



# **2020-21**

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# **STUDENT HANDBOOK**



**FACULTY OF  
SCIENCE**

UNIVERSITY OF PERADENIYA



# **STUDENT HANDBOOK 2020/2021**

**Faculty of Science  
University of Peradeniya**

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## MESSAGE FROM THE VICE CHANCELLOR



It is with great pleasure that I welcome the new entrants of the Faculty of Science to the University of Peradeniya, a comprehensive higher educational institute in the country having nine faculties covering all academic disciplines. Those who gain admission to the University of Peradeniya are undoubtedly a privileged group who will soon experience the excellent academic setting in a salubrious environment overlooking the Hanthana mountain range. It is your prime duty to take advantage of the rare opportunity gained by you through hard work of many years to fulfill your higher educational objectives, and become a balanced and a valuable citizen using the resources and unique and countless opportunities of the University of Peradeniya to the maximum. The University offers an environment conducive for intellectual pursuits of diverse nature.

I take this opportunity to wish all of you a very pleasant and memorable stay at the university and every success in your future academic activities.

Professor Upul B. Dissanayake  
Vice-Chancellor  
University of Peradeniya

(8<sup>th</sup> June 2021)

## MESSAGE FROM THE DEAN



On behalf of the Faculty of Science, University of Peradeniya, I welcome you to the Faculty which offers an academically sound, technologically advanced and socially conducive learning environment with a wealth of resources to the study of science. Citizens of our country have made a great investment for your education, and therefore, it is your duty to make use of the opportunity of being selected to the Faculty, to contribute to the advancement of the country. The undergraduate programmes offered by the Faculty of Science lead to the B.Sc. degree of either three or four year duration, which are designed to provide knowledge on both basic and applied sciences, together with comprehensive skills development components. Students admitted to the Faculty are privileged to acquire knowledge from academic staff members, who are globally, regionally and nationally renowned, highly accomplished scientists with international collaborations. Additionally, industrial training components included in most of the four year degree programmes provide hands-on experience in industrial setting, enhancing job opportunities. On the other hand, the Faculty is equipped with research laboratories with “state of the art” instruments for its students to obtain excellent research experience. At the end of the programme, you will not only be a science graduate with knowledge, but also possess necessary attitudes to be a kind, caring and compassionate human being. Consequently, the graduates of the Faculty easily find employment after the B.Sc. degree or take the route of pursuing education towards advanced degrees. Your predecessors, by their commitment and hard work, have brought fame and pride to this Faculty locally as well as globally. I hope you too would work towards achieving similar or even better standards and keep the flag of the University of Peradeniya flying high. I am certain that you enjoy your stay in the Faculty.

Professor Saluka R. Kodituwakku,  
Dean Faculty of Science,  
University of Peradeniya  
Email : deansci@pdn.ac.lk  
Tel : 081-239 4404  
Mobile : 0718446875  
Fax : 081-238 8018

## INTRODUCTION

The Faculty of Science, comprising the Departments of Botany, Chemistry, Mathematics, Physics and Zoology were initially located in Colombo along with other Faculties of the University of Ceylon. It had been decided to have the permanent home of the University in Peradeniya and accordingly, the Faculty of Arts, Oriental Studies, Law, Agriculture, Veterinary and Dental Sciences were established at Peradeniya by the early part of the 1951-60 decade.

The admission of the first batch of students took place in the 1961 –62 academic year. In order to accommodate the increasing demand for science education in the country the Faculty of Science in Colombo was allowed to form a second Faculty in Peradeniya and a part of the staff from the Colombo Faculty moved to Peradeniya Faculty at the early stages, while the latter gradually built up the staff by direct recruitment. Both branches of the Faculty functioned under common administration at each of the levels of department and faculty, with common curricula and examinations. In 1967 those segments of the University of Ceylon which were situated in Colombo were constituted as a separate and independent University. Thus, the second Faculty of Science at Peradeniya came into being on its own, as the Faculty of Science, University of Ceylon, Peradeniya.

Presently the Faculty consists of nine academic departments and two units namely, Department of Botany, Chemistry, Environmental & Industrial Sciences, Geology, Mathematics, Molecular Biology & Biotechnology, Physics, Statistics & Computer Science, Zoology, and Computer Unit and Science Education Unit. At present, about 600 students are admitted annually and student enrolment stands at about 1850 undergraduate and 200 postgraduate research students. There are 125 academic and 120 non – academic staff members in the Faculty. The Faculty of Science offers courses of study leading to Bachelor of Science and Bachelor of Science Honors Degrees. From the academic year 2001/2002 the courses are offered on a semester based course unit system. This has significantly increased the course combinations available to students allowing far more flexibility of selection of subject areas. With the introduction of the Course Unit System, the medium of instruction for all course of study offered by the Faculty was confined to English.

The Bachelor of Science degree programme has been broad-based and restructured to allow increased flexibility, with options to offer minor subjects outside the main disciplines. The major subjects offered are: Applied Mathematics, Biostatistics, Botany, Chemistry, Computer Science, Environmental Science, Geology, Molecular Biology & Biotechnology, Physics, Pure Mathematics and Statistics. The minor subjects are Basic Computing, Basic Electronics, Earth Science, Economics, Foods Science, Management and Science Education. The Faculty at present offers Honors degree programmes specializing in Biomedical Science, Botany, Chemistry, Computer Science, Environmental Science, Data Science, Geology, Mathematics, Microbiology, Molecular Biology & Biotechnology, Physics, Statistics and Zoology.

Bachelor of Science degree students may at the end of 3rd year be selected based on performance and given the option of following courses for an additional year with special emphasis on industry-related courses leading to a B.Sc. Honors degree in Applied Sciences in place of a Bachelor of Science degree.

The Faculty also conducts four-year B.Sc. Honors degree programmes in Computation and Managements (jointly with the Faculty of Arts) and in Statistics and Operations Research for students admitted from a separate window.

## **OFFICERS OF THE FACULTY OF SCIENCE**

Dean/ Faculty of Science  
Prof. S.R. Kodituwakku

Head/ Department of Botany  
Prof. K.M.G.G. Jayasuriya

Head/ Department of Chemistry  
Prof. M. Y. U. Ganehenegge

Head/ Department of Environmental and Industrial Sciences  
Dr. B. S. Dassanayake

Head/ Department of Geology  
Prof. S.P.K. Malaviarachchi

Head/ Department of Mathematics  
Dr. T.H.K.R. De Silva

Head/ Department of Molecular Biology and Biotechnology  
Prof. R.G.S.C. Rajapakse

Head/ Department of Physics  
Dr. V. Sivakumar

Head/ Department of Statistics and Computer Science  
Dr. R. D. Nawarathna

Head/ Department of Zoology  
Prof. W.A.I.P. Karunaratne

Director/ Science Education Unit  
Prof. L.R.A.K. Bandara

Assistant Registrar  
Ms. D. M. I. N. J. Dissanayake

Assistant Bursar  
Ms. S. A. W. Chathurani

## ACADEMIC STAFF

### DEPARTMENT OF BOTANY

Prof. K.M.G.G. Jayasuriya; *B.Sc. (Perad.), Ph.D. (Kentucky, USA)* **(Head of the Dept.)**

Prof. D.M.D. Yakandawala; *B.Sc. (Perad.), Ph.D. (Reading, UK)*

Prof. H.M.S.P. Madawala; *B.Sc. (Perad.), M.Phil., Ph.D. (Cantab)*

Prof. G.A.D. Perera; *B.Sc. (Perad.), M.Sc., D. Phil. (Oxford, UK)*

Prof. C.L. Abayasekera; *B.Sc., Ph.D. (Perad.)*

Prof. W.A.M. Daundasekera; *B.Sc. (Perad.), Ph.D. (Cranfield, UK)*

Prof. S.C.K. Rubasinghe; *B.Sc., M.Phil. (Perad.), Ph.D. (Edinburgh, UK)*

Dr. A.M. Karunaratne; *B.Sc. (Perad.), M.Sc. (Nebraska, USA), Ph.D. (Perad.)*

Dr. A.M.T.A. Gunaratne; *B.Sc. (Perad.), Ph.D. (Aberdeen, UK)*

Dr. J.W. Damunupola; *B.Sc. (Perad.), Ph.D. (Queensland, Australia)*

Dr. A.D.S.N.P. Athukorala; *B.Sc. (Perad.), M.Sc., Ph.D. (Manitoba, Canada)*

Dr. N.S. Gama Arachchige; *B.Sc. (Perad.), Ph.D. (Kentucky, USA)*

Dr. H.A.C.K. Ariyaratna; *B.Sc., M.Sc. (Perad.), M.Phil. (CMB),  
Ph.D. (UWA, Australia)*

Dr. W.R.P. Wijesinghe; *B.Sc. (Perad.), Ph.D. (Wayne State, USA)*

Dr. B.S. Nanayakkara; *B.Sc., M.Sc. (Perad.), Ph.D. (ANU, Australia)*

### DEPARTMENT OF CHEMISTRY

Prof. M.Y.U. Ganehenegge; *B.Sc. (Perad.), Ph.D. (Wayne State, USA)*

**(Head of the Dept.)**

Prof. R.M.G. Rajapakse; *B.Sc. (Perad.), Ph.D. (London, UK)*

Prof. A. Wickramasinghe; *B.Sc., M.Phil. (Perad.), Ph.D. (Muenster, Germany)*

Prof. H.M.D.N. Priyantha; *B.Sc. (Perad.), Ph.D. (Hawaii, USA)*

Prof. D.N. Karunaratne; *B.Sc. (CMB), Ph.D. (UBC, Canada)*

Prof. A.N. Navaratne; *B.Sc. (Perad.), Ph.D. (Hawaii, USA)*

Prof. A.D.L.C. Perera; *B.Sc. (Perad.), M.Sc., Ph.D. (TIT, Japan)*

Prof. C.V. Hettiarachchi; *B.Sc. (Perad.), Ph.D. (TIT, Japan)*

Dr. W.M.A.T. Bandara; *B.Sc. (Perad.), Ph.D. (TIT, Japan)*

Dr. V.N. Seneviratne; *B.Sc. (Perad.), Ph.D. (Cambridge, UK)*

Dr. A.C.A. Jayasundera; *B.Sc. (SJP), M.Phil. (Cardiff, UK), Ph.D. (St. Andrews, UK)*

Dr. J.M.S.J. Menike; *B.Sc. (Perad.), Ph.D. (Kansas, USA)*

Dr. R. J. K. U. Ranatunga; *B.Sc. (Perad.), Ph. D (UT Dallas, USA)*

Dr. D. Uduwela; *B.Sc. (Perad.), Ph.D. (ANU, Australia)*  
 Dr. S.S. Gunathilaka; *B.Sc. (Perad.), Ph.D. (UT Dallas, USA)*  
 Dr. J. A. T. C. Ariyasena; *B.Sc. (Perad.), Ph.D. (Wayne State, USA)*  
 Dr. H.A.I.R. Perera; *B.Sc. (Perad.), Ph.D. (Monash, Australia)*  
 Dr. M. Wijesinghe; *B.Sc. (Perad.), Ph.D. (Kansas, USA)*  
 Dr. A. Welegedara; *B.Sc. (Perad.), Ph.D. (ANU, Australia)*  
 Mr. M.R.S.S.B. Gunasekara; *B.Sc. (Perad.)*  
 Ms. J. Liyanage; *B.Sc. (Perad.)*  
 Ms. S. Dayawansha; *B.Sc. (Perad.)*  
 Ms. D. Rajapaksha; *B.Sc. (Perad.)*  
 Mr. H. De Silva; *B.Sc. (Perad.)*

## **DEPARTMENT OF ENVIRONMENTAL AND INDUSTRIAL SCIENCES**

Dr. B.S. Dassanayake; *B.Sc. (Perad.), Ph.D. (Western Michigan, USA)* **(Head of the Dept.)**

## **DEPARTMENT OF GEOLOGY**

Prof. S.P.K. Malaviarachchi; *B.Sc. (Perad.), Pg. Dip (Perad), M.Sc. (Shimane, Japan),  
 Ph.D. (Okayama, Japan)* **(Head of the Dept.)**  
 Prof. A. Senaratne; *B.Sc. (Perad.), M.Sc. (London, UK), Ph.D. (Mainz, Germany)*  
 Prof. R.L.R. Chandrajith; *B.Sc. (Perad.), M.Sc. (Shimane, Japan),  
 Ph.D. (Erlangen, Germany)*  
 Prof. H.A.H. Jayasena; *B.Sc. (Perad.), M.Sc. (Colorado, USA)*  
 Prof. H.M.T.G.A. Pitawala; *B.Sc., M.Phil. (Perad.), Ph.D. (Mainz, Germany)*  
 Prof. L.R.K. Perera; *B.Sc., M.Phil. (Perad.)*  
 Prof. N.W.B. Balasooriya; *B.Sc., M.Phil. (Perad.), Ph.D. (INPG, France)*  
 Dr. A.A.J.K. Gunatilake *B.Sc. (Perad.), M.Sc. (AIT, Thailand), Ph.D. (Saga, Japan)*  
 Dr. R.M.U.B. Amarasinghe; *B.Sc. (Perad.), M.Sc. (AIT, Thailand),  
 Ph.D. (Adelaide, Australia)*  
 Dr. N.H. Koralegedara; *B.Sc. (Perad.), M.S., Ph.D. (Cincinnati, USA)*  
 Dr. B. M. B. Athurupana; *B.Sc. (Perad.), M.Sc. (Tohoku, Japan), Ph.D. (Tohoku, Japan)*  
 Dr. P.L. Dharmapriya; *B.Sc., Ph.D. (Perad.)*

## **DEPARTMENT OF MATHEMATICS**

Dr. T.H.K.R. De Silva; *B.Sc. (Perad.), Ph.D. (Tennessee, USA)* **(Head of the Dept.)**

Prof. A.A.I. Perera; *B.Sc. (Perad.), M.Sc. (Oslo, Norway), Ph.D. (RMIT, Australia)*

Prof. W. B. Daundasekara; *B.Sc. (Perad.), Ph.D. (Alabama, USA)*

Ms. W.N.P. Rodrigo; *B.Sc., M.Phil (Perad.)*

Dr. Z.A.M.S. Juman, *B.Sc. (Perad.), Ph.D. (UBD, Brunei)*

Dr. P.G.R.S. Ranasinghe; *B.Sc. (Perad.), Ph.D. (UCF, USA)*

Dr. A.K. Amarasinghe; *B.Sc. (Perad.), M.Sc. (Florida, USA), Ph.D. (Florida, USA)*

Dr. U.G.I.G.K. Udagedara; *B.Sc. (Perad.), M.Sc. (Clarkson, USA),*  
*Ph.D. (Clarkson, USA)*

Dr. A.M.C.U.M. Athapattu; *B.Sc. (Perad.), M.Sc. (SIUC, USA), Ph.D. (SIUC, USA)*

Ms.M.M.R. Balasooriya; *B.Sc. (Perad.)*

Ms.A.A.C.A. Jayathilake; *B.Sc. (Perad.)*

Mr.K.M.N.M. Chathuranga; *B.Sc. (Perad.)*

Ms. H.M.I.U. Herath; *B.Sc. (Perad.)*

Mr. K.D.E. Dhananjaya; *B.Sc. (Perad.)*

Ms. W.V. Nishadi; *B.Sc. (Perad.)*

#### **DEPARTMENT OF MOLECULAR BIOLOGY AND BIOTECHNOLOGY**

Prof. R.G.S.C. Rajapakse; *B.Sc. (Perad.), M.Phil. (Perad.),*  
*Ph.D. (Hokkaido, Japan) (Head of the Dept.)*

Prof. P. Samaraweera; *B.Sc. (Perad.), Ph.D. (Arizona, USA)*

Dr. M. P. C.S. Dhanapala; *B.Sc. (Perad.), M.Sc. (Saga, Japan), Ph.D. (CMB)*

Dr. B.A.D.H. Beligala; *B.Sc. (Perad.), M.Sc., Ph.D. (Bowling Green, USA)*

#### **DEPARTMENT OF PHYSICS**

Dr. V. Sivakumar; *B.Sc. (Perad.), M.Sc., Ph.D. (Georgia, USA) (Head of the Dept.)*

Prof. P. Samarasekara; *B.Sc. (KLN), Ph.D. (CUNY, USA)*

Prof. L.R.A.K. Bandara; *B.Sc., Ph.D. (Perad.)*

Dr. P.W.S.K. Bandaranayake; *B.Sc., Ph.D. (Perad.)*

Dr. J. P. Liyanage; *B.Sc. (CMB), Ph.D. (CMB)*

Dr. V.A. Seneviratne; *B.Sc. (Perad.), M.Sc., Ph.D. (Oklahoma, USA)*

Dr. C.P. Jayalath; *B.Sc. (Perad.), Ph.D. (Hampton, USA)*

Dr. B.S. Dassanayake; *B.Sc. (Perad.), Ph.D. (Western Michigan, USA)*

Dr. T. P. Ranawaka; *B.Sc. (Perad.), Ph.D. (Houston, USA)*

Dr. B.M.K. Pemasiri; *B.Sc. (Perad.), Ph.D. (Cincinnati, USA)*

Dr. L.K. Narangammana; *B.Sc. (Perad.), Ph.D. (Connecticut, USA)*  
 Dr. T.M.W.J. Bandara; *B.Sc. (Ruhuna.), Ph.D. (Perad.)*  
 Dr. D.R.A. Mendis; *B.Sc. (KLN), Ph.D. (Kansas, USA)*  
 Dr. C.S. Perera; *B.Sc. (Perad.), Ph.D. (QUT, Australia)*  
 Dr. E.N. Jayaweera; *B.Sc., Ph.D. (Perad.)*  
 Dr. W.M.K.B.N. Wijyaratne; *B.Sc. (Perad.), Ph.D. (Virginia, USA)*  
 Dr. D. Kahanda; *B.Sc. (Perad.), M.Sc., Ph.D. (UT Dallas, USA)*  
 Dr. N.L. Dasanayake; *B.Sc. (Perad.), M.Sc., Ph.D. (Washington in St. Louis, USA)*  
 Mr. K.S. Dhanawansa; *B.Sc. (Perad.)*

#### **DEPARTMENT OF STATISTICS AND COMPUTER SCIENCE**

Dr. R.D. Nawarathna; *B.Sc. (Perad.),*  
*M.Sc., Ph.D. (North Texas, USA) (Head of the Dept.)*  
 Prof. P. Wijekoon; *B.Sc. (KLN), Ph.D. (Dortmund, Germany)*  
 Prof. S.R. Kodituwakku; *B.Sc. (Perad.), M.Sc. (AIT, Thailand), Ph.D. (RMIT, Australia)*  
 Prof. Y.P.R.D. Yapa; *B.Sc. (SJP), M.Sc. (CMB), D.Eng. (Hiroshima, Japan)*  
 Dr. U.A.J. Pinidiyaarachchi; *B.Sc. (Perad.), Ph.D. (Uppsala, Sweden)*  
 Dr. P.M.S.A. Ruwan; *B.Sc. (CMB), M.Sc. (Perad.), Ph.D. (Göttingen, Germany)*  
 Dr. H.T.K. Abeysundara; *B.Sc. (Perad.), M.Sc., Ph.D. (Texas Tech, USA)*  
 Dr. S.P. Abeysundara; *B.Sc. (Perad.), M.Sc., Ph.D. (Texas Tech, USA)*  
 Dr. L.S. Nawarathna; *B.Sc. (Perad.), M.Sc., Ph.D. (UT Dallas, USA)*  
 Dr. R. Siyambalapitiya; *B.Sc., Ph.D. (Perad)*  
 Dr. T.M.H.A. Usoof; *B.Sc. (Perad.), Ph.D. (Umeå, Sweden)*  
 Mr. P.M.P.C. Gunathilake; *B.Sc., M.Phil. (Perad.)*  
 Mr. D.M.M.B. Dehideniya; *B.Sc. (CMB), M.Sc. (Moratuwa), Ph.D. (QUT, Australia)*  
 Dr. H.R.O.E. Dayaratne; *B.Sc. (Perad.), Ph.D. (Keio, Japan)*  
 Mr. M.A.P. Chamikara; *B.Sc., M.Phil. (Perad.)*  
 Ms. W.M.T.D. Kularatne; *B.Sc (Perad.), M.Sc. (CMB)*  
 Mr. T.M.M.B.B. Abeysinghe; *B.Sc (Perad.)*

#### **DEPARTMENT OF ZOOLOGY**

Prof. W.A.I.P. Karuaratne; *B.Sc., Ph.D. (Perad.) (Head of the Dept.)*  
 Prof. S.H.P.P. Karunartne; *B.Sc., M.Sc. (Perad.), Ph.D. (London, UK)*  
 Prof. K.B. Ranawana; *B.Sc., M.Phil. (Perad.), M.S. (SUNY-ESF, USA), Ph.D. (Perad.)*

Prof. R.S. Rajakaruna; *B.Sc., M.Phil. (Perad.), Ph.D. (MUN, Canada)*,  
Prof.(Ms.) S.K. Yatigammana; *B.Sc., M.Sc. (Perad.), Ph.D. (Queens University, Canada)*  
Prof. S.H. Boyagoda; *B.Sc., M.Sc. (Perad.), Ph.D. (Boston, USA)*  
Prof. W.A.P.P. De Silva; *B.Sc., M.Phil. (Perad.), Ph.D. (Texas Tech, USA)*  
Dr. N.P.S. Kumburegama; *B.Sc. (Perad.), Ph.D. (Hawaii, USA)*  
Mr. W.M.C.S. Wijesundara; *B.Sc., M.Sc., M.Phil. (Perad.)*  
Dr. T.C. Weeraratne; *B.Sc., Ph.D. (Perad.)*  
Dr. P.K. Perera; *B.Sc. (Perad.), Ph.D. (Melbourne, Australia)*  
Ms. C.S. Munasinghe; *B.Sc. (Perad.)*  
Mr. D.R.G.W.B. Ellepola; *B.Sc., M.Phil. (Perad.)*  
Ms. S.D. Tennakoon; *B.Sc. (Perad.)*

#### **SCIENCE EDUCATION UNIT**

Prof. L.R.A.K. Bandara; *B.Sc., Ph.D. (Perad.)* (**Director of the Unit**)  
Dr. W.D. Chandrasena; *B.Sc., M.Sc. (Perad.), M.Phil. (CMB), Ph.D. (UWS, Australia)*  
Mr. A.M.R.S. Bandara; *B.Sc. (Perad.)*

## **DEPUTY PROCTOR, ACADEMIC COUNSELOR AND SENIOR STUDENT COUNSELORS**

### **Deputy Proctor**

Dr. A.K. Amarasinghe  
Department: Mathematics  
Contact No: 0718501625  
Email: [ashwini.rc@gmail.com](mailto:ashwini.rc@gmail.com)

### **Academic counselor**

Dr. C.P. Jayalath  
Department: Physics  
Contact No: 0703215047  
Email: [jacpiyalath@gmail.com](mailto:jacpiyalath@gmail.com)

### **Senior Student Counselors**

Dr. S.N.P. Athukorala  
Department: Botany  
Contact No: 0768723626  
Email: [sarangi\\_a@yahoo.com](mailto:sarangi_a@yahoo.com)

Dr. D.R. Uduwela  
Department: Chemistry  
Contact No: 0774477949  
Email: [dimanthi.uduwela@sci.pdn.ac.lk](mailto:dimanthi.uduwela@sci.pdn.ac.lk)

Dr. P.L. Dharmapriya  
Department: Geology  
Contact No: 0713317951; 0759857175  
Email: [dharmapriyapdn@gmail.com](mailto:dharmapriyapdn@gmail.com)

Dr. U.G.I.G.K. Udagedara  
Department: Mathematics  
Contact No: 0702404226  
Email: [gayaniclark@gmail.com](mailto:gayaniclark@gmail.com)

Dr. DH Beligala  
Department: Molecular Biology & Biotechnology  
Contact No: 070 1590009  
Email: [dilshanb@sci.pdn.ac.lk](mailto:dilshanb@sci.pdn.ac.lk)

Dr. TP Ranawaka  
Department: Physics  
Contact No: 0710594999  
Email: [tpranawaka@sci.pdn.ac.lk](mailto:tpranawaka@sci.pdn.ac.lk)

Dr. H.T.K. Abeysundara  
Department: Statistics & Computer Science  
Contact No: 0774924765  
Email: [hktabey@pdn.ac.lk](mailto:hktabey@pdn.ac.lk)

Dr. T.C. Weeraratne  
Department: Zoology  
Contact No: 0777258829  
Email: [thiliniw@pdn.ac.lk](mailto:thiliniw@pdn.ac.lk)

## COURSE UNIT SYSTEM AT THE FACULTY OF SCIENCE

The Faculty of Science conducts courses under a semester based course unit system and the details are given below:

### 1. THE MEANING OF SOME OF THE FREQUENTLY USED TERMS

**Semester:** An academic year is divided into two semesters, identified as the first semester and the second semester of a particular year such that each semester is of 15 weeks duration.

**Course Unit:** This is a complete course taught within a semester with one or more contact hours per week. A contact hour is defined as an hour of lectures, practical, tutorials etc.

**Levels:** Undergraduate courses will be conducted at 4 levels, namely 1000, 2000, 3000 and 4000. The subject matters in courses get progressively advanced as the levels go higher. However, a student may register for any course unit at a lower level, subject to the recommendation of the Head of the Department.

**Credit:** The abstract value assigned to a course unit on the basis of contact hours per week is called a credit. Usually, one credit is equivalent to 15 hours of lectures/tutorials or 30 - 45 hours of laboratory work, field classes etc. Course units of one credit, two credits and three credits are available. The contents of a three credit course unit, for example, are approximately three times that of a course unit of one credit.

**Grade Point:** The range of marks is partitioned into a sequence of suitable sub-ranges (as decided by the Faculty) and the sub-ranges are designated by the symbols **A<sup>+</sup>, A, A<sup>-</sup>, B<sup>+</sup>, B, B<sup>-</sup>, C<sup>+</sup>, C, C<sup>-</sup>, D<sup>+</sup>, D** and **E**. These are called grades and grade points are assigned as follows:

<b>A<sup>+</sup> = 4.0</b>	<b>B<sup>+</sup> = 3.3</b>	<b>C<sup>+</sup> = 2.3</b>	<b>D<sup>+</sup> = 1.3</b>
<b>A = 4.0</b>	<b>B = 3.0</b>	<b>C = 2.0</b>	<b>D = 1.0</b>
<b>A<sup>-</sup> = 3.7</b>	<b>B<sup>-</sup> = 2.7</b>	<b>C<sup>-</sup> = 1.7</b>	<b>E = 0</b>

(Note: **A<sup>+</sup>** and **A** have the same grade points.)

**Grade Point Average (GPA):** The grade point average for each level is the credit weighted mean of grade points obtained by a student for the course units he/she has offered at that level. It is calculated to the second decimal place and is an indicator of the academic performance of the student. The final GPA is computed using these level GPAs' by giving percentage weights for different levels as described under item 6.

**Prerequisites:** The subject matter in a course unit at a lower level is sometimes essential to follow a course unit at a higher level. The course unit at the lower level so needed is called a prerequisite of the course unit at higher level. A student is required to obtain at least **D** grade for each of the prescribed prerequisite course units (if any) before offering the higher level course unless this requirement is waived by the department offering the higher level course. At the beginning of the academic year, each department will announce the courses offered and their prerequisites (if any).

## **2. ORGANIZATIONAL DETAILS**

- I. The Faculty conducts courses on a semester basis. The medium of instruction shall be English. Students can seek the assistance of the academic counselor and academic advisors who will help them to select appropriate subject combinations. Students are responsible for planning their programmes, but they will be guided by the academic counselor and the advisors to select course units required for the Degree Programme.
- II. Each department will use a three-letter prefix together with a four-digit number to identify the course units offered by that department. The first three letters will indicate the department/subject while the first digit and the last digit of the four-digit number will indicate the level and the credit number, respectively.  
For example, a 1000 level 3 credits course unit offered by the Department of Mathematics may be named as MAT1013.
- III. The Head of the relevant department will advise the students on the mode of selection of the appropriate course combinations for a Special Degree Programme.
- IV. There will be a minimum and a maximum number of students that could be accommodated in a given course. The department shall decide on these numbers, having taken into consideration the nature of the course unit and the available facilities of the department.

## **3. TYPES OF COURSE UNITS AND SUBJECTS**

Course units are derived from the following categories:

- I. Foundation Courses
- II. Principal Subject Area
- III. Supplementary Courses
- IV. Applied Sciences Subject Area
- V. Statistics and Operations Research Subject Area
- VI. Computation and Management Subject Area
- VII. Inter-Faculty Courses
- VIII. Non-GPA Courses

### **I. Foundation Courses (available only at 1000 level)**

Foundation courses are compulsory for all students. They comprise of courses on English Language (ENG1002) and Computer Applications (CSC1002), each carrying 2 credits and a course on basic Biology (BIO1002)/Mathematics (MAT 1002/MAT1202)/Law and Ethics (ESS1006). The grade earned in ENG1002 will not be counted in the computation of the GPA. Students who have entered to different Degree Programmes through different A/L subject streams should follow foundation courses as depicted in the table below:

<div> Degree Programmes  Foundation Courses </div>	B.Sc./Honors/Applied Sciences Degree Programmes		Statistics and Operations Research Degree Programme (SOR)	Computation and Management Degree Programme (CM)	
	Biological Science stream	Physical Science stream		Arts, Commerce or Biology stream at G.C.E (A/L)	Physical Science stream at G.C.E. (A/L)
ENG1002 English for Academic Purposes	√	√	√	√	√
CSC1002 Computer Applications	√	√	√	√	√
MAT1002 Mathematics for Biological Sciences	√				
BIO1002 Basic Life Sciences		√	√		
MAT1202 Foundation Course in Mathematics				√	
ESS1006 Personality, Leadership and Ethic					√

## Principal Subject Area

### 1000 level courses

Course units in the following subjects will be available at the 1000 level:

Biology*	Computer Science	Geology
Biology**	Mathematics*	Physics
Chemistry	Mathematics**	Statistics

### 2000/3000/4000 level courses

Course units in the following subjects will be available:

Botany	Molecular Biology & Biotechnology
Chemistry	Physics
Computer Science	Statistics
Geology	Zoology
Mathematics	

### Special degree subjects offered only at 3000 and 4000 Levels

Biomedical Science	Environmental Science
Data Science	Microbiology

### III. Supplementary Courses

- MGT2012 Management Studies I (2 credits)
- MGT3012 Management Studies II (2 credits)
- ECN2013 Introductory Economic Theory (3 credits)
- ECN3012 Sri Lankan Economy (2 credits)
- SED2012 Foundations in Science Education (2 credits)
- SED2022 Educational Philosophy and Educational Management (2 credits)
- SED3012 Methodology in Teaching Science (2 credits)
- SED3022 Teaching Practice (2 credits)
- SED3032 Assessing Students in the Learning Process (2 credits)

Supplementary courses are not compulsory. A student cannot be offered more than 12 credits from the above supplementary courses for a General/Honors/Applied Sciences Degree Programme.

### IV. Applied Sciences Subject Area (available only at 4000 level)

Industry related course units, which are generally available only to students extending their Bachelor Degree Course by a fourth year and offering the B.Sc. Hons. in Applied Sciences Degree Programme.

### V. Statistics and Operations Research (SOR) Subject Area

Course units which are available to students admitted for the B.Sc. Hons. in Statistics and Operations Research degree programme from a separate window by the University Grants Commission (UGC).

### VI. Computation and Management (CM) Subject Area

Course units which are being offered jointly by the Faculties of Science, Arts and Management to students admitted for the B.Sc. Hons. in Computation and Management degree programme from a separate window by the UGC.

### VII. Inter-Faculty Courses

Course units offered by another Faculty of this university may also be selected by the students provided these courses are approved by the Faculty Board of Science as suitable for the course offered by the student.

### VIII. Non-GPA Courses

Six compulsory courses are offered by the Faculty and all the students have to follow these courses. The grades earned for these courses will not be counted for calculation of final GPA. However, these courses should be successfully completed for the completion of the Degree.

SCI1011	Laboratory Safety
SCI1021	Academic Ethics and Integrity
SCI1031	Healthy Relationships and Interpersonal Dynamics
SCI1021	Essential Skills for Career Development
SCI3012	Advanced Strategies for Professional Development
ENG2002	English for Professional Purposes

#### **4. TYPES OF UNDERGRADUATE DEGREES AWARDED**

The Faculty conducts Bachelor of Science (B.Sc.) Degree Programmes and Bachelor of Science Honors (B.Sc. Hons.) Degree Programmes. Initially, a student registers for a B.Sc. Degree Programme, and at the end of the second year, he/she may continue to follow the B.Sc. Degree Programme or register for a Honors Degree Programme. The second option is possible only if the student fulfills certain criteria as stipulated in the section "Criteria for Selection to a B.Sc. Hons. Degree Programme by specializing in a subject area". The duration of a B.Sc. Degree Programme is three academic years, while that of a Honors Degree Programme is four academic years. At the end of third year, based on performance, B.Sc. Degree students may be selected to follow a B.Sc. Hons. in Applied Sciences Degree Programme in place of a three-year B.Sc. Degree.

The Faculty also conducts four-year B.Sc. Honors Degree Programmes in Computation and Management (jointly with the Faculties of Arts and Management) and in Statistics and Operations Research for students admitted through separate windows.

#### **5. SELECTION OF COURSE UNITS**

The course units offered by each department will be available at the beginning of each semester, and the students are required to register on or before a date specified by the Faculty using the online registration system (<http://scisis.fos.pdn.ac.lk/>). Late registrations may be accepted under exceptional circumstances at the discretion of the Faculty on payment of a prescribed fine. In each academic year, a student must register for not less than 27 and not more than 33 credits, excluding repeated course units. Academic advisors will help students to select course units judiciously. Once the course units are selected, students shall register for each course unit thus selected at the beginning of the semester and he/she can offer only these course units to earn credits.

During the first year, at their 1000 level, students other than those who have been admitted through a separate window shall be selected for a combination of three subjects from the principal subject area and select the course units coming under these subjects (subject combinations offered are listed at the end of this section). Students should follow all the components of the selected subjects, i.e. theory, practical, field work etc. During the second year of the B.Sc. Degree Programme, students should select at least two subjects from the principal subject area at 2000 level (refer to the "Requirements to Pass the B.Sc. Degree"). The remaining credits required, if any, shall be selected from the other subjects in the principal subject area/supplementary courses. During the third year of the B.Sc. Degree Programme, the students shall select the respective course units at 3000 level as in the second year.

B.Sc. Degree students, at the end of third year, are selected to the fourth year of the programme leading to the B.Sc. Hons. in Applied Sciences. These students should select at least 30 credits at the 4000 level from the Applied Sciences subject area including a 8-credit course unit in industrial training.

During the third and fourth years of the Honors Degree Programme, the students shall select course units from the subject of specialization at 3000 and 4000 levels, so that their credits will add up to at least 24 per academic year. The relevant department may specify the remaining course units that should be offered. Further, the Honors Degree students will do a research project, which will carry a minimum of 6 credits. Students following the Statistics and Operations Research or the Computation and Management Degree Programmes should select course units specified for these programmes.

Following subject combinations will be offered under Physical and Biological Science streams (There should be a minimum number of 10 student enrollments to offer a combination).

<b>Principal Subject Combination</b>	<b>Combination No.</b>	<b><i>Special Degrees Available</i></b>
Biology**, Chemistry	1 – BBC	Botany, Chemistry, Environmental Sc., Mol. Biol. & Biotech., Zoology, Microbiology, Biomedical Science
Biology*, Chemistry, Statistics	2 – BCS	Botany, Chemistry, Environmental Sc., Mol. Biol. & Biotech., Zoology, Statistics, Microbiology, Biomedical Science
Biology*, Chemistry, Computer Science	3 – BCC	Botany, Chemistry, Environmental Sc., Computer Sc., Mol. Biol. & Biotech., Zoology, Microbiology, Biomedical Science
Biology*, Chemistry, Physics	4 – BCP	Botany, Physics, Chemistry, Environmental Sc., Mol. Biol. & Biotech., Zoology, Microbiology, Biomedical Science
Biology*, Chemistry, Geology	8 – BCG	Botany, Environmental Sc., Geology, Chemistry, Mol. Biol. & Biotech., Zoology, Microbiology, Biomedical Science
Chemistry, Geology, Physics	15 – CGP	Chemistry, Environmental Sc., Geology, Physics
Chemistry, Mathematics**	18 – CMM	Chemistry, Environmental Sc., Mathematics
Chemistry, Mathematics*, Physics	19 – CMP	Chemistry, Environmental Sc., Physics
Chemistry, Computer Science, Statistics	21 – CCS	Chemistry, Environmental Sc., Computer Sc., Statistics, Data Science
Chemistry, Mathematics*, Statistics	22 – CMS	Chemistry, Environmental Sc., Statistics
Mathematics*, Computer Science, Statistics	26 – MCS	Computer Sc., Statistics, Data Science
Physics, Mathematics**	27 – PMM	Physics, Mathematics
Physics, Computer Science, Geology	28 – PCG	Physics, Computer Sc., Geology
Statistics, Mathematics**	30 – SMM	Statistics, Mathematics
Physics, Mathematics*, Computer Science	31 – PMC	Physics, Computer Sc.
Physics, Mathematics*, Statistics	32 – PMS	Physics, Statistics

There may be additional requirements to be eligible for the above mentioned Special Degrees. For example, the Data Science degree programme is offered only for Physical Science students and they have to complete compulsory MAT courses at 1000 level.

## 6. ASSIGNMENT OF GRADES, GRADE POINTS AND GPA

The grades submitted by the instructor will be reviewed by a committee comprising a minimum of three members including the Head of the Department, instructor and another faculty member. The Head of the Department will submit the grades obtained by the students for all the course units under his purview to the Dean's Office. The GPA of each student for each level is calculated using the formula  $GPA = \sum c_i g_i / \sum c_i$ , where  $c_i$  and  $g_i$  are the number of credits and the grade point for the  $i^{th}$  course unit respectively, offered at that level. Following percentage weights will be given for different levels in the computation of the final GPA:

	Percentage weights for B.Sc. Degree	Percentage weights for Honors Degrees
1000 level	20 %	20 %
2000 level	40 %	20 %
3000 level	40 %	30 %
4000 level		30 %

### Other types of grades

**Grade W:** Withdrawal from a course unit within the first two weeks of registration is allowed, provided that the minimum credit requirement is not violated. Withdrawals after this period cannot be accepted, except on medical grounds or other valid reasons. These courses will be assigned a grade W.

**Grade I:** A grade "I" should be given for a student who has sufficiently covered the course but not sat for the end semester examination. If a reason, acceptable to the Faculty Board of Science is not given, the grade will be computed with the available marks and that grade will be assigned replacing the grade "I". If an acceptable reason is given for being absent, the student will be allowed to sit for an end semester examination as a proper candidate and a new grade will be assigned replacing "I". This may be the next available attempt or a make-up examination as decided by the Dean in consultation with the Head/Coordinator on a case-by-case basis.

## 7. EVALUATION PROCEDURE

In consultation with the Head of the Department, the instructor shall announce, at the commencement of the course, how it will be evaluated. A course unit may be evaluated by means of continuous assessments (assignments, quizzes and mid-semester examination) and end-semester examination, etc. Mid-semester examination is optional. Following weightages will be given at the calculation of the final mark.

Continuous assessments (with or without mid-semester examination) : 20 - 40 %  
End semester examination (comprehensive) : 60 - 80 %

To earn credits for a course unit, the student should obtain at least a **D** grade for that course unit.

## **8. ATTENDANCE AND REPETITION OF A COURSE UNIT**

University regulations require 80% attendance for all components of a course. Absence on medical grounds or any other valid reasons must be approved by the Faculty Board. The instructor should report to the Head of the Department, the names of students who are excessively absent. The department will decide whether the missed work/examination could be made up. When absence from classes of a course is not approved, the course will be graded **E**.

A student who obtains grades of **C-**, **D+**, **D** or **E** for a course unit may repeat that course unit by sitting the final examination, in order to improve his/her grade. The maximum grade given shall be a grade **C**. However, repeat candidates will not be allowed to attend practical classes. They may be allowed to sit a repeat practical examination.

## **9. CRITERIA TO PROCEED TO THE 2000 LEVEL OF THE DEGREE PROGRAMME**

A student should obtain a minimum *GPA* of 1.70 at the 1000 level to enter the 2000 level. The maximum period a student is allowed to stay at 1000 level is four years.

## **10. CRITERIA FOR SELECTION TO THE B.Sc. Hons. IN APPLIED SCIENCES DEGREE PROGRAMME**

The B.Sc. Hons. in Applied Sciences Degree Programme will be offered to a limited number of students as decided by the Faculty. Selection of students for this four-year Degree Programme shall be made at the end of the third year among the students admitted to the B.Sc. Degree Programme. The minimum requirements necessary to apply for selection to the B.Sc. Hons. in Applied Sciences Degree Programme are as follows:

- I. Satisfy requirements 1, 2 and 3 given under the section titled “Requirements to Pass the B.Sc. Degree” and,
- II. *GPA* of at least 2.50

## **11. REMOVAL/WITHDRAWAL FROM THE B.Sc. Hons. IN APPLIED SCIENCES DEGREE PROGRAMME**

In the event a student wants to opt out from the B.Sc. Hons. in Applied Sciences Degree Programme, he/she may inform the Head/EIS through the Coordinator/Applied Sciences of his/her decision before the beginning of the second semester of the fourth year. Performance of such students will be considered for the award of a B.Sc. Degree under the section titled “Requirement to Pass the B.Sc. Degree” at the next meeting of the Board of Examiners.

## **12. CRITERIA FOR SELECTION TO A B.Sc. Hons. DEGREE PROGRAMME BY SPECIALIZING A SUBJECT AREA**

Selection of students for Honors Degree Programmes by specializing a subject area shall be made at the end of the second academic year. The students may apply to follow such an Honors Degree Programme in any one of the following subject areas; Biomedical Science, Botany, Chemistry, Computer Science, Data Science, Environmental Science, Geology,

Mathematics, Microbiology, Molecular Biology and Biotechnology, Physics, Statistics and Zoology.

The minimum requirements necessary to apply for selection to the Honors Degree Programme by specializing a subject area are:

- At least a *GPA* of 2.50 from the 1000 and 2000 level course units that are considered for the degree in the selected subject of specialization.
- At least 16 credits for course units (32 credits for Mathematics) from the subject of specialization of which at least 8 credits (16 credits for Mathematics) should be at the 2000 level.
- At least grade **C** for each of the foundation courses offered.

Any deviation from the above minimum requirements should be done in consultation with the Dean of the Faculty.

### **13. WITHDRAWAL FROM THE B.Sc. Hons. DEGREE PROGRAMME BY SPECIALIZING A SUBJECT AREA**

In the event a student wants to opt out from an Honors Degree Programme by specializing a subject area, he/she should inform the relevant Head of the Department within the first four weeks after the selection for the Honors Degree programme and revert to the B.Sc. Degree programme.

### **14. REQUIREMENTS TO PASS THE B.Sc. DEGREE**

The Board of Examiners will meet to consider the performance of the candidates. To pass the B.Sc. Degree, candidates have to fulfill the following requirements:

- I. Obtain at least grade **C** for the three foundation courses.
- II. Successfully complete the Non-GPA courses.
- III. At least 90 credits (excluding ENG1002 and Non-GPA courses) with the following minimum credit requirements:

24 credits from each principal subject should be earned by selecting courses subject to a minimum of eight credits each at 1000, 2000 and 3000 level. The remaining requirements can be met by following courses in different subject/subjects. Not more than 12 credits are allowed from the supplementary courses.
- IV. **E** grades should not appear within the minimum number of credits required.
- V. Obtain a *GPA* of at least 2.00

- Note:**
- (i) Students who fulfill all the above requirements may apply for the award of the B.Sc. Degree.
  - (ii) A student who has not fulfilled any of the above requirements may repeat the course units in order to fulfill the requirements.

## 15. AWARD OF CLASSES FOR THE B.Sc. DEGREE PROGRAMME

A student who has fulfilled all the conditions stipulated in "The requirements to pass the B.Sc. degree" shall be awarded classes, if he/she fulfills the following additional requirements:

- |                                  |  |
|----------------------------------|--|
| First Class                      | (i) <i>GPA</i> of 3.70 and over<br>(ii) At least grade <b>C</b> for all the course units whose credits will add up to at least 84<br>(iii) Completion of the Degree Programme within three years |
| Second Class<br>(Upper Division) | (i) <i>GPA</i> of 3.30 – 3.69<br>(ii) At least grade <b>C</b> for all the course units whose credits will add up to at least 76<br>(iii) Completion of the Degree Programme within three years   |
| Second Class<br>(Lower Division) | (i) <i>GPA</i> of 3.00 - 3.29<br>(ii) At least grade <b>C</b> for all the course units whose credits will add up to at least 76<br>(iii) Completion of the Degree Programme within three years   |

Award of classes will be decided by the Board of Examiners using the above criteria as guidelines.

## 16. REQUIREMENTS TO PASS THE B.Sc. Hons. IN APPLIED SCIENCES DEGREE

The Board of Examiners will meet to consider the performance of the candidates. To pass the Degree, candidates have to fulfill the following requirements:

- I. Obtain at least grade **C** for the three foundation courses.
- II. Successfully complete the Non-GPA courses.
- III. At least 90 credits (excluding ENG1002 and Non-GPA courses) from the 1000, 2000 and 3000 levels together with the compulsory courses as specified in Section 14 (Requirements to Pass the B.Sc. Degree).
- IV. At least 30 credits at 4000 level from the course units in the Applied Sciences subject area including the compulsory courses and the industrial training component.
- V. Obtain at least grade **C** for course units whose credits will add up to at least 106 (excluding ENG1002 and Non-GPA courses).
- VI. Obtain at least grade **C** for the industrial training component.
- VII. **E** grades should not appear within the minimum number of credits required.
- VIII. Obtain a *GPA* of at least 2.00

- Note:**
- (i) Grades obtained by a student except ENG1002, Non-GPA courses and the industrial training component subject to the requirements stipulated in II and III above shall be considered in the computation of the final GPA.
  - (ii). Students who fulfill all the above requirements may apply for the award of the B.Sc. Hons. in Applied Sciences.
  - (iii). A student who has not fulfilled the requirements at 4000 level may repeat the course units in order to fulfil the requirements at the next available attempt.

## **17. AWARD OF CLASSES FOR THE B.Sc. Hons. IN APPLIED SCIENCES DEGREE PROGRAMME**

A student who has fulfilled all the conditions stipulated in "The requirements to pass the B.Sc. Hons. in Applied Sciences Degree" shall be awarded classes, if he/she fulfills the following additional requirements:

First Class	(i) <i>GPA</i> of 3.70 and over
	(ii) At least grade <b>C</b> for all the course units whose credits will add up to at least 114
	(iii) Completion of the Degree Programme within four years
Second Class (Upper Division)	(i) <i>GPA</i> of 3.30 – 3.69
	(ii) At least grade <b>C</b> for all the course units whose credits will add up to at least 106
	(iii) Completion of the Degree Programme within four years
Second Class (Lower Division)	(i) <i>GPA</i> of 3.00 - 3.29
	(ii) At least grade <b>C</b> for all the course units whose credits will add up to at least 106
	(iii) Completion of the Degree Programme within four years

Award of classes will be decided by the Board of Examiners using the above criteria as guidelines

## **18. REQUIREMENTS TO PASS THE B.Sc. Hons. DEGREE BY SPECIALIZING A SUBJECT AREA**

The Board of Examiners will meet to consider the performance of the candidates. To pass the Degree, the candidates have to fulfill the following requirements:

- I. Obtain at least grade **C** for the three foundation courses.
- II. Successfully complete the Non-GPA courses.
- III. At least 120 credits (excluding ENG1002 and Non-GPA courses) with the following minimum credit requirements:

104 credits from the principal subject area with at least 72 credits from the subject of specialization including courses in other subject areas specified by the department of study. Minimum of 48 credits should be from course units

at 3000 and 4000 levels. Not more than 12 credits are allowed from supplementary courses.

- IV. Obtain at least grade **C** for course units whose credits will add up to 106 (excluding ENG1002 and Non-GPA courses)
- V. Obtain at least grade **D** in the compulsory course units specified for the B.Sc. Degree for the Principal subjects offered at 1000 and 2000 levels and the compulsory course units specified for the Honors Degree in the subject of specialization.
- VI. Obtain at least grade **C** for the research project.
- VII. **E** grades should not appear within the minimum number of credits required.
- VIII. Obtain a *GPA* of at least 2.00

- Note:**
- (i) Students who fulfill all the above requirements may apply for the award of the B.Sc. Hons. Degree by specializing a subject area.
  - (ii) A student who has not fulfilled any of the above requirements may repeat the course units in order to fulfill the requirements.

#### **19. AWARD OF CLASSES ON COMPLETION OF THE B.Sc. Hons. DEGREE PROGRAMME BY SPECIALIZING A SUBJECT AREA**

A student who has fulfilled all the conditions stipulated in "The requirements to pass the B.Sc. Hons. Degree by specializing a subject area" shall be awarded classes, if he/she fulfills the following additional requirements:

- |                                  |   |
|----------------------------------|---|
| First Class                      | (i) <i>GPA</i> of 3.70 and over   |
|                                  | (ii) <b>A</b> or higher grades for at least 50% of the credits in 3000 and 4000 levels and at least grade <b>C</b> for the remaining 3000 and 4000 level course units   |
|                                  | (iii) Completion of the Degree Programme within four years  |
| Second Class<br>(Upper Division) | (i) <i>GPA</i> of 3.30 - 3.69   |
|                                  | (ii) Grade <b>B</b> or above for at least 50% of the credits in 3000 and 4000 levels and at least grade <b>D</b> for the remaining 3000 and 4000 level course units subject to a maximum of 3 credits with grade D/D+                                       |
|                                  | (iii) Completion of the Degree Programme within four years  |
| Second Class<br>(Lower Division) | (i) <i>GPA</i> of 3.00 - 3.29   |
|                                  | (ii) At least grade <b>B</b> for at least 50% of the credits in 3000 and 4000 levels, and at least grade <b>D</b> for the remaining 3000 and 4000 level course units subject to a maximum of 6 credits with grade D/D+ obtained from a maximum of 3 courses |
|                                  | (iii) Completion of the Degree Programme within four years  |

Award of classes will be decided by the Board of Examiners using the above criteria as guidelines.

## **20. REQUIREMENTS TO PASS THE B.Sc. Hons. IN STATISTICS AND OPERATIONS RESEARCH AND THE B.Sc. Hons. IN COMPUTATION AND MANAGEMENT**

The Board of Examiners will meet to consider the performance of the candidates. To pass the Degree, the candidates have to fulfill the following requirements:

- I. Obtain at least grade **C** for the three foundation courses.
- II. Successfully complete the Non-GPA courses.
- III. At least 120 credits (excluding ENG1002 and Non-GPA courses) among those course units specified for the relevant Degree Programme.
- IV. Obtain at least grade **C** for course units whose credits will add up to 106 (excluding ENG1002 and Non-GPA courses).
- V. Obtain at least grade **D** in the compulsory course units specified for the course.
- VI. Obtain at least grade **C** for the project (if any).
- VII. E grades should not appear within the minimum number of credits required.
- VIII. Obtain a *GPA* of at least 2.00.

- Note:**
- (i) Students who fulfill all the above requirements may apply for the award of the relevant Bachelor of Science Honors Degree.
  - (ii) A student who has not fulfilled any of the above requirements may repeat the course units in order to fulfill the requirements.

## **21. AWARD OF CLASSES ON COMPLETION OF B.Sc. Hons. IN STATISTICS AND OPERATIONS RESEARCH AND B.Sc. Hons. IN COMPUTATION AND MANAGEMENT PROGRAMMES**

A student who has fulfilled all the conditions stipulated in "Requirements to pass the B.Sc. Hons. in Statistics and Operations Research and the B.Sc. Hons. in Computation and Management" shall be awarded classes, if he/she fulfills the following additional requirements:

- |                                  |   |
|----------------------------------|---|
| First Class                      | (i) <i>GPA</i> of 3.70 and over   |
|                                  | (ii) At least grade <b>C</b> for all the course units whose credits will add up to at least 114 |
|                                  | (iii) Completion of the Degree Programme within four years                                      |
| Second Class<br>(Upper Division) | (i) <i>GPA</i> of 3.30 - 3.69   |
|                                  | (ii) At least grade <b>C</b> for all the course units whose credits will add up to at least 106 |
|                                  | (iii) Completion of the Degree Programme within four years                                      |
| Second Class<br>(Lower Division) | (i) <i>GPA</i> of 3.00 - 3.29   |
|                                  | (ii) At least grade <b>C</b> for all the course units whose credits will add up to at least 106 |
|                                  | (iii) Completion of the Degree Programme within four years                                      |

Award of classes will be decided by the Board of Examiners using the above criteria as guidelines.

## **22. COMPLETION OF DEGREE**

Students should complete all three-year Degree Programmes in six academic years from the date of admission to the Faculty. In the case of students offering a four-year Degree except the B.Sc. Hons. in Applied Sciences Degree, this period will be eight academic years. Students in the B.Sc. Hons. in Applied Sciences Degree should complete all the requirements in five academic years.

Students who have completed all requirements of a Degree should claim for the Degree using the course selection form prepared for each student by the Faculty.

## **23. ENTRIES IN THE TRANSCRIPT**

Course units with the corresponding credits together with the grades earned will appear in the transcript. E grades which have been upgraded will not appear but the credit earned of the repeated course unit will appear under the particular semester when the unit was completed with a label (R) to indicate that the course was repeated. E grades which have not been upgraded will appear in the transcript. The final *GPA* and the Class (if any) will also appear in the transcript. Courses of which the grades are not taken for the calculation of the final *GPA* (except for ENG1002 and Non-GPA courses) will not appear in the final academic transcript. The transcript will be issued upon application and the payment of a prescribed fee.

**Note: Changes to these rules and regulations may be made by the Faculty Board with the approval of the Senate of the University of Peradeniya.**

## SCHOLARSHIPS, PRIZES AND MEDALS

### **Nimal and Savithri Gunatilleke Gold Medal for excellence in Biology**

This Medal is awarded to the student who shows the greatest performance at all 1000, 2000, 3000 and 4000 level Honors Degree programme examinations in Biology. A minimum of B+ or its equivalent at the first available attempt has to be earned for these courses and student should pass all the course units at the first available attempt in the relevant examinations conducted by the Faculty of Science. A minimum of a second Class (Upper Division) pass or its equivalent Cumulative or Final *GPA* should be obtained to be eligible for the award.

### **Prof. M.D. Dassanayake Gold Medal for Botany**

This gold medal is awarded to the student who shows the greatest competence in Botany at the Honors Degree Examination in Botany.

### **Prof. M.D. Dassanayake Prize for Botany**

This Prize is awarded to the student who shows the greatest competence in Botany at the 2000 level.

### **Savitri and Nimal Gunatilleke Scholarship for Excellence in Ecology**

This Scholarship is awarded annually to a 4000 level student who has recorded the best performance in the subjects of BOT2012, BOT2022, BOT2082, and BOT3052 and also passed all the courses at the first available attempt to the satisfaction of the Faculty Board of Science.

### **S.A. Kulasooriya Gold Medal for Excellence in Microbiology**

This gold medal is awarded annually to the student who has recorded the best performance at the 1000, 2000, 3000 and 4000 level examinations in the area of Microbiology.

### **Sultanbawa Prize in Organic Chemistry**

This prize is awarded to the student who shows the greatest competence in Organic Chemistry with a minimum *GPA* of 3.90 for 3000 and 4000 level Organic Chemistry course units (or papers) at the Honors Degree Examination in Chemistry.

### **Bhikaji Framji Khan Gold Medal for Chemistry**

This medal is awarded to the student who shows the greatest competence in Chemistry at Honors Degree Examination in Science.

### **Prof. P.W. Vitanage Memorial Scholarship**

This scholarship is awarded to the student who shows the best performance by obtaining the highest *GPA* for 1000 and 2000 level courses offered by the Department of Geology.

### **Dr. C.A. Hewawitharana Memorial Prize for Physics**

This prize is awarded to the student with best overall performance in the Honors Degree Programme in Physics.

### **Prof. V. Appapillai Memorial Scholarship in Physics**

This scholarship is awarded to the student with the best performance in 1000 and 2000 level Physics courses and was selected and registered to follow the Honors Degree Programme in Physics.

**Prof. A.W. Wolfendale Prize for Physics**

This prize is awarded to the student with the best performance during the first year of the Honors Degree Programme in Physics.

**George Dissanaika Memorial Gold Medal for Physics**

This gold medal is awarded to the student with the best performance at the examinations of the 3000 and 4000 level compulsory courses in Physics.

**Felix Prashantha Amarasinghe Memorial Gold Medal for Excellence in Zoology**

This gold medal is awarded to the student who obtained the highest final *GPA* at the B.Sc. Honors in Zoology Degree on the basis of the criteria determined by the Faculty of Science and all the courses required for the B.Sc. Honors in Zoology Degree at the first available attempt. A minimum of 3.50 final *GPA* should be obtained to be eligible for the award.

**Coomaraswamy Prize for Science**

Three prizes are awarded to the students who show the greatest competence at the B.Sc. Degree Examination in Science of which one is for the student who secures over 60% in Biological Science and the other two for the students who secure 1<sup>st</sup> and 2<sup>nd</sup> places in Physical Science in order of merit.

**Chemical Industries (Colombo) Ltd. Prize**

Two awards are given each year on the basis of the performance at the 2000 level examination (B.Sc. / B.Sc. Honors Degree programmes)

**Prof. Lakshman Dissanayake Gold Medal for Excellence in Physics**

This gold medal is awarded to the Physics honors student who has recorded the highest *GPA* of not less than 3.70 for the compulsory Physics courses at 1000, 2000, 3000 and 4000 levels based on the criteria as determined by the Faculty.

**Alumni Prize for excellence in Computer Science**

The prize is awarded to the Computer Science Honors Degree student who has recorded the highest Cumulative *GPA* for all the courses recommended by the Department of Statistics & Computer Science at 1000, 2000, 3000 and 4000 levels based on the criteria as determined by the Faculty

**Alumni Prize for excellence in Statistics**

The prize is awarded to the Statistics Honors Degree student who has recorded the highest Cumulative *GPA* for all the courses recommended by the Department of Statistics & Computer Science at 1000, 2000, 3000 and 4000 levels based on the criteria as determined by the Faculty

**G.P Wannigama Gold medal for Excellence in Chemistry**

This gold medal is awarded annually to the student who has recorded the highest cumulative *GPA* for all the Chemistry courses with "CHE" course code at 1000, 2000, 3000 and 4000 levels required for the B.Sc. Hons. in Chemistry Degree Programme.

# **REGULATIONS RELATING TO EXAMINATION PROCEDURE, OFFENCES & PUNISHMENTS FOR EXAMINATION CONDUCTED UNDER THE SEMESTER BASED COURSE UNIT SYSTEM**

Regulations made by the Senate of the University of Peradeniya and approved by the Council under Section 136 read with Sections 29, 45 and 46 of the Universities Act No. 16 of 1978 as amended by the Universities (Amendment) Act No.7 of 1985.

Examination of a course/course unit may consist of several assessment components (quizzes, within semester and end-semester examinations, term papers, assignments, etc.)

## **1. Regulations**

These Regulations may be cited as the Examination Procedure, Offences & Punishment Regulation No.1 of 2008.

### **1.1. Part I - Examination Procedure**

1. A candidate is expected to be outside the examination hall at least 15 minutes before the commencement of each paper, but shall not enter the hall until he/she is requested to do so by the supervisor.
2. On admission to the hall a candidate shall occupy the seat allotted to him/her and shall not change it except on the specific instruction of the Supervisor.
3. For examinations which have a duration of one or more hours, a candidate shall not be admitted to the examination hall after the expiry of half an hour from the commencement of the examination. A candidate shall not be allowed to leave the hall until half an hour has elapsed from the commencement of the examination or during the last 15 minutes of the paper.
4. However, under exceptional circumstances or in cases where examinations have duration of less than one hour, the supervisor in consultation with the Dean of the Faculty concerned may use his discretion in the enforcement of Rule 3.
5. A candidate shall have his/her student record book/student identity card/admission card with him/her in the examination hall on every occasion he/she presents himself/herself for a paper. His/Her candidature is liable to be cancelled if he/she does not produce the student record book/student identity card/admission card when requested to do so. If he/she fails to bring his/her student record book/student identity card /admission card, he/she shall sign a declaration in respect of the paper for which he/ she had not produced the student record book/student identity card/admission card in the form provided for it, and produce the student record book/student identity card/admission card to the Registrar or the relevant Senior Assistant Registrar/Assistant Registrar within the next three working days. If a candidate loses his/her student record book/student identity card/admission card during the examination period, he/she shall obtain a duplicate of student record book/student identity card/admission card as the case may be from the Registrar or relevant Senior Assistant Registrar/Assistant Registrar for production at the examination hall.

6. A candidate shall not have on his/her person or in his/her clothes or on the admission card, time-table, student record book/student identity card, any notes, signs or formulae etc., except those items that are permitted. All unauthorized items which a candidate has brought with him/her should be kept at a place indicated by the Supervisor/Invigilator.
7. A candidate may be required by the supervisor to declare any item in his/her possession or person.
8. No candidate shall copy or attempt to copy from any book or paper or notes or similar material or from the scripts of another candidate. A candidate shall neither help another candidate nor obtain help from another candidate or any other person. A candidate shall not conduct himself/herself so negligently that an opportunity is given to any other candidate to read anything written by him/her or to watch any practical examination performed by him/her. No candidate shall use any other unfair means or obtain or render improper assistance at the examination.
9. If any candidate was found to have copied from another candidate by an examiner at the time of marking, he/she would be treated as having committed a punishable offence.
10. No candidate shall submit a practical book or field book or dissertation/thesis or project study or answer script or assignment which has been prepared wholly or partly by anyone other than the candidate himself/herself.
11. A candidate shall bring his/her own pens, ink, mathematical instruments, erasers, pencils or any other approved equipment or stationery which he/she has been instructed to bring. The use of a calculator will be permitted only for papers that contain a rubric to that effect.
12. Examination stationery (i.e. writing paper, graph paper, drawing paper, ledger paper, precise paper etc.) will be supplied at the examination hall as and when necessary. No sheet of paper or answer book supplied to a candidate may be torn, crumbled, folded or otherwise mutilated. No papers other than those supplied to him/her by the Supervisor/Invigilator shall be used by candidates. All material supplied, whether used or unused, shall be left behind on the desk and not removed from the examination hall.
13. Every candidate shall enter his/her Index Number/Registration Number on each answer book and on every continuation paper. He/She shall also enter all necessary particulars as required. A candidate who inserts on script an Index Number/Registration Number other than his/her own is liable to be considered as having attempted to cheat.

A script that bears no Index Number/Registration Number, or has an Index Number/Registration Number which cannot be identified, is liable to be rejected. No candidate shall write his/her name or any other identifying mark on the answer script unless otherwise authorized.

14. All calculations and rough work shall be done only on paper supplied for the examination, and shall be cancelled and attached to the answer script. Such work should not be done on any other material. Any candidate who disregards these instructions runs the risk of being considered as having written notes or outline of answers with the intention of copying.
15. Any answer or part of an answer, which is not to be considered for the purpose of assessment, shall be neatly crossed out. If the same question has been attempted in more than one place the answer or answers that are not to be considered shall be neatly crossed out.
16. Candidates are under the authority of the supervisor and shall assist him/her by carrying out his/her instructions and those of the Invigilator during the examination and immediately before and after it.
17. Every candidate shall conduct himself/herself in the examination hall and its precincts as not to cause disturbance or inconvenience to the supervisor or his staff or to other candidates. In entering and leaving the hall, he/she shall conduct himself/herself as quietly as possible. A candidate is liable to be excluded from the examination hall for disorderly conduct.
18. Candidates shall stop work promptly when ordered by the Supervisor/Invigilator to do so.
19. Absolute silence shall be maintained in the examination hall and its precincts. A candidate is not permitted for any reason whatsoever to communicate or to have any dealings with any person other than the Supervisor/Invigilator. The attention of the Supervisor/Invigilator shall be drawn by the candidate by raising his/her hand from where he/she is seated.
20. During the course of answering a question paper no candidate shall be permitted to leave the examination hall temporarily. In case of an emergency, the Supervisor/Invigilator may grant him/her permission to do so but the candidate will be under his/her surveillance.
21. No person shall impersonate a candidate at the examination, nor shall any candidate allow himself/herself to be impersonated by another person.
22. Any candidate receiving unauthorized assistance from any person shall be deemed to have committed an examination offence.
23. If circumstances arise which in the opinion of the supervisor render the cancellation or postponement of the examination necessary, he/she shall stop the examination, collect the scripts already written and then report the matter as soon as possible to the Dean of the relevant faculty.
24. The Supervisor/Invigilator is empowered to require any candidate to make a statement in writing on any matter which may have arisen during the course of the examination and such statement shall be signed by the candidate. No candidate shall refuse to make such a statement or to sign it. If such a candidate refuses to

make such a statement or refuses to sign it, the Supervisor/Invigilator shall make his own statement and report the matter to the Dean of the relevant faculty.

25. No candidate shall contact any person other than the Vice-Chancellor, Dean, Head of the Department, the Registrar or the relevant Senior Assistant Registrar regarding any matter concerning the examination.
26. Every candidate shall hand over the answer script personally to the Supervisor/Invigilator or remain in his/her seat until it is collected. On no account shall a candidate hand over his/her answer script to an attendant a minor employee, or another candidate.
27. Every candidate who registers for a course/course unit shall be deemed to have sat the examination of that course/course unit unless he/she withdraws from the course/course unit within the prescribed period for dropping courses/course units. He/She should submit a medical certificate in support of his/her absence, prior to the commencement of the examination. If such a document cannot be submitted before the commencement of the examination, a candidate shall inform of his/her inability to attend the examination to the Dean of the Faculty within a week after the commencement of the examination. The medical certificate shall conform to the Senate Regulations. (See Appendix I.)
28. When a candidate is unable to present himself/herself for any part/section of an examination of a course/course unit, he/she shall notify or cause to be notified of this fact to the Dean of the Faculty and relevant Senior Assistant Registrar or Assistant Registrar immediately. This should be confirmed in writing with supporting documents by registered post within two weeks.
29. A student will be eligible for classes if all requirements for the award of classes are met within the prescribed period for the Degree. However, candidates found guilty of an examination offence shall not be eligible for classes.
30. No student shall sit an examination of a course/course unit, if he/she has exhausted the number of attempts that he/she is allowed to sit that particular examination, unless he/she has been granted special permission to do so by the Dean of the relevant faculty.

## **2. Part II – Examination Offences and Punishments**

### **2.1. Offences**

- 1 Any candidate who violates Examination Rule 6 shall be deemed guilty of the offence of possession of unauthorized documents/items and his/her candidature for the examinations of that semester shall be cancelled and he/she shall be prohibited from sitting any examination of this university for a period varying from 1 - 5 semesters.
- 2 Any candidate who violates Examination Rule 8 or 9 shall be deemed guilty of the offence of copying and therefore his/her candidature shall be cancelled from the examinations of that semester and he/she, shall be prohibited from sitting any examination of this university for a period of five semesters.

- 3 Any candidate who violates Examination Rule 10 shall be deemed guilty of the offence of having cheated at the examination and his/her candidature for the examinations of that semester shall be cancelled and he/she shall be prohibited from sitting any examination of this university for a period varying from 1 - 9 semesters.
- 4 Any candidate who is detected removing examination stationery and other material provided for the examination (Rule 12) shall be deemed guilty of an examination offence and his/her candidature for the examinations of that semester shall be cancelled and he/she shall be liable to be prohibited from sitting any examination of university for a period of three semesters.
- 5 Any candidate who violates any one or more of the rules in 7, 16, 17, 18, 19 and 20 shall be deemed guilty of the offence of disorderly conduct and his/her candidature shall be cancelled from the examinations of that semester and he/she shall be prohibited from sitting any examination of this university for a period of three semesters.
- 6 Any candidate who violates Examination Rule 21 shall be guilty of the offence of impersonation and his/her candidature for the examinations of that semester shall be cancelled and he/she shall be prohibited from sitting any examination of this university. Impersonator/s may also be liable to any punishment under the Penal Code/Criminal Law. In the event the impersonator is found to be a graduate of this university, his/her Degree shall be withdrawn.
- 7 Any candidate who violates Examination Rule 22 shall be guilty of an examination offence and his/her candidature for the examinations of that semester shall be cancelled and he/she shall be prohibited from sitting any examination of this university for a period of 1 - 5 semesters.
- 8 Any candidate found aiding and abetting in the commission of any of the above examination offences shall be deemed to have committed that offence and shall be punished in respect of the offence in accordance with the provisions of the relevant section.
- 9 Any other offence which is not covered in the above sections alleged to have been committed by a candidate and reported to the relevant authority by a supervisor or Examiner shall be inquired into and appropriate action taken.

### **3. Part III - Procedure Regarding Examination Offences Committed by Candidates**

1. There shall be an Examination Disciplinary Committee of not less than 3 members of whom at least one member is from outside the Faculty, appointed for each case by the Dean of the relevant faculty to inquire into and make recommendations (including punishments) on examination offences referred to it. Member(s) outside the Faculty shall be selected from a panel of members appointed for this purpose by the Vice Chancellor.
2. **Classification of Offences**

Examination offences may be broadly classified as follows:

- 2.1 Possession of unauthorized documents/items
- 2.2 Copying

- 2.3 Cheating
- 2.4 Removal of stationery
- 2.5 Disorderly conduct
- 2.6 Impersonation
- 2.7 Unauthorized assistance
- 2.8 Aiding and abetting in the commission of above offences
- 2.9 Other offences.

3. **Punishments**

(As specified in Part II -1.1 -1.9)

4. **Procedure**

- 4.1 In all cases of violation of examination rules detected, the supervisor shall take action as outlined below and forward his/her report to the relevant Dean/Senior Assistant Registrar or Assistant Registrar
- 4.2 In cases of disorderly conduct the supervisor shall in the first instance warn the candidate to be of good behaviour. Disorderly conduct shall be considered grave, only if such conduct in the opinion of the supervisor is considered as causing a disturbance in the conduct of the examination. Where the candidate persists in unruly or disorderly conduct the supervisor may exclude the candidate from the examination hall and issue him a letter with a copy to the relevant Dean/Senior Assistant Registrar/Assistant Registrar, cancelling his/her candidature from the examination.
- 4.3 In all cases of examination offences detected, the supervisor shall send a report to the relevant Dean along with any material taken into custody. Material taken into custody should be authenticated by placing the signatures of the candidate and the Supervisor/Invigilator and the date, time and place of detection. A supervisor should give particulars of any incriminating material of which he/she cannot take possession. The Supervisor's report should be countersigned by one of the Invigilators.
- 4.4 The Dean after preliminary inquiry shall place all reports of examination offences submitted by supervisors for action of the relevant Examination Disciplinary Committee for further action.
- 4.5 Supervisor, Examiner, Head of Department or any other official of the University who detects an examination offence shall report the matter in writing to the relevant Dean, who shall after preliminary inquiry submit his findings to the relevant Examination Disciplinary Committee for further action.
- 4.6 Any allegations regarding the commission of examination offences from whomsoever received shall be submitted by the Dean after preliminary inquiry to the relevant Examination Disciplinary Committee for further action.

5. **The Decision**

- 5.1 The punishment recommended by the Examination Disciplinary Committee shall be submitted to the relevant Faculty Board for a decision and the decision will be reported to the Senate.

Senior Assistant Registrar/Assistant Registrar of the relevant Faculty shall be the Convener/Secretary of the inquiring committee on examination offences.

6. **Appeals Board**

- 6.1 There shall be an Appeals Board, consisting of three members, appointed by the Vice Chancellor to consider appeals regarding the decision referred to in 5.1 above. Any student on whom a punishment has been imposed may, within a period of two weeks from the date of communication to him/her of such punishment, appeal against such punishment to the Vice Chancellor.

7. **Postgraduate Institutes**

- 7.1 In the case of Postgraduate Institutes the functions of the Dean and the Faculty Board with regard to these regulations shall be performed respectively by the Director and the Coordinating Committee of the relevant Institute.

**4. Appendix I - Procedure Approved by the University of Peradeniya for the Acceptance of Medical Certificates Submitted by Students for Work and Examinations**

1. Students are requested to support the absence from course work or examination due to illness by a valid medical certificate conforming to the format of a medical certificate issued by a government hospital. Such medical certificate should be obtained from the following persons:

University Medical Officer (UMO)  
District Medical Officer  
Consultant Specialist in the particular field  
Head of a Government Base Hospital  
Medical Superintendent of a Provincial Ayurvedic Government Hospital  
Ayurvedic Physician registered in the Council

Under exceptional circumstances, medical certificates issued by private hospitals or registered private practitioners could be considered by the University Medical Board.

2. Students who fall ill during sessions or examination time should contact the University Medical Officer at the University Health Centre immediately.

If a student falls sick at home or elsewhere during sessions or examination time he/she or his/her guardian should inform the Dean of the respective Faculty within seven (7) days by telegram/fax/e-mail followed by a letter indicating the nature of the illness and the name of the attending doctor etc. A medical certificate supporting the illness of the student also should be sent to the Dean.

Under exceptional circumstances if a student was not able to meet the deadline mentioned above, he/she could send his/her appeal to the relevant Faculty Board.

The Dean on receipt of such medical certificate/s should follow the following procedure:

- i. In case of Western Medical Certificates submitted by students to cover absence from course work or examination:
  - a. The medical certificate should be referred to the Chief Medical Officer (CMO) of the university for his/her observations and recommendations.
  - b. The CMO in turn examines the certificate and if he/she wishes could summon the student for examination and thereafter send his/her observations, recommendations to the Dean.
  - c. In cases where the CMO wishes to convene the Western Medical Board he/she may make arrangements to convene the Western Medical Board and refer the recommendations of the Board to the Dean.
  - d. The Dean on receipt of such recommendations from the CMO or Western Medical Board should send it to the Faculty Board for ratification.
- ii. In the case of Ayurvedic Medical Certificates submitted by students to cover absence from course work or examinations the following procedure should be followed:
  - a. Ayurvedic medical certificates submitted by student in respect of absence from examinations or course work should be circulated among the members of the Ayurvedic Medical Board for their observations by the Senior Assistant Registrar/Assistant Registrar in charge of student registration of each Faculty in consultation with the Deans of the respective Faculties.
  - b. Each member of the Ayurvedic Medical Board may send his/her observations and recommendations on the face of the medical certificate to the Dean of the respective Faculty through the Senior Assistant Registrar/ Assistant Registrar of the Faculty;
  - c. In case where the opinion of the members of the Ayurvedic Medical Board varies the Senior Assistant Registrar Assistant Registrar of the Faculty in consultation with the Dean of the Faculty may take steps to convene a meeting of the Ayurvedic Medical Board.
  - d. If the members of the Ayurvedic Medical Board think that the medical certificates should be examined at a meeting of the Board, the Dean of the Faculty should be informed accordingly.
  - e. If the members wish to examine students concerned, they could be summoned before the Medical Board through the Senior Assistant Registrar/ Assistant Registrar of the Faculty.
  - f. The recommendation of the Ayurvedic Medical Board should be sent to the Faculty Board through the Dean of the Faculty for ratification.
  - g. The original copies of the Ayurvedic Medical Certificate submitted by students should be kept in the files of the students concerned and copies of such certificates should be sent to the Chief Medical Officer for purposes of record.

3. There shall be two Medical Boards in the University, viz. Western Medical Board and Ayurvedic Medical Board.

#### **i. Western Medical Board**

##### *Terms of Reference*

- a. The Western Medical Board shall consider cases where the Chief Medical Officer of the University has doubt about the validity of the grounds (including medical certificate) upon which the request of students to be excused for absence from course work of examinations.
- b. The Chief Medical Officer of the University shall convene the Western Medical Board if and when necessary.
- c. The Board has the right to call students before the Board when necessary for purposes of interview, examination and investigations.
- d. Recommendations of the Medical Board should be sent to the Faculty Board through the Dean of the respective Faculty.
- e. The Western Medical Board should consist of the Heads of the Departments of Medicine, Surgery and Psychiatry of the Faculty of Medicine or their nominees and the CMO of the University.

#### **ii. Ayurvedic Medical Board**

##### *Composition*

The Ayurvedic Medical Board shall consist of three (3) persons appointed by the senate of the University.

##### **Terms of Reference**

- a. The Ayurvedic Medical Board shall consider Ayurvedic Medical Certificates submitted by students requesting exemption from examinations or course work and make recommendations to the Senate through the Deans of the respective Faculties.
- b. The Board shall meet at least once within a semester. The Senior Assistant Registrar/ Assistant Registrar in charge of student registration in consultation with the Dean of the respective Faculty shall convene meetings of the Ayurvedic Medical Board whenever necessary and co-ordinate the work between the Faculty and the Ayurvedic Medical Board.
- c. The board has the right to call students before the Board when necessary for purposes of interviews, examination and investigations. Such requests should be sent to the students through the Senior Assistant Registrar/Assistant Registrar in charge of student registration of each Faculty.

#### **Guidelines for the Functioning of the Ayurvedic Medical Board**

- a. When accepting Ayurvedic Medical Certificates, caution is to be exercised by accepting from only those who are registered in the Ayurvedic Medical Council.

- b. General or Special registered Ayurvedic Medical Practitioners could recommend on any occasion leave up to 14 days at a stretch. Those with more than the above amount should get an endorsement from the Medical Officer in charge of the closest Government Ayurvedic Hospital or Government Ayurvedic Dispensary.
  - c. The decision on leave stipulated in Medical Certificates from Ayurvedic Hospitals, Government Dispensaries or Local Government Ayurvedic Dispensaries rests with the Board.
  - d. This Board possesses the right to question the validity of any Ayurvedic Medical Certificate.
  - e. The Board possesses the right to summon before them any student submitting an Ayurvedic Medical Certificate, if necessary.
4. When students request exemption from examinations of course work upon the basis of illness, the ultimate decision on question of exemption, repetition of course and of eligibility for honours, shall be the functions of the relevant Faculty Board upon the recommendation of the Medical Board or the Chief Medical Officer.

## STUDENT LIFE

The University of Peradeniya was built with the goal of providing an environment suitable for the intellectual, emotional and personal development of students. The unique setting and infrastructure of the university together with the diverse student population creates an opportunity for a fulfilling lifestyle.

Students of the Faculty of Science are afforded all of the services and opportunities of the University of Peradeniya. More information on university facilities and resources can be found through the official university website at: <https://www.pdn.ac.lk/student/student.php>

### Welfare Services

#### I. Residence

The University provides accommodation to the students in the Halls of Residence situated within the University premises. The basis on which the students are allocated to Halls of Residence may change from time to time, depending on the number of vacancies available in the Halls of Residence.

#### II. Sports and Recreation

For recreation, facilities such as playgrounds, tennis courts and a cinder running track are located within the University premises. Students can participate in a variety of team and individual sports including cricket, rugby, soccer, hockey, tennis volley-ball, athletics etc. A modern gymnasium is situated about 500 meters away from the faculty equipped for badminton, basketball, netball, volleyball, table-tennis, trampolining, weight lifting, etc.

Department of Physical Education/Gymnasium

Phone intercom 2164 (Director)  
intercom 2162 (office)  
intercom 2163 (swimming pool)  
opening hours 7.00 a.m. to 8.00 p.m.

The Faculty of Arts Theatre often screens cinematic films of international renown, which are usually free for students. The Sarathchandra open-air amphitheatre is a landmark of the university, where most dramas performed in the university are staged.

#### III. Medical Centre

The University Health Centre is open to all students during week days in two sessions (morning and afternoon) per day. During the weekends and public holidays, only emergency cases are treated. University Medical Officers are on call to attend to emergencies.

Contact information

Chief Medical Officer	Dr. P.M.A. Samarakkody 081-238-8152 (direct) 2024 (intercom)
Office/Lab	2028
Female wards/ Pharmacy	2022, 2026

#### IV. Computer and Internet Access

The Faculty Computer Centre is located at the ground floor of the administrative building. The centre is open to all science faculty students where computers with most current software and broadband internet facilities are available.

## **V. Student Counseling**

The faculty of Science maintains a student counseling service to assist and guide students who have problems pertaining to academic, social and personal matters. These services are offered by senior members of the academic staff.

## **VI. Banking Facilities**

The People's Bank and the Bank of Ceylon have their sub-branches in the University premises in addition to the main branches at Peradeniya. Mahapola scholarships to students are paid through the Bank of Ceylon, campus branch, which is located in the students centre.

## **VII. Canteen**

The University maintains canteens in each of the Halls of Residence. In addition, the Science Faculty has its own canteen at ground floor of the Science Education Building. The Students' Centre which is situated near the Gymnasium also houses a canteen for students.

## **VIII. Post Office and Telephone Exchange**

A Sub Post Office and the University Telephone Exchange are located on the hill opposite the New Arts Theatre.

## **IX. Barber saloon, Laundry and Tailoring Shop**

These are available in the Students' Centre and at the Peradeniya town.

## **X. Police and Security Service**

The closest police station is situated on the Kandy-Colombo road near the Peradeniya Teaching Hospital.

Any incidents regarding the security of University property or any incident of breach of law may be reported to the security personnel in the security posts at the faculties and the senate building. The main Security Office is located near the New Arts Theatre.

Marshels division

Contact information

Office	081-239-2423 2423 (intercom)
Chief Marshal	077-599-6290

Security office

Office	081-238-9182
Chief security officer	2134 (intercom)

## **XI. Book Shops and Grocery Shops**

The faculty book shop is situated at ground floor of the Science Education Unit building, next to the faculty canteen. The main book shop of the university is situated in the University Students' Centre. University publications can be purchased from the sales Outlet at the Senate building. Groceries are available in the cooperative store at the North End (known as USO), and at Peradeniya town.

## **XII. Places of Worship**

A Buddhist Temple, a Hindu Temple, a Mosque, a Christian church and a Catholic Church are located in the premises of the University.

## **Library Facilities**

Science Library is one of the branch libraries of the Peradeniya University Library Network. It provides current scholarly information for undergraduates, graduates and academic staff of the Faculty. Library contains wide range of books and periodicals expanding more than 40,000 in Natural and Applied Sciences. All students in the faculty are required to obtain membership at the Library in the beginning of the first year. Library Orientation programmes are conducted, on the general use of the Library, followed by more specific instructions on the literature of particular subject fields. This will lead to more insight towards in-depth knowledge regarding information availability to students in the library.

### **Library Opening Hours**

Monday to Friday: 7.30 am – 6.30 pm

Saturday : 7.30 am - 4.00 pm

Library closed on Sundays and public holidays

Library provides following services to fulfil the information requirements of library users.

- Reference and Lending services
- Library Orientation programmes
- Inter - Library Loan services
- Wi-Fi facilities and Online Public Access Catalogue
- Online Database searching facilities
- Photocopying facilities
- Discussion Room facilities

Further details of the Library services are available on the library website

<http://www.lib.pdn.ac.lk/libraries/science/>

## STUDENT SOCIETIES

Students are encouraged to join the societies in the Faculty and in the University for the purpose of furthering academic and social objectives. There are a number of societies and associations registered in the University. Some of them are listed below.

### Societies of the University and Faculty of Science

1. Applied Sciences Society
2. Art Circle of Faculty of Science
3. Astronomical Society
4. Botanical Society
5. Buddhist Brotherhood
6. Chemical Society
7. Computer Society
8. English Drama Society
9. Gandarwa Sabhawa
10. Hantana Conservation Society
11. Helahanda Students' Society
12. Hindu Students Society
13. Mathematical Society
14. Muslim Majlis
15. Music Society
16. Newman Society
17. Photographic Society
18. Physical Society
19. Rotaract Club
20. Sinhala Natya Mandalaya
21. Sinhala Sangamaya
22. Soba Sansadaya
23. Socialist Students' Union
24. Statistical Circle
25. Student Christian Movement
26. Tamil Sangeetha Natya Sangam
27. University Botanical Society
28. University Explorers' Club
29. University Geological Society
30. Zoologists' Association of University of Peradeniya

## SUMMARY OF COURSES OFFERED

### • FOUNDATION COURSES

Foundation courses which are conducted only at the 1000 level are compulsory for all students. The grades of the ENG1002 will not be counted when the final GPA is calculated.

Course Number	Course Title	No. of credits	Compulsory for			
			B.Sc. Degree	B.Sc. Hons. Degree	SOR	CM
ENG1002	English for Academic Purposes	2	√	√	√	√
CSC1002	Computer Applications	2	√	√	√	√
BIO1002*	Basic Life Sciences	2	√	√	√	
MAT1002†	Mathematics for Biological Sciences	2	√	√		
MAT1202‡	Foundation Course in Mathematics	2				√
ESS1006‡	Personality, Leadership and Ethic	2				√

\* Compulsory for those who have not offered Biology at the G.C.E. (A/L) Examination

† Compulsory for those who have not offered Combined Mathematics or Mathematics at the G.C.E. (A/L) Examination

‡ Compulsory for those who have offered Combined Mathematics or Mathematics at the G.C.E. (A/L) Examination

### • PRINCIPAL SUBJECT AREA

#### BIOLOGY

At the 1000 level, Biology is offered as principal subject areas, Biology\* (8 credits) and Biology\*\* (16 credits) jointly by the Departments of Botany, Molecular Biology & Biotechnology and Zoology. Both Biological and Physical Science students can offer these subjects,

1000 LEVEL – BIOLOGY					
Course Code	Course Title	No. of Credits	Pre-requisites	Compulsory	
				Hons.	B.Sc.
BIO1012	Cell Biology and Genetics	2		√	√
BIO1072	Introductory Microbiology	2		√	√
BIO1152	Biomolecules and their Applications	2			
BIO1192	Tropical Ecosystems	2			
BIO1022	Plant and Animal Form and Function	2		√	√
BIO1032	Basic Ecology	2		√	√
BIO1162	Introductory Environmental Biology	2			

BIO1182	Introductory Evolutionary Biology	2			
BIO1202	Introduction to Biotechnology and its Application	2			
<b>Total</b>		<b>18</b>		<b>08</b>	<b>08</b>

### BIOMEDICAL SCIENCE

Students who have entered the Faculty of Science in the biological science stream and have completed Biology\*/ Biology\*\* and Chemistry at the 1000 level and have offered Zoology as a principal subject area at the 2000 level shall be eligible for selection to an Honors Degree in Biomedical Sciences.

<b>2000 LEVEL – BIOMEDICAL SCIENCE</b>				
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>
				<b>Hons.</b>
ZOO2012	Animal Embryology	2		√
ZOO2052	Biostatistics	2		-
ZOO2192	Functional Histology	2		√
ZOO2212	Invertebrate diversity	2		√
ZOO2222	Vertebrate diversity	2		√
MBB2063	Principles of Genetics	3	BIO1012	-
MBB2013	Biological Chemistry	3	BIO1012 CHE1013 CHE1023	√
MBB2263	Molecular Genetics	3	BIO1012 CHE1013 CHE1023	√
MBB2212	Enzymology	2	BIO1012 CHE1013 CHE1023	-
CHE2212	Organic Chemistry	2	CHE1023	-
CHE2313	Physical Chemistry I	3	CHE1023	√
CHE2282	Techniques in Organic Chemistry I	2	CHE1081	-
CHE2381	Physical Chemistry laboratory I	1	CHE1091	-
PHY2822	Medical Physics	2		-
<b>Total</b>		<b>31</b>		<b>17</b>

<b>3000 LEVEL – BIOMEDICAL SCIENCE</b>				
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>
				<b>Hons.</b>
BMS3012	Anatomy & Physiology 1	2		√
BMS3022	Anatomy & Physiology 2	2		√
BMS3032	Principles of Pharmacology & Toxicology	2		√

BMS3042	General Pathology & Haematology	2		√
BMS3052	Laboratory Safety & Risk Management	2		√
BMS3062	Biomedical Informatics	2		√
BMS3072	Biochemistry & Molecular Biology Laboratory	2	MBB2013 MBB2263	√
BMS3083	Molecular Cell Biology	3	MBB2013	√
BMS3093	Bioinformatics	3	MBB2263	√
BMS3103	Molecular Virology	3	MBB2263	-
BMS3112	DNA and Forensic Medicine Laboratory	2	MBB2263	-
BMS3122	Vector Borne Diseases	2		√
BMS3133	Remote Sensing and Geographical Information Systems (GIS)	3		-
BMS3142	Biophysics	2		√
BMS3152	Health Physics	2		-
BMS3163	Analytical Chemistry	3	CHE2313	√
<b>Total</b>		<b>37</b>		<b>27</b>

<b>4000 LEVEL – BIOMEDICAL SCIENCE</b>				
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>
				<b>Hons.</b>
BMS4013	Principle of Epidemiology	3		√
BMS4022	Neuroscience	2		-
BMS4031	Ethics in Medical Sciences	1		√
BMS4043	Pharmaceutical Design and Development	3		-
BMS4052	Biomaterials	2		-
BMS4063	Immunobiology	3		√
BMS4073	Applied Parasitology	3		-
BMS4082	Scientific Writing & Presentation	2		√
BMS4092	Research Methods and Data Analysis	2		√
BMS4103	Entomology	3		-
BMS4112	Developmental Biology	2		-
BMS4122	Independent Study & Seminar	2		√
BMS4133	Special topics in Cell & Molecular Biology	3	MBB3113	-
BMS4142	Medical Statistics	2		-
SCI4003	Industrial Training	3		-
BMS4998	Research Project	8		√
<b>Total</b>		<b>44</b>		<b>21</b>

## BOTANY

From the 2000 Level onwards, Botany is offered as a principal subject area. The students who have followed Biology\*/ Biology\*\* as a principal subject area at the 1000 level are permitted to take Botany as a principal subject at 2000 and 3000 Levels. Other students who wish to follow selected course units in Botany would also be accommodated subject to availability of places. Those students who have completed Botany as a principal subject at the 2000 Level shall be eligible for selection to an Honors Degree in Botany at the end of the second year subjected to their fulfilment of compulsory requirements for the Botany special course.

<b>2000 LEVEL – BOTANY</b>					
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>	
				<b>Hons.</b>	<b>B.Sc.</b>
BOT2012	Algae and Fungi	2		√	√
BOT2022	Evolution and Diversity of Land Plants	2	BOT2012	√	√
BOT2032	Angiosperm Morphology and Anatomy	2			
BOT2042	Plant Water Relations and Nutrition	2		√	√
BOT2052	Photosynthesis and Respiration	2			
BOT2062	Microbial Ecology and Functions	2		√	√
BOT2072	Microbial Genetics	2			
BOT2082	Biodiversity Conservation and Management	2			
BOT2092	Food Chemistry and Technology	2			
<b>Total</b>		<b>18</b>		<b>08</b>	<b>08</b>

<b>3000 LEVEL – BOTANY</b>					
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>	
				<b>Hons.</b>	<b>B.Sc.</b>
BOT3012	Bioinstrumentation	2			
BOT3022	Plant Metabolites	2		√	
BOT3032	Plant Systematics	2		√	√
BOT3042	Plant Pathology	2		√	√
BOT3052	Quantitative Plant Ecology	2			
BOT3062	Enzymes: Concepts to Applications	2	BIO1012		
BOT3072	Plant Quantitative and Applied Genetics	2		√	
BOT3082	Biostatistics	2		√	
BOT3092	Soil Fertility and Management	2			
BOT3102	Developmental Physiology and Postharvest Technology	2			

BOT3112	Microbiological Applications	2		.	
BOT3122	Biotic Interactions and Applications	2			
BOT3132	Plants, Life and Skills	2			
BOT3142	Effective Scientific Communication	2		√	√
BOT3152	Food Engineering and Nutrition	2			
<b>Total</b>		<b>30</b>		<b>12</b>	<b>06</b>

<b>4000 LEVEL - BOTANY</b>				
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Comments</b>
				<b>Hons.</b>
BOT4012	Plant Systematics and Phylogenetics	2	BOT3032	
BOT4022	Plant Stress Physiology	2		
BOT4032	Phytogeography	2		
BOT4042	Advanced Plant Pathology	2	BOT3042	
BOT4053	Dynamic Plant Ecology	3	BOT3052	
BOT4062	Cryptogamic Botany	2		
BOT4072	Advanced Topics in Biochemistry	2		
BOT4082	Forest Management	2		
BOT4092	Diazotrophs and Sustainable Soils	2		
BOT4102	Physiology and Management of Ornamental Plants	2		
BOT4112	Toxicology	2		
BOT4122	Seed Biology and Technology	2		
BOT4132	Ecological Restoration	2		
BOT4142	Molecular Genetics: Genes to Function	2	BOT3072	
BOT4151	Herbarium Techniques	1		√
BOT4998	Research Project	8		√
SCI4003	Industrial Training	3		
<b>Total</b>		<b>39</b>		<b>09</b>

## CHEMISTRY

Those students who have completed Chemistry as a principal subject at the 2000 Level shall be eligible for selection to an Honors Degree in Chemistry at the end of the second year subjected to their fulfilment of compulsory requirements for the Chemistry special course.

<b>1000 LEVEL - CHEMISTRY</b>					
Course Code	Course Title	No. of Credits	Pre-requisites	Compulsory	
				Hons.	B.Sc.
CHE1013	Principles of Chemistry I	3		√	√
CHE1023	Principles of Chemistry II	3	CHE1013	√	√
CHE1081	Elementary Chemistry Laboratory I	1		√	√
CHE1091	Elementary Chemistry Laboratory II	1		√	√
<b>Total</b>		<b>08</b>		<b>08</b>	<b>08</b>

<b>2000 LEVEL – CHEMISTRY</b>					
Course Code	Course Title	No. of Credits	Pre-requisites	Compulsory	
				Hons.	B.Sc.
CHE2112	Inorganic Chemistry I	2	CHE1023	√	√
CHE2122	Inorganic Chemistry II	2	CHE2112		
CHE2181	Inorganic Chemistry Laboratory I	1	CHE1091	√	√
CHE2212	Organic Chemistry	2	CHE1023	√	√
CHE2282	Techniques in Organic Chemistry I	2	CHE1081	√	√
CHE2313	Physical Chemistry I	3	CHE1023	√	√
CHE2332	Chemical Calculations	2	CHE1023		
CHE2381	Physical Chemistry Laboratory I	1	CHE1091	√	√
<b>Total</b>		<b>15</b>		<b>11</b>	<b>11</b>

<b>3000 LEVEL – CHEMISTRY</b>					
Course Code	Course Title	No. of Credits	Pre-requisites	Compulsory	
				Hons.	B.Sc.
CHE3112	Structural Inorganic Chemistry	2	CHE2112	√	
CHE3122	Advanced Inorganic Chemistry I	2	CHE2112	√	
CHE3192	Advanced Inorganic Chemistry Laboratory	2	CHE2181	√	
CHE3212	Organic Chemistry II	2	CHE2212	√	
CHE3222	Organic Chemistry III	2	CHE 2212	√	
CHE3232	Biomolecules and Heterocycles	2	CHE 2212	√	
CHE3282	Techniques in Organic Chemistry II	2	CHE 2282		√

CHE3292	Advanced Organic Chemistry Laboratory	2	CHE2282	√	
CHE3303	Advanced Physical Chemistry I	3	CHE2313	√	
CHE3313	Physical Chemistry II	3	CHE2313	√	√
CHE3381	Physical and Industrial Chemistry Laboratory	1	CHE2381		√
CHE3392	Advanced Physical Chemistry Laboratory	2	CHE2381	√	
CHE3413	Analytical Chemistry	3	CHE2313	√	
CHE3491	Analytical/Instrumental Chemistry Laboratory	1	CHE3413	√	
CHE3481	Analytical and Inorganic Chemistry Laboratory	1	CHE2181, CHE2381		√
CHE3512	Biological Chemistry I	2	CHE2212	√	
CHE3712	Industrial Chemistry	2	CHE2212, CHE2313		
CHE3723	Nanoscience and Nanosynthesis	3	CHE2313		
CHE3812	Computer Applications and Instrumentation	2	CHE2313		
<b>Total</b>		<b>39</b>		<b>28</b>	<b>07</b>

<b>4000 LEVEL – CHEMISTRY</b>				
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>
				<b>Hons.</b>
CHE4112	Advanced Inorganic Chemistry II	2	CHE2122, CHE3122	√
CHE4122	Advanced Inorganic Chemistry III	2	CHE3112, CHE3122	√
CHE4132	Solid State Chemistry	2	CHE2112, CHE4112	
CHE4213	Advanced Organic Chemistry II	3	CHE2212, CHE3212	√
CHE4222	Natural Product Chemistry	2	CHE3512	√*
CHE4312	Advanced Physical Chemistry II	2	CHE3313	√
CHE4322	Advanced Physical Chemistry III	2	CHE3313	√
CHE4332	Molecular modeling	2	CHE3812	
CHE4342	Special topics in Physical Chemistry	2	CHE3302, CHE3313	
CHE4352	Applications of Nanoscience in Chemistry	2	CHE3723	
CHE4412	Advanced Analytical Chemistry	3	CHE3413	√
CHE4512	Biological Chemistry II	2	CHE2212, CHE3512	√*
SCI4003	Industrial Training	3		√
CH4911	Seminar	1		√

CHE4921	General Aspects and Recent Developments in Chemistry	1		√
CHE4998	Research Project	8		√
<b>Total</b>		<b>39</b>		<b>29</b>

\*students should at least take one course

## COMPUTER SCIENCE

Those students who have completed Computer Science as a principal subject at the 2000 Level shall be eligible for selection to an Honors Degree in Computer Science at the end of the second year subjected to their fulfilment of compulsory requirements for the Computer Science special course.

<b>1000 LEVEL – COMPUTER SCIENCE</b>					
Course Code	Course Title	No. of Credits	Pre-requisites	Compulsory	
				Hons.	B.Sc.
CSC1013	Introduction to Computer Science and Programming	3	CSC1002	√	√
CSC1023	Object-oriented Programming	3	CSC1013	√	√
CSC1041	Programming Laboratory I	1	CSC1013	√	√
CSC1051	Programming Laboratory II	1	CSC1023 CSC1041	√	√
<b>Total</b>		<b>08</b>		<b>08</b>	<b>08</b>

<b>2000 LEVEL – COMPUTER SCIENCE</b>					
Course Code	Course Title	No. of Credits	Pre-requisites	Compulsory	
				Hons.	B.Sc.
CSC2012	Data Structures	2	CSC1023	√	√
CSC2021	Programming using Data Structures	1	CSC1051 CSC2012	√	√
CSC2032	Database Management Systems	2	CSC1023	√	√
CSC2041	Programming using Database Management Systems	1	CSC2032	√	√
CSC2052	Computer Architecture	2	CSC1013	√	
CSC2102	Web Programming I	2	CSC1023		
CSC2112	Introduction to Computer Networks	2	CSC1013	√	√
CSC2312	Computing for Science I	2	CSC1002		
CSC2321	Computing for Science Programming Laboratory I	1	CSC2312		
<b>Total</b>		<b>15</b>		<b>10</b>	<b>08</b>

<b>3000 LEVEL – COMPUTER SCIENCE</b>					
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>	
				<b>Hons.</b>	<b>B.Sc.</b>
CSC3033	Operating Systems Concepts	3	CSC2032	√	√
CSC3073	Computer Graphics	3	CSC3152	√	
CSC3081	Computer Graphics Programming	1	CSC3073	√	
CSC3093	Object Oriented Analysis and Design	3	CSC1023 CSC1051		
CSC3103	Server Side Web Programming	3	CSC2021 CSC2041 CSC2102	√	
CSC3112	Software Engineering	2	CSC1013	√	√
CSC3122	Human Computer Interaction Design	2	CSC1051		
CSC3132	Digital Image Processing	2	CSC3152		
CSC3141	Image Processing Laboratory	1	CSC3132		
CSC3152	Design and Analysis of Algorithms	2	CSC2012	√	√
CSC3173	Artificial Intelligence	3	CSC2012 CSC3152	√	
CSC3182	Advanced Computer Networks	2	CSC2112		
CSC3213	Project in Computer Science I	3	CSC2041 CSC3093 CSC3103	√	
CSC3252	Scientific Writing and Presentation	2	None	√	
CSC3312	Computing for Science II	2	CSC2312		
CSC3321	Computing for Science Programming Laboratory II	1	CSC3312		
<b>Total</b>		<b>35</b>		<b>22</b>	<b>07</b>

<b>4000 LEVEL – COMPUTER SCIENCE</b>				
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>
				<b>Hons.</b>
CSC4043	Parallel Processing	3	CSC3033	
CSC4063	Distributed Computing	3	CSC2112 CSC3033	
CSC4082	Computer Vision	2	CSC3143	
CSC4093	Neural Networks and Deep Learning	3	CSC3173	
CSC4103	Internet and Multimedia Systems	3	CSC2112 CSC3143	
CSC4122	Internet of Things	2	CSC2053	

			CSC2112 CSC3173	
CSC4132	Information and Network Security	2	CSC2112	
CSC4142	Software Project Management	2	CSC3112	
CSC4162	Special Topics in Computer Science	2	None	
CSC4173	Machine Learning	3	CSC3173	
CSC4182	Natural Language Processing	2	CSC3173	
CSC4996	Project in Computer Science II – Research Project	6	CSC3252	√
SCI4003	Industrial Training	3		
<b>Total</b>		<b>36</b>		<b>06</b>

## DATA SCIENCE

Students who have entered the Faculty of Science to the Physical Science stream, and who have successfully completed Computer Science, Statistics and Mathematics as principal subjects at the 1000 level (those who have not offered Mathematics as a principal subject at the 1000 level, have to complete compulsory Mathematics\* course units), and at least Computer Science and Statistics as principal subjects at the 2000 level shall be eligible for selection to the Honors Degree Programme in Data Science.

<b>3000 LEVEL – DATA SCIENCE</b>				
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>
				<b>Hons.</b>
DSC3013	Regression Analysis	3	STA2033	√
DSC3023	Big Data Analytics I	3	CSC2042, CSC3033, STA1041	√
DSC3032	Multivariate Methods I	2	STA2033	√
DSC3042	Time Series Analysis	2	STA2033	
DSC3052	Data Visualization	2	DSC3091	
DSC3063	Decision and Game Theory	3	STA2033	
DSC3073	Non-parametric and Categorical Data Analysis	3	STA2033	
DSC3083	Statistical Simulation	3	STA2033	
DSC3091	Advanced Statistics Applications I	1	STA3013, STA3023	√
DSC3101	Advanced Statistics Applications II	1	DSC3091	√
DSC3152	Design and Analysis of Algorithms	2	CSC2021	√
DSC3163	Advanced Database Management Systems	3	CSC2032	√

DSC3173	Artificial Intelligence	3	CSC2012, DSC3152	√
DSC3182	Digital Image Processing	2	DSC3152	
DSC3192	Computing for Data Science	2	CSC2021, DSC3091	√
DSC3252	Scientific Writing and Presentation	2		√
DSC3263	Independent Study in Data Science	3	DSC3252	√
<b>Total</b>		<b>40</b>		<b>25</b>

<b>4000 LEVEL – DATA SCIENCE</b>				
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre -requisites</b>	<b>Compulsory</b>
				<b>Hons.</b>
DSC4013	Big Data Analytics II	3	DSC3023	√
DSC4023	Data Mining Techniques	3	DSC3032	
DSC4033	Multivariate Methods II	3	DSC3032	
DSC4043	Bayesian Statistics	3	STA2033	
DSC4052	Advanced Time Series Analysis	2	DSC3042	
DSC4063	Reliability Theory and Survival Analysis	3	STA2033	
DSC4162	Advanced Topics in Algorithms and Optimization	2	DSC3152	
DSC4173	Machine Learning	3	DSC3173	√
DSC4182	Natural Language Processing	2	DSC3173	
DSC4193	Internet of Things	3	CSC2112, DSC3173	
DSC4202	Information Retrieval	2	DSC3173	
DSC4213	Neural Networks and Deep Learning	3	DSC3173	√
DSC4222	Special Topics in Data Science	2	None	
DSC4243	Distributed Computing	3	CSC2113, CSC3033	
DSC4252	Computer Vision	2	DSC3173, DSC3183	
DSC4996	Project in Data Science	6	DSC3193, DSC3263	√
SCI4003	Industrial Training	3		
<b>Total</b>		<b>48</b>		<b>15</b>

## ENVIRONMENTAL SCIENCE

Those students who have completed Chemistry as a principal subject at the 2000 Level shall be eligible for selection to an Honors Degree in Environmental Science at the end of the second year subjected to their fulfilment of compulsory requirements to be selected for the Honors Degree in Environmental Science Programme.

<b>3000 LEVEL – ENVIRONMENTAL SCIENCE</b>				
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>
				<b>Hons.</b>
ENS3013	Concepts in Environmental Science	3		√
ENS3022*	Advanced Mathematics for Biological Sciences	2		√
ENS3033	Statistics for Environmental Science	3		√
ENS3042#	Biology for Environmental Science	2		√
ENS3052	Environmental Law and Environmental Impact Assessment	2	ENS3013	√
ENS3063	Human Resource Management	3		
ENS3112	Biological Indicators in Environmental Management	2		
ENS3122	Wetlands and Their Exploitation	2		
ENS3132	Marine Resources and Marine Pollution	2		
ENS3142	Environmental Microbiology	2	BOT2012	
ENS3152	Quantitative Ecology	2	ENS3042	
ENS3162	Biotic Interactions and Applications	2		
ENS3171	Plant and Animal Systematics	1	ENS3042	
ENS3213	Water and Soil Pollution	3	ENS3013	√
ENS3223	Analytical Chemistry	3	CHE2313	√
ENS 3233	Industrial Chemistry	3	CHE2122 CHE2313	
ENS3312	Remote Sensing and GIS	2		√
ENS3322	Hydrology	2		
ENS3332	Mining and the Environment	2		
ENS3342	Geological Environment and Earth Resources	2		
ENS3412	Environmental Modelling	2	ENS3022	
ENS3512	Energy, Weather and Environment	2	ENS3013 ENS3022	√
<b>Total</b>		<b>49</b>		<b>20</b>

\* compulsory for biological science stream students only

# compulsory for physical science stream students only

<b>4000 LEVEL - ENVIRONMENTAL SCIENCE</b>				
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Comments</b>
				<b>Hons.</b>
ENS4012	Cleaner Production in Industry	2		√
ENS4022	Sustainable Development and Green Technology	2	ENS3512	√
ENS4032	Environmental Economics	2	ENS3013	√
ENS4112	Ecotourism	2		
ENS4123	Conservation Biology	3		
ENS4132	Environmental Biotechnology	2	MBB2263 MBB3222	
ENS4212	Air and Noise Pollution	2	ENS3213	√
ENS4222	Atmospheric Chemistry	2	ENS4212	
ENS4233	Waste and Waste Management	3	ENS3213	√
ENS4242	Nanotechnology and the Environment	2	ENS3223	
ENS4292	Environmental Analysis Laboratory	2	ENS3213 ENS3223	√
ENS4312	Oceanography	2		
ENS4322	Medical Geology and Environmental Toxicology	2		
ENS4412	Multivariable Calculus	2	ENS3022	
ENS4422	Basic Environmental Engineering	2	ENS4412	
ENS4912	Research Methodology & Scientific Writing	2		√
ENS4921	Seminar	1		√
ENS4998	Research Project	8	ENS3013	√
SCI4003	Industrial Training	3	ENS3022 ENS3052 ENS3223	√
<b>Total</b>		<b>46</b>		<b>27</b>

## GEOLOGY

Those students who have completed Geology as a principal subject at the 2000 Level shall be eligible for selection to an Honors Degree in Geology at the end of the second year subjected to their fulfilment of compulsory requirements for the Geology special course.

<b>1000 LEVEL – GEOLOGY</b>					
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>	
				<b>Hons.</b>	<b>B.Sc.</b>
GEO1013	Earth Processes	3		√	√
GEO1021	Earth Processes Laboratory	1	GEO1013	√	√
GEO1033	Earth Materials	3	GEO1013	√	√
GEO1041	Earth Materials Laboratory	1	GEO1033	√	√
<b>Total</b>		<b>08</b>		<b>08</b>	<b>08</b>

<b>2000 LEVEL – GEOLOGY</b>					
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>	
				<b>Hons.</b>	<b>B.Sc.</b>
GEO2013	Optical Mineralogy	3	GEO1021, GEO1041	√	√
GEO2023	Introductory Petrology	3	GEO1021, GEO1041	√	√
GEO2032	Geochemistry	2	GEO1021, GEO1041		
GEO2042	Geophysics	2	GEO1021, GEO1041		
GEO2052	Economic Geology	2	GEO1021, GEO1041	√	√
GEO2062	Plate Tectonics and Geomorphology	2	GEO1021, GEO1041		
GEO2072	Soil and Rock Mechanics	2	GEO1021, GEO1041		
GEO2082	Photogeology	2	GEO1021, GEO1041		
GEO2092	Introductory Structural and Field Geology	2	GEO1021, GEO1041	√	√
<b>Total</b>		<b>20</b>		<b>10</b>	<b>10</b>

<b>3000 LEVEL – GEOLOGY</b>					
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>	
				<b>Hons.</b>	<b>B.Sc.</b>
GEO3012	Hydrology	2			
GEO3022	Geology of Sri Lanka	2		√	√
GEO3032	Metamorphic Petrology	2	GEO2013, GEO2023	√	√

GEO3042	Igneous Petrology	2	GEO2013 GEO2023	√	
GEO3052	Sedimentary Petrology	2	GEO2013 GEO2023	√	
GEO3062	Applied Geophysics	2	GEO2042		
GEO3072	Remote Sensing and Geographical Information Systems (GIS)	3			
GEO3083	Structural Geology and Tectonics	3	GEO2013 GEO2023 GEO2092	√	√
GEO3093	Analytical Techniques in Geology	3	GEO2032		
GEO3102	Hydrogeology	2			
GEO3112	Environmental Geology	2			
GEO3123	Engineering Geology	3	GEO2072		
GEO3132	Advanced Economic Geology	2	GEO2013 GEO2023 GEO2052		
GEO3142	Gemmology	2	GEO2013 GEO2023		
GEO3152	Field Geology	2	GEO2013 GEO2023 GEO2092	√	√
<b>Total</b>		<b>34</b>		<b>13</b>	<b>09</b>

<b>4000 LEVEL - GEOLOGY</b>					
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Comments</b>	
				<b>Hons.</b>	
GEO4012	Applied Hydrogeology	2	GEO3102		
GEO4022	Isotope Geology	2			
GEO4032	Surveying and Leveling	2			
GEO4042	Scientific Writing and Seminar	2		√	
GEO4052	Field Geology Assessment	2	GEO3152	√	
GEO4062	Seismology	2			
GEO4073	Oceanography and Quaternary Geology	3			
GEO4082	Exploration and Mining Geology	2			
GEO4092	Petroleum Geology	2	GEO3052		
GEO4103	Advanced Metamorphic Petrology	3	GEO3032	√	
GEO4113	Advanced Igneous Petrology	3	GEO3042	√	
GEO4123	Advanced Sedimentary Petrology	3	GEO3052	√	
GEO4132	Advanced Engineering Geology	2	GEO3123		

GEO4998	Research Project	8		√
SCI 4003	Industrial Training	3		√
<b>Total</b>		<b>41</b>		<b>24</b>

## MATHEMATICS

Those students who have completed Mathematics\*\* as a principal subject at the 2000 Level shall be eligible for selection to an Honors Degree in Mathematics at the end of the second year subjected to their fulfilment of compulsory requirements for the Mathematics special course.

<b>1000 LEVEL – MATHEMATICS</b>						
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>		
				<b>Hons.</b>	<b>**</b>	<b>*</b>
MAT1013	Abstract Algebra I	3		√	√	√
MAT1023	Real Analysis I	3		√	√	√
MAT1032	Differential Equations	2		√	√	
MAT1042	Vector Methods	2		√	√	
MAT1053	Classical Mechanics I	3	MAT1042	√	√	
MAT1063	Introduction to Probability Theory	3		√	√	
<b>Total</b>		<b>16</b>		<b>16</b>	<b>16</b>	<b>06</b>

<b>2000 LEVEL – MATHEMATICS</b>						
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>		
				<b>Hons.</b>	<b>**</b>	<b>*</b>
MAT2013	Abstract Algebra II	3	MAT1013	√	√	√
MAT2023	Real Analysis II	3	MAT1023	√	√	√
MAT2033	Ordinary Differential Equations	3	MAT1032			
MAT2043	Mathematical Methods	3	MAT1042	√	√	
MAT2052	Classical Mechanics II	2	MAT1053			
MAT2063	Mathematical Modelling I	3		√	√	
MAT2072	Numerical Analysis I	2		√	√	
MAT2082	Logic and Set Theory	2	MAT1023			
MAT2092	Graph Theory	2				
MAT2102	Computational Mathematics	2				
<b>Total</b>		<b>25</b>		<b>14</b>	<b>14</b>	<b>06</b>

<b>3000 LEVEL – MATHEMATICS</b>						
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>		
				<b>Hons.</b>	<b>**</b>	<b>*</b>
MAT3013	Group Theory	3	MAT2013, MAT2082	√		
MAT3023	Real Analysis III	3	MAT2023	√	√	√
MAT3032	Partial Differential Equations	2	MAT1032			
MAT3042	Differential Geometry	2	MAT2043			
MAT3053	Fluid Mechanics I	3	MAT2043	√	√	
MAT3062	Mathematical Modelling II	2	MAT2063			
MAT3073	Numerical Analysis II	3	MAT2072	√	√	
MAT3083	Number Theory	3	MAT2013	√		
MAT3092	Combinatorics	2	MAT2092			
MAT3103	Linear Algebra	3	MAT2013	√	√	√
MAT3113	Linear Programming	3		√		
MAT3122	Complex Analysis I	2	MAT2023	√		
MAT3133	General Topology	3	MAT1023	√		
<b>Total</b>		<b>34</b>		<b>26</b>	<b>12</b>	<b>06</b>

<b>4000 LEVEL - MATHEMATICS</b>						
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>		
				<b>Hons.</b>		
MAT4013	Galois Theory	3	MAT3013	√		
MAT4023	Measure Theory	3	MAT3023	√		
MAT4033	Functional Analysis	3	MAT3103, MAT3133, MAT4023	√		
MAT4043	Complex Analysis II	3	MAT3122	√		
MAT4053	Fluid Mechanics II	3	MAT3053			
MAT4063	Optimization Theory	3	MAT3113	√		
MAT4073	Algebraic Topology	3	MAT3013, MAT3133			
MAT4083	Financial Mathematics	3		√		
MAT4093	Industrial Mathematics	3				
MAT4996	Research Project	6		√		
SCI4003	Industrial Training	3				
<b>Total</b>		<b>36</b>		<b>24</b>		

## MICROBIOLOGY

Students who have successfully entered the Faculty of Science to the Biological Science stream, and who have completed Biology\*/ Biology\*\* and Chemistry at the 1000 level and Botany as a major subject and two Chemistry courses; CHE2212 and CHE2282 at the 2000 level, shall be eligible for selection to an Honors Degree in Microbiology.

<b>3000 LEVEL – MICROBIOLOGY</b>				
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>
				<b>Hons.</b>
MIC3012	Microbial Systematics and Evolution	2		√
MIC3022	Microbial Biochemistry and Physiology	2	BOT2062	√
MIC3032	Gene regulation in Microbes	2	BOT2071	
MIC3042	Plant Pathology	2	MIC3042	√
MIC3052	Plant Virology	2		√
MIC3062	Environmental Microbiology	2	BOT2012	√
MIC3072	Symbiosis	2	BOT2012	
MIC3082	Introduction to Bioinformatics	2	BOT2062, BOT2012	
MIC3092	Microbial agents for Plant disease management	2	MIC3042	
MIC3102	Bio fertilizers and Bio pesticides	2		
MIC3112	Fermentation Technology and Probiotic Microorganisms	2	BOT2062	
MIC3122	Wastewater and Solid Waste Microbiology	2		
MIC3132	Bacteria of Medical Importance	2		
MIC3142	Vector borne Diseases	2	ZOO2212	
MIC3152	Viral diseases - past, present and future	2		
MIC3162	Microbes for Sustainability	2		√
MIC3172	Bioethics	2		√
MIC3182	Effective Scientific Communication	2		√
<b>Total</b>		<b>36</b>		<b>16</b>

<b>4000 LEVEL - MICROBIOLOGY</b>				
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Comments</b>
				<b>Hons.</b>
MIC4012	Applied Microbial Genetics: Case studies	2	BOT2072	
MIC4022	Diazotrophs and sustainable soil management	2	BOT2062	

MIC4032	Lichen Biology	2	BOT2012	
MIC4042	Advanced Plant Pathology	2	MIC3042	
MIC4052	Toxicology	2	BOT2052	
MIC4062	Biosecurity	2	MIC3042	
MIC4072	Microbiological Applications	2	BOT2062	
MIC4082	Wetland and Aquatic Microbiology	2	BOT1192	
MIC4092	Bio-fermentation	2		
MIC4103	Applied Parasitology	3	ZOO3232	
MIC4112	Animal Pathogens and Public Health	2	MIC3132	
MIC4123	Immunobiology	3		
MIC4132	Laboratory Management and Quality Assurance	2		√
SCI4003	Industrial Training	3		
MIC4998	Research Project	8		√
<b>Total</b>		<b>39</b>		<b>10</b>

## MOLECULAR BIOLOGY AND BIOTECHNOLOGY

From the 2000 Level onwards, Molecular Biology & Biotechnology is offered as a principal subject area. The students who have followed Chemistry as a principal subject area and BIO1012 at the 1000 level are permitted to take Molecular Biology & Biotechnology as a principal subject at 2000 and 3000 Levels. Other students who wish to follow selected course units in Molecular Biology & Biotechnology would also be accommodated subject to availability of places. Those students who have completed Molecular Biology & Biotechnology as a principal subject at the 2000 Level shall be eligible for selection to an Honors Degree in Molecular Biology & Biotechnology at the end of the second year subjected to their fulfilment of compulsory requirements for the Molecular Biology & Biotechnology special course.

<b>2000 LEVEL – MOLECULAR BIOLOGY AND BIOTECHNOLOGY</b>					
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>	
				<b>Hons.</b>	<b>B.Sc.</b>
MBB2013	Biological Chemistry	3	BIO1012 CHE1013 CHE1023	√	√
MBB2063	Principles of Genetics	3	BIO1012		
MBB2112	Cell and Tissue Culture	2	BIO1012		
MBB2161†	General Microbiology	1	BIO1012	√	
MBB2212	Enzymology	2	BIO1012 CHE1013 CHE1023	√	√

MBB2263	Molecular Genetics	3	BIO1012 CHE1013 CHE1023	√	√
CHE2312	Physical Chemistry I	2	CHE1013 CHE1023	√	
<b>Total</b>		<b>27</b>		<b>11</b>	<b>08</b>

†Available to students who have not offered biology in GCE (A/L).

<b>3000 LEVEL – MOLECULAR BIOLOGY AND BIOTECHNOLOGY</b>					
Course Code	Course Title	No. of Credits	Pre-requisites	Compulsory	
				Hons.	B.Sc.
MBB3012	Biochemistry and Molecular Biology Laboratory	2	MBB2013 MBB2263	√	√
MBB3063	Recombinant DNA Technology	3	MBB2013 MBB2263	√	√
MBB3113	Molecular Cell Biology	3	MBB2013	√	
MBB3162	Molecular Immunology	2	BIO1012	√	
MBB3222	Molecular Biotechnology	2	MBB2263 MBB3063	√	√
MBB3263	Bioinformatics	3	MBB2263	√	
MBB3312	Fermentation Technology	2	CHE1013 CHE1023		
MBB3332	Molecular Phylogenetics	2	MBB2063 MBB2263	√	
MBB3353	Molecular Virology	3	MBB2263	√	
MBB3372	DNA and Forensic Medicine Laboratory	2	MBB2263	√	
BOT3022	Advanced Microbiology	2			
BOT3042	Plant Pathology	2			
CHE3413	Analytical Chemistry	3	CHE 2312	√	
<b>Total</b>		<b>31</b>		<b>25</b>	<b>07</b>

<b>4000 LEVEL - MOLECULAR BIOLOGY AND BIOTECHNOLOGY</b>					
Course Code	Course Title	No. of Credits	Pre-requisites	Compulsory	
				Hons.	
MBB4012	Molecular Biology of Plant and Animal Diseases	2	MBB2013 MBB2263	√	
MBB4122	Biotechnology Industry	2	MBB3222	√	
MBB4162	Environmental Biotechnology	2	MBB2263 MBB3222	√	
MBB4413	Special Topics in Cell and Molecular Biology	3	MBB3113	√	
MBB4723	Scientific Writing and Research Methodology	3		√	
MBB4882	Biosafety Issues in Biotechnology	2	MBB3222		

MBB4893	Quantitative Genomics and Molecular Breeding	3		
MBB4901	Independent Study	1		
MBB4913	Molecular Developmental Biology	3		√
MBB4923	Applications of Nanobiotechnology	3	MBB3222	
MBB4951	Seminar	1		√
MBB4998	Research Project	8		√
SCI4003	Industrial Training	2		
BOT4202	Biological Nitrogen Fixation	2		
ZOO4253	Entomology	3	ZOO3222	
ZOO4262	Developmental Biology	2	ZOO2012	
<b>Total</b>		<b>42</b>		<b>24</b>

## PHYSICS

Those students who have completed Physics as a principal subject at the 2000 Level shall be eligible for selection to an Honors Degree in Physics at the end of the second year subjected to their fulfilment of compulsory requirements for the Physics special course.

<b>1000 LEVEL - PHYSICS</b>					
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>	
				<b>Hons.</b>	<b>B.Sc.</b>
PHY1103	General Physics I	3		√	√
PHY1203	General Physics II	3		√	√
PHY1911	Elementary Physics Laboratory I	1		√	√
PHY1921	Elementary Physics Laboratory II	1		√	√
<b>Total</b>		<b>08</b>		<b>08</b>	<b>08</b>

<b>2000 LEVEL – PHYSICS</b>					
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>	
				<b>Hons.</b>	<b>B.Sc.</b>
PHY2102	Mechanics and Fluid Dynamics	2	PHY1103	√	√
PHY2112	Vibrations and Waves	2			
PHY2302	Introductory Quantum Mechanics and Atomic Physics	2	PHY1203	√	√
PHY2402	Statistical Physics & Thermodynamics	2	PHY1103	√	√
PHY2812	Introductory Astronomy	2			
PHY2822	Medical Physics	2			

PHY2842	Energy and the Environment	2			
PHY2852	Circuit Theory & Introductory Electronics	2		√	
PHY2911	General Physics Laboratory I	1	PHY1911, PHY1921	√	√
PHY2921	General Physics Laboratory II	1	PHY1911, PHY1921	√	√
PHY2931	Electronic Laboratory I	1	PHY2852	√	
<b>Total</b>		<b>19</b>		<b>11</b>	<b>08</b>

<b>3000 LEVEL – PHYSICS</b>					
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>	
				<b>Hons.</b>	<b>B.Sc.</b>
PHY3102	Classical Mechanics	2	PHY2102	√	
PHY3112	Special Relativity	2		√	
PHY3202	EM Waves and Communication	2	PHY1203	√	√
PHY3212	Physical Optics and Optical Instruments	2	PHY1103	√	√
PHY3302	Quantum Mechanics I	2	PHY2302	√	
PHY3502	Nuclear Physics I	2		√	√
PHY3512	Elementary Particle Physics	2			
PHY3602	Solid State Physics I	2		√	√
PHY3612	Semiconductor Physics and Devices	2			
PHY3622	Structures and Properties of Materials	2			
PHY3703	Mathematical Methods in Physics	3		√	
PHY3712	Computational Physics	2			
PHY3812	Astrophysics	2			
PHY3822	Biophysics	2			
PHY3832	Health Physics	2			
PHY3842	Physics of Atmosphere, Weather and Climate	2			
PHY3852	Advanced Electronics	2	PHY2852		
PHY3862	Experimental Techniques and Material Characterization	2			
PHY3872	Introductory Nanoscience	2			
PHY3911	General Physics Laboratory III	1	PHY1911, PHY1921	√	√
PHY3921	Applied Physics Laboratory	1	PHY3911		
PHY3932	Advanced Physics Laboratory I	2	PHY2911, PHY2921	√	

PHY3942	Advanced Physics Laboratory II	2	PHY2911, PHY2921	√	
PHY3951	Electronics Laboratory II	1	PHY2931		
PHY3992	Scientific Writing and Seminar	2		√	
<b>Total</b>		<b>49</b>		<b>24</b>	<b>09</b>

<b>4000 LEVEL – PHYSICS</b>					
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>	
				<b>Hons.</b>	
PHY4112	General Relativity	2			
PHY4122	Introduction to Cosmology	2	PHY4112		
PHY4202	Electromagnetic Theory	2	PHY3202	√	
PHY4302	Quantum Mechanics II	2	PHY3302	√	
PHY4312	Quantum Mechanics III	2	PHY4302		
PHY4402	Statistical Physics	2	PHY2402	√	
PHY4502	Nuclear Physics II	2	PHY3502	*	
PHY4512	Nuclear Reactor Physics	2	PHY3502		
PHY4522	Radiation Detection and Measurement	2			
PHY4602	Solid State Physics II	2	PHY3602	*	
PHY4622	Magnetic Materials and Superconducting Phenomena	2	PHY2402		
PHY4632	Ion Conducting Materials and Devices	2			
PHY4642	Polymer Physics	2			
PHY4852	Data Acquisition and Signal Processing	2	PHY3852		
PHY4872	Nanophysics	2	PHY3872/ CHE3723		
PHY4912	Advanced Physics Laboratory III	2	PHY3942	√	
PHY4922	Investigatory Physics Laboratory	2		√	
PHY4996	Research Project	6		√	
SCI4003	Industrial Training	3			
<b>Total</b>		<b>34</b>		<b>18</b>	

## STATISTICS

Those students who have completed Statistics as a principal subject at the 2000 Level shall be eligible for selection to an Honors Degree in Statistics at the end of the second year subjected to their fulfilment of compulsory requirements for the Statistics special course.

<b>1000 LEVEL – STATISTICS</b>					
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>	
				<b>Hons.</b>	<b>B.Sc.</b>
STA1013	Introduction to Statistics	3		√	√
STA1023	Introduction to Probability Theory	3		√	√
STA1031	Statistics Applications I	1	STA1013	√	√
STA1041	Statistics Applications II	1	STA1031	√	√
STA1073	Mathematics for Operations Research	3			
<b>Total</b>		<b>11</b>		<b>08</b>	<b>08</b>

<b>2000 LEVEL – STATISTICS</b>					
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>	
				<b>Hons.</b>	<b>B.Sc.</b>
STA2013	Probability Theory	3	STA1023 MAT1023	√	√
STA2033	Theory of Statistics	3	STA2013	√	√
STA2042	Sampling Techniques	2	STA2033	√	√
STA2102	Statistical Quality Control	2	STA2033	√	
<b>Total</b>		<b>10</b>		<b>10</b>	<b>08</b>

<b>3000 LEVEL – STATISTICS</b>					
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>	
				<b>Hons.</b>	<b>B.Sc.</b>
STA3013	Regression Analysis	3	STA2033	√	√
STA3033	Design and Analysis of experiments	3	STA2033	√	√
STA3052	Multivariate Methods I	2	STA1031 STA2033	√	
STA3072	Time Series Analysis	2	STA2033	√	
STA3093	Non-Parametric & Categorical Data Analysis	3	STA2033	√	√
STA3113	Statistical Simulation	3		√	
STA3131	Advanced Statistical Applications I	1	STA1041 STA2033	√	
STA3141	Advanced Statistical Applications II	1	STA3121	√	

STA3213	Statistics for Scientists	3			
STA3252	Scientific Writing and Presentation	2		√	
<b>Total</b>		<b>23</b>		<b>20</b>	<b>09</b>

<b>4000 LEVEL – STATISTICS</b>					
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>	
				<b>Hons.</b>	
STA4012	Actuarial Statistics	2	STA2033		
STA4023	Statistical Data Mining	3	STA3053		
STA4033	Statistics for Bioinformatics	3	STA3093		
STA4043	Stochastic Processes	3	STA2033		
STA4053	Multivariate Methods II	3	STA3053	√	
STA4063	Bayesian Statistics	3	STA2033		
STA4073	Linear Models	3	STA2033	√	
STA4083	Reliability Theory and Survival Analysis	3	STA2033		
STA4112	Advanced Probability Theory	2	STA2033 MAT1053		
STA4122	Asymptotic Theory	2	STA4112		
STA4203	Medical Statistics	3	STA2033		
STA4212	Spatial Statistics	2	STA2033		
STA4222	Special Topics in Statistics	2			
SCI4003	Industrial Training	3			
STA4996	Research Project	6	STA3141 STA3252	√	
<b>Total</b>		<b>43</b>		<b>18</b>	

## ZOOLOGY

From the 2000 Level onwards, Zoology is offered as a principal subject area. The students who have followed Biology\*/ Biology\*\* as a principal subject area at the 1000 level are permitted to take Zoology as a principal subject at 2000 and 3000 Levels. Other students who wish to follow selected course units in Zoology would also be accommodated subject to availability of places. Those students who have completed Zoology as a principal subject at the 2000 Level shall be eligible for selection to an Honors Degree in Zoology at the end of the second year subjected to their fulfilment of compulsory requirements for the Zoology special course.

<b>2000 LEVEL – ZOOLOGY</b>					
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>	
				<b>Hons.</b>	<b>B.Sc.</b>
ZOO2012	Animal Embryology	2		√	√
ZOO2052	Biostatistics	2			
ZOO2152	Zoogeography & Sri Lankan Fauna	2			
ZOO2172	Coastal Ecosystems & Coral Reefs	2			
ZOO2192	Functional Histology	2		√	
ZOO2212	Invertebrate Diversity	2		√	√
ZOO2222	Vertebrate Diversity	2		√	√
ZOO2232	Animal Ecology	2		√	√
<b>Total</b>		<b>16</b>		<b>10</b>	<b>08</b>

<b>3000 LEVEL – ZOOLOGY</b>					
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>	
				<b>Hons.</b>	<b>B.Sc.</b>
ZOO3022	Comparative Anatomy & Animal Physiology	2	BIO1022	√	√
ZOO3072	Fish Biology	2	ZOO2222	√	
ZOO3142	Evolutionary Biology & Systematics	2		√	√
ZOO3222	Insect Pest Management	2	ZOO2212	√	
ZOO3232	Vector Borne Diseases	2	ZOO2212	√	
ZOO3262	Animal Behavior	2		√	√
ZOO3272	Animal Genetics & Molecular Biological Techniques	2		√	√
ZOO3312	Limnology & Wetland Ecology	2		√	
ZOO3322	Amphibian & Reptilian Biology	2	ZOO2222	√	
ZOO3332	Avian & Mammalian Biology	2	ZOO2222	√	
ZOO3342	Ecotourism	2			
ZOO3353	Inland Fisheries and Aquaculture	3	ZOO3072	√	
<b>Total</b>		<b>25</b>		<b>23</b>	<b>08</b>

<b>4000 LEVEL - ZOOLOGY</b>				
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Comments</b>
				<b>Hons.</b>
ZOO4043	Applied Parasitology	3	ZOO3232	
ZOO4063	Environmental Biology	3		
ZOO4073	Immunobiology	3		
ZOO4103	Marine Biology & Fisheries	3		
ZOO4113	Wildlife Management	3		
ZOO4212	Scientific Writing & Presentation	2		√
ZOO4242	Research Methods and Data Analysis	2	ZOO2052	√
ZOO4253	Entomology	3	ZOO3222	
ZOO4262	Developmental Biology	2	ZOO2012	
ZOO4282	Independent Study & Seminar	2		√
ZOO4293	Conservation Biology	3		
ZOO4998	Research Project	8		√
SCI4003	Industrial Training	3		
<b>Total</b>		<b>40</b>		<b>14</b>

- **SUPPLEMENTARY COURSES**

<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>
<b>ECONOMICS</b>			
ECN2013	Introductory Economic Theory	3	
ECN3012	The Sri Lankan Economy	2	ECN2013
<b>MANAGEMENT STUDIES</b>			
MGT2012	Management Studies I	2	
MGT3012	Management Studies II	2	
<b>SCIENCE EDUCATION</b>			
SED2012	Foundations in Science Education	2	
SED2022	Educational Philosophy and Educational Management	2	SED2012
SED3012	Methodology in Teaching Science	2	SED2012
SED3022	Teaching Practice	2	SED2012
SED3032	Assessing Students in the Learning Process	2	SED2012

● **APPLIED SCIENCES SUBJECT AREA**

<b>Course Code</b>	<b>Course Title</b>	<b>No. of credits</b>	<b>Compulsory</b>
APS4002	Industrial Management	2	√
APS4018	Industrial Placement	8	√
APS4022	Research Methodology & Scientific Writing	2	√
APS4031	Seminar	1	√
APS4042	Data Integrity Management& Data Analysis	2	√
APS4092	Industry and the Environment	2	√
APS4102	Applications Laboratory	2	√
<b>Category I (Biology – based Courses)</b>			
APS4142	Industrial Microbiology	2	
APS4152	Biodiversity Conservation and Sustainable Development	2	
APS4162	Fisheries and Aquaculture	2	
APS4172	Food and Fresh Produce Technology	2	
APS4182	Ecotourism	2	
APS4812	Enzymes in Industry	2	
APS4821	Biochemistry and Molecular Laboratory Instrumentation	1	
APS4832	Bioinformatics	2	
<b>Category II (Chemistry - based Courses)</b>			
APS4312	Chemical Technology	2	
APS4322	Cleaner Production for Industry	2	
APS4332	Industrial Waste Management	2	
APS4342	Industrial Organic Chemistry	2	
<b>Category III (Geology - based Courses)</b>			
APS4442	Industrial and Economic Minerals	2	
APS4452	Remote Sensing and Geographic Information Systems	2	
<b>Category IV (Mathematics - based Courses)</b>			
APS4512	Industrial Mathematics	2	
APS4522	Financial Mathematics	2	
<b>Category V (Physics - based Courses)</b>			
APS4612	Semiconductor Device Technology and Application	2	
APS4622	Science and Technology of Ceramic Materials	2	
APS4632	Energy; Sources, Use and Conservation	2	
APS4642	Workshop Practice	2	
APS4652	Industrial Applications (Electronics/Hardware) Laboratory	2	

<b>Category VI (Statistics/Computer Science - based Courses)</b>			
APS4712	Design and Development of Software Systems	2	
APS4722	Management of Computers and Computer Networks	2	
APS4732	Visualizing Statistical Concepts using Java and Software Development	2	
APS4742	Statistical Applications in Industry and Project Presentation	2	
	<b><i>Total</i></b>	<b>68</b>	<b>19</b>

● **COMPUTATION AND MANAGEMENT SUBJECT AREA**

<b>1000 LEVEL – COMPUTATION AND MANAGEMENT</b>							
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>			
				BS	PS	AR	CO
CSC1013	Introduction to Computer Science and Programming	3	CSC1002	√	√	√	√
CSC1023	Object-oriented Programming	3	CSC1013	√	√	√	√
CSC1041	Programming Laboratory I	1	CSC1013	√	√	√	√
CSC1051	Programming Laboratory II	1	CSC1023 CSC1041	√	√	√	√
MAT1023	Real Analysis I	3					
MAT1213	Mathematics for Arts/Commerce Students I	3		√		√	√
MAT1223	Mathematics for Arts/Commerce Students II	3		√		√	√
ECN101	Introductory Microeconomics	3		√	√	√	√
ECN102	Introductory Macroeconomics	3		√	√	√	√
MGT101	Principles of management	3		√	√	√	√
MGT103	Introduction to Business Accounting	3		√	√	√	
FNA1001	Introduction to Fine Arts	3			√		
PSC101	Introduction to State and Government	3			*		#
SED1013	Science and Society	3			*		#
<b>Total</b>		<b>38</b>		<b>26</b>	<b>26</b>	<b>26</b>	<b>26</b>

\* Only one of these course units is compulsory for Physical Science stream

# Only one of these course units is compulsory for Commerce stream

<b>2000 LEVEL – COMPUTATION AND MANAGEMENT</b>							
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>			
				BS	PS	AR	CO
CSC2012	Data Structures	2	CSC1023	√	√	√	√
CSC2021	Programming using Data Structures	1	CSC1051 CSC2012	√	√	√	√
CSC2032	Database Management Systems	2	CSC1023	√	√	√	√
CSC2041	Programming using Database Management Systems	1	CSC2032	√	√	√	√
CSC2112	Introduction to Computer Networks	2	CSC1013	√	√	√	√
MAT2213	Mathematics for Management Studies I	3		√	√	√	√
ECN2001	Intermediate Microeconomics	3		√	√	√	√
ECN2002	Intermediate Macroeconomics	3		√	√	√	√

MGT206	Human Resource Management	3		√	√	√	√
MGT207	Operations Management	3		√	√	√	√
MGT208	Business Statistics	3		√	√	√	√
MGT209	Project Management	3		√	√	√	√
MGT211	Business Accounting for Decision Making	3		√	√	√	√
<b>Total</b>		<b>32</b>		<b>32</b>	<b>32</b>	<b>32</b>	<b>32</b>

<b>3000 LEVEL – COMPUTATION AND MANAGEMENT</b>							
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>			
				BS	PS	AR	CO
CSC3033	Operating Systems Concepts	3	CSC2032	√	√	√	√
CSC3093	Object Oriented Analysis and Design	3	CSC1023 CSC1051				
CSC3103	Server Side Web Programming	3	CSC2021 CSC2041 CSC2102				
CSC3112	Software Engineering	2	CSC1013	√	√	√	√
CSC3152	Design and Analysis of Algorithms	2	CSC2012				
MAT3213	Mathematics for Management Studies II	3		√	√	√	√
ECN324	Econometrics I	3		√	√	√	√
MGT301	Marketing	3		√	√	√	√
MGT304	Entrepreneurship	3		√	√	√	√
MGT305	Cost & Management Accounting	3		√	√	√	√
MGT307	Business Law	3		√	√	√	√
<b>Total</b>		<b>31</b>		<b>23</b>	<b>23</b>	<b>23</b>	<b>23</b>

<b>4000 LEVEL – COMPUTATION AND MANAGEMENT</b>							
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>			
				BS	PS	AR	CO
MGT421	Project involving internship	6		√	√	√	√
MGT423	Seminar	1		√	√	√	√
MGT424	Strategic Management	3		√	√	√	√
MGT438	Management Information Systems	3		√	√	√	√
<b>Total</b>		<b>13</b>		<b>13</b>	<b>13</b>	<b>13</b>	<b>13</b>

**G.C.E.(A/L) streams:**

**BS** - Biological Science, **PS** - Physical Science, **AR** - Arts, **CO** - Commerce

**Note:** Students opting to follow the Computation and Management Degree are required to select courses from the following course units at 4000 level in addition to fulfill their credit requirements.

Semester I : 3 credits CSC courses and 2 credits MGT courses from 4000 level

Semester II : 9 credits from CSC or MGT courses from 4000 level, of which at least 3 must be from CSC and 3 from MGT

● STATISTICS AND OPERATIONS RESEARCH SUBJECT AREA

<b>1000 LEVEL – STATISTICS AND OPERATIONS RESEARCH</b>				
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>
CSC1013	Introduction to Computer Science and Programming	3	CSC1002	√
CSC1023	Object-Oriented Programming	3	CSC1013	√
CSC1041	Programming Laboratory I	1	CSC1013	√
CSC1051	Programming Laboratory II	1	CSC1023, CSC1041	√
MAT1023	Real Analysis I	3		√
MAT1073	Mathematics for Operations Research	3		√
MAT1083	Mathematical Programming	3		√
MAT1092	Introduction to Mathematical Computing	2		√
STA1013	Introduction to Statistics	3		√
STA1023	Introduction to Probability Theory	3		√
STA1031	Statistics Applications I	1	STA1013	√
STA1041	Statistics Applications II	1	STA1031	√
<b>Total</b>		<b>27</b>		<b>27</b>

<b>2000 LEVEL – STATISTICS AND OPERATIONS RESEARCH</b>				
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>
CSC2012	Data Structures	2	CSC1023	√
CSC2021	Programming using Data Structures	1	CSC1051, CSC2012	√
CSC2032	Database Management Systems	2	CSC1023	√
CSC2041	Programming using Database Management Systems	1	CSC2032	√
MAT2023	Real Analysis II	3	MAT1023	√
MAT2043	Mathematical Methods	3	MAT1073	
MAT2072	Numerical Analysis I	2		√
MAT2092	Graph Theory	2		
MAT2113	Advanced Mathematical Programming	3	MAT1083	√
MAT2123	Operations Research I	3	MAT1083	√
MAT2132	Convex Analysis	2	MAT2023	√
STA2013	Probability Theory	3	STA1023	√
STA2033	Theory of Statistics	3	STA2013	√

STA2042	Sampling Techniques	2	STA2013	√
STA2102	Statistical Quality Control	2	STA2033	
<b>Total</b>		<b>34</b>		<b>27</b>

<b>3000 LEVEL – STATISTICS AND OPERATIONS RESEARCH</b>				
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>
CSC3152	Design and Analysis of Algorithms	2	CSC2012	
CSC3173	Artificial Intelligence	3	CSC2012, CSC3152	
MAT3023	Real Analysis III	3	MAT2023	
MAT3032	Partial Differential Equations	2	MAT1073/ MAT1032	
MAT3073	Numerical Analysis II	3	MAT2082	
MAT3103	Linear Algebra	3	MAT1073	√
MAT3143	Network Optimization Theory	3	MAT2113	√
MAT3152	Operations Research II	2	MAT1083, MAT3143	√
MAT3163	Nonlinear Programming	3	MAT2113	√
MAT3991	Seminar	1		√
HRM3013	Human Resource Management	3		
STA3013	Regression Analysis	3	STA2033	√
STA3033	Design and Analysis of Experiments	3	STA2033	√
STA3052	Multivariate Methods I	2	STA1031, STA2033	√
STA3072	Time Series Analysis	2	STA2033	
STA3093	Non-Parametric & Categorical Data Analysis	3	STA2033	√
STA3113	Statistical Simulation	3		
<b>Total</b>		<b>44</b>		<b>23</b>

<b>4000 LEVEL – STATISTICS AND OPERATIONS RESEARCH</b>				
<b>Course Code</b>	<b>Course Title</b>	<b>No. of Credits</b>	<b>Pre-requisites</b>	<b>Compulsory</b>
CSC4093	Neural Networks and Deep Learning	3	CSC3173	
MAT4023	Measure Theory	3	MAT3023	
MAT4083	Financial Mathematics	3		√
MAT4112	Selected Topics in Applied Operations Research	2	MAT3152, MAT3163	√
MAT4123	Optimization for Engineering Design	3	MAT3152, MAT3163	√

MAT4132	Optimization Modeling	2	MAT3152, MAT3163	√
MAT4006	Project Work/Industrial Training	6		√
STA4012	Actuarial Statistics	2	STA2033	
STA4023	Statistical Data Mining	3	STA3052	√
STA4033	Statistics for Bioinformatics	3	STA3093	
STA4043	Stochastic Processes	3	STA2033	√
STA4053	Multivariate Methods II	3	STA3052	
STA4063	Bayesian Statistics	3	STA2033	
<b>Total</b>		<b>39</b>		<b>22</b>

- **INTER-FACULTY COURSES**

There are many inter-faculty courses offered under the Computation and Management subject area which are offered only for the students registered to follow the B.Sc. Hons. in Computation and Management degree programme. Human Resource Management course is offered only to the students registered to follow B.Sc. degree programme or B.Sc. Honors degree programme by specializing a subject area.

Course code	Course Title	No. of Credits	Pre-requisites	Compulsory
HRM3013	Human Resource Management	3		
<b>Total</b>		<b>3</b>		

- **NON-GPA COURSES**

Course code	Course Title	No. of Credits	Pre-requisites	Compulsory
SCI1011	Laboratory Safety	1		√
SCI1021	Academic Ethics and Integrity	1		√
SCI1031	Healthy Relationships and Interpersonal Dynamics	1		√
SCI1021	Essential Skills for Carrier Development	1		√
SCI3012	Advanced Strategies for Professional Development	2		√
ENG2002	English for Professional Purposes	2		√
ENG3002	English for Special Purposes	2	ENG2002	
<b>Total</b>		<b>10</b>		<b>8</b>