/Service Learning Programme and Personality & Career Development Courses
Prof. Hasini R. Perera – Co-Director, CGU(Chemistry)
Dr. Dilushan Jayasundara -Co-Director, CGU(Physics)

Coordinator for the CS Courses offered by the UCSC
Mr. ERAD Bandara (Statistics)

UNIVERSITY HEALTH CENTER

University Medical Officers (UMO)

Dr. DKR Abeygunawardane MBBS

Dr. ARP Rathnayake MBBS

Opening Hours

8.00 am – 12.30 pm and 1.30 pm – 4.00 pm on weekdays

The University Health Center, also known as the University Medical Center, assists students as well as employees of the University to lead an active and healthy life free from mental and physical ailments. There are two Medical Centers in the University. The main Medical Center is located close to the New Arts Theater (NAT) in the "Samson's bungalow" on Reid Avenue. This center caters to the needs of many Faculties of the University including the Faculty of Science. The second center located at the Medical Faculty is for the benefit of students and staff of the Faculty of Medicine.

The Medical Center is managed by qualified medical and nursing staff for out-patient treatment. Students requiring special treatment or hospitalization will be directed to the University Clinics of the Colombo Group of Hospitals. Dental treatment is available at the main Medical Center on Mondays, Wednesdays and Fridays in the morning.

Services

Medical examinations for new entrants

Medical examination forms are sent to all students along with their registration documents. The completed medical examination reports submitted by students will be filed in the Medical Center. In the event of an ailment being diagnosed during the medical examination, student will be directed to the appropriate specialist clinic for treatment.

Out-patient treatment

Students and staff can visit the Medical Center for UMO consultation. Medicines and drugs prescribed by the UMO will be supplied free of charge if they are available in the Medical Center.

Medical counseling

Any student who needs to discuss his/her personal health problems should meet the UMO. If further help is needed from psychiatrists or psychologists, students will be directed to the relevant University clinics.

Laboratory testing facilities

Laboratory testing facilities are available in the Health Center for all students and staff of the University.

Vaccination

When necessary, the Health Center will make arrangements for vaccination against tuberculosis, typhoid and other diseases. In case a student has any problem with vaccination he/she is advised to contact the staff of the Health Center.

Environmental health

The University health service is responsible for maintaining environmental health in the University premises. The University has on its staff a Public Health Inspector (PHI) for this purpose. University canteens, student hostels and buildings are routinely examined by the PHI for conformity of standards. Employees of University canteens and hostels have to undergo medical examinations periodically to ensure their health and wellbeing

Issue of Medical Certificates (MC) or approval of medical leave for students

All students who are unable to appear for theory and / or practical component of examinations / lectures due to medical reasons should submit a Medical Certificate issued by the Chief Medical Officer (CMO) / University Medical Officer (UMO) of the University of Colombo or a valid Medical certificate recommended by the CMO / UMO if they seek relief. If and when necessary, the CMO/UMO may arrange a Medical Board to consider a request for medical leave by a student.

Students are advised strictly to adhere to the following guidelines when submitting MCs. Failure to follow the guidelines may result in the MC not being accepted and the absence being treated as one without valid excuse.

A student who resides outside Colombo city limits and falls ill during a period of examination or who is unable to report to the CMO/UMO due to the seriousness of the illness should obtain treatment, preferably from the nearest Government Medical Institution/District Medical Officer, or in exceptional cases from Private Registered Medical Practitioners or Institutions. In such instances he/she should follow the procedure given below with regard to submission of the MC.

a. All MCs (other than those issued by the CMO/UMO) should be forwarded to the CMO/UMO for his/her approval within 07 (seven) days from the last date of the recommended medical leave. (Please note that the CMO/UMO shall have the discretion to not accept MCs submitted after this stipulated time period).

b. With regard to theory exams the MC should be presented along with a form giving details of the examination papers for which he/she was unable to appear. The relevant application forms can be obtained on the faculty web site and submit the duly filled application to the University Health Center along with the MC within 07 days as specified above (a). It is compulsory to apply via the SIS as well.

c. Students who are absent for practical examinations should submit the MC along with the application form to the CMO/UMO for approval and hand it over to the Head/academic staff member of the relevant Department.

d. Please note that the CMO/UMO may request the following documents as further proof of the illness and if they are not submitted, the MC maybe rejected.
    - Receipt or payment for the MC from a Government Hospital
    - Prescription of medicines taken
    - Reports of blood tests etc.

The following categories of MCs will be accepted by the CMO/UMO for consideration only when they are submitted in terms of the above guidelines.

- MC issued by a Government Hospital/District Medical Officer
- MC issued by a Private Medical Practitioner only in the case of leave for less than 05 (five) days.

Other services offered by the health center

- Medical examination for scholarships and sports activities
- Issue of medical certificates for driver's license
- Medical tests for extension of service for staff

STUDENT COUNSELLING AND WELFARE SERVICES

STUDENT COUNSELING

Senior Student Counsellor, University of Colombo

Dr. Nilanthi Senanayake (Department of Medical Microbiology & Immunology Management)
Tel: 0777598995

Assistant Student Counsellor, University of Colombo

Ms. Supeshala Ratnayake

Permanent Student Counsellor, Faculty of Science

Prof. Sampath S Seneviratne

Student Counsellors, Faculty of Science

Dr. Dilanga Siriwardane (Physics)
Dr. J Adassuriya (Physics)
Dr. MR Lambadusuriya (Nuclear Science)
Dr. D Satharasinghe (Nuclear Science)
Dr. RV Jayathilake (Statistics)
Dr. P De Silva (Chemistry)
Dr. T Weerakoon (Chemistry)
Dr. DMRG Mayakaduwa (Plant Science)
Dr. SS Ediriweera (Plant Science)
Dr. KKWH Erandi (Mathematics)
Dr. RDN Tilakarathna (Mathematics)
Dr. S Amarasekara (Zoology & Environment Science)
Dr. V Kulasena (Zoology & Environment Science)

Students have the opportunity to seek advice and assistance from student counsellors of the Faculty of Science or University of Colombo to resolve their psychological, academic and personal problems. All information pertaining to student issues is kept strictly confidential. In addition to counselling, a wide variety of tasks are undertaken by the Student Counsellor's Office which include giving permission for display of posters, batch trips, get-togethers and intervening & taking action with regard to ragging and student conflicts within & outside the University.

MARSHAL OFFICE

Deputy Chief Marshal (Acting), University of Colombo

Mr. A. V. P. D. De Silva

Tel: 0112583107

Marshals, University of Colombo

Ms. K.M.S.S. Konara (Science)
Mr. H. K. Abeysinghe (Science)
Mr. B. K. C. P. Balasooriya
Mr. L. Koongahwaththage
Ms. S. A. D. D. Kalyani
Mr. D. D. H. D. Somarathna
Mr. A.W.A.C. Abesekara
Mr. S.C. Kavirathna
Mr. K.A.A.I. Kodagoda

Marshals have been appointed to assist the authorities to maintain safety and discipline within the University premises. They are graduates with professional qualifications and are capable of handling issues pertaining to discipline in University life. Marshals will intervene in instances of misconduct and breakdown in law & order and will report to the Police or relevant University authorities, especially to the Senior Student Counselor. They are duty-bound to intervene in any indiscipline or misconduct within the University premises and in hostels.

WELFARE SERVICES

Senior Assistant Registrar/Student and Staff Affairs

Mrs. LDGG de Silva, College House

The Student & Staff Affairs Branch is responsible for the welfare of all students enrolled in the University of Colombo. It works closely with the Faculties to assist students to progress harmoniously with their University lives. The mission of the Division is to provide an enabling environment with quality student services and a range of learning, social, cultural, health and recreational opportunities that facilitate full realization of students' potential for academic and personal growth.

Some of the services available from the Student & Staff Affairs Branch are;

- Payment of Mahapola, Bursaries and other scholarships such as EETCS, Commercial Bank, Mitsubishi Corporation International etc.
- Facilitating Students' Union and Students' Society activities
- Facilitating the Arts Council
- Students' season tickets
- Managing canteen services
- Allocation of hostel accommodation

Hostels

Fifteen hostels are maintained by the University of Colombo for undergraduate students in different locations outside the University. Since accommodation is extremely limited, priority is given to students who are from outside Colombo and with low parental income. Each hostel has a Warden and a Sub-warden. The Warden is a senior member of the academic staff and is responsible for disciplinary matters in the hostel under the guidance of the Vice-chancellor. The Sub-warden is resident in the hostel full time and administers day to day functioning of the hostel. The following hostels are available for men and women of the Faculty of Science.

Hostel	**Warden**
Sujatha Jayawardena (Women)	Dr. (Ms.) M. H. M. J. Suranialee (Mathematics)
De Saram (Women – New)	Ms. R. D. C. Niroshani (Educational Psychology)
Havelock Road (Women)	Dr. (Mrs.) V. P. I. S. Wijeratne (Geography)
Thelawala (Women)	Ms. A. C. I. Kinkini (Humanities Education)
Kalinga Mawatha (Women - New)	Dr. (Ms.) Y. A. Widyalankara (History)
	Dr. (Ms.) L. N. P. Wedikandage
Hewa Mawatha (Women)	Ms. T. H. R. Samanalee (Psychiatry)
Kithyakara (Men)	Mr. R. Y. H. De Alwis Senevirathne (Business Economics)
	Dr. R.A.B. Abeygunawardene (Statistics)
Thelawala (Men)	Mr. P. C. J. Nayanalochana (Economics)
Shiva Chinnathambi	Ms. T H R Samanalee (Psychiatry)

PHYSICAL EDUCATION UNIT

Director (Acting) /Physical Education

Mr. Sanjeewa Jayasinghe

Tel: 0112502405

Email: physicaleducationcmb@gmail.com

Instructors in Physical Education

Ms. Wasantha Rathnayake
Ms. Nayanthi Chandrasena
Mr. Sujan Walgampaya
Mr. Anusha de Silva
Mr. Ajantha Dahanayake

Sports and related activities including physical fitness programmes as well as motivation and leadership programmes are organized by the Physical Education Unit of the Department of Physical Education of the University of Colombo. This Unit is located in the Student Center, on the upper floor of the Gymnasium. The Unit provides coaching facilities in many different sports. Students of the University of Colombo are entitled to utilize all sports and recreational facilities offered by this Department/Unit and are encouraged to doso.

Fresher's tournaments, Inter-Faculty and Open meets are conducted annually and those who get qualified will have the opportunity to participate in Inter-University Games/Championships, Asian/World University Games/Championships and other International Tournaments. Participants in Inter-University games are awarded University Colours at the Colours Awarding Ceremony which is held once a year.

The following sports are available for men/women.

Badminton	Baseball (Men only)	Basketball
Beach Volleyball	Carom	Chess
Cricket	Elle	Football (Men only)
Hockey	Karate	Netball (Women only)
Road Race (Men only)	Rowing	Rugby
Scrabble	Swimming	Table Tennis
Taekwondo	Tennis	Track & Field
Volleyball	Weightlifting (Men only)	Wrestling (Men only)

CAREER GUIDANCE UNIT

Why Career Guidance?

In the present day, academic knowledge alone is insufficient to grow and excel in one's professional and personal life. Therefore, career and personal development is an essential component of undergraduate training.

It is important that our graduates not only be academically and technically sound but also have the knowledge in other personality fronts. Thus, it is essential to develop transferable / life skills, attitudes, beliefs, and behaviors of undergraduates that would eventually lead to both their professional and personal success.

Career Guidance Committee

Vision:

Guiding and providing required resources to support career & life aspirations of undergraduates of the Faculty of Science.

Mission:

To become a center of excellence to empower students with the required knowledge and experience to mould and fortify their professional, higher educational, career and life aspirations through a well-crafted series of events and programmes.

Objectives:

- Helping students to profile themselves and realize their true potential within the realm of their personality.
- Creating an environment where students identify personality development in themselves in relation to professional expectations.
- Introducing students to the world of work and its dynamics.
- Helping students transform their academically strengthened knowledge to suit industry and academia.
- Helping to develop a robust career/life plan for oneself and to make the right decisions in life.

Career and Personal Development (CPD) Programme

The aim of the CPD programme is to complement the academic programmes of the Faculty by providing a sequentially structured and supported process to enable undergraduates to achieve attributes that would lead to their professional and personal success.

Following an introductory workshop on career and personal development at the orientation programme for new entrants, a one credit Enhancement course on CPD is offered at each of the Levels I and II of the undergraduate study programme (i.e. EC 1015 and EC 2015). Enhancement courses on Career Planning (EC 1016) in Level I and Enterprise, Entrepreneurship and Innovation (EC 2020) in Level II are also offered. This exposure is continued in Levels III and IV by offering a two-credit Enhancement course on CPD conducted by a selected corporate sector entity in Sri Lanka, and the programme culminates in the three-month Internship Training (FS 3001) and Service Learning (FS 3002) that count for 06 and 08 academic credits respectively.

Events Organized by the Career Guidance Unit

Career Fair – Phase 01 Mentoring Workshop

The Career Guidance Unit of the Faculty of Science, University of Colombo, organizes the Career Fair - Mentoring Workshop as an annual initiative to help students prepare for careers. Held in collaboration with industry professionals and student organizations, the workshop includes mock interviews, CV reviews, and feedback from senior executives, managers, and faculty members. It provides students with practical experience, industry insights, and the confidence needed to navigate the job market successfully.

Preparing Industry-Ready Professionals through Interview Training

Career Fair – Phase 02 Unlock Your Potential to Get Hired!

Starting in 2024, the Career Guidance Unit of the Faculty of Science, University of Colombo, organizes the **'Career Fair – Unlock Your Potential to Get Hired!'** as an annual event. This initiative provides students with a platform to connect with potential employers, explore career opportunities, and gain industry insights. The career fair enables students to engage directly with industry leaders, offering them opportunities to be interviewed and considered for employment. The past event demonstrated its impact, with over 40% of participating students either receiving job offers or being shortlisted for further interviews. This initiative, along with mentoring workshops, is designed to enhance students' professional development and improve their prospects in competitive industries.

Facilitating Direct Employer–Student Interview Opportunities

The "Dream Big! Gateway to Scholarships & New Horizons Abroad" workshop series

The "Dream Big! Gateway to Scholarships & New Horizons Abroad" workshop series is designed to help students explore international academic and professional opportunities. The workshop offers students insights into securing scholarships, study programs, and career prospects abroad. Participants receive guidance on application processes, eligibility criteria, and strategies to enhance their chances of success. This initiative is part of the Career Guidance Unit's ongoing efforts to support students in advancing their academic and professional journeys.

Awareness Session on German Scholarship Opportunities with DAAD Sri Lanka

Level I – "Discovery"

The first-year programme revolves around Self-Discovery and takes you through a maze of topics and tools, so that you understand your potential and mould your thinking to build a career / life plan for your future.

- EC 1015 - Career and Personal Development I
- EC 1016 - Career Planning

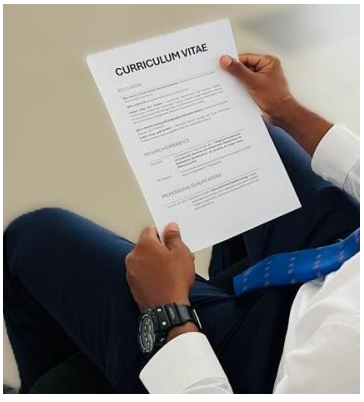
Interactive Lecture Session of the Career and Personal Development Courses

Level II – "Mastery"

The second year involves the infusion of skills required by professionals. The skills training will be conducted by industry specialists with specific domain knowledge, e.g., presentation skills by Toastmasters.

- EC 2015 - Career & Personal Development II
- EC 2020 - Enterprise, Entrepreneurship, and Innovation*

(*Recommended for students taking FS 4105– Entrepreneurship)



Developing Effective CV Writing for Greater Career Opportunities

Level III – "Professionalism"

A leading corporate sector entity will conduct a series of sessions to build confidence and prepare you for a life of work ahead. The internship and service learning courses listed below are academic courses that will provide you with hands-on experience in the world of work.

- EC 3015 - Career & Personal Development III

Student Involvement in Career and Personal Development Learning Activities

Experiential Learning Activity: Building Life Skills through Team - Based Challenges

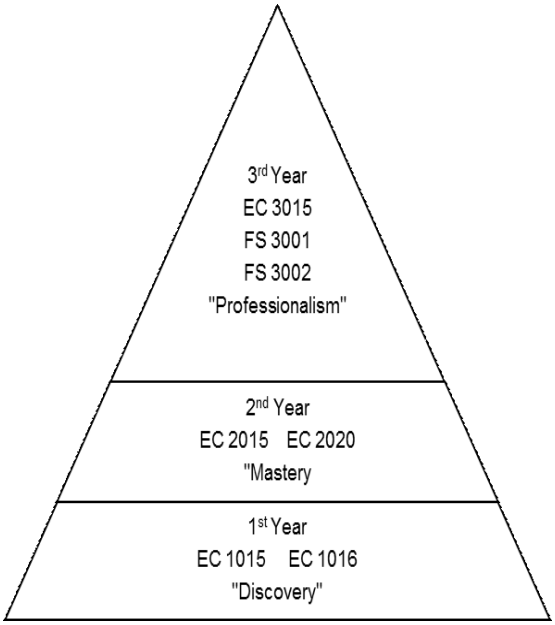
- FS 3001 - Internship Training
- FS 3002 - Service Learning

Applied Learning through Partnership with Leading Corporate Organizations

Career Related Learning Pyramid

Career-related learning is a process of learning, designed to help students to develop the knowledge, confidence, and skills they need to make well-informed, relevant choices and plans for their future, so they can progress smoothly into further learning and work.

The following pyramid outlines the comprehensive programme on career and personal development of our faculty.



Career Related Learning Pyramid

Eligibility Criteria of Academic Courses

Internship Training (FS 3001)

The training is for 12 weeks full time or the equivalent thereof and is worth **6 academic credits.** Selection to the programme will be based on the following:

Satisfying the degree requirements for the first two years

a) Completing a minimum of 15 credits in the fifth semester of which 12 should be from core courses.
b) Obtaining a GPA of 2.50 by the end of the 4th semester. Students with a GPA between 2.45 and 2.50 will be considered based on extracurricular achievements at the university level or higher.
c) Satisfying the enhancement course requirements by the end of the fifth semester (Students who followed the EC 1015 & EC 2015 are given priority)
d) Obtaining at least a 'satisfactory' grade for the enhancement course on Career and Personal Development III (EC 3015)

Important:

Students can only register for this course at the beginning of the first semester. The course can be dropped in the "add-drop period" of the second semester if needed.

A student registered for the Internship Training cannot revert to register for 6 regular academic credits by course work, after the course registration period within the same semester has elapsed. If a student re-registers for academic credits by course work in the following year it will be considered as his second attempt.

Please note that if the student does not secure an internship before the beginning of the second semester, the student is required to drop the course.

Service Learning (FS 3002)

The duration of this programme is 6 months (part time) and it is worth **8 academic credits.**

For this programme, at least 240 hours of engagement are expected and evaluated. Selection to the programme will be based on the following:

a) Satisfying the degree requirements for the first two years.
b) Obtaining a GPA of 2.30 at the end of the 4th semester.

Important:

A student registered for the Service Learning course, cannot revert to register for eight (08) regular academic credits by course work within the same semester after the period allowed for registration has elapsed. If a student re-registers for academic credits by course work in the following year it will be considered as his second attempt.

Service Learning in Action: Supporting Community Development

Career Guidance Committee

We are a group of dedicated volunteer academic staff members who help students to develop their soft skills. We work closely with students who are interested in exploring opportunities and developing themselves.

With the unstinted support from various corporate sector partners, enthusiastic alumni and well-wishers, opportunities to gain experience are plentiful and continuously growing.

Courses Coordinated by Career Guidance Unit

The following courses are only coordinated by the Career Guidance Unit.

- EC 1017 – Basic English
- EC 1018 – Intermediate English
- EC 2021 – Advanced English
- EC 2001 – Technical Writing for Academic Purposes
- EC 3001 – Advanced Communicative Skills
- EC 2004 – Photography
- FS 3003 – Intellectual Property Rights
- FS 4105 – Entrepreneurship

Co-directors:

Prof. Hasini R. Perera (Chemistry)

Prof. Dilushan Jayasundara (Physics)

Secretary:

Dr. Sachini Amarasekara (Zoology & Env.Sci)

Course Coordinators

EC 1015:
Dr. Sameera Viswakula (Statistics)
Dr. Thilini A. Perera (Plant Sciences)

EC 1016:
Prof. Inoka C. Perera (Zoology & Env. Sci)
Prof. H.D.D. Bandupriya (Plant Sciences)

EC 2015:
Dr. Vindhya Kulasena (Zoology & Env.Sci)
Dr. H. C. Yashika Jayathunga (Mathematics)

EC 2020:
Dr. Luckshitha Suriyasena (Physics)
Dr. Devanmini Halwatura (Zoology & Env. Sci)

EC 3015:
Dr. Iroja Caldera (Plant Sciences)
Dr. Sachini Amarasekera (Zoology & Env. Sci)

FS 3001:

Prof. Chamari Hettiarachchi (Chemistry)

Dr. Duleepa Pathiraja (Chemistry)

FS 3002:

Course Advisor:

Senior Prof. Deepthi Wickramasinghe (Zoology & Env. Sci)

Dr. Sameera Ariyawansa (Plant Science)

Dr. Ayomi Witharana (Zoology & Env. Sci)

EC 1017

Dr. Rishmali T. Sooriyagoda (Physics)

EC 1018

Dr. Rishmali T. Sooriyagoda (Physics)

EC 2021

Dr. V. Umayangana Godakanda (Chemistry)

EC 2001

Prof. Ireshika C. De Silva (Chemistry)

EC 3001

Prof. Ireshika C. De Silva (Chemistry)

EC 2004

Dr. Kalpani Marasinghe (Zoology & Env. Sci)

FS 3003

Dr. Ruwani Mayakaduwa (Plant Sciences)

FS 4105

Dr. Surani Ediriweera (Plant Sciences)

Important !!!!
A minimum of 80% attendance is required to obtain a grade in selected number of Enhancement Courses.

4 year BSc Honours (industry oriented) in Science & Management

Career Guidance Unit offers a 4-year BSc Honours (industry oriented) degree in Science & Management to the physical science & Bio Science students from year 2018. This degree is designed to provide students with a solid background in science as well as a grounding in managerial skills.

Coordinator: Prof. Hasini R. Perera (Chemistry)

Career Guidance Unit Office

Address: Career Guidance Unit Office, Fourth Floor, Student Service Centre, Faculty of Science, University of Colombo.

Website: https://science.cmb.ac.lk/cgu/

Email: cgu@sci.cmb.ac.lk

Linkedin: https://www.linkedin.com/in/career-guidance-unit-faculty-of-science-university-of-colombo-9586a92b5

Facebook:https://www.facebook.com/share/182akRSVSb/

"Believe in Achieving"
Career Guidance Unit
Faculty of Science

COLOMBO SCIENCE AND TECHNOLOGY CELL

Colombo Science and Technology Cell (Cell) was established on September 26th, 2013, with the funds from the Higher Education for the Twenty first Century (HETC), Quality Innovation Grant (QIG)-window 4. In 2018, the activities of Cell were further strengthened through the utilization of the Accelerating Higher Education Expansion and Development (AHEAD) grant. Its primary mission is to facilitate the commercialization of research findings generated by the esteemed researchers at the Faculty of Science' while also ensuring the protection of intellectual property rights. In addition to its core mandate of research commercialization and intellectual property management, the Cell offers a range of professional services. These services encompass consultancy engagements, training programs, and workshops aimed at fostering a culture of innovation and entrepreneurship within the academic community.

By actively encouraging academic staff members to submit Tech Briefs followed by Invention Disclosure Forms (IDFs), the Cell facilitates the identification and evaluation of technologies with potential industrial applications. Moreover, the Cell actively involves undergraduate and postgraduate students, allowing them to participate in this process under the guidance and collaboration of academic staff members. Through its dedication to promoting entrepreneurial initiatives and engaging students in the process of technology transfer, the Cell strives to foster a dynamic ecosystem of research-driven innovation within the Faculty of Science.
Further details on the Cell: website ***http://cell.cmb.ac.lk***| email ***manager@cell.cmb.ac.lk***

Success stories of the Cell

"Bio Clean" launch [November30, 2015]
Darley Butler & Co.Ltd

"MOSGUARD" launch [October 10, 2017]
Hemas Manufacturing (Pvt) Ltd

"Thrimana Pro" 3D Printer launch [January09, 2018]
Technologies (Pvt) Ltd

"RestoDerma" Product launch [February 27, 2023] RCS2
Herbal Care Industries

How to conduct a productive research project as an undergraduate

Conducting a comprehensive literature review prior to initiating new research projects is essential. This approach enables researchers to gather extensive information on existing technologies and identify gaps in the scientific landscape. However, it has been observed that scientists in Sri Lanka often overlook the importance of exploring patent knowledge, which is readily accessible to them. The Cell can provide valuable guidance on conducting a patent search to understand the patent landscape related to their research interests. By incorporating this aspect, researchers can ensure that their limited resources are directed in the right direction, maximizing their chances of making impactful contributions.

Note - Both reinventing the wheel and publishing an invention without prior protection are futile and hold no value in the absence of proper safeguards.

Colombo University Faculty of Science Alumni Association

The Colombo University Faculty of Science Alumni Association of North America (CUFSAA-NA), a registered non-profit organization in the United States, was established in 2016 to connect former students and academic staff of the University of Colombo Science Faculty currently living in North America.

The founding President of CUFSAA-NA is Professor L.M.V.Tillekeratne, a former Dean of the Science Faculty of the University of Colombo. The Executive Committee of the Association consists of 25 members, and the current President of CUFSAA-NA is Dr. Chandrasiri Jayakody.

Mission of CUFSAA-NA:

- ❖ Create a social forum and foster fellowship among its members
- ❖ Support the scientific and educational endeavors of the Science Faculty of the University of Colombo
- ❖ Support students of the Science Faculty by providing resources and scholarships, and through programs such as the Guest Lecture Series
- ❖ Provide support and mentoring for the graduates arriving in North America to pursue higher studies

CUFSAA-NA takes pride in the following completed projects that improved the learning experience of the students in the Science Faculty.

- Installed Water fountains for the students of the faculty
- Delivered over 200 books & e-book subscriptions to the faculty and departmental libraries
- Donated two state-of-the-art telescopes and accessories, and a classic experiment laboratory apparatus to the Department of Physics
- Donated three MultispeQ instruments and two high-performance computers to the Department of Plant Sciences
- Provided a DSLR camera to the FOS media, the media unit of the Faculty
- Donated ten bright field microscopes and one dissecting microscope to the Department of Zoology and Environmental Sciences
- Delivered eighteen laptop computers to undergraduate students to facilitate remote learning during the COVID-19 pandemic and COVID-19 relief efforts
- Donated two particle-size analyzers, a Gas Chromatograph, glassware, and equipment donations to the Department of Chemistry
- Donated two oscilloscopes to the Department of Nuclear Science

In addition, to uplift the learning experience of students, CUFSAA-NA has established the following programs with the Science Faculty.

- **Gold Medals & Scholarships:** Two annual gold medals for the Department of Mathematics in memory of Prof. Valentine Joseph**,** an endowed gold medal for the most outstanding graduating student of the year and a two-year scholarship for a third-year student in honor of Prof. M.L.T. Kannangara (Physics), and a gold medal for the special degree program in Computational Chemistry in the Department of Chemistry. CUFSAA-NA was also instrumental in establishing the Prof. L.M.V. Tillekeratne Gold Medal and Scholarship (Chemistry), with the financial support of students and friends of Prof. Tillekeratne
- **Grants:** Launch Pad-student grant program
- **Aids:** A benevolent fund to financially assist students of the Science Faculty affected by adverse events such as floods.

To learn more about CUFSAA-NA & its current activities, including the synthetic chemistry and drug discovery lab, the natural resources-based nanofabrication core facility, high-performance computers for Physics and Plant Science departments, and the laptop loaner program, visit **www.cufsaa.com**

STUDENT SOCIETIES

There are several societies based in the faculty that promote student interests and activities. They are listed below.

1. AIESEC University of Colombo
2. Astronomical Society
   (Department of Physics)
3. Base for Enthusiasts of Environmental Science and Zoology (BEEZ)
   (Department of Zoology & Environment Sciences)
4. Botanical Society
   (Department of Plant Sciences)
5. Buddhist Society
6. Catholic Students' Movement University of Colombo
7. Chemical Society
   (Department of Chemistry)
8. Colombo Innovations and Robotics Club (CIRC)
   (Department of Physics)
9. Epsilon-Delta Society
   (Department of Mathematics)
10. Elysia Dancing Society
11. EUPHONY
12. Gavel Club of the University of Colombo
13. Gaveshakayo
14. Hindu Society
15. Leo Club
16. Physics Society
    (Department of Physics)
17. Rotaract Club of Faculty of Science
18. Science Society
19. Stat Circle
    (Department of Statistics)
20. Students' Association for Industrial and Financial Analysis (SAIFA)
21. SCINTILLA– Nuclear Science Society
    (Department of Nuclear Science)
22. Students for the Exploration and Development of Space (SEDS) – University of Colombo
    (Department of Physics)
23. FOS media

AIESEC

AIESEC is a global platform for young people to explore and develop their leadership potential through powerful team experiences and cross-cultural exchanges. We are a non-political, independent, not-for-profit organization run by undergraduates and recent graduates of institutions of higher education. Our members are interested in a broad spectrum of areas such as world issues, leadership and management. AIESEC does not discriminate on the basis of ethnicity, gender, sexual orientation, religion or social origin.

The AIESEC network includes approximately 70,000 members in 127 countries and territories and is recognized by UNESCO. The international headquarters is in Rotterdam, Netherlands. We have a strong alumni-base which includes a wide range of individuals, professionals, entrepreneurs, business personnel, and even a Nobel Prize winner.

The membership of AIESEC within the University of Colombo spans across the different faculties, providing a platform for undergraduates from varying backgrounds to work together. Our members are always encouraged to step out of their comfort zone and push their boundaries for personal and professional development. The members get a unique opportunity of networking globally and as a result they have exposure to many different nationalities. In addition to the University of Colombo, AIESEC also operates in the University of Moratuwa, University of Kelaniya, University of Sri Jayewardenepura and University of Peradeniya, providing opportunities for collaboration.

Some of the events organized by AIESEC - University of Colombo were - the Global Village and Intern Conference bringing varied cultures and individuals from across the globe on to one platform, providing participants an invaluable opportunity to experience different cultures. AIESEC - Sri Lanka, annually conducts national conferences namely NLDS, NatCon, ExCon to enhance our members' professional skills, to provide networking opportunities and to impart knowledge on organizational strategies. We as AIESECers are looking forward to developing ourselves, while working in a highly motivated and a friendly environment. You are our next generation! If you are a person who desires to challenge yourself to bring out the leader in you, then come join us at AIESEC - University of Colombo

The Astronomical Society – ASTROSOC

The Astronomical Society (formally Mathematical and Astronomical Society) established in 1950s, at a time when the university of Ceylon existed, is one of the oldest societies in the Colombo University and almost all Sri Lankan astronomers working in NASA and several other observatories around the world were the members of this society. We use the Department's 28 cm reflector telescopes and our training programmes are conducted mostly in the astronomical observatory dome situated in the University playground. Inside the dome has the more than 100 years old University of Colombo Molesworth telescope. The telescope was originally owned by Major P. B. Molesworth, born in Colombo, Sri Lanka in 1897 and made his astronomical observations in Trincomalee. He was considered as the finest amateur planetary observer alive in the world during the decade 1896-1905. A crater about 16 km in diameter on the southern hemisphere of Mars (211° W, 28° S) has been named after this telescope. The telescope goes to the history book of world astronomy due to another finding - the Jupiter's great South Tropical Disturbance (1901- 1939), a complex dusky region in the planet's South Tropical Zone, was first recorded by Major P. B. Molesworth on 1901 February 28 used this telescope when it was housed in Trincomalee observatory in Sri Lanka.

By far, this telescope and more than half century old Astronomical Society of the University of Colombo (at the inception named as Astronomical Association of the University of Ceylon) affiliated to it has been the kindergarten to more than dozen world renowned astronomers emerged from Sri Lanka. From CUFSAA-NA, USA support recently received a large, state of the art new telescope. In addition the society possesses several small telescopes. The society conducts occasional observation camps, regular series of lectures and other astronomy activities both for university undergraduates as well as school students all over the country. The society's firm conviction is that the school students should be made aware of knowledge for a concurrent progress of astronomy in Sri Lanka, which is the very fact behind many of the outreach projects organized by the society. We contribute to school level astronomy by offering both material and immaterial resources for 'Astronomy Days' and 'Science Days'.

Further we've been continuing an inter school astronomy quiz competitions and workshops. 'Star Quest' is one of the main programs organized by our society. Some of our national activities like total solar eclipse viewing programs etc. are jointly organized by the Astronomy and Space Science Unit of the Department of Physics. One major activity was the conducting of the 23rd International Astronomy Olympiad in Sri Lanka in 2018 with our society's support given to the Local Organizing Committee.

BEEZ, established in 2015, is a student body with a common interest in Zoology and Environment Sciences where the membership is open to all students of the Faculty of Science. The organization is dedicated to foster education and active participation in conservation of natural resources and promotion of biology and its related fields. The organization holds a benchmark event each year to celebrate the world environment day. Several events are organized in parallel to the theme of environment day with students from schools and universities as well as the public.

BEEZ founded the Explorers' Club in 2018 which promotes scientific exploration by enabling field workshops and nature explorations and thus serves as a common bond and meeting point for explorers of the University of Colombo. Members also come together for a monthly "Animal Talk" where they get the opportunity to learn from experts in the field. In addition, guest lectures, community service projects, conferences and workshops are organized by the organization. The Journal Club organized by BEEZ provides the opportunity to critically evaluate scientific papers with those who share a common interest towards the subject. BEEZ has partnered with many private and public-sector entities and thus serves as a platform for members to widen their network.

https://www.facebook.com/BEEZUOC/

Botanical Society

The Botanical Society (BOTSOC) of the Faculty of Science, University of Colombo, is an active student society based in the Department of Plant Sciences. Established in the 1960s, it is one of the oldest student societies in the Faculty. It aims to cultivate an interest in plants and the environment amongst the student population of the Faculty, whilst at the same time involving them in charitable causes. To achieve this aim, the BOTSOC conducts a number of activities throughout the year.

One of the society's most popular events is the annual '*Plant Sale*'. Society members propagate many of the plants themselves and play an active role in educating potential buyers on plant growth and maintenance. In addition, BOTSOC organizes various fundraising projects, providing students with valuable experience in teamwork, leadership, and event management, while fostering a sense of community and responsibility.

BOTSOC also actively collaborates with public and private sector organizations and institutes to encourage student participation in various environmental conservation projects. These initiatives offer students hands-on experience in biodiversity conservation, enhancing their understanding of sustainability, and nurture a sense of environmental responsibility.

The BOTSOC further enriches student life by organizing an annual trip, providing members with an opportunity to explore nature, while fostering connections between students and staff.

Throughout the years, BOTSOC has organized various workshops and guest lectures to enhance the knowledge and skills of university students and the public. In 2021, BOTSOC launched the blog '*Botany Boost*' to create awareness and share insights about the field of Botany. Additionally, BOTSOC initiated '*Plantifacts*', "*Agri Future Focus*', and '*Biotech Bulletin*' – e-posts designed to provide engaging and informative content on advances in agriculture, plant sciences, and biotechnology.

All students of the University of Colombo are welcome to join the BOTSOC family and connect with fellow and aspiring botanists!

For more information, contact us via botsocpts@gmail.com

Follow us on Facebook: facebook.com/botsoc.uoc

BUDDHIST SOCIETY

Buddhist Society, Faculty of Science, University of Colombo is an active society in the university since 2009. The executive committee of the Buddhist Society represents all the undergraduates of the faculty. The aim of our society is the spiritual development of the students in the faculty. Buddhist Society of the faculty organizes several activities throughout the year. In year 2020, sevaral activities were conducted via on- line mode.

The most important and significant event is the annual Vesak function “Shraddhanjalee”. Under this function we hold “Dhamma sermon”, “Dansala” and “Bhakthi Geetha” concert. In addition to that, annual dhamma sermon and also annual pirith chanting ceremony are organized by the Buddhist Society. All of these activities are done with the participation of all the undergraduates, academic and non- academic staff of the faculty. For this, all the students work as one.

Catholic Students' Movement University of Colombo

The Catholic Students' Movement of University of Colombo is an active movement in the university, which consists mainly of Catholic undergraduates of University of Colombo. It is being monitored and guided by the Holy Catholic Church through the presence of a chaplain. CSM of University of Colombo is also a part of the CSM of the Colombo Region, which includes Catholic Movements of Universities of Jayawardhanapura, Kelaniya and Moratuwa.

CSM aims to develop the spirituality of the catholic undergraduates and encourage coexistence and harmony in our multicultural and multi-religious society. It plays a major role in uniting the undergraduates of different academic years and faculties and forming strong bonds of friendships.

CSM organize many events within and outside the university. The most famous event would be the Annual Carol Service of the university, which is organized by the CSM. Apart from the annual carol service the Sabbath Day, May Feast, Annual Retreat, Awurudu celebration, Annual trip and Charity programmes are some of the events that are being organized by the CSM of UOC.

The Chemical Society of the University of Colombo ('ChemSoc') comprises an active group of undergraduates following BSc Honours degree programmes offered by the Department of Chemistry, University of Colombo. The society organizes many events throughout the year both in relation to the subject and various community service projects.

Project SAHAS 'Scholarly Access in Helping the Advancement of Science', is the signature community service project organized annually by the ChemSoc targeting Advanced Level students in rural areas. This project includes a series of interactive seminars, tutorial discussions and hands- on experience in chemistry practical experiments to enhance their understanding of the core principles of Chemistry. Furthermore, distribution of stationary items and laboratory glassware among participants is carried out as a part of the SAHAS programme.

The 'ChemSoc Quiz' is another annual project which provides a platform for Advanced Level science students island-wide to showcase their theoretical and practical knowledge in chemistry. The main goal of this project is to recognize and reward outstanding students, thereby encouraging them to pursue their higher studies in chemistry.

Apart from these main projects, the ChemSoc also organizes guest lectures spanning the academic year, to educate undergraduates to keep abreast of the new scientific advances.

Chemistry magic shows are conducted by ChemSoc on request from schools throughout the island. The main objective is to arouse students' interest in chemistry.

The dedicated team of ChemSoc members makes every effort to share their knowledge and skills to inspire the next generations to pursue the fascinating discipline of chemistry.

Epsilon Delta Society

The Epsilon Delta Society is a mathematics society run by the students of the Department of Mathematics in the University of Colombo. It has presently emerged popular as one of the main and most active student organizations in the Faculty of Science of the university.

The Epsilon Delta Society was founded on the 29th of August 2005. The unflagging mission of the society is to stimulate an interest in the students in mathematics, especially in pure mathematics, and related sciences, to help them discover their capabilities in these fields, and also to create an ideal platform for them to enhance their mathematical skills. Furthermore, the society works closely with the academic staff and the academic support staff of the Department of Mathematics in order to provide the students, both in and out of the university, with an invaluable opportunity to be nurtured within a prestigious and erudite academic environment.

A magazine had also been published once in the year 2015 which incorporated interesting and beautiful topics, relating mathematics to the real world which clinches the attention of any reader coming from any background. In addition to this, the Epsilon Delta Society regularly hosts an event called the “Math Circle” where the members and other attendees discuss such stimulating and enlightening topics as mathematical paradoxes, concept behind infinity, prime numbers etc.

This event has created an absolute podium for the students to share their passion for mathematics with their peers while earnestly exploring and pondering over the unsolved mysteries in the world of mathematics. The unflinching commitment of the members of the Epsilon Delta Society has enabled the young people in the country to see the world through the eyes of a true mathematician.

Hindu Society

The Hindu Society of Faculty of Science of the University of Colombo was established in the year 2019 with the aspiration of creating a platform for the Science Faculty students to explore the Hindu religion and to organize various community and social services through different cultural and social activities in collaboration with the other societies in the Faculty of Science.

Further, it promotes friendship and goodwill amongst the students of different religions within the faculty and the university. The society also provides a platform for the non-Hindu and Hindu students to socialize and learn more about the religion by engaging in community services and cultural events, bridging the students from different cultural backgrounds by breaking the language barrier and allowing them to embrace the beauty of cultural diversity.

It also focuses on developing and enhancing leadership skills and team working skills. The society, administered by a board elected every year, and the constitution is well known among the students of the faculty for its projects.

Even though only two years have passed since the establishment of the society, it has not failed to carry-out impactful projects, taking its place in the hearts of many. The school seminar project, the cleaning project implemented in different districts, preparation and circulation of O/L model papers, conducting career guidance webinars, and public awareness programs were highly commended projects by onlookers and the public.

It thus cannot be denied that society has reached greater heights by the commitment of the committee and the members. Society is always open and welcomes new talents to bring into action society's objectives.

Gavel Club

Gavel Club of the University of Colombo was first introduced to uplift the standards of communication, language and leadership skills of undergraduates.

The club is open to all the Faculties and fluency in English is NOT required to join the club. At Gavel, you can be yourself and express your ideas and views to an audience and improve yourself as a communicator as well as a leader.

The Club is an affiliation of Toastmasters International, USA. Following similar Toastmasters Club meeting protocols, the Club provides a supportive and positive learning experience in which members are empowered to develop these skills, resulting in greater self-confidence and personal growth. The Club currently has a membership of over 65 undergraduates from 6 faculties.

Our Gavellers are regular participants of speech competitions organized by various clubs. The Club's biggest achievements to date were the organization of the first ever Intra- University Best Speaker Competition of the University of Colombo ‘Oration 2016’ and first ever all island humorous and speech evaluation competition for the youth of Sri Lanka
‘Enliven 2017’.

Under the motto of *Gavel Never Stops*, the Club caters to a wide variety of individuals by organizing regular workshops conducted by distinguished Toastmasters as well as speakers. One other initiative of the Club is *Gavel under the Trees*, a creative and innovative platform, designed solely to improve the overall Gavel experience by providing a platform for an insightful discussion in a leisurely environment.

The Club meets at least once every week and it has some new and exciting plans for the upcoming year. So come join with us!

"HANDS TO SERVE - HEARTS TO LOVE"

LEO CLUB
UNIVERSITY OF COLOMBO FACULTY OF SCIENCE

Leo Club of University of Colombo Faculty of Science is a not-for-profit organization run by the undergraduates of Faculty of Science. Leo Club is sponsored by Lions Club of Wellawatta and belongs to Leo District 306 A1 of Leo Multiple District 306. Being a part of the extensive global network of Leoism, the club has its own patterns of administration and guidelines. All active members of the club will be recognized as a member of the international Leo network by the Lions Club and International ID given to them as a proof of their membership. Apart from the membership rewards, the club also maintains annual award ceremonies to appreciate the volunteering hard work done by its young members.

Each year, exceeding 250 memberships, involve in serving projects, which provides them with a lot of hands-on experience in charity work, planning, organizing and many more memories. Conducting seminars for O/L and A/L students, helping the needy with donations, environment clean ups, awareness sessions under various categories are few of the key projects done by the club annually. Most of them get nominated as best projects at the District Level and Multiple District Level Award Ceremonies which highlights the talents, skills and leadership of undergraduates in the Science Faculty. In addition, club organizes several workshops on post designing, video editing and caption writing. The specialty in them is that the financial backup need for carrying out such projects are mostly fulfilled by the fundraising activities by the members themselves. So, we believe completing of one single project is a great victory. Apart from projects, the club also organizes various events to let the members have an opportunity to get together and have fun and enjoyment. Most of the time such projects are even allowed to be crowded by non-Leos too.

Under the motto of “Hands to serve – hearts to love” club members work towards the upliftment of the lives of people as possible as we can afford. Our mission is to serve the world while at the same time developing ourselves with Leadership, Experience and Opportunity walking forward for a better tomorrow for everyone.

Oceanophiles' Zone of Marine Education, Awareness and Nature Service

OZEANS is a vibrant community of marine enthusiasts at the University of Colombo, dedicated to exploring the wonders of the ocean and promoting marine research and conservation. Rooted in a mission to raise awareness about the vital importance of marine ecosystems, the club has become a beacon of education, inspiration, and action for students and the broader community. Through a variety of thought-provoking and engaging programs, OZEANS seeks to ignite a sense of wonder for the natural world while addressing the critical challenges facing marine environments today.

The club's flagship talk series, Oceanic Odyssey, explores various aspects of ocean conservation and exploration. This series covers a wide range of topics, including pressing issues as well as groundbreaking discoveries beneath the waves. It encourages a spirit of curiosity and adventure while promoting inn ovative solutions and opportunities for the sustainable management of marine resources and conservation of pristine ecosystems.

Events like Marine Mingle: An Evening of Enthusiasts brings together students, researchers, and professionals for vibrant discussions and idea-sharing, fostering a sense of community among those passionate about marine conservation.

Beyond these events, OZEANS is deeply committed to marine research, education, and outreach, ensuring that its message reaches beyond the university walls. Founded with a noble vision of inspiring young enthusiasts in marine research and conservation, OZEANS seeks collaborative research projects. By organizing workshops, interactive sessions, and outreach initiatives with schools and communities, the club aims to instill a love for the ocean in the next generation and equip them with the scientific knowledge needed to become stewards of marine conservation.

Through its efforts, OZEANS creates a space where science, passion, and action intersect, reminding everyone of the ocean's critical role in sustaining life on Earth and the urgent need to protect its fragile ecosystems for future generations.

Reach us:

Email - ozeanuoc@gmail.com

Facebook: Ozeans | Facebook

The Physics Society

The Physics society of University of Colombo is one of the leading student societies registered in the University, and it is the main student body of the Department of Physics of Faculty of Science. The society is an ideal platform for students having great interest in physics to expand their knowledge in Physics by meeting academics involved in research and developments of the field of Physics. And also, it is a great place to enhance leadership and team work skills through various activities aimed to create awareness about Physics among the student community. The year plan of the society comprises of various activities and projects which are aimed to create awareness with regard of Physics throughout the University and the country.

The society launched its latest addition to the activities, “Science Bus”, a traveling since outreach program in 2022 that has ignited the curiosity of many undergraduates and has been instrumental in taking science to underrepresented areas of Sri Lanka.

Some of the main activities and projects of the society are as follows,

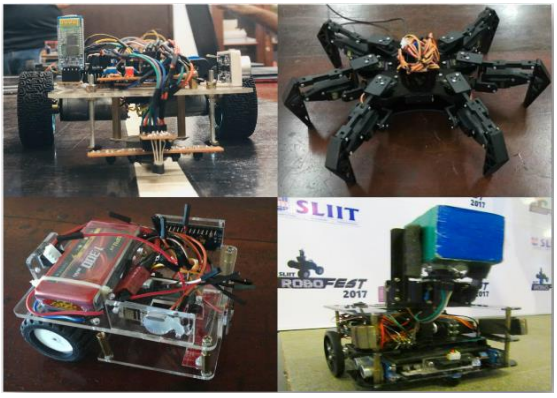
- Guest lectures delivered by both local and foreign academics in the field of Physics.
- Physics forums on day-to-day Physics.
- Physics day and exhibition organized for undergraduates and A/L students.
- Workshops on Physics practicals aimed towards A/L physics teachers.

In addition to these the society organizes activities such as,

- “Sathsara”, the annual padura event of the Department of Physics.
- The annual shramadhana campaign.
- The annual trip of the Department of Physics.

Colombo Innovations and Robotics Club

The "Colombo Innovations and Robotics Club (CIRC)" is a society established in 2015 by students with a keen interest in the fields of electronics and robotics within the Faculty of Science at the University of Colombo. The primary objective of the club is to provide students with a solid foundation in the STEM disciplines: Science, Technology, Engineering, and Mathematics. Through various activities and initiatives, the club aims to cultivate essential skills necessary for engineering-related careers, such as proficiency in design process, troubleshooting and utilization of efficient time management.



In addition to skill development, the club endeavors to popularize electronics and robotics among university students, school students, and the general public. By promoting technology-based inventions and innovation through the integration of electronics and robotics, the club seeks to foster a culture of creativity and exploration.

Throughout the year, the club organizes workshops aimed at providing participants with foundational knowledge in programming, basic electronics, robotics, Computer-Aided Designs (CAD), and simulations. Additionally, club members actively participate in external robotic competitions, both locally and internationally, where they have achieved notable placements over several years.

CIRC serves as an invaluable platform for students to progress and excel in the fields of electronics and robotics. Through dedicated practice and pursuit of excellence, the club aims to develop professionals, inspire individuals with advancing technological knowledge, and instill a strong sense of human ethics among its members.

For more information and updates, visit our Facebook page:
https://www.facebook.com/circ.uoc

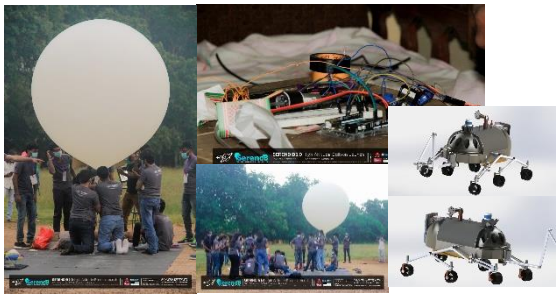
Students for the Exploration and Development of Space University of Colombo Chapter (SEDS-UOC)

Established in 2019, our society is the University of Colombo's Chapter of the nationwide organization Students for the Exploration and Development of Space Sri Lanka (SEDS SL), which is the largest student-based society focused on space science in the country. Staying true to our motto *"providing space for exploration, through development"* we hold a variety of programs that encompass educational outreach, skill development workshops, and space science research projects as well.

Among the strides taken by members of SEDS-UOC in collaboration with SEDS Sri Lanka to develop the field of space science and technology in our country, the following are notable.

- The achievements of the *"Taprobane"* project, which aims to construct the first Sri Lankan Mars Rover and whose developmental versions have been placed 29th (2019), and 17th (2021) at the respective European Rover Challenges, 8th (2021) at the International Rover Design Challenge and 4th (2021) at the International Mars Hackathon.

- The construction of a weather balloon and weather control station through project *"Serendib"*.



SEDS-UOC is built up of a well thought out divisional structure, where students can not only develop their soft skills but also engage in a variety of space-related avenues. These divisions include the Content, Media, Web-Development, Human Resources and Finance Management teams as managerial divisions, and the Observational and Rocketry, Satellite, Robotics and Rovers, Planetary Sciences and Research divisions as study avenues.

Through the projects held by SEDS-UOC, students have been given the opportunity to;

- get firsthand experience of how astronomical and meteorological instruments operate,
- Interact and discuss with prominent astronomers and experts on space technology,
- develop scientific writing skills through the SEDS-UOC blog,
- learn how to use software for planetary science, observational astronomy, and image analysis purposes.

A point of note here is the detection of 8 Moving-Object-Signatures by students of our society at the SEDS Sri Lanka Asteroid Search Campaign (2023) held in collaboration with the International Astronomical Search Collaboration (IASC) and the Pan-STARRS observatory in Hawaii.

Through the inauguration of the Research Division in 2023, we have also created opportunities for interested undergraduates to participate in research projects in the areas of Physics, Engineering, and Astronomy.
We look forward to bringing the cosmos to your fingertips, and welcome you to join us through registering at: https://www.sedsuoc.lk/register/

Stat Circle

The "Stat Circle" is a society formed by the students of the Faculty of Science, University of Colombo in the year 2002. The aims of the society are to enhance the statistical knowledge of the students and the outside community and to communicate and exchange ideas with other societies, universities, the industry as well as schoolchildren.

The most prominent annual event of the Stat Circle is the "Stat Day", which is held with the participation of many distinguished guests from the government sector, private sector and academia. In addition, undergraduates from state universities and school students also gather for this outstanding event.

The Stat Day consists of speeches, a panel discussion, student sessions by the best performing students of the Department, an Inter-University Quiz Competition and an Inter-School Poster Competition. So, this event has become really significant for all those who are interested in the field of Statistics, since the audience would gain the rare opportunity to learn about new aspects and evolvement in the field through outstanding individuals who have mastered the field.

The Stat Circle has initiated in the year 2017, a series of motivational speeches titled "Inspirus" which will enlighten and encourage the students of the Faculty to be the best they could be. Renowned public speakers and successful personnels will join hands with the society for this purpose.

"Shilpa Shakthi" is another key event organized by the Stat Circle with the main aim of extending the knowledge of Statistics among school children. It will mainly include seminars for Advanced Level students in the stream of Mathematics covering Probability and Statistics which is part of the Combined Mathematics syllabus. Another main objective of holding this event is to provide the youngsters a basic understanding about the importance of the field of Statistics. This would be an attempt to raise their enthusiasm and to encourage them towards this field which would then result in some passionate valuable future statisticians.

Stat Circle is a platform that supports its members to add value to their lives. Further it helps them to reach out to the society at large to serve the world while developing themselves.

Stat Circle is not only about gaining knowledge in Statistics but being a member in it would surely improve their skills to face the industry world with much more confidence and passion.

Students' Association for Industrial and Financial Analysis (SAIFA)

The students' association for industrial and financial analysis was established in 2013. This is a society formed by the undergraduates who are interested in statistics and mathematical finance fields.

The main objectives of SAIFA are to promote the industrial statistics and mathematical finance degree program among the industry, create a unity between the undergraduates and to establish an industrial link. The association is conducting several projects to fulfil these objectives.

INTER-SCHOOL QUIZ COMPETION

Objective of the quiz competition is to create interest among the school community about statistics and mathematics. Around 20 schools will be competing for this event.

SAIFA BUSINESS CHALLENGE

SAIFA business challenge is open for undergraduates of any field of study where all the participants will be given a case study to be analyzed. The team that comes up with the best solutions will be rewarded.

SAIFA DAY AND GET TOGETHER

Final rounds of the inter school quiz competition and the SAIFA business challenge will be concluded on the SAIFA day. Past members of SAIFA will be joining with us on the day of the get together to share their industrial experiences.

SHRUTI

This was initiated as the main fund-raising project of SAIFA for the academic year 2018. This was renowned as the biggest musical extravaganza held at university premises

SCINTILLA – Nuclear Science Society

The SCINTILLA – Nuclear Science Society is attached to the Department of Nuclear Science and acts as the student society of the department. Nuclear Science Society of the University of Colombo was formed in the year 2018. Its membership is open to academics and undergraduate community of the University of Colombo who are interested in Nuclear Science and associated fields. Aims of establishing this society include popularizing Nuclear Science among the university community as well as the general public, research and advancement of knowledge related to Nuclear Science and associated fields among its members. Currently, it's one of the leading students' societies in the faculty. The Society organizes both intra-curricular and extra-curricular activities such as seminars, workshops, lectures, projects, and public awareness campaigns and thus, continues its endless journey by broadening the horizons.

Nuclear Science Day

It is the Nuclear Science Orientation Day organized for the freshmen, at the beginning of each academic year in order to give an overview of the department, the courses it provides and other facilities.

Guest Lectures

Guest lectures are organized by the lecturers and professional to enlighten students who are interested in nuclear science and allied fields.

Annual Trip

It is an entertainment event organized by society for the academic staff and all students of the society.

Science for Life

This project is focused on familiarizing Nuclear Science among school students in rural areas mainly targeting the students who are preparing for the A/L examination.

Webinar Series

Scintilla organizes webinars such as 'Coalescence' and 'Nuclear Talks' to enhance the knowledge of undergraduates and to expand their interest in the field of Nuclear Science.

FOS Media - Student Chapter

Faculty of Science Media (FOS Media) hosted under the Information Technology Services Centre (ITSC), Faculty of Science is the official media unit of the Faculty of Science, University of Colombo, established with the vision of capturing, documenting, and showcasing the vibrant life of the faculty. At the heart of FOS Media lies its student chapter, driven by passionate undergraduate students who take the lead in delivering accurate, creative, and timely coverage of events, achievements, and experiences within the faculty and beyond. Serving as the visual and narrative voice of the undergraduate community, the student chapter plays a central role in shaping the identity and impact of FOS Media, guided by its motto, "*We Report Best at First*."

The strength of the student chapter is reflected in its six specialized divisions:

- Blog Writing Division
- Graphic Designing Division
- Announcing Division
- Videography Division
- Technical and Live Streaming Division
- Photography Division

Further enhancing its uniqueness, the efforts of current undergraduates are supported by a dedicated network of alumni who continue to contribute their expertise, ensuring continuity, growth, and excellence within FOS Media. Throughout the academic year, FOS Media provides comprehensive coverage of significant faculty and university events. These include the Annual Research Symposium, the General Convocation, the Colors Awarding Ceremony, and various inter-university competitions and student-led initiatives. From pre-event promotions to live coverage and post-event publications, the unit ensures that every moment is effectively communicated to a wider audience.

In addition to its core functions, FOS Media continuously introduces new initiatives to enhance creativity and engagement. A significant milestone in this journey was the launch of its first official magazine, *Synexis*, in 2025. This publication serves as a platform to showcase creative writing, insightful articles, and the diverse talents of undergraduates, marking a new chapter in the evolution of FOS Media. Alongside this, the unit conducts digital campaigns, feature series, collaborative projects with other student societies, and skill-development workshops aimed at nurturing talent in media-related fields. FOS Media also plays a crucial role in developing soft skills among its members, including teamwork, leadership, communication, and time management. Working under demanding schedules and high-pressure environments, members gain practical exposure that prepares them for professional media and communication careers. Over the years, FOS Media has built a strong reputation as a leading university media unit, recognized for its quality, consistency, and innovation. It continues to grow as a creative hub, inspiring undergraduates to explore their talents and contribute to a collaborative and forward-thinking community. As an ever-evolving platform, FOS Media welcomes enthusiastic individuals who are passionate about media, creativity, and storytelling.

ANNEXES

ANNEX 1 - PS 1: Physical Science, Level I

Semester	Pre-requisite	Course Unit	Title	Credit Value	Hours	P1	P2	P3	P4	P5	P6	
S1		PH 1005	Modern Physics and Special Relativity	2	30 L	X	X	X				
		PH 1007	Astronomy I	2	30 L	O	O	O	O	O	O	
		PH 1022	Physics Laboratory I	2	60 P	X	X	X				
S2		PH 1006	Mechanics and Thermodynamics	2	30 L	X	X	X				
		PH 1023	Physics Laboratory II	2	60 P	O	O	O				
S1		CH 1008	General & Physical Chemistry	2	30 L	X			X	X		
		CH 1010	Calculations in Chemistry	1	15 L	O			O	O		
		CH 1011	Practical Chemistry Level 1	2	60 P	X			X	X		
S2		CH 1012	Organic Chemistry	3	45 L	X			X	X		
		CH 1006	Impact of Chemistry on Society	2	30 L	O			O	O		
S1		AM 1011	Fundamental Applied Mathematics	2	30 L	X	X	X	X	X	X	■
		AM 1012	Vector Calculus	2	30 L	O	O	O	O	O	O	
S2	AM 1011	AM 1013	Differential Equations I	2	30 L	X	X	X	X	X	X	■
	AM 1011	AM 1014	Applied Linear Algebra	2	30 L	X	X	X	X	X	X	■
		AM 1015	Computational Mathematics I	2	60 P	O	O	O	O	O	O	
S1		ST 1006	Introduction to Probability & Statistics	2	30 L	O		O		O		
		ST 1008	Probability & Distributions	2	30 L		X		X		X	
		ST 1009	Exploratory Data Analysis	2	15 L 30 P		X		X		X	
S2		ST 1010	Statistical Theory	2	30 L		X		X		X	
		ST 1011	Introduction to Surveys	2	15 L 30P	O	O	O	O	O	O	
		ST 1012	Basic Statistical Computing	2	15 L 30P	O	O	O	O	O	O	
S1		PM 1011	Foundations of Mathematics	2	30 L	O	O	X	O	X	X	
		PM 1012	Introduction to Number Theory	2	30 L			X		X	X	
S2	PM 1011	PM1013	Basic Analysis I	2	30 L			X		X	X	
S1		CS 1202	Introduction to Computing	3	45 L	X	X	X	X	X	X	
S2		CS 1201	Fundamentals of Computational Science and Programming	3	15 L 60 P	X	X	X	X	X	X	
S1		NS 1004	Introduction to Nuclear Science	3	45 L	X	X	X	X	X		
S2		MI 1004	Atomic and Radiation Physics	2	30 L	X	X	X	X	X		
		NS 1103	Computational Methods in Nuclear Science	1	30 P	X	X	X	X	X		

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals /Labs

Note:

1. Students must select all core courses (X) from **at least** three subjects out of the four within each stream, and enough electives to make up at least 30credits.
2. All Physical Science students must register for compulsory courses marked with a■
3. ST 1006 is recommended to those (P1, P3, P5) who want to follow the Computational Mathematics Honours Degree Program.
4. ST 1008 is a compulsory course for P2, P4 and P6 students.
5. Students in P1, P2, P3, P4 and P5 combinations, either NS/MI courses or CS courses must be selected.

Combinations:

P1 Physics, Chemistry, Applied Maths, Computer Science or Nuclear Science	AM/PH/CH/CS or NS
P2 Physics, Applied Maths, Statistics, Computer Science or Nuclear Science	AM/PH/ST/CS or NS
P3 Physics, Applied Maths, Pure Maths, Computer Science or Nuclear Science	AM/PHPM/CS or NS
P4 Chemistry, Applied Maths, Statistics, Computer Science or Nuclear Science	AM/CH/ST/CS or NS
P5 Chemistry, Applied Maths, Pure Maths, Computer Science or Nuclear Science	AM/CH/PM/CS or NS
P6 Applied Maths, Statistics, Pure Maths, Computer Science	AM/ST/PM/CS

ANNEX 2 - PS 2: Physical Science, Level II

Semester	Pre-requisite	Course Unit	Title	Credit Value	Hours	P1	P2	P3	P4	P5	P6	
S1		PH 2005	Waves & Vibrations, Optics and Circuit Theory	2	30 L	X	X	X				
		PH 2006	Nanoscience and Nanotechnology	2	15 L 30 P	O	O	O	O	O	O	✳
		PH 2022	Analogue and Digital Electronic Principles Laboratory	2	60 P	X	X	X				
S2		PH 2003	Electromagnetic Theory	2	30 L	X	X	X				
		PH 2024	Electronics and Computing Laboratory	2	60 P	O	O	O				
S1		CH 2011	Practical Chemistry Level II	2	60 P	X			X	X		
		CH 2012	Intermediate Physical Chemistry	3	45 L	X			X	X		
S2		CH 2002	Inorganic and Analytical Chemistry	2	30 L	X			X	X		
		CH 2013	Introduction to Biochemistry	2	30 L	O			O	O		
S1	AM 1013	AM 2011	Differential Equations II	2	30 L	X	X	X	X	X	X	■
	AM 1014	AM 2012	Linear Programming	2	30 L	X	X	X	X	X	X	■
S2	AM 2011	AM 2013	Numerical Analysis	2	30 L	X	X	X	X	X	X	■
	AM 2012	AM 2014	Optimization	2	30 L	O	O	O	O	O	O	
	AM 1015	AM 2015	Computational Mathematics II	2	60 P	O	O	O	O	O	O	
S1		ST 2006	Basic Statistical Inference	3	45 L	O	X	O	X	O	X	
		ST 2007	Applications in Statistical Inference	1	30 P		X		X		X	
		ST 2008	Statistical Methods in Quality Control	2	30 L	O	O	O	O	O	O	
S2	ST 2006	ST 2004	Analysis of Variance and Design of Experiments	2	30 L	O	X	O	X	O	X	
	ST 2006	ST 2009	Applied Non-Parametric Methods	2	30 L	O	O	O	O	O	O	
		ST 2010	Introduction to Statistical Modeling	1	15 L		O		O		O	
S1	PM 1013	PM 2011	Basic Analysis II	2	30 L			X		X	X	
	PM 1012	PM 2013	Introduction to Abstract Algebra	2	30 L			X		X	X	
S2	PM 2011	PM 2012	Basic Analysis III	2	30 L			X		X	X	
S1		CS 2201	Internet Technologies	3	30 L 30 P	X	X	X	X	X	X	
S2		CS 2202	Fundamentals of Software Engineering	3	45 L	X	X	X	X	X	X	
S1		NS 2105	Radiochemistry	2	30 L	X	X	X	X	X		
		NS 2007	Radiation and Living Systems	1	15L	X	X	X	X	X		
S2		NS 2106	Basic Imaging Science	2	60 P	X	X	X	X	X		
		NS 2008	Nuclear Techniques	1	30 P	X	X	X	X	X		

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals /Labs

Note:

1. Students must select all core courses (X) from **at least** three subjects out of the four within each stream, and enough electives to make up at least 30 credits.
2. All Physical Science students must register for compulsory courses marked with a ■.
3. Students in P1, P2, P3, P4 and P5 combinations, either NS courses or CS courses must be selected.

Combinations:

P1 Physics, Chemistry, Applied Maths, Computer Science or Nuclear Science	AM/PH/CH/CS or NS
P2 Physics, Applied Maths, Statistics, Computer Science or Nuclear Science	AM/PH/ST/CS or NS
P3 Physics, Applied Maths, Pure Maths, Computer Science or Nuclear Science	AM/PHPM/CS or NS
P4 Chemistry, Applied Maths, Statistics, Computer Science or Nuclear Science	AM/CH/ST/CS or NS
P5 Chemistry, Applied Maths, Pure Maths, Computer Science or Nuclear Science	AM/CH/PM/CS or NS
P6 Applied Maths, Statistics, Pure Maths, Computer Science	AM/ST/PM/CS

ANNEX 3 - PS 1: Physical Science, Level III

Semester	Pre-requisite	Course Unit	Title	Credit Value	Hours	P1	P2	P3	P4	P5	P6	
S1		PH 3001	Quantum Mechanics - I	3	45 L	X	X	X				
		PH 3006	Advanced Analogue and Digital Electronics	3	45 L	O	O	O				
		PH 3037	Mobile Application Development	3	90 P	O	O	O				
S2		PH 3005	Atomic & Nuclear Physics	3	45 L	X	X	X				
		PH 3009	Atmospheric & Environmental Physics	3	45 L	X	X	X	O	O	O	
		PH 3054	Classical Mechanics	3	45L	O	O	O				
S1		CH 3001	Topics in Analytical Chemistry I	2	30 L	X			X	X		
		CH 3002	Practical Analytical Chemistry	1	30 P	X			X	X		
		CH 3003	Industrial Chemistry	2	30 L	X			X	X		
		CH 3004	Laboratory Management	1	15 L	X			X	X		
		CH 3006	Computational Chemistry	2	30 L	O	O	O	O	O	O	
		CH 3008	Quality Management	1	15 L	O			O	O		
		CH 3010	Environmental Chemistry	2	30 L	O	O	O	O	O	O	
S2		CH 3005	Chemical Technology	2	30 L	O	O	O	O	O	O	
		CH 3007	Topics in Analytical Chemistry II	1	15 L	O			O	O		
		CH 3024	Pharmaceutical Chemistry*	2	30 L	O			O	O		
S1		AM 3031	Mathematical Methods I	3	45 L	X	X	X	X	X	X	
		AM 3035	Discrete Applied Mathematics	3	30 L 30 P	X	X	X	X	X	X	
S2		AM 3037	Mathematical Methods II	3	45L	O	O	O	O	O	O	
		AM 3036	Applied Graph Theory	3	30 L 30 P	O	O	O	O	O	O	
S1		ST 3003	Marketing Research	2	30L	O	O	O	O	O	O	
	ST 2006	ST 3006	Regression Analysis	2	30 L	O	X	O	X	O	X	
		ST 3007	Operational Research	3	45 L	O	X	O	X	O	X	
	ST 2006	ST 3009	Applied Time Series	2	30 L	O	X	O	X	O	X	
	ST 1011, ST 2006	IS 3001	Sampling Techniques	2	30 L		O		O		O	
S2	ST 2008	ST 3012	Statistical Process Control	2	30 L	O	O	O	O	O	O	
S1	PM 2012	PM 3033	Real Analysis I *	3	45 L			O		O	O	
		PM 3031	Linear Algebra *	3	45 L			O		O	O	
S1		IT 3003	Advanced Programming Techniques	3	30 L 30 P	X	X	X	X	X	X	
	CS 1201 CS 2201	CS 3205	Full-Stack Web Development	3	30 L 30 P	X	X	X	X	X	X	
S2		IT 3001	Management Information Systems	3	30 L 30 P	X	X	X	X	X	X	
		IT 3002	Database Systems	3	30 L 30 P	X	X	X	X	X	X	
S1		NS 3031	Radiation Detectors and Measurements	3	30 L 30 P	X	X	X	X	X		
S2		NS 3018	Radiation Protection & Health Physics	3	30 L 30 P	X	X	X	X	X		
		NS 3019	Medical Physics	3	45 L	O	O	O	O	O		
S2	EC 3015	FS 3001	Internship Training	6	-	O	O	O	O	O	O	
		FS 3002	Service Learning	8	240	O	O	O	O	O	O	

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals / Labs

Note:

1. In this Annex, core courses in some disciplines are elective. Students are required to offer minimum of 6 core credits in each of two Main Subjects in their combination.
2. Department permission is required to offer the Honours Degree course CH 3024 (marked with an asterisk)
3. Course having field components are marked with a 
4. Students can register for either FS 3001 OR FS 3002.
5. Students should register for the FS 3001 at the beginning of the 1st semester and EC 3015 is a prerequisite.
6. Students should contact the Department of Mathematics for the time slot for the courses with * marks.

ANNEX 4 - BS 1 / MBM 1: Biological Science / Biochemistry & Molecular Biology (Direct Intake), Level I

Semester	Pre-requisite	Course Unit	Title	Credit Value	Hours		
S1		BT 1015	Genes & Heredity	1	15 L	X	
		BT 1016	Cell Biology	1	15 L	X	
		BT 1009	Genetics and Cell Biology Practicals	1	30 P	X	
		BT 1017	Plants and The Bioeconomy	1	15 L	X	✳
		BT 1018	Integrative Plant Anatomy	1	10 L 10 P	O	
S2		BT 1019	Variety of Plant and Microbial Life	2	20 L 20 P	X	✳
		BT 1020	Introductory Molecular Biology and Recombinant DNA Technology	1	10 L 10 P	X	
		BT 1021	Mini-project in Biodiversity Conservation	1	30 P	O	✳
		BT 1022	Phytonarratives	1	15 L	O	
S1		CH 1008	General and Physical Chemistry	2	30 L	X	
		CH 1010	Calculations in Chemistry	1	15 L	O	
		CH 1011	Practical Chemistry Level I	2	60 P	X	
S2		CH 1012	Organic Chemistry	3	45 L	X	
		CH 1006	Impact of Chemistry on Society	2	30 L	O	
S1		ZL 1009	Evolution and Biogeography	2	15 L 30 P	X	✳
		EN 1008	Introduction to Environmental science	3	30 L 30 P	■	✳
S2		ZL 1008	Variety of Animal Life	3	30 L 30 P	X	✳
		ZL 1010	Animal Behavior	2	15 L 30 P	X	
S1		AM 1108	Mathematics for Biological Sciences	2	30 L	■	
S1		CS 1202	Introduction to Computing	3	45 L	X	
S2		CS 1201	Fundamentals of Computational Science and Programming	3	15 L 60 P	X	
S1		NS 1004	Introduction to Nuclear Science	3	45 L	X	
S2		MI 1004	Atomic and Radiation Physics	2	30 L	X	
		NS 1103	Computational Methods in Nuclear Science	1	30 P	X	

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals / Labs

Courses having field components are marked with a ✳

Note:

1. Students must register for all core courses related to CH, BT, ZL & EN.
2. To be eligible for the Honours Degree in Computational Chemistry students must offer CS 1201.
3. To be eligible for the Honours Degree in Bioinformatics students must offer CS 1202 and CS 1201.
4. Either NS/MI courses or CS courses must be selected.

ANNEX 5 - BS 2 / MBM 2: Biological Science / Biochemistry & Molecular Biology (Direct Intake), Level II

Semester	Pre-requisite	Course Unit	Title	Credit Value	Hours		
S1		BT 2001	Biostatistics	2	15 L 30 P	■	
		BT 2021	Fundamentals in Biotechnology	1	15 L	X	
		BT 2022	Principles of Microbiology	2	15 L 30 P	X	
		BT 2020	Smart Horticulture for the 21st Century	1	5 L 20 P	O	✶
S2		BT 2117	Plant Biochemistry and Physiology	2	30 L	X	
		BT 2118	Plant Physiology and Development Practicals	1	30 P	X	
		BT 2013	Plant Development	1	15 L	X	
		BT 2019	Plant Responses to Environmental Changes	1	15 L	O	✶
S1		CH 2011	Practical Chemistry Level II	2	60 P	X	
		CH 2012	Intermediate Physical Chemistry	3	45 L	X	
S2		CH 2002	Inorganic and Analytical Chemistry	2	30 L	X	
		CH 2013	Introduction to Biochemistry	2	30 L	■	
		CH 2014	Genome Structure and Organization	1	15 L	O	
S1		ZL 2010	Animal Form and Function	3	30 L 30 P	X	
		EN 2008	Fundamentals of Environmental Management	3	30 L 30 P	O	
S2		ZL 2009	Principles of Ecology	3	30 L 30 P	X	✶
		ZL 2011	Biosystematics	1	15 L	X	
S1		NS 2105	Radiochemistry	2	30 L	X	
		NS 2007	Radiation and Living Systems	1	15 L	X	
S2		NS 2106	Basic Imaging Science	2	60 P	X	
		NS 2008	Nuclear Techniques	1	30 P	X	
S1		CS 2201	Internet Technologies	3	30 L 30 P	X	
S2		CS 2202	Fundamentals of Software Engineering	3	45 L	X	

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals / Labs
Courses Having field components are marked with a ✶

Note:

1. Students must register for all core courses related to CH, BT, ZL & EN.
2. To be eligible for the Honours Degree in **Bioinformatics**, students must offer CS 2201.
3. To be eligible for the Honours Degree in **Computational Chemistry**, students must offer CS 2202.
4. To be eligible for the Honours Degree in **Environmental Science**, students must offer EN 2008.
5. To be eligible for the Honours Degree in **Biochemistry and Molecular Biology**, students must offer CH 2014
6. Either NS courses or CS courses must be selected.

ANNEX 6 – BS 3: Biological Science, Level III

Semester	Pre-requisite	Course Unit	Title	Credit Value	Hours		
S1		BT 3011	Concepts in Plant Pathology	2	15L 30P	X	✳
		BT 3103	Plant Molecular Biology	2	30 L	O	
		BT 3106	Plant Tissue Culture Technology	3	30 L 30 P	X	✳
S2		BT 3010	Laboratory Certification	2	30L	X	
		BT 3012	Horticulture	2	20L 20P	X	✳
		BT 3105	Applied Microbiology	3	30 L 30 P	X	✳
		BT 3173	Methods in Plant Breeding	2	20 L 20 P	O	✳
S1		CH 3001	Topics in Analytical Chemistry I	2	30 L	X	
		CH 3002	Practical Analytical Chemistry	1	30 P	X	
		CH 3003	Industrial Chemistry	2	30 L	X	
		CH 3004	Laboratory Management	1	15 L	X	
		CH 3008	Quality Management	1	15 L	O	
		CH 3010	Environmental Chemistry	2	30 L	O	
S2		CH 3005	Chemical Technology	2	30 L	O	
		CH 3007	Topics in Analytical Chemistry II	1	15 L	O	
		CH 3024	Pharmaceutical Chemistry*	2	30 L	O	
		CH 3027	Molecular Biology*	2	30 L	O	
S1		ZL 3011	Fish Biology, Fisheries and Aquaculture	3	30L 30P	X	✳
		ZL 3015	Introduction to Biological Psychology	1	15L	X	
		ZL 3017	Applied Biotechnology	1	15L	X	
		ZL 3053	Species vulnerability risk assessment	2	15L 30P	X	✳
		ZL 3058	Immunology	2	30L	X	
		EN 3001	Environmental Science Seminar	1	15L	O	
		EN 3014	Natural Disaster Risk Reduction and Resilience	3	30L 30P	O	✳
		EN 3019	Climate Change	3	30L 30P	O	
S2		ZL 3006	Applications in Immunology and Molecular Biology	2	30 L	O	
		ZL 3080	Bioethics	1	15 L	X	
		ZL 3060	Fundamentals of Parasitology	3	30L 30P	X	
		ZL 3091	Human Molecular Genetics	2	30 L	O	
S1		IT 3003	Advanced Programming Technologies	3	30 L 30 P	X	
	CS 1201 CS 2201	CS 3205	Full-Stack Web Development	3	30 L 30 P	X	
S2		IT 3001	Management Information Systems	3	30 L 30 P	X	
		IT 3002	Database Systems	3	30 L 30 P	X	
		PH 3009	Atmospheric & Environmental Physics	3	45 L	O	
S1		NS 3031	Radiation Detectors and Measurements	3	30 L 30 P	X	
		NS 3018	Radiation Protection & Health Physics	3	30 L 30 P	X	
		NS 3019	Medical Physics	3	45 L	O	
S2	EC 3015	FS 3001	Internship Training	6	-	O	
		FS 3002	Service Learning	8	240 P	O	

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals / Labs

Note:

1. Department permission is required to follow the Honours Degree courses CH 3024 and CH 3027 (marked with an asterisk).
2. In this Annex, core courses in some disciplines are elective. Students are required to offer a minimum of 6 core credits in each of two Main Subjects in their combination.
3. Courses having field components are marked with a ✳
4. Students can register for either FS 3001 Or FS 3002
5. Students should register for the FS 3001 at the beginning of the 1st semester and EC 3015 is a prerequisite.

ANNEX 7 – BMB 3: Biochemistry and Molecular Biology (Direct Intake) - Level III

Semester	Pre-requisite	Course Unit	Title	Credit Value	Hours	
S1		BC 3021	Food Chemistry	2	30 L	O
		BC 3022	Metabolism I	2	30 L	X
		BC 3026	Laboratory Techniques in Biochemistry and Molecular Biology	4	120 P	X
		MB 3003	Introduction to Genomics and Proteomics	2	30 L	X
		MB 3022	Gene Expression and Regulation	3	45 L	X
		MB 3023	Recombinant DNA Technology	2	30 L	X
		BT 3053	Introduction to Bioinformatics	2	15 L 30 P	X
S2		CH 3054	Nutritional & Clinical Biochemistry	2	30 L	X
		BC 3006	Biochemistry Seminar	1	30 P	O
		BC 3023	Metabolism II	2	30 L	X
		BC 3025	Protein Structure and Function	2	30 L	X
		BC 3027	Enzymology	2	30 L	X
		MB 3005	Industrial Molecular Biotechnology	2	30 L	X
		MB 3026	Cell Signaling	1	15 L	X
		ZL 3006	Molecular Biological and Immunological Applications	2	30 L	O
	EC 3015	FS 3001	Internship Training	6	_	O
		FS 3002	Service Learning	8	240 P	O

X: Core courses ■: Compulsory course O: Elective courses L: Lectures P: PracticalsLabs

Note:

1. Students can register for either FS 3001 OR FS 3002.
2. Students should register for the FS 3001 at the beginning of the 1st semester and EC 3015 is a prerequisite.

ANNEX 8 - IS 1: Industrial Statistics & Mathematical Finance - Level I

Semester	Pre-requisite	Course Unit	Title	Credit Value	Hours	
S1		IS 1010	Fundamentals of Data Analysis and Visualization	3	30 L 30 P	X
		IS 1007	Introduction to Statistical Computing	1	30 P	O
S2		IS 1008	Introduction to Probability and Distributions	3	45 L	X
		IS 1009	Introduction to Survey Design	2	15 L 30 P	O
S1		FM 1021	Foundations of Mathematics	2	30 L	X
		FM 1022	Financial Mathematics I	2	30 L	X
S2		FM 1023	Calculus I	2	30 L	X
		FM 1024	Differential Equation Models	2	30 L	O
		FM 1025	Computational Financial Modeling I	2	60 P	O
S1		MS 1021	Optimization Methods for Finance I*	2	30 L	X
		MS 1022	Computing for Finance*	1	30 P	X
		MS 1001	Principles of Management	1	15 L	X
S2		MS 1003	Operational Research I	2	30 L	X
S1		CS 1202	Introduction to Computing	3	45 L	X
S2		CS 1201	Fundamentals of Computational Science and Programming	3	15 L 60 P	X

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals /Labs

*MS Courses offered by the Department of Mathematics.

Note:

1. Students must offer all core courses from IS, FM, and MS disciplines during Level I and Level II.
2. Students must select at least 2 electives from each of IS and FM disciplines during Level I and Level II.

ANNEX 9 - IS 2: Industrial Statistics & Mathematical Finance - Level II

Semester	Pre-requisite	Cours Unit	Title	Credit Value	Hours	
S1		IS 2011	Applied Statistical Programming	1	30 P	X
		ST 2006	Basic Statistical Inference	3	45 L	X
S2		IS 2003	Design and Analysis of Industrial Experiments	2	30 L	X
	ST 2006	ST 2009	Applied Non-Parametric Methods	2	30 L	O
		ST 2010	Introduction to Statistical Modelling	1	15 L	O
S1	FM 1023	FM 2021	Calculus II	2	30 L	X
	FM 1022	FM 2022	Financial Mathematics II	2	60 P	O
		FM 2023	Linear Algebra	2	30 L	X
S2	FM 2021	FM 2024	Actuarial Mathematics I	2	30 L	X
	FM 1025	FM 2025	Computational Financial Modeling II	2	60 P	O
S1		MS 2021	Quantitative Economics *	2	30 L	X
		MS 2001	Statistical Quality Control	2	30L	X
S2		MS 2022	Introduction to Insurance*	1	30 P	X
		MS 2004	Introduction to Marketing Research	1	15L	X
S1		CS 2201	Internet Technologies	3	30 L 30 P	X
S2		CS 2202	Fundamentals of Software Engineering	3	45 L	X

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals /Labs

*MS Courses offered by the Department of Mathematics.

Note:

1. Students must offer all core courses from IS, FM, and MS disciplines during Level I and Level II.
2. Students must select at least 2 electives from each of IS and FM disciplines during Level I and Level II

ANNEX 10 - IS 3: Industrial Statistics & Mathematical Finance - Level III

Semester	Pre- requisite	Course Unit	Title	Credit Value	Hours	
S1		ST 3006	Regression Analysis	2	30 L	X
		ST 3009	Applied Time Series	2	30 L	O
	IS 1009	IS 3001	Sampling Techniques	2	30 L	X
S2		IS 3004	Applied Multivariate Methods	2	30 L	X
		IS 3005	Statistics in Practice I	3	90 P	O
S1	FM 1012	AM 3031	Mathematical Methods I	3	45 L	X
		AM 3035	Discreate Applied Mathematics	3	30 L 30 P	X
S2		AM 3037	Mathematical Methods II	3	45 L	X
		AM 3036	Applied Graph Theory	3	30 L 30 P	O
		MS 3018	Accounting for Finance	3	45L	O
S1		MS 3009	Operational Research II	3	30 L 30 P	X
S2		MS 3004	Quality Management and Project Management	2	30 L	O
S1	CS 1201 CS 2201	CS 3205	Full-Stack Web Development	3	30 L 30 P	X
		IT 3001	Management Information Systems	3	30 L 30 P	X
S2	EC 3015	FS 3001	Internship Training	6	-	O
		FS 3002	Service Learning	8	240 L	O

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals /Labs

*MS Courses offered by the Department of Mathematics.

Note:

1. Students can register for either FS 3001 OR FS3002.
2. Students should register for the FS 3001 at the beginning of the 1st semester and EC 3015 is a prerequisite.
3. Students must select all core courses (X) from at least 2 disciplines out of the 4 disciplines available.

ANNEX 11 - S1: HONOURS DEGREE PROGRAMMES
Physics (P) / Engineering Physics (EP) / Computational Physics (CP) (research oriented)

Level III

Semester	Pre-requisite	Course Unit	Title	Credit Value	Hours		PH	EP	CP
SI		PH 3001	Quantum Mechanics - I	3	45L	-	X	X	X
		PH 3032	Embedded System Laboratory	3	-	90P		X	
		PH 3006	Advanced Analogue and Digital Electronics	3	45L	-	X	X	
		PH 3052	Electromagnetic Fields - I	3	45L	-	X	X	X
		PH 3057	Mathematical Physics - I	3	45L	-	X	X	X
		PH 3120	Computational Physics Laboratory - I	3	-	90P			X
		CS 3008	Introduction to Data Structures and Algorithms	3	30L	30P			X
S2		PH 3005	Atomic & Nuclear Physics	3	45L	-	X		X
		PH 3009	Atmospheric & Environmental Physics	3	45L	-	O	O	
		PH 3022	Machine Learning and Neural Computation	3	15L	60P			X
		PH 3035	Design & Machining Laboratory	3	-	90P		X	
		PH 3043	Computational Physics Laboratory - II	3	-	90P			X
		PH 3053	Statistical Physics	3	45L	-	X	X	X
		PH 3054	Classical Mechanics	3	45L	-	X	X	X
		PH 3155	Data Acquisition & Signal Processing	3	30L	30P	X	X	
		PH 3058	Circuit Analysis and Simulation	3	30L	30P		X	
		IT 3002	Database Systems	3	30L	30P			O
S 1 & 2		PH 3030	Advanced Physics Laboratory - I	6	-	180P	X		

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals /Labs

Level IV

Semester	Pre-requisite	Course Unit	Title	Credit Value	Hours		PH	EP	CP
S1		PH 4002	Methods in Computational Physics	3	-	90P	X	X	O
		PH 4008	Nuclear & Particle Physics	3	45L	-	X		O
		PH 4009	Mathematical Physics - II	3	45L	-	X		X
		PH 4012	Advanced Optics	3	45L	-	X		
		PH 4014	Introduction to Robotics	3	15L	60P		X	
		PH 4015	Computational Statistical Mechanics	3	15L	60P			X
		PH 4016	Power Electronics	3	45L	-		O	
		IS 4203	Data Analytics	3	30L	30P			X
S2		PH 4001	Solid State Physics	3	45L	-	X	X	X
		PH 4105	Electronic Communication Techniques	3	45L			X	
		PH 4010	Quantum Mechanics - II	3	45L	-	X	O	X
		PH 4011	Electromagnetic Fields - II	3	45L	-	X	O	O
		PH 4017	Instrumentation Physics	3	30L	30P		X	
		PH 4024	High Performance Computing	3	15L	60P			X
		PH 4027	Photonics & Optoelectronics	3	45L	-		X	
		PH 4050	Computational Electrodynamics	3	-	90P			X
S 1/2		PH 4030	Advanced Physics Laboratory - II	6	-	180P	X		
		PH 4131	Engineering Physics Laboratory	6	-	180P		X	
		PH 4043	Physics Research Project	6	-	180P	X		
		PH 4044	Engineering Physics Research Project	6	-	180P		X	
		PH 4045	Computational Physics Research Project	6	-	180P			X

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals / Lab

ANNEX 12 - S2: HONOURS DEGREE PROGRAMMES (research oriented)
Chemistry / Pharmacy / Computational Chemistry

Level III

Semester	Pre-requisite	Course Unit	Title	Credit Value	Hours	CH	PHA	CC
S1		CH 3001	Topics in Analytical Chemistry I	2	30 L	X	X	
		CH 3003	Industrial Chemistry	2	30 L	O		O
		CH 3004	Laboratory Management	1	15 L	X	X	
		CH 3006	Computational Chemistry	2	30 L	X		X
		CH 3008	Quality Management	1	15 L	X	X	
		CH 3021	Spectroscopy	3	45 L	X	X	X
		CH 3030	Advanced Practical Chemistry	8	240 P	X		
		CH 3033	Chemistry of Biomolecules	3	45 L	X	X	O
		CH 3071	Pharmaceutics I	3	45 L		X	
		CH 3075	Practical Pharmacy	8	240 P		X	
		CH 3090	Practical Computational Chemistry	8	240 P			X
		CS 3201	Data Structures and Algorithms	3	30 L 30 P			X
S2		CH 3005	Chemical Technology	2	30 L	O		O
		CH 3007	Topics in Analytical Chemistry II	1	15 L	X		X
		CH 3023	Coordination and Organometallic Chemistry	3	45 L	X		X
		CH 3024	Pharmaceutical Chemistry	2	30 L	X	X	
		CH 3027	Molecular Biology	2	30 L	X		
		CH 3029	Organic Chemistry	3	45 L	X		X
		CH 3031	Symmetry in Chemistry	1	15 L	X		X
		CH 3032	Computational Programming in Chemistry	3	30 L 30 P			X
		CH 3054	Nutritional and Clinical Biochemistry	2	30 L		O	
		CH 3073	Anatomy and Physiology	3	45 L		X	
		CH 3074	Pharmacology I	3	45 L		X	
		CH 3076	Microbiology in Pharmacy	2	30 L		X	
		IT 3002	Database Systems	3	30 L 30 P			X
		CS 3204	Applied Machine Learning	3	30 L 30 P			X

Level IV

Semester	Pre-requisite	Course Unit	Title	Credit Value	Hours	CH	PHA	CC
S1		CH 4001	Research Project	8	240 P	X	X	X
		CH 4002	Seminar and Essay	3	90 P	X	X	X
		CH 4004	Optional Topics	4	60 L	X		X
		CH 4005	Advanced Organic Chemistry	3	45 L	X		
		CH 4006	Biochemistry	3	45 L	X		X
		CH 4007	Advanced physical Chemistry	3	45 L	X		X
		CH 4070	Pharmaceutics II	3	45 L		X	
		CH 4071	Pharmacology II	3	45 L		X	
		CH 4073	Advanced Pharmaceutical Chemistry	2	30 L		X	
		CH 4075	Pharmaceutical Law and Ethics	2	30 L		X	
		CH 4078	Pharmacognosy in Pharmacy	2	30 L		X	
		CH 4090	Advanced Molecular Modeling	1	15 L	O		X
		CS 4207	Computational Biology	2	30L			X
		CS 4203	Data Analytics	3	30L 30P			X
S2		CH 4003	General Paper	3	45 L	X		X
		CH 4008	Advanced Topics in Chemistry	3	45 L	X		
		CH 4074	Quality Control, Statistics and Computer Applications	3	45 L		X	
		CH 4076	Pharmaceutical Management and Administration	3	45 L		X	
		CH 4077	Pharmacy Practice	2	60 P		X	

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practical /Labs

ANNEX 13 A- S3: HONOURS DEGREE PROGRAMME (research oriented)
Mathematics

Level III

Semester	Pre-Requisite	Course Unit	Title	Credit Value	Hours	
S1		AM 3031	Mathematical Methods I	3	45 L	O
		AM 3033	Applied Dynamical Systems	3	30 L 30 P	O
		AM 3035	Discrete Applied Mathematics	3	30 L 30 P	O
		PM 3031	Linear Algebra	3	45 L	X
	PM 2012	PM 3033	Real Analysis I	3	45 L	X
		PM 3036	Topology I	3	45 L	X
S2		AM 3036	Applied Graph Theory	3	30 L 30 P	O
	AM 3031	AM 3037	Mathematical Methods II	3	45 L	O
		PM 3032	Group Theory	4	60 L	X
	PM 3033	PM 3034	Real Analysis II	3	45 L	X
		PM 3035	Complex Analysis	4	60 L	X
	PM 3036	PM 3037	Topology II	3	45 L	X
		PM 3038	Analysis in Several Dimensions	3	45 L	O
		EC 3031	Community Service	4*	120 P	■

Level IV

Semester	Pre-Requisite	Course Unit	Title	Credit Value	Hours	
S1		AM 4032	Advanced Optimization	3	45 L	O
		PM 4031	Research Project	8	240 P	X
		PM 4032	Commutative Algebra	4	60 L	X
		PM 4034	Measure Theory and Integration	4	60 L	X
		PM 4036	Topology III	4	60 L	O
S2		AM 4038	Stochastic Calculus	3	30L 30P	O
		AM 4033	Non- Linear Programming	3	45 L	O
		PM 4033	Field Theory and Galois Theory	4	60 L	X
		PM 4035	Functional Analysis	4	60 L	X
		PM 4037	Differential Geometry	4	60 L	O
		PM 4038	Number Theory	4	60 L	O
		AM 4085	Quantum Computing	3	45 L	O

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals/ Labs

*: Will not be considered when calculating GPA

ANNEX 13 B - S3: HONOURS DEGREE PROGRAMME (research oriented)
Applied Mathematics

Level III

Semester	Pre-Requisite	Course Unit	Title	Credit Value	Hours	
S1		AM 3031	Mathematical Methods I	3	45 L	X
	AM 2011 AM 2013	AM 3032	Numerical Methods and Scientific Computing	2	60 P	X
		AM 3033	Applied Dynamical Systems	3	30 L 30 P	X
		AM 3035	Discrete Applied Mathematics ##	3	30 L 30 P	O
	PM 2012	PM 3033	Real Analysis I	3	45 L	X
	PM 1011	PM 3036	Topology I #	3	45 L	O
S2		AM 3034	Distribution & Random Number Theory	3	30 L 30 P	X
		AM 3036	Applied Graph Theory ##	3	30 L 30 P	O
	AM 3031	AM 3037	Mathematical Methods II	3	45 L	X
		AM 3038	Mathematical Modeling	4	120 P	X
	PM 3036	PM 3037	Topology II #	3	45 L	O
	PM 3033	PM 3034	Real Analysis II	3	45 L	X
		EC 3031	Community Service	4*	120 P	■

Level IV

Semester	Pre-Requisite	Course Unit	Title	Credit Value	Hours	
S1		AM 4031	Applied Mathematics Research Project	8	240 P	X
		AM 4032	Advanced Optimization	3	45 L	O
		AM 4037	Applied Functional Analysis	3	45 L	X
		AM 4039	Agent Based Models ##	3	90 P	O
		AM 4040	Machine Learning and Simulation Models ##	4	120 P	O
		PM 4034	Measure Theory and Integration #	4	60 L	O
		ST 4031	Stochastic Processes and Applications	3	45 L	O
S2		AM 4038	Stochastic Calculus	3	30 L 30 P	O
		AM 4033	Non- Linear Programming	3	45 L	O
		PM 4035	Functional Analysis #	4	60 L	O
		EC 4031	Industrial Training	4*	120 P	O

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals/ Labs

*: Will not be considered when calculating GPA

Note:

1. Level III students are required to select either the pair of course units PM 3036 and PM 3037 (marked with #) or the pair of course units AM 3035 and AM 3036 (marked with ##).
2. Level IV students are required to select either the pair of course units PM 4034 and PM 4035 (marked with #) or the pair of course units AM 4039 and AM 4040 (marked with ##).

ANNEX 13 C - S3: HONOURS DEGREE PROGRAMME (research oriented)
Computational Mathematics

Level III

Semester	Pre-Requisite	Course Unit	Title	Credit Value	Hours	
S1		AM 3031	Mathematical Methods I	3	45 L	X
	AM 2015	AM 3035	Discrete Applied Mathematics	3	30 L 30 P	X
		AM 3082	Theory of Computation	3	45 L	X
		AM 3083	Computational Methods and Scientific Computing I	2	60 P	X
		AM 3085	Applied and Computational Analysis	2	30 L	X
S2		AM 3034	Distribution & Random Number Theory	3	30 L 30 P	O
		AM 3036	Applied Graph Theory	3	30 L 30 P	X
		AM 3084	Computational Mathematical Modeling	4	120 P	X
		AM 3086	Case Studies in Human Computer Interactions	2	60 P	X
		IT 3002	Database Systems	3	30 L 30 P	O
		IT 3007	Data Structures & Algorithms	3	30 L 30 P	X
		EC 3031	Community Service	4*	120 P	■

Level IV

Semester	Pre-Requisite	Course Unit	Title	Credit Value	Hours	
S1		AM 4032	Advanced Optimization	3	45 L	O
		AM 4081	Computational Mathematics Research Project	8	240 P	X
		AM 4086	Agent-Based Modeling	3	90 P	X
		AM 4087	Scientific Computing with Machine Learning	4	120 P	O
		ST 4031	Stochastic Processes and Applications	3	45 L	O
		IT 4004	Advanced Database Systems	3	30 L 30 P	X
S2		AM 4033	Non- Linear Programming	3	45 L	O
		AM 4085	Quantum Computing	3	45 L	O
		EC 4031	Industrial Training	4*	120 P	O

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals/ Labs

*: Will not be considered when calculating GPA

ANNEX 13 D - S3: HONOURS DEGREE PROGRAMMES (research oriented)
Mathematical Finance

Level III

Semester	Pre-Requisite	Course Unit	Title	Credit Value	Hours	
S1		AM 3081	Applied Analysis	3	45 L	X
	FM 2021	FM 3051	Financial Mathematics III	3	30 L 30 P	X
		FM 3052	Quantitative Finance	3	30 L 30 P	X
		FM 3057	Financial Statement Analysis	3	30 L 30 P	X
		FM 3058	Insurance for Financial Services	2	30 L	X
		FM 3059	Microeconomics for Financial Analytics	3	45 L	X
S2	FM 2023	FM 3053	Actuarial Mathematics II	3	30 L 30 P	X
		FM 3054	Portfolio Optimization	3	30 L 30 P	X
		FM 3055	Game Theory and Decision Theory	3	30 L 30 P	X
		FM 3056	Financial Simulation and Artificial Intelligence Models	4	120 P	X
		EC 3031	Community Service	4*	120 P	■

Level IV

Semester	Pre-Requisite	Course Unit	Title	Credit Value	Hours	
S1		FM 4051	Financial Analytics Research Project	8	240 P	X
	FM 3053	FM 4053	Actuarial Mathematics III	3	45 L	X
		FM 4054	Agent-based Modeling for Financial Markets	3	90 L	X
	FM 3059	FM 4055	Macroeconomics for Financial Analytics	3	45 L	X
		FM 4056	Machine Learning Models in Finance	4	120 P	X
S2	FM 4053	FM 4057	Actuarial Mathematics IV	3	30 L 30 P	X
		FM 4052	Non- Linear Programming	3	45 L	X
		FM 4058	Professional Practices and Consultancy in Actuary and Finance	4	120 P	X

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals/ Labs

*: Will not be considered when calculating GPA

Annex 14A - S4: HONOURS DEGREE PROGRAMMES (research oriented)

Statistics

Level	Pre-requisite	Course Unit	Title	Credit Value	Hours	
III		ST 3003	Marketing Research	2	30 L	O
S1		ST 3007	Operational Research	3	45 L	O
		ST 3051	Statistical Inference I	3	45 L	X
		ST 3172	Regression Theory and Applications	3	30L 30P	X
		ST 3074	Time Series Analysis	2	30 L	X
		ST 3075	Design of Experiments	2	30 L	X
		ST 3085	Computational Statistics	2	15 L 30 P	X
		CS 3201	Data Structures and Algorithms	3	30 L 30 P	O
		PM 3033	Real Analysis 1	3	45 L	O
S2		ST 3012	Statistical Process Control	2	30 L	O
		ST 3013	Essential Mathematics for Statistics	3	45 L	X
		ST 3070	Special Topics	2	15 L 30 P	O
		ST 3073	Surveys and Sampling	3	45 L	X
		ST 3082	Statistical Learning, I	2	60 P	X
		ST 3083	Multivariate Data Analysis	3	45 L	X
		ST 3084	Statistical Inference II	2	30L	X
		ST 3086	Research Methodology and Scientific writing	1	30 P	X
		IT 3002	Database Systems	3	30 L 30 P	O
		PM 3034	Real Analysis II	3	45 L	O
IV		ST 4011	Econometrics	2	30 L	O
SI		ST 4031	Stochastic Processes and Applications	3	45 L	X
		ST 4052	Statistical Learning II	2	60 P	X
		ST 4054	Linear Models	3	45 L	X
		ST 4055	Generalized Linear Models	3	30 L 30 P	X
		ST 4058	Bayesian Statistical Methods	2	30 L	O
		CS 4203	Data Analytics	3	30 L 30 P	O
		CS 4206	Advanced Concepts in Software Design & Development	2	30 L	O
S2	ST 3074	ST 4059	Advanced Time Series Modelling	2	30 L	O
		ST 4056	Medical Statistics	3	45 L	O
		ST 4057	Research Projects in ST	8	240P	X
		CS 4208	Parallel Computing	2	30 L	O
		EC 4004	Industrial Training	3	90 P	O

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals /Labs

Annex 14B - S4: HONOURS DEGREE PROGRAMMES (research oriented)
Data Science

Level	Pre-requisite	Course Unit	Title	Credit Value	Hours	
III	ST 2010	ST 3008	Applied statistical models	3	30L, 30P	X
		ST 3051	Statistical Inference I	3	45L	X
S1		ST 3074	Time Series Analysis	2	30L	O
		ST 3085	Computational Statistics	2	15L 30P	O
		DS 3001	Data Visualization Techniques	1	30P	X
		ST 3111	Advanced Statistical Programming	2	60P	X
		CS 3201	Introduction to Data Structures and Algorithm	3	30L 30P	X
		PM 3033	Real Analysis 1	3	45 L	O
		DS 3102	Data Ethics and Data Security	1	30P	X
		DS 3003	Machine Learning I	2	60P	X
S2		ST 3083	Multivariate Data analysis	3	45L	X
	ST 3051	ST 3084	Statistical Inference II	2	30L	X
		DS 3004	Essential Calculus and Linear Algebra for Data Science	3	45 L	X
		3T 3086	Research Methodology and Scientific Writing	1	30 P	X
		IT 3002	Database System	3	30L 30P	X
IV		DS 4001	Image Analysis	2	15L 30P	O
		DS 4002	Machine Learning II	2	60 P	X
S1		DS 4003	Special Topics for Data Science	2	15L 30P	O
		DS 4104	Big Data analytics	2	15L 30P	X
		DS 4105	Causal Inference	2	15L 30P	X
		ST 4058	Bayesian Statistical Methods	2	30 L	O
		CS 4206	Advanced Concepts in Software Design and Development	2	30L	O
	IT 3002	CS 4201	Advanced Database Management	3	30L 30P	X
		CS 4202	Natural Language Processing	3	30L 30P	X
S2		DS 4007	Research Project in DS	8	240P	X
		DS 4006	Professional Practice	4	120P	X
		CS 4205	Embedded Systems	3	30L 30P	O

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals /Labs

ANNEX 15A - S5: HONOURS DEGREE PROGRAMMES (research oriented)
Plant Science (PS)/ Plant Biotechnology (PBT)

Level	Pre-req.	Course unit	Title	No. Credits	Hours	PS	PBT
III		BT 3011	Concepts in Plant Pathology	2	15L 30P	X	X
		BT 3103	Plant Molecular Biology	2	30L	X	X
		BT 3106	Plant Tissue Culture Technology	3	30L 30P		X
		BT 3079	Environmental Law	1	15L	X	O
S1		BT 3053	Introduction to Bioinformatics	2	15L 30P	X	X
		BT 3058	Bioprospecting	2	30L	O	X
		BT 3080	Plant Systematics and Field Botany	4	30L 60P	X	
		BT 3077	Geospatial Data Analysis	2	10L 40P	X	
		BT 3064	Experimental Plant Biotechnology	2	60P		X
		BT 3078	R-based Biological Data Analysis	1	30P	X	X
III	BT 3011	BT 3076	Molecular Plant Pathology	1	15L		X
		BT 3012	Horticulture	2	20L 20P	O	O
		BT 3010	Laboratory Certification	2	30L	O	O
		BT 3105	Applied Microbiology	3	30L 30P	X	X
	BT 1020	BT 3163	Techniques in Molecular Biology	2	20L20P	X	X
		BT 3167	Phylogenetic Analysis	1	10L 10P	X	X
S2		BT 3081	Environmental Sustainability and Resilience	2	20L 20P	X	X
		BT 3083	Experimental Design & Data Analysis	3	15L 60P	X	X
		BT 3173	Methods in Plant Breeding	2	20L 20P	X	X
	BT 3079	BT 3082	Environmental Decision Making Tools	1	10L 10P	X	
		EC 3032	*Wellbeing & Resilience* **	*1*	*30P*	*X*	*X*
IV		BT 4037	Soil Health and Restoration	2	15L 30P	X	O
		BT 4038	Ecological Applications for Sustainable Ecosystems	3	15L 60P	X	
	BT 3079	BT 4039	Biodiversity & Nature Conservation	3	20L 50P	X	
	BT 3081	BT 4040	Climate Change Mitigation and Adaptation	2	20L 20P	X	O
S1	BT2117, BT 2118	BT 4205	Plant Biochemistry and Molecular Physiology	4	45L30P	X	X
	BT3103, BT3163, BT3053	BT 4107	Trends in Plant Molecular Biology	3	45L	O	X
	BT 2021	BT 4120	Agrobiotechnology	3	30L 30P		X
	BT 2021	BT 4021	Biotechnology Industry	3	30L 30P		X
		BT 4125	Post-harvest Technology	2	20L 20P		X
		BT 4041	Research Proposal Development	1	30P	X	X
		BT 4042	Scientific Communication	1	10L 10P	X	X
		BT 4901	Landscape Maintenance and Management	2	15L 30P	O	
IV	BT 3078	BT 4044	Computer Applications in Plant Sciences	3	15L 60P	X	
		BT 4045	Current Topics in Biotechnology	2	60P		X
		BT 4047	Bio-based Innovations and Entrepreneurship	2	15L 30P	X	X
		BT 4048	Science Communication to the Public	1	30P	X	X
		BT 4127	Research Project & Dissertation in Plant Science	8	240P	X	
S2		BT 4128	Research Project & Dissertation in Plant Biotechnology	8	240P		X

**EC3032 Wellbeing & Resilience module is mandatory and non-GPA

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals / Labs

ANNEX 15B - S5: HONOURS DEGREE PROGRAMMES (research oriented)
Bioinformatics (BI)

Level	Pre-req.	Course unit	Title	Credit value	L/P Hours	BI
III		BT 3103	Plant Molecular Biology	2	30L	X
		BT 3053	Introduction to Bioinformatics	2	15L 30P	X
		BT 3078	R-based Biological Data Analysis	1	30P	X
S1		IT 3003	Advanced Programming Technique	3	30L 30P	X
		CS 3201	Data Structures and Algorithms	3	30L 30P	X
		CS 3202	Computer Graphics and Image Processing	3	30L 30P	X
III	BT 1020	BT 3163	Techniques in Molecular Biology	2	20L20P	X
		BT 3167	Phylogenetic Analysis	1	10L 10P	X
	BT 3053	BT 3084	Practical Computing for Bioinformatics	4	30L 60P	X
	AM 1108	BT 3074	Mathematics for Bioinformatics	1	5L 20P	X
		ZL 3006	Molecular Biological and Immunological Applications	2	30L	X
S2		CS 3204	Applied Machine Learning	3	30L 30P	X
		IT 3002	Database Systems	3	30L 30 P	X
		EC 3032	*Wellbeing & Resilience* **	*1*	*30P*	*X*
IV	BT3103, BT3163, BT3053	BT 4107	Trends in Plant Molecular Biology	3	45L	X
		BT 4041	Research Proposal Development	1	30P	X
S1		BT 4042	Scientific Communication	1	10L 10P	X
		BT 4043	Applied Statistical Methods in Bioinformatics	3	20L 50P	X
		MB 4003	Molecular Evolution, Modelling and Computer-based Drug Design	3	30L 30P	X
		CS 4203	Data Analytics	3	30L 30P	X
		CS 4204	Computer Vision and Deep Learning	3	30L 30P	O
		CS 4201	Advanced Database Management	3	30L 30P	O
		CS 4207	Computational Biology	2	30L	X
IV		BT 4046	Current topics in Bioinformatics	1	30P	X
		BT 4048	Science Communication to the Public	1	30P	O
		CS 4208	Parallel Computing	2	30L	X
S2		BT 4133	Research Project & Dissertation in Bioinformatics	8	240P	X

** EC3032 Wellbeing & Resilience module is mandatory and non-GPA
X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals / Labs

ANNEX 15C - S5: HONOURS DEGREE PROGRAMMES (research oriented)
Applied Microbiology (MC)

Level	Pre- req.	Course Unit	Title	Credit Value	Hours	MC
III		BT 3011	Concepts in Plant Pathology	2	15L 30P	X
		BT 3078	R-based biological data analysis	1	30P	O
		BT 3053	Introduction to Bioinformatics	2	15L 30P	X
		MC 3001	Microbial Bioprospecting	2	20L 20P	X
S1		MC 3002	Microbial Taxonomy	1	15L	X
		MC 3003	Microbial Ecology	2	20L 20P	X
		MC 3004	Microbial Biochemistry and Physiology	2	15L 30P	X
		MC 3005	Microbial Genetics	1	15L	X
		MC 3006	Plant Inspection and Quarantine	1	15L	X
III	BT 3011	BT 3076	Molecular Plant Pathology	1	15L	X
		BT 3163	Techniques in Molecular Biology	2	20L 20P	X
S2		BT 3167	Phylogenetic Analysis	1	10L 10P	O
		MC 3007	Food Microbiology	2	20L 20P	X
		MC 3008	Virology	2	30L	X
		MC 3009	Medical and Veterinary Microbiology	2	20L 20P	X
		MC 3010	Space Microbiology	1	15L	X
		MC 3011	GMOs and GMFs	2	30L	X
		MC 3012	Industrial Microbiology	2	30L	X
		CH 3076	Microbiology in Pharmacy	2	30L	X
		EC 3032	*Wellbeing & Resilience* **	*1*	*30P*	X
IV		MC 4001	Molecular Microbiology	3	45L	X
		MC 4002	Fermentation Technology	2	30L	X
S1		MC 4003	Environmental Microbiology	3	30L 30P	X
		MC 4004	Quality Management in a Microbiology Laboratory	2	30L	X
		BT 4125	Post-harvest Technology	2	20L 20P	X
		MB 4003	Molecular Evolution, Modeling and Computer-based Drug Designing	3	30L 30P	X
		BT 4041	Research Proposal Development	1	30P	X
		BT 4042	Scientific communications	1	10L 10P	X
IV		BT 4047	Bio-based Innovations and Entrepreneurship	2	15L 30P	X
		BT 4048	Science Communication for the Public	1	30P	X
S2		MC 4005	Assignment	2	60P	X
		MC 4006	Research Project & Dissertation in Applied Microbiology	8	240P	X

**EC3032 Wellbeing & Resilience module is mandatory and non-GPA

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals / Labs

ANNEX 16A – S6: HONOURS DEGREE PROGRAMMES (research oriented)
Environmental Science

Level	Pre- req.	Course Unit	Title	No. Credits	Hours	
III		EN 3001	Environmental Science Seminar	1	15 L	X
S1		EN 3002	Current Environmental Issues	1	15 L	X
		EN 3014	Natural Disaster Risk Reduction and Resilience	3	30 L 30 P	X
		EN 3019	Climate Change	3	30 L 30 P	X
		EN 3050	Hydrology and Water Management	2	15 L 30 P	X
		EN 3061	Environmental Resource Management I	3	30 L 30 P	X
		CH 3010	Environmental Chemistry	2	30 L	X
S2		ZL 3069	Fundamentals of Conservation Biology and Wildlife Management	3	30 L 30 P	X
		ZL 3075	Ecotoxicology	3	30L 30P	X
		ZL 3080	Bioethics	1	15 L	X
		EN 3051	Environmental Modeling	2	15 L 30 P	X
		EN 3052	Instrumentation and Analytical Techniques in Environmental Science	1	30 P	X
		EN 3062	Environmental Resource Management II	2	15 L 30 P	X
		EN 3065	Landscape Ecology	3	30 L 30 P	X
IV		ZL 4021	Tools of Environmental Management and Assessment	3	30 L 30 P	X
S1		ZL 4051	Research methods, project development & statistics	2	30 L	X
		EN 4001	Greener cities and sustainable livelihoods	1	15 L	X
		EN 4002	Research Project in Environmental Science	8	240 P	X
		EN 4103	Sustainability Tools for Environmental Management	3	30 L 30 P	X
		EN 4004	Environmental Entrepreneurship and innovations	2	15 L 30 P	X
		EN 4005	Pollution and Environmental Health	1	15 L	X
		EN 4106	GIS and Remote Sensing Applications for Environmental Science	3	30 L 30 P	X
		FS 4008	Environmental Economics	3	30 L 30 P	X
S2		EN 4007	Nuclear Technology and Environment	2	15 L 30 P	X
		EN 4009	Waste and Wastewater Management	3	30 L 30 P	X
		EN 4023	Environmental Policies, Legislations and Administration	2	30 L	X

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals /Labs

ANNEX 16B – S6: HONOURS DEGREE PROGRAMMES (research oriented)
Zoology

Level	Pre- req.	Course Unit	Title	No. Credits	Hours	
III		ZL 3050	Applications of Molecular Biology	2	15L 30P	X
S1		ZL 3051	Introduction to Immunology	2	15L 30P	X
		ZL 3052	Mammalogy	2	15L 30P	X
		ZL 3011	Fish Biology, Fisheries and Aquaculture	3	30L 30P	X
		ZL 3053	Species vulnerability risk assessment	2	15L 30P	X
		ZL 3054	Evolutionary Biology	2	15L 30P	X
		ZL 3055	Invertebrate Zoology	1	15L	X
		ZL 3017	Applied Biotechnology	1	15 L	X
S2		ZL 3069	Fundamentals of Conservation Biology and Wildlife Management	3	30L 30P	X
		ZL 3056	Management of biological collections	2	60P	X
		ZL 3057	Comparative Physiology	3	30L 30P	X
		ZL 3060	Fundamentals of Parasitology	3	30L 30P	X
		ZL 3075	Ecotoxicology	3	30L 30P	X
		ZL 3080	Bioethics	1	15 L	X
IV		ZL 4060	Developmental Biology	2	30L	X
S1		ZL 4051	Research methods, project development & statistics	2	30L	X
		ZL 4053	Research Projects in Zoology	8	240P	X
		ZL 4055	Principles of Oceanography	3	30L 30P	X
		ZL 4056	Guided Reading and Essay	2	60P	X
		ZL 4064	Parasitology	3	30L 30P	X
		ZL 4057	Entomology	2	15L 30P	X
		ZL 4059	Ornithology	2	15L 30P	X
		ZL 4067	Herpetology	1	15L	X
S2		ZL 4068	Wildlife Ecology & Management	3	30L 30P	X
		ZL 4069	Ex situ conservation: Principles and practice	2	15L 30P	X

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals /Labs

ANNEX 17 - S7: HONOURS DEGREE PROGRAMMES (research oriented)
Immunology & Integrative Molecular Biology

Level	Pre- req.	Course Unit	Title	No. Credits	Hours	
III		ZL 3059	Molecular Biology	2	30L	X
S1		ZL 3058	Immunology	2	30L	X
		ZL 3076	Cellular and Molecular Physiology	2	30 L	X
		ZL 3082	Foundations in Molecular Ecology	2	30 L	X
		ZL 3086	Population Genetics and Genomics	2	30 L	X
		ZL 3077	Practical Molecular Biology I	3	90 P	X
		ZL 3017	Applied Biotechnology	1	15L	X
		ZL 3083	Molecular Taxonomy	1	15 L	X
S2		ZL 3087	Conservation Genetics	2	30 L	X
		ZL 3078	Practical Immunology I	3	90 P	X
		ZL 3085	Advanced Applications in Immunology and Molecular Biology	2	30 L	X
		ZL 3060	Fundamentals of Parasitology	3	30L 30P	X
		ZL 3091	Human Molecular Genetics	2	30 L	X
		ZL 3089	Immune System in Diseases	2	30 L	X
		ZL 3080	Bioethics	1	15 L	X
IV		ZL 4060	Developmental Biology	2	30L	X
S1		ZL 4051	Research methods, project development & statistics	2	30L	X
		ZL 4054	Research Project in Immunology and Integrative Molecular Biology	8	240 P	X
		ZL 4081	Molecular Phylogeography and Evolution	2	30 L	X
		ZL 4170	Molecular Immunology	2	30L	X
		ZL 4082	Epigenetics	2	30 L	X
		ZL 4083	Bioinformatics and Functional Genomics	2	30 L	X
		ZL 4077	Practical Molecular Biology II	3	90 P	X
S2		ZL 4087	Molecular Medicine	2	30 L	X
		ZL 4078	Practical Immunology II	3	90 P	X
		ZL 4084	Molecular and Immunotoxicology	1	15 L	X
		ZL 4080	Trends in Immunology and Molecular Biology	1	15 L	X

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals / Labs

ANNEX 18 - S8: HONOURS DEGREE PROGRAMMES (research oriented)
Nuclear Medical Science (Proposed name: Nuclear Science and Technology)

Level	Pre-requisite	Course Unit	Title	No. credits	Hours	
III S1		NS 3031	Radiation detectors and measurements	3	30L 30P	X
		MI 3006	Radiobiology	2	30L	X
		NS 3033	Nuclear Structure & Nuclear Reactions	2	30L	X
		NS 3034	Nuclear Power and fuel cycle	2	30L	X
		NS 3035	Nuclear Astrophysics	2	30L	X
		NS 3036	Radiological Facility Management	2	30L	X
		MI 3001	Principles of Nuclear Imaging	2	30L	X
S2		NS 3019	Medical Physics	3	45L	O
		NS 3018	Radiation Protection & Health Physics	3	30L 30P	X
		NS 3032	Nuclear applications in Biology	3	15L 30P	O
		MI 3008	Introduction to Biostatistics	2	15L 30P	X
		NS 3024	Biological and Medical Ethics	1	15L	X
		NS 3130	Radioisotope Production	2	30L	X
		NS 3037	Nuclear Spectroscopy	2	15L 30P	X
		NS 3038	Radiation effects on Plant Systems	2	30L	X
		NS 3039	Technology in Nuclear Science I	2	30L	X
IV S1		NS 4901	Nuclear Electronics	3	30L 30P	X
		NS 4903	Nuclear Regulations	2	30L	X
		NS 4036	Radiopharmaceuticals	3	45L	X
		NS 4037	Technology in Nuclear Science II	3	45L	X
		NS 4038	Radiation Effects on Material	3	45L	X
		NS 4039	Cancer Biology and Radiation Therapy	3	45L	X
		NS 4040	Isotopes in Environmental Studies	3	30L 30P	X
S2		NS 4041	Nanomaterials for Radiological Applications	2	30L	X
		NS 4007	Research Project	8	240P	X

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practical / Labs

Note: * A third year course unit from any subject approved by the Department of Nuclear Science

ANNEX 19- S9: HONOURS DEGREE PROGRAMMES (research oriented)
Biochemistry and Molecular Biology

Level III

Semester	Pre-requisite	Course Unit	Title	Credit Value	Hours	
S1		CH 3033	Chemistry of Biomolecules	3	45 L	O
		BC 3022	Metabolism I	2	30 L	X
		BC 3030	Practical Biochemistry and Molecular Biology	8	240 P	X
		MB 3022	Gene Expression and Regulation	3	45 L	X
		MB 3025	Recombinant DNA Technology and Applications	3	45 L	X
		BT 3053	Introduction to Bioinformatics	2	15 L 30 P	X
S2		CH 3054	Nutritional and Clinical Biochemistry	2	30 L	X
		BC 3023	Metabolism II	2	30 L	X
		BC 3024	Bio- Physical Chemistry	2	30 L	O
		BC 3025	Protein Structure and Function	2	30 L	X
		BC 3027	Enzymology	2	30 L	O
		MB 3024	Topics in Molecular Cell Biology	2	30 L	X

Level IV

Semester	Pre-requisite	Course Unit	Title	Credit Value	Hours	
S1		BC 4001	Research Project	8	240 P	X
		BC 4002	Seminar and Essay	3	90 P	X
		BC 4004	Optional Topics	4	60 L	X
		MB 4001	Genomics and Proteomics	3	45 L	X
		MB 4003	Molecular Evolution, Modelling and Computer Based Drug Design	3	30 L 30 P	X
		MB 4004	Applications in Biotechnology	3	45 L	X
		ZL 4058	Immunology	2	30 L	X
S2		BC 4003	General Paper	3	45 L	X
		BC 4005	Advanced Topics in Biochemistry and Molecular Biology	2	30 L	O
		BC 4006	Selected Topics in Biochemistry and Molecular Biology	2	30 L	O

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practical /Lab

ANNEX 20 – S10: HONOURS DEGREE PROGRAMME (research oriented)

Biomolecular Sciences & Industrial Biotechnology

Level III

Semester	Pre-requisite	Course Unit	Title	Credit Value	Hours		
SI		BC 3122	Metabolism	3	45 L	-	X
		BS 3002	Biomolecular Sciences Practical 1	4	-	120 P	X
		BT 3053	Introduction to Bioinformatics	2	15 L	30 P	X
		MB 3122	Advanced Molecular Biology	3	45 L	-	X
		MB 3123	Recombinant DNA Technology	2	30 L	-	X
		ZL 3058	Immunology	2	30 L	-	X
S2		BS 3001	Protein Structure, Function and Enzyme Kinetics	3	45 L	-	X
		BC 3124	Biophysical Chemistry	2	30 L	-	X
		BS 3003	Biomolecular Sciences Practical II	4	-	120 P	X
		BT 3075	Techniques in Plant Cell and Tissue Culture	1	10 L	10 P	X
		BT 3167	Phylogenetic Analysis	1	10 L	10 P	X
		MB 3124	Topics in Biochemistry and Molecular Cell Biology	1	15 L	-	X
		BS 3004	Disease Biology	2	30 L	-	X

Level IV

Semester	Pre-requisite	Course Unit	Title	Credit Value	Hours		
SI		BC 4105	Cell Signaling, Cell Cycle and Cancer	2	30 L	-	X
		BS 4001	Research in Biomolecular Sciences and Industrial Biotechnology	8	-	240 P	X
		BS 4002	Biomaterials	1	15 L	-	X
		CH 4901	Bioanalytical Chemistry	2	30 L	-	O
		MB 4101	Genomics and Proteomics	3	45 L	-	X
		MB 4103	Introduction to Protein Modeling and Drug Design	3	30 L	30 P	X
S2		BS 4003	Introduction to Synthetic Biology	2	30 L	-	X
		BS 4004	Structural Biology	2	30 L	-	X
		BS 4005	Bioprocess and Metabolic Engineering	2	30 L	-	X
		BS 4006	Biotherapeutics	2	30 L	-	X
		BS 4007	Biotechnology Entrepreneurship	1	15 L	-	O
		BS 4008	Industrial Training	2*	-	60 P	■
		BS 4009	Biomolecular Science Communication	1	-	30P	X
		BS 4010	Developmental and Regenerative Biology	2	30 L	-	-

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practical/ Labs

*: Will not be considered when calculating final GPA

ANNEX 21 – S11: HONOURS DEGREE PROGRAMME (research oriented)
Industrial Statistics

Level	Pre-requisite	Course Unit	Title	Credit Value	Hours	
III	IS 1009	IS 3001	Sampling Techniques	2	30 L	X
		IS 3050	Statistical Inference	3	45 L	X
		IS 3051	Advanced Statistical Process Control	2	30 L	X
S1		ST 3006	Regression Analysis	2	30 L	X
		ST 3074	Time Series Analysis	2	30 L	O
		ST 3085	Computational Statistics	2	15L 30P	X
		FM 3012	Economics I for Finance and Insurance	3	45 L	O
		MS 3002	Advanced Marketing Research	1	15 L	X
		MS 3009	Operational Research II	3	30 L 30 P	O
		CS 3203	Mobile Application Designing and Development	3	30 L 30 P	O
		IS 3003	Special Topics I	2	15 L 30 P	O
		IS 3052	Advanced Topics in Experimental Design	2	30 L	X
		IS 3053	Data Mining Techniques	2	15 L 30 P	X
S2		ST 3082	Statistical Learning I	2	60 P	X
		ST 3083	Multivariate Data Analysis	3	45 L	O
		MS 3004	Quality Management and Project Management	2	30 L	X
		ST 3086	Research Methodology and Scientific Writing	1	30P	X
		IT 3002	Database Systems	3	30 L 30 P	O
IV		IS 4002	Advanced Statistical Modeling	3	45 L	X
		ST 4058	Bayesian Statistical Methods	2	30 L	O
		ST 4011	Econometrics	2	30 L	O
		ST 4031	Stochastic Processes and Applications	3	45 L	X
S1		ST 4036	Time to Event Analysis	2	30 L	O
		ST 4052	Statistical Learning II	2	60 P	X
		MS 4007	Risk Management	2	30 L	O
		MS 4008	Industrial Psychology	2	30 L	O
		FM 4007	Economics II for Finance and Insurance	3	45 L	O
		CS 4202	Natural Language Processing	3	30 L 30 P	O
S2		IS 4011	Professional Practice	4	120 P	X
		IS 4006	Individual Project	8	240 P	X

X:Core courses ■: Compulsory courses O:Elective courses L:Lectures P: Practicals /Labs

ANNEX 22: Honours Degree Programmes (industry oriented):

IT & Management

Level III

Semester	Pre-Requisite	Course Unit	Title	Credit Value	Hours	
S1		IT 3003	Advance Programming Techniques	3	30 L	30 P
		IT 3004	E-Commerce	2	20 L	20 P
		IT 3005	Data Mining	3	30 L	30 P
		IT 3006	IT Service Management	2	20 L	20 P
		MS3006	General Management	2	20 L	20 P
S2		IT 3001	Management Information Systems	3	30 L	30 P
		IT 3002	Database Systems	3	30 L	30 P
		IT 3007	Data Structures & Algorithms	3	30 L	30 P
		IT 3008	IT Seminar	1		30 P
		MS 3007	Strategic Human Resource Management	2	20 L	20 P

Level IV

Semester	Pre-Requisite	Course Unit	Title	Credit Value	Hours	
S1		IT 4004	Advanced Database Systems	3	30L	30P
		IT 4005	Advanced Software Engineering	3	30L	30P
		IT 4006	Enterprise Applications Development	3	30L	30P
		IT 4007	Network Information Systems	3	30L	30P
		MS 4003	Strategic Decision Making	3	30L	30P
S2		IT 4008	Group Project	3		90P
		IT 4009	Industrial Training	6		
		IT 4010	Industrial Research Project	6		120P

Honours Degree Programme (industry oriented): Applied Statistics

Level	Pre Req	Course Unit	Title	Credit	Hours	PS	IS
III		ST 3007	Operational Research	3	45L	o	
S1	ST 2010	ST 3008	Applied Statistical Models	3	30L 30P	x	x
		ST 3009	Applied Time Series	2	30L	x	x
	IS 1009/ ST 1011	IS 3001	Sampling Techniques	2	30L	x	x
		MS 3009	Operational Research II	3	30L 30P		o
		ST 3111	Advanced Statistical Programming	2	60P	X	x
	CS 1001	IT 3003	Advanced Programming Techniques	3	30L 30P	x	x
		CS 3201	Data Structures & Algorithms	3	30L 30P	x	x
		ST 3087	Health Statistics and Epidemiology	3	30L 30P	o	o
	ST 2008/ MS 2001	ST 3012	Statistical Process Control	2	30L	o	o
		ST 3013	Essential Mathematics for Statistics	3	45L	x	x
		IS 3004	Applied Multivariate Methods	2	30L	x	x
		IS 3005	Statistics in Practice I	3	90P	x	x
		MS 3004	Quality Management and Project Management	2	30L	o	o
		IT 3002	Database Systems	3	30L 30p	x	x
IV		ST 4011	Econometrics	2	30L	x	x
S1		ST 4135	Applied Machine Learning	3	30L 30P	x	x
		ST 4036	Time to Event Analysis	2	30L	x	x
		IS 4007	Statistics in Practice II	3	90P	x	x
		MS 4007	Risk Management	2	30L	o	o
		MS 4008	Industrial Psychology	2	30L	x	x
		IT 4004	Advanced Database Systems	3	30L 30P	x	x
	CS 2202	IT 4005	Advanced Software Engineering	3	30L 30P	o	o
S2		IS 4009	Industrial Training	6	180P	x	x
		IS 4010	Industrial Research Project	6	180P	x	x

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals /Labs

Honours Degree Programme (industry oriented): Business & Environment

Level		Course Unit	Course Unit	Credit Value	Hours	
III		EN 3911*	Business and Environment	3	45 L	X
		EN 3904	Adapting Business for Climate Change	3	30 L 30 P	X
		EN 3014	Natural Disaster Risk Reduction and Resilience	3	30 L 30 P	X
S1		FS 3003	Intellectual Property Rights	1	15 L	X
		BT 3079	Environmental Law	1	15 L	X
		BT 3058	Bioprospecting	2	30 L	X
		CH 3010	Environmental Chemistry	2	30 L	X
S2		EN 3903	Sustainable Development and Business	2	30 L	X
		EN 3905	Sustainable Tourism	2	30 L	X
		EN 3906	Environmental Communication	2	15 L 30 P	X
		EN 3064	Environment & Industry	3	30 L 30 P	X
		BT 3083	Experimental Design & Data Analysis	3	15L 60P	X
		EN 3907	Group Project	3	90 P	X
		EN 3908	Case Studies	1	15 L	X
IV		ZL 4901	Project Development	2	20 L 20 P	X
		ZL 4902	Seminar	1	15 L	X
		EN 4103	Sustainability Tools for Environmental Management	3	30 L 30 P	X
S1		FS 4105	Entrepreneurship	3	15 L 60 P	X
		FS 4006	Business Accounting	3	45 L	X
		FS 4007	Human Resource Management	3	45 L	X
		FS 4008	Environment Economics	3	30 L 30 P	X
S2		EN 4909	Industrial Training	6	180 P	X
		EN 4910	Industry Research Project	6	180 P	X

* EN 3911 and EN 3014 will be offered to the 3-year general degree students

Honours Degree Programme (industry oriented): Electronics & IT

Level III

Semester	Pre-requisite	Course Unit	Title	Credit Value	Hours		
SI		PH 3032	Embedded System Laboratory	3	-	90P	X
		PH 3037	Mobile Application Development	3	-	90P	X
		PH 3006	Advanced Analogue and Digital Electronics	3	45L		X
		PH 3120	Computational Physics Laboratory - I	3	-	90P	X
		IT 3003	Advanced Programming Techniques	3	30L	30P	X
S2		PH 3039	Data Acquisition Laboratory	3	-	90P	X
		PH 3022	Machine Learning and Neural Computation	3	15L	60P	O
		PH 3038	Electronic Circuit Designs & Simulation	3	30L	30P	X
		PH 3042	Robotics & Automation	3	-	90P	X
		IT 3002	Database Systems	3	30L	30P	X
		IT 3007	Data Structures and Algorithms	3	30L	30P	X

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals / Lab

Level IV

Semester	Pre-requisite	Course Unit	Title	Credit Value	Hours		
S I		PH 4028	Innovation & Entrepreneurship	3	45L	-	X
		PH 4016	Power Electronics	3	45L	-	X
		PH 4019	Industrial Automation	3	45L	-	X
		IT 4004	Advanced Database Systems	3	30L	30P	X
		IT 4005	Advanced Software Engineering	3	30L	30P	X
		IT 4006	Enterprise Application Development	3	30L	30P	X
S 2		PH 4020	Industrial Training	6	-	180P	X
		PH 4046	Industry Research Project	6	-	180P	X

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals / Lab

Honours Degree Programme (industry oriented): Horticulture & Sustainable Landscaping

Level	Pre- req.	Course Unit	Title	Credit Value	Hours	
III		BT 3106	Plant Tissue Culture Technology	3	30L 30P	X
		BT 3079	Environmental Law	1	15L	X
		FS 3003	Intellectual Property Rights	1	15L	X
S1		BT 3901	Fundamentals of Landscaping	3	30L 30P	X
		BT 3903	Pest and Plant Disease Management	2	15L 30P	X
		BT 3906	Computer Applications in Landscape Design	3	90P	X
		EN 3014	Natural Disaster Risk Reduction & Resilience	3	30L 30P	X
III		BT 3012	Horticulture	2	20L 20P	X
		BT 3173	Methods in Plant Breeding	2	20L 20P	X
		BT 3902	Landscaping Assignment	2	60 P	X
	BT 3012	BT 3911	Commercial Horticulture and Floriculture	1	10L 10P	X
S2		BT 3908	Interactive Grower and Outreach	1	30P	X
		BT 3909	Internet of Things (IoT) in Urban Gardening	3	30L 30P	X
		BT 3910	Plant Propagation Techniques	2	60 P	X
	BT 1020	BT 3912	Molecular Methods for Horticulture	1	12L 6P	X
		EC 3032	*Wellbeing & Resilience* **	*1*	*30P*	*X*
IV		BT 4037	Soil Health and Restoration	2	15L 30P	X
	BT 2021	BT 4120	Agrobiotechnology	3	30L 30P	O
		BT 4125	Post-harvest Technology	2	20L 20P	X
		BT 4901	Landscape Maintenance and Management	2	15L 30P	X
S1	BT 2001	BT 4902	Data Analytics for Industry	1	15L	X
		FS 4105	Entrepreneurship	3	15L 60P	X
		ZL 4901	Project Development	2	20L 20P	X
		FS 4006	Business Accounting	3	45L	X
		FS 4007	Human Resource Management	3	45L	O
IV S2		BT 4909	Industrial Training	6	180P	X
		BT 4910	Industry Research Project	6	180P	X

**EC3032 Wellbeing & Resilience module is mandatory and non-GPA

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals / Labs

Honours Degree Programme (industry oriented): Finance & Insurance

Level III	Pre-requisite	Course Unit	Title	Credit Value	Hours	Core or Elective
S1		AM 3031	Mathematical Methods I	3	45 L	X
		FM 3052	Quantitative Finance	3	45 L	X
		FM 3012	Economics I for Finance and Insurance	3	45 L	O
		FM 3013	Insurance Mathematics I	3	45 L	X
		FM 3015	Case Study in Finance	4	120 P	X
		FM 3058	Insurance for Financial Services	2	30 L	O
S2	AM 3031	FM 3014	Insurance Mathematics II	3	45 L	X
		FM 3006	Insurance Market and Products	3	30 L 30 P	X
	FM 3032	FM 3055	Game Theory and Decision Theory	3	30 L 30 P	X
		MS 3018	Accounting for Finance	3	45 L	O
		FM 3054	Portfolio Optimization	3	30 L 30 P	O
Level III		EC 3031	Community Service	4*	120 P	■
Level IV						
S1	FM 3012	FM 4007	Economics II for Finance and Insurance	3	45 L	X
	FM 3015	FM 4021	Machine Learning in Insurance	3	90 P	X
		FM 4012	Insurance Mathematics III	3	45 L	X
	MS 3011	MS 4004	Statement Analysis	3	30 L 30 P	O
		FM 4022	Financial Markets and Simulations	3	30 L 30 P	O
S2		FM 4010	Industrial Training	6	180 P	X
		FM 4011	Industrial Research Project	6	180 P	X
	MS 4005	MS 4006	Entrepreneurship in Insurance & Finance	3	30 L 30 P	O

X: Core courses ■: Compulsory courses O: Elective courses L: Lectures P: Practicals /Labs

*: Will not be considered when calculating GPA

Honours Degree Programme (industry oriented): Science & Management

Level III

Level III Management Courses

Semester	Pre Req.	Course Unit	Title	Credit value	Hours	
S1		FS 3003	Intellectual Property Rights	1	15 L	X
		MS 3006	General Management	2	20 L 20 P	X
		CH 3004	Laboratory Management	1	15 L	X
		MS 3019	Business Communication & Ethics	1	15 L	X
S2		MS 3004	Quality Management/Project Management	2	30 L	X
		MS 3007	Strategic Human Resource Management	2	30 L	X
		MS 3011	Business Economics I	2	30 L	X

Level III Science Courses (Bio Science Basket)

Semester	Pre Req.	Course Unit	Title	Credit value	Hours	
S1		BT 3103	Plant Molecular Biology	2	30 L	O
		BT 3058	Bioprospecting	2	30 L	O
		CH 3003	Industrial Chemistry	2	30 L	X
		CH 3001	Topics in Analytical Chemistry I	2	30 L	O
		EN 3014	Natural Disaster Risk Reduction & Resilience	3	30 L 30 P	O
	CS 1201 CS 2201	CS 3205	Full-Stack Web Development	3	30 L 30 P	O
		IT 3005	Data Mining	3	30 L 30P	X
S2		CH 3005	Chemical Technology	2	30 L	X
		CH 3007	Topics in Analytical Chemistry II	1	15 L	O
		EN 3064	Environment and Industry	3	30 L 30 P	O
		IT 3001	Management Information Systems	3	30 L 30 P	X
		IT 3002	Database Systems	3	30 L 30 P	O
		BT 3173	Methods in Plant Breeding	2	20 L 20 P	O

Level III Science Courses (Physical Science Basket)

Semester	Pre Req.	Course Unit	Title	Credit value	Hours	
S1		AM 3031	Mathematical Methods I	3	45 L	X
		AM 3035	Discrete Applied Mathematics	3	30 L 30P	X
	CS 1201 CS 2201	CS 3205	Full-Stack Web Development	3	30 L 30 P	O
		CH 3001	Topics in Analytical Chemistry 1	2	30 L	O
		ST 3006	Regression Analysis	2	30 L	X
		ST 3007	Operational Research	3	45 L	O
		IT 3005	Data Mining	3	45 L	O
S2		CH 3005	Chemical Technology	2	30 L	O
		CH 3007	Topics in Analytical Chemistry II	1	15 L	O
		IT 3001	Management Information Systems	3	30 L 30 P	X
		IT 3002	Database Systems	3	30 L 30 P	O
		PH 3009	Atmospheric & Environmental Physics	3	45 L	O

X – Core courses O – Elective courses

Level IV

Level IV Management Courses

Semester	Pre Req.	Course Unit	Title	Credit value	Hours	
S1		FS 4105	Entrepreneurship	3	15 L 60 P	O
		FS 4006	Business Accounting	3	45 L	X
		MS 4003	Strategic Decision Making	3	30 L 30 P	X
		MS 4007	Risk Management	2	30 L	X
		MS 4008	Industrial Psychology	2	30 L	X
		MS 4009	Business Economics II	2	30 L	X
		PH 4028	Innovation and Entrepreneurship	3	45 L	O
		MS 4016	Science & Management Seminar	1	30 P	X
S2		MS 4014	Industrial Training	6	180 P	X
		MS 4015	Industrial Research Project	6	180 P	X

Science Courses (Bio Science Basket)

Semester	Pre Req.	Course Unit	Title	Credit value	Hours	
S1		BT 4901	Landscape Maintenance and Management	2	15 L 30 P	O
		EN 4013	Sustainability Tools for Environmental Management	3	30 L 30 P	O
		ZL 4901	Project Development	2	20 L 20 P	X

Science Courses (Physical Science Basket)

Semester	Pre Req.	Course Unit	Title	Credit value	Hours	
S1		IT 4004	Advanced Database Systems	3	30 L 30 P	O
		IT 4005	Advanced Software Engineering	3	30 L 30 P	O
		ZL 4901	Projects developments	2	20 L 20 P	X

X – Core courses O – Elective courses

Honours Degree Programme (industry oriented):
Molecular Biology & Biotechnology
Level III

Semester	Course unit	Course Title	Credit Value	Hours	
S1	BC 3021	Food Chemistry	2	30L	O
	BC 3022	Metabolism 1	2	30L	X
	BC 3026	Laboratory Techniques in Biochemistry and Molecular Biology	4	120P	X
	MB 3003	Introduction to Genomics and Proteomics	2	30L	X
	MB 3022	Gene Expression and Regulation	3	45L	X
	MB 3023	Recombinant DNA Technology	2	30L	X
	BT 3053	Introduction to Bioinformatics	2	15L 30P	X
	MS 3006	General Management	2	20L 20P	O
S2	BC 3023	Metabolism II	2	30L	X
	BC 3027	Enzymology	2	30L	X
	MB 3901	Molecular Cell Biology	2	30L	X
	MB 3902	Animal & Plant Biotechnology	2	30L	X
	MB 3903	Nanobiotechnology	2	30L	O
	CH 3901	Bioanalytical Chemistry I	2	30L	X
	BT 3167	Phylogenetic Analysis	1	10L 10P	O
	FS 3004	History and Philosophy of Science	1	15L	O
	MS 3007	Strategic Human Resource Management	2	20L 20P	O

Level IV

Semester	Course Unit	Course Title	Credit Value	Hours	
S1	MB 4003	Molecular Evolution, Modeling & Computer Based Drug Design	3	30L 30P	O
	MB 4901	Medical Biotechnology	2	30L	X
	MB 4902	Environmental Biotechnology	2	30L	X
	MB 4903	Marine Biotechnology	2	30L	X
	MB 4904	Selected Topics in Biotechnology	2	30L	X
	MB 4906	Biotechnology Seminar	1	15P	X
	MB 4912	Biochemistry of Toxicology	2	30L	O
	CH 4901	Bioanalytical Chemistry II	2	30L	O
	FS 4105	Entrepreneurship	3	15L 60P	X
	FS 4006	Business Accounting	3	45L	O
S2	MB 4908	Industrial Training	6	180P	X
	MB 4911	Industrial Related Research Project	6	180 P	X

ANNEX 23 – BSc Honours in Medical Imaging Technology

Level	Course Code	Course Title	Credits	Hours
Level 1 - Semester I				
Level 1	MI 1001	Human Anatomy	2	15L 30P
	MI 1002	Human Physiology	2	30L
	MI 1003	Introduction to Medical Imaging Technology	1	15L
	PH 1051	Modern Physics for Medical Imaging	2	30L
	PH 1052	Electronics for Medical Imaging	2	60P
	AM 1108	Mathematics for Biological Science Students	2	30L
	CS 1102	Introduction to Computing	3	45L
Level 1 - Semester II				
	CS 1101	Fundamentals of Programming	3	45L
	MI 1004	Atomic and Radiation Physics	2	30L
	MI 1005	Plain Radiography Equipment	2	15L 30P
	MI 1006	Fluoroscopy Equipment	2	30L
	MI 1007	Patient Care and Pharmacology in Medical Imaging	3	45L
	MI 1008	Image Formation and Processing in Conventional Radiography	2	15L 30P
	MI 1009	Basic Techniques of Radiography	2	15L 30P
Level 2 - Semester I				
Level 2	MI 2001	Digital Radiography and Image Processing	2	15L 30P
	MI 2002	Radiologic Anatomy - I	2	30L
	MI 2003	Computed Tomography Equipment	2	30L
	MI 2004	Imaging with Non-Ionizing Radiation	3	45L
	PH 2051	Electromagnetic Theory for Medical Imaging	2	30L
	MI 2005	Fundamentals of Radiation Therapy	2	30L
Level 2 - Semester II				
Level 2	MI 2007	Radiographic Pathology	2	30L
	MI 2008	Computed Tomography Techniques	3	30L 30P
	MI 2009	Techniques of Imaging with Non-Ionizing Radiation	3	30L 30P
	MI 2010	Techniques of Fluoroscopy	3	45L
	MI 2011	Mammography Equipment and Techniques	2	30L
	MI 2012	Special Techniques of Radiography	3	30L 45C
Level 3 - Semester I				
Level 3	MI 3001	Principles of Nuclear Imaging	2	30L
	MI 3002	Dental Imaging	2	15L 45C
	MI 3003	Professional and Research Ethics	2	30L
	MI 3004	Practice in Fluoroscopy	2	15L 45C
	MI 3005	Radiologic Anatomy - II	2	30L
	MI 3006	Radiobiology	2	30L
	MI 3007	Advanced Radiographic Method	3	30L 30P

Level 3 - Semester II				
Level 3	MI 3008	Introduction to Biostatistics	2	15L 30P
	MI 3009	Radiographic Exposure	3	30L 30P
	MI 3010	Nuclear Imaging Techniques	2	15L 45C
	MI 3011	Pediatric Imaging	2	15L 45C
	MI 3012	Radiation Protection in Medical Imaging	2	30L
	MI 3013	Research Methodology	2	30L
	MI 3014	CT and MRI Pathology	2	15L 30P
	MI 3015	Patient Care Strategies in Special Contexts	2	30L
Level 4 - Semester I				
Level 4	MI 4001	Advanced Radiographic Exposure	2	30L
	MI 4002	Principles of Radiation Dosimetry and Application	3	30L 30P
	MI 4003	Recent Advances in Imaging Technology	2	30L
	MI 4004	Quality Assurance and Quality Control in Medical Imaging	2	15L 30P
	MI 4005	Clinical Radiography I	4	180C
	MI 4006	Clinical Radiography II	3	135C
Level 4 - Semester II				
Level 4	MI 4007	Clinical Radiography III	4	180C
	MI 4008	Clinical Radiography IV	4	180C
	MI 4009	Research Project	6	180P
	MI 4010	Management and Maintenance for Medical Imaging Professionals	2	30L
		Total Credit	**30**	
			124	

ANNEX 24 - Enhancement Courses

Level	Semester	Course Unit	Title	Credit Value	Hours
1	1	EC 1015	Career and Personal Development I	1	15 L
	1	EC 1017	Basic English	1	15 L
	2	EC 1004	Information Skill Development	1	30 P
	2	EC 1016	Career Planning	1	30 P
	2	EC 1018	Intermediate English	1	15 L
	1, 2	See Annex 25	*Sports	1	30 P
2	1	EC 2001	Technical Writing for Academic Purposes	2	15 L, 30 P
	1	EC 2015	Career and Personal Development II	1	15 L
	1	EC 2021	Advanced English	1	15 L
	2	EC 2003	Practical Applications in Electronics	1	30 P
	2	EC 2004	Photography	1	15 L
	2	EC 2020	Enterprise, Entrepreneurship and Innovations	1	15 L
	1, 2	See Annex 25	*Sports	1	30 P
3	5	EC 3015	Career and Personal Development III	2	30 L
	6	EC 3001	Advanced Communicative Skills	2	15 L, 30 P
	5, 6	See Annex 25	*Sports	1	30 P
4	7, 8	See Annex 25	*Sports		30 P

Sports

Enhancement Courses can be obtained by participating in the following sports. Please fill in the relevant codes of a sport, for a particular year, based on the following.

If a student has participated in a sport for which the student has been registered, then, credits can be claimed by filling in a sports credit form in duplicate and handing over one copy to the Dean's office, Faculty of Science, and the other to the Department of Physical Education, at least by the start of the next academic year. Final year students should hand in these forms by the last day of the second semester in the final year. Non-adherence to these deadlines will result in the automatic cancellation of the registration for that sport in that year.

Annex 25: Course codes for the sports activities

Course Unit				
Sport (IC)	**First Year**	**Second Year**	**Third Year**	**Fourth Year**
Badminton	1051	2051	3051	4051
Baseball	1052	2052	3052	4052
Basketball	1053	2053	3053	4053
Carrom	1054	2054	3054	4054
Chess	1055	2055	3055	4055
Cricket	1056	2056	3056	4056
Elle	1057	2057	3057	4057
Football	1058	2058	3058	4058
Hockey	1059	2059	3059	4059
Karate	1060	2060	3060	4060
Netball	1061	2061	3061	4061
Road Race	1062	2062	3062	4062
Rowing	1063	2063	3063	4063
Rugby	1064	2064	3064	4064
Swimming	1065	2065	3065	4065
Table tennis	1066	2066	3066	4066
Taekwondo	1067	2067	3067	4067
Tennis	1068	2068	3068	4068
Track	1069	2069	3069	4069
Track Field	1070	2070	3070	4070
Volleyball	1071	2071	3071	4071
Weightlifting	1072	2072	3072	4072
Wresting	1073	2073	3073	4073

Procedure for registering and obtaining sports credits

Students offering the above sports as an Enhancement Course in the Faculty of Science will be required to follow the criteria given below.

Registration: A student offering or intending to offer sports as an Enhancement Course in a particular year, would have to register on-line for the sport within the first two weeks of that year. A student intending to offer the same sport in two different years would have to register separately, for that sport in each of the two years.
Claiming sports credits: A student can only claim credits for sports for which the student has been registered at the start of a particular year.

For information regarding times and venues of the above sports, please contact the Director or Coordinators at the Department of Physical Education.

For any assistance regarding sports related matters, you may contact the Faculty Sports Coordinator.
EC Coordinator/Sports: Dr. AM Wickramasuriya
anushka@pts.cmb.ac.lk

Map of Faculty of Science, University of Colombo

`E3

THE COAT OF ARMS

The Coat of Arms of the University consists of a burning lamp with a palm leaf manuscript in front as its central motif. It is surrounded by a circle of swans carrying buds of lotuses in their beaks. In the perimeter is the traditional design called palapeti - i.e. lotus petals in a decorative motif. The circular emblem is surmounted by the figure of a lion bearing a sword in its right hand, and at the bottom is a scroll containing the University motto.

The lamp is the traditional symbol of light, illumination, enlightenment, hence of wisdom. The luster of the lamp radiates all round symbolising the spread of the light of learning. The palm leaf manuscript also symbolises knowledge - learning. A manuscript is a book of knowledge. The line of swans (also referred to as geese) depicted as carrying lotus buds in their beaks is a decorative motif in Sinhala Art, and stands for discrimination, purity and strength of character. The lotus itself is a symbol of purity in Sinhala Art.

The lotus petal motif around the circle of swans is called palapeti - a form of ornament derived directly from the lotus. It is a border moulding, consisting of lotus petals; the petals fully seen, alternating with petals three parts hidden by those on either side. The lion with the sword represents Sri Lankan identity. Hence, the Coat of Arms taken in its entirety, depicts socio-cultural concepts of religious and national origin. As a whole, in its symbolic aspect, it stands to champion wisdom and virtue.

The motto in Sanskrit script which reads as 'Buddhi Sarvatra Bharatje' means 'Wisdom shines forth everywhere', i.e. that the wise are honored everywhere. The term 'Buddhi' has a religious significance in Buddhism. It denotes Enlightenment or Perfect understanding.

(From the University Calendar 2000/2001)