

**PROSPECTUS**  
**FACULTY OF APPLIED SCIENCES**  
**RAJARATA UNIVERSITY OF SRI LANKA**

## 1 INTRODUCTION

### 1.1 BACKGROUND

The Rajarata University of Sri Lanka (RUSL) was established in November 1995 by the Gazette Notification No: 896/2 of 7<sup>th</sup> November 1995 in the Administrative District of Anuradhapura. The Central Province Affiliated University College (CPAUC) in Polgolla, located at a distance of 140 km from the main campus at Mihintale was amalgamated to the RUSL as its Faculty of Applied Sciences (FASc). The immediate task of the FASc at that time was to upgrade all the students of the CPAUC who had successfully completed their Diploma requirements, to the Graduate level. On this task the FASc was inaugurated on 10<sup>th</sup> January, 1997 to commence the third year Degree Programme with a batch of 102 students, who subsequently graduated in 1998. The first batch of students who were directly sent by the UGC to follow the degree programme was enrolled in November 1997.

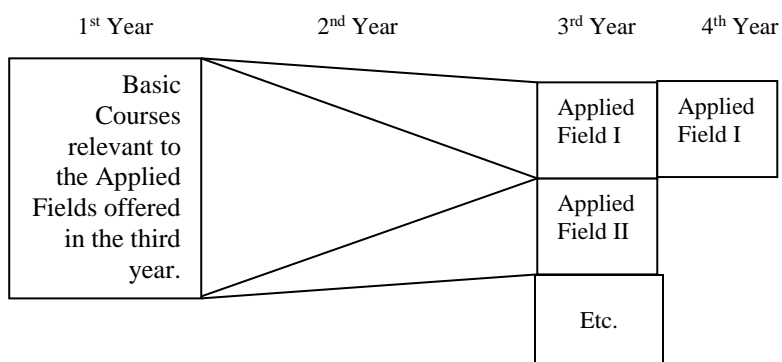
After functioning for nearly 10 years at Polgolla, the Faculty was finally established in the premises of the main campus at Mihintale, on 16<sup>th</sup> January 2006 upon completion of Stage I of the building complex.

### 1.2. PRESENT STATUS

At present, three B.Sc. (General) Degree programmes, three B.Sc. (Special) Degree programmes, two B.Sc. (Joint Major) Degree programmes and three B.Sc. (four-year) Degree programmes are offered by the FASc.

The FASc, Mihintale consists of two Departments *viz.*: Biological Sciences and Physical Sciences. The Department of Biological Sciences offers courses in the fields of study/subjects/disciplines of Botany, Zoology, Biology and Health Promotion while the Department of Physical Sciences offers Chemistry, Physics, Pure Mathematics, Applied Mathematics, Computer Science and Information & Communication Technology. All courses are offered in English medium as such, the Faculty conducts an intensive course and an ongoing course in English Language, for students to be competent to follow lectures and comprehend the courses taught by the two Departments. From its inception, the Faculty follows the course unit system.

It is the intention of the Faculty to ensure that a student entering the Faculty could in the third and fourth years select a particular field or fields of Applied Sciences of his/her choice. The first and the second year courses are designed in such a way that a student may select a specific area/s in Applied Sciences in the third year/third and fourth years. The Basic Plan of Action of the B.Sc. Degree Programmes in Applied Sciences is given below.



However, this is not applicable to the students following the degrees of Information & Communication Technology and Health Promotion, who are selected by entry, through a separate window at the time of admission.

## 2. STAFF

### 2.1 OFFICERS OF THE UNIVERSITY

**Vice-Chancellor:** Prof. K.H.R. Wijayawardena

#### Deans of Faculties:

Agriculture:	Dr.M.G.T.S.Amarasekara
Applied Sciences:	Dr. B.A. Karunaratne
Management Studies:	Dr.K.G.A.Udayakumara
Medicine & Allied Sciences:	Prof. S.Siribaddana
Social Sciences & Humanities:	Dr.C.R. Withanachchi

**Registrar:** Mr. A.M.G.B. Abeysinghe  
**Librarian:** Mrs. A.S. Siriwardena  
**Bursar:** Mr. M.I.F. Rahman

## 2.2. STAFF OF THE FACULTY

**Dean:** Dr. B.A. Karunaratne  
 B.Sc. (Hons) (Perad.), M.Sc. (Perad.), Ph.D. (Perad.)

### 2.2.1 ACADAMIC STAFF OF THE FACULTY

#### Department of Biological Sciences

**Head:** Dr. (Mrs.) Sriyani Wickramasinghe  
 B.Sc. (Hons) (Colombo), M.Sc. (Colombo), Ph.D. (AIT, Thailand)

**Professor:** Prof. Sanath Hettiarachi,  
 B.Sc. (Hons) (Kelaniya), M.Sc., Ph.D. (Brussels)

**Senior Lecturers:** Dr. (Mrs) P. L. Hettiarachchi  
 B.Sc. (Hons) (Colombo), M.Sc., Ph.D. (Brussels), C.Biol.(Sri Lanka), F.I.Biol.(Sri Lanka)

Dr. (Mrs.) M.M. Goonasekera  
 B.Sc. (Hons)(Cey), M.Sc. (Perad.), Ph.D. (Perad.)

Dr.(Mrs.) T. V. Sundarabarathy  
 B.Sc. (Hons) (SJP), M.Sc. (Perad.), SEDA (UK), Ph.D. (Perad.)

Dr. T.C. Bamunuarachchige  
 B.Sc. (Hons.) (OUSL), Ph.D. (Perad.)

Dr. (Mrs.) Sriyani Wickramasinghe  
 B.Sc. (Hons) (Colombo), M.Sc. (Colombo), Ph.D. (AIT, Thailand)

Mr. G.G.N. Duminda  
 B.A. (Kelaniya), M.S.Sc. (Kelaniya), M.Phil. (Perad.)

Dr. Rajnish Vandercone  
 B.Sc. (Hons) (Perad.), Ph.D (Washington,USA)

Mrs. P.N. Yapa  
 B.Sc.(Hons) (Perad.), M.Sc.(Perad.), M.Sc. (Reading, UK), M.Phil. (Perad.)

Dr. Lalith Senaratna  
 Grad. I. Chem., M.Med. Sci (Newcastle), Ph.D (Sydney)

**Lecturers:** Dr. Manoj S. Fernando  
 M.B.B.S. (Hons) (Colombo)

Dr. W.M.G.A.S.T.B. Wijetunga  
 B.Sc. (OUSL), M.Sc. (Perad.), Ph.D. (Vienna)

Dr. K.D.B. Ukuwela  
 B.Sc. (Hons) (Perad.), Ph.D. (Australia)

Mrs. Theja Abayarathna - Study Leave  
 B.Sc. (Hons) (SJP), M.Phil. (SJP)

Mr. Ravindra L Jayaratne  
 B.Sc.(Hons) (RUSL), M.Sc. (Perad.)

Mrs. D.K. Hettiarachchi - Study Leave  
 B.Sc. (Hons) (RUSL)

Mrs. H. Parween Reyah  
B.Sc. (Hons) (RUSL)

Mrs. Prabuddhika Harshani Kandegedara  
B.Sc. (Hons) (RUSL)

Mr. K.G.D. De. A. Abeysinghe  
B.Sc. (Hons) (RUSL)

### Department of Physical Sciences

**Head:** Dr. E.M.R.K.B. Edirisinghe  
B.Sc. (Hons) (SJP), M.Phil. (SJP), Ph.D. (Greenwich, UK), M.I. Chem. C.

**Senior Lecturers:** Dr. J.L. Ratnasekera,  
M.Sc.(Hons)(Moscow), Ph.D.(Moscow)

Dr. B.A. Karunaratne  
B.Sc.(Hons)( Perad.), M.Sc. (Perad.), Ph.D.(Perad.)

Mr. A.M. Hafil,  
B.Sc.(Perad.), M.Sc. (SJP), M.Phil. (Perad.), C.Chem

Dr. E.M.R.K.B. Edirisinghe  
B.Sc. (Hons) (SJP), M.Phil. (SJP), Ph.D. (Greenwich, UK), M.I. Chem. C.

Dr. U. Dahanayake,  
B.Sc. (Hons) (Perad.), Ph.D. (Perad.)

Dr. Ajith C. Herath  
Grad. I. Chem., M.Sc. (Perad.), Ph.D (Perad.), MRSC

Dr. (Ms.) Harshani O. Wijewardane  
B.Sc. (Hons) (Colombo), Ph.D (Missouri, USA)

Mr. E.M.U.S.B Ekanayaka  
B.Sc (Hons) (Perad.), M Phil. (Japan)

Dr. T.M.W.J. Bandara  
B.Sc. (Hons) (Ruhuna), M.Phil. (Ruhuna), Ph.D (Perad.)

Dr. (Mrs). P.K.Premachandra  
B.Sc. (Perad.), M.Sc.& Ph.D (Missouri, USA)

Dr. K.G.P.B. Jayathilaka  
B.Sc. (Hons) (Perad.), Ph.D (South Florida)

**Lecturers :** Mr. N.S. Weerakoon  
B.Sc. (Hons) (Eng.) (Perad.), M.Sc (Perad.)

Mr. P.S. Palliyaguruge  
B.Sc. (Hons) (Perad.), M.Sc. (Perad.)

Mr. N.M.A.P.B. Nilwakke  
B.Sc.(Hons) (Perad.), M.Sc (Perad.)

Mr. M.A.M. Mohammed  
B.Sc.(Hons) (Perad.)

Miss. J.S.K.C. Priyangika  
B.Sc. (Hons) (Perad.)

Mr. K.G.T. Jayawardana  
B.Sc. (Hons) (Perad.)

Mr. K.A.S.H. Kulathilake  
B.Sc. (Hons) (SLIIT), MCS (Colombo), SEDA(UK)

Mr. D.M.R.B.N. Dissanayake - Study Leave  
B.Sc.(Hons) (RUSL)

Mrs. T. Irugalbandara  
B.Sc. (Hons) (RUSL)

### Lecturers in English

Mr. G.A.S.M.P.L. Abeywardena  
B.A. (Hons) (RUSL), M.A. (Kelaniya)

Mr. M.D.S.S. Kumara  
B.A. (Hons) (RUSL), M.A. (Kelaniya)

### 2.2.2. ADMINISTRATIVE STAFF OF THE FACULTY

**Deputy Registrar:** Mr. N.C.S. Senaka  
B.Sc. (Kelaniya)

**Senior Assistant Librarian:** Mrs. K.R.N. Harshani  
B.A.(Hons) (Kelaniya), M.S.Sc (Kelaniya)

### 2.2.3. VISITING STAFF

1. Prof. Lalini Rajapaksha, University of Colombo
2. Prof. Diyanath Samarasingha, University of Colombo
3. Prof. W.B. Daundasekera, University of Peradeniya
4. Prof. (Mrs.) Nalika Gunawardhena, University of Colombo
5. Prof. Rohan Weerasuriya, University of Peradeniya
6. Dr.Chaminda Egodawatta, Rajarata University of Sri Lanka
7. Dr. Sarath Amunugama, Deputy Director General, Planning, Ministry of Health
8. Dr. Shantha Fernando, University of Moratuwa
9. Dr. Indika Perera, University of Moratuwa
10. Dr. (Mrs.) N.S.R. Hewageegana, Deputy Director General, Public Health Services, Ministry of Health
11. Dr. Janaka Wijayakulasooriya, University of Peradeniya
12. Dr. Malaka Walpola, University of Moratuwa
13. Dr. A. Ellepola, Teaching Hospital, Anuradhapura
14. Dr. Dilum Bandara, University of Moratuwa
15. Dr. Thushara Ranasinghe, National Professional Officer, WHO,
16. Dr. P.M. Wijerathana, former Director of Agriculture
17. Dr. G.A.S.M. Ganearachchi, Senior Lecturer Kelaniya
18. Dr. W.A.H.P. Guruge, Senior Lecturer, University of Ruhuna
19. Dr. Nirmalee Wickramaratna, University of Sabaragamuwa
20. Dr. Nilwala Kottegoda, University of Sri Jayewardenepura
21. Mr. Manoj . P. Jinadasa, Senior Lecturer, University of Kelaniya
22. Mr. P.A.C.T. Perera, Manager Ornamental Fish Industry
23. Mrs. Tina Solomons, Clinical Physiologist, Sri Lanka Foundation Institute
24. Mr. Shakya Nanayakkara, General Secretary, FISD & Healthy Lanka
25. Mr. R.K.K.M.P. Randeniya, Deputy Director Sri Lanka Bureau of Foreign Employment
26. Mr. Chamil Jeewantha
27. Mr. Gamini Senanayake

## **B.SC. DEGREE PROGRAMMES IN THE FACULTY OF APPLIED SCIENCES**

### **3.1. ADMISSION REQUIREMENTS**

Admission of students to the Faculty is done on the basis of an admission policy laid down from time to time by the University Grants Commission with the concurrence of the Government.

### **3.2. DEGREE PROGRAMMES OFFERED BY THE FACULTY OF APPLIED SCIENCES**

At present, the following degree programmes are offered by the FoAS.

1. B.Sc. (General) Degree in Applied Sciences
2. B.Sc. (four-year) Degree in Applied Sciences
3. B.Sc. (four-year) Degree in Industrial Mathematics
4. B.Sc. (Special) Degree in Applied Biology  
(Specialization area I: Biodiversity Conservation)  
(Specialization area II: Fisheries and Aquaculture Management)  
(Specialization area III: Microbiology)
5. B.Sc. (Special) Degree in Chemistry
6. B.Sc. (Joint Major) Degree in Biology and Physics
7. B.Sc. (Joint Major) Degree in Chemistry and Physics
8. B.Sc. (General) Degree in Health Promotion
9. B.Sc. (Special) Degree in Health Promotion
10. B.Sc. (General) Degree in Information and Communication Technology
11. B.Sc. (four-year) Degree in Information and Communication Technology

*N.B. Joint Major Degrees are four-year degree programmes.*

### **3.3. COURSES OF STUDY**

B.Sc. (General) Degree Programmes comprise a total of six semesters while the special and four-year B.Sc. Degree Programmes comprise a total of eight semesters, each semester being of 15 weeks duration.

#### **(a) Degree Programmes in Applied Sciences**

The programmes of study in Applied Sciences consist of

- (i) Foundation courses and Interdisciplinary courses
- (ii) A combination of Compulsory and Optional courses drawn from the subjects of Biology, Botany, Chemistry, Computer Science, Mathematics, Physics and Zoology.

#### **(b) Degree Programmes in Information & Communication Technology**

The programmes of study in Information & Communication Technology consist of

- (i) Foundation courses and Interdisciplinary courses
- (ii) A combination of Compulsory and Optional courses drawn from the field of study of Information & Communication Technology.

#### **(c) Degree Programmes in Health Promotion**

The programmes of study in Health Promotion consist of

- (i) Foundation courses and Interdisciplinary courses

- (ii) A combination of Compulsory and Optional courses drawn from the field of study of Health Promotion.

Each course is a unit of study normally completed within a semester or an academic year.

A student enrolled for a degree programme in Applied Sciences may select courses from any combination of two or three subjects. The flexibility in selecting the programmes is enhanced by the availability of optional courses.

A student enrolled for a degree programme in Information & Communication Technology or Health Promotion may select courses from the respective field of study.

A student is expected to offer a minimum of 90 credits in order to be eligible to obtain the B.Sc. (General) Degree and a minimum of 120 credits to be eligible for the B.Sc. (Special) and other four-year Degrees offering an average of 30 credits per year including the compulsory courses.

### 3.4. CREDIT RATING

The credit rating is an expression used to denote the “academic value” of a course.

The credit ratings are as follows:

According to the Sri Lanka Qualification Framework, fifty notional learning hours for a taught course, laboratory studies course or field studies is equivalent to one credit and a norm of hundred notional hours for Industrial Training and Research also have the same credit rating. These hours should include the following and all other time spent for the purposes of other modes of learning and examinations.

#### For courses with lectures only

15 hours of lectures/ tutorials = 1 credit

#### For courses with laboratory work only

30 – 45 hours of laboratory work = 1 credit

60 – 75 hours of laboratory work = 2 credit

#### For courses with both lectures and laboratory work only

10 hours of lectures/tutorials + 15 hours of laboratory work = 1 credit

#### For courses with field work only

45 hours of field work = 1 credit

#### Industrial training

2 weeks of industrial training = 1 credit

#### Research project

1 – 2 weeks of research = 1 credit

*N.B. Credits earned by Foundation courses will not be taken in computation of GPA (non- credit courses).*

### 3.5. DESCRIPTION OF COURSE CODE

Field of Study	Subject/ Discipline	Code	Meaning of the Code
Applied Sciences	Biology	BIO	Biology
	Botany	BOT	Botany
	Zoology	ZOO	Zoology
		BDC	Biodiversity Conservation
		FAM	Fisheries and Aquaculture Management

		MIB	Microbiology
	Chemistry	CHE	Chemistry
	Computer Science	COM	Computer Science
	Mathematics	MAA MAP MAT	Applied Mathematics Pure Mathematics Mathematics
	Physics	PHY	Physics
Health Promotion		HPF	Health Promotion -Field Work
		HPP	Health Promotion - Project
		HPT	Health Promotion -Theory
Information and Communication Technology		ICT	Information and Communication Technology
-	-	FDN	Foundation Course
-	-	IDC	Interdisciplinary Course

Each course is assigned a course code which consists of seven alphanumeric characters as follows:

**Course Code consists of three upper case letters space then four digits**

**First three letters:** Field of study / Subject

- **First digit:** Year of study within the Degree Programme
- **Second digit:** The credit rating
- **Last two-digits:** The serial number of the course

e.g. The course code **CHE 1201** would mean:

**CHE**=> Chemistry    **1** => 1<sup>st</sup> year;    **2**=> Credit rating of two;    **01**=>Serial number of the course

**Pre-requisites and Co-requisites**

Some courses are required to qualify for certain other courses. Such courses termed as **Pre-Requisites** (PR) and need to be completed prior to the registration of the more advanced course.

Some of the pre-requisites are subjects taken for G. C. E. (A/L) Examination.

Some courses require certain other courses to be taken simultaneously with them. Such courses are called **Co-Requisites** (CR).

Practical courses are co-requisites for theory courses and vice-versa.

**3.6 FOUNDATION COURSES AND INTERDISCIPLINARY COURSES**

Foundation Courses (FDNs) and Interdisciplinary Course (IDCs) are designed to bridge gap between the exit at G.C.E. (A/L) and the entry level to a Degree programme and to provide wider knowledge that a student should acquire in general, outside his/ her academic sphere, respectively. A student in **any Degree programmes should obtain at least a grade of C for FDNs**. The FDNs and IDCs are given in Table 3.1 (for Applied Sciences Degree Programmes). IDCs will be included **if necessary** in the best 90 credits or best 120 credits, depending on his/ her Degree Programme, and hence will be considered for the calculations of the final GPA. The IDCs given in Table 3.6 (for Health Promotion Degree Programmes) and Table 3.8 (for Information and Communication Technology Degree programmes) will be included in

the best 90 credits or best 120 credits, depending on their Degree Programmes, and hence will be considered for the calculations of the final GPA.

### 3.6.1 Foundation (FDN) Courses (Non-credit Courses)

#### 3.6.1.1 General English (FDN 1201)

Before the commencement of the academic year for the 1<sup>st</sup> year students, an intensive course in English, duration of which is 12-16 weeks is conducted by the Faculty. It is compulsory for all the 1<sup>st</sup> year students to attend these classes regularly. The students are grouped according to their standard of English, which is determined by means of an examination held at the beginning of the course. The students are also tested at the end of the intensive course. All the students are advised to make the maximum use of this course to improve their knowledge of English, as English would be the medium of instruction of all the Degree Programmes. Although this course is delivered in general as mentioned above, the Faculty may decide to conduct the course during the first semester of study.

#### 3.6.1.2 Introduction to Computers (FDN 1202)

This course has been designed in order to prepare the students to be able to use a computer in a modernized office environment. Additionally, this course would serve as a basis for further computer science studies.

#### 3.6.1.3 General Biology (FDN 1203)

This is a compulsory course for those students who have not studied Biology as a subject for their G.C.E. (A/L).

#### 3.6.1.4 Basic Mathematics (FDN 1204)

This is a compulsory course for those students who have not studied Mathematics as a subject for their G.C.E. (A/L).

### 3.6.2 Interdisciplinary Courses (IDC)

Please see table 3.1 for available courses under this category. These courses are not directly related to any single study programme, but are considered as very important in producing a well-rounded graduate. The credit values of these courses are used in computation of GPA (credited courses) and maybe compulsory or optional depending on the study programme.

## 3.7. AVAILABLE COURSES FOR DEGREE PROGRAMMES

### 3.7.1 DEGREE PROGRAMMES IN APPLIED SCIENCES

**TABLE 3.1 FOUNDATION COURSES AND INTERDISCIPLINARY COURSES**

Year	Course Code	Credit Rating	Course Title
First Year	FDN 1201	2	General English
	FDN 1202	2	Introduction to Computers
	FDN 1203	2	General Biology
	FDN 1204	2	Basic Mathematics
	IDC 1201	2	Philosophy of Science
Second Year	IDC 2201	2	English for Professional Purposes
	IDC 2202	2	Scientific Communication
	IDC 2203	2	Principles and Practices of Marketing
Third Year	IDC 3201	2	Entrepreneurship Development
	IDC 3202	2	Standards and Quality Management Systems

*N.B. Credit value of FDN courses will not be considered in computation of GPA.*



**TABLE 3.2 COURSES OFFERED BY THE DEPARTMENT OF BIOLOGICAL SCIENCES FOR B.SC. (THREE-YEAR) DEGREE PROGRAMES**

<b>Subject: Biology/Botany/Zoology</b>				
<b>Year</b>		<b>Course Code</b>	<b>Course Title</b>	<b>Pre-requisite</b>
First Year	Botany	BOT1201	Plant Diversity	
		BOT1202	Functional Plant Anatomy and Wood Science	
		BOT 1203	General Microbiology	
	Zoology	ZOO 1201	Invertebrate Diversity	
		ZOO 1303	Vertebrate Diversity	ZOO 1302
		ZOO 1104	Laboratory Techniques in Zoology	
	Biology	BIO 1201	Cell Biology & Biochemistry	
BIO 1202		Statistical Methods in Biology		
Second Year	Botany	BOT 2201	Plant Physiology	
		BOT 2202	Economic Botany	
		BOT 2203	Flora of Sri Lanka	
		BOT 2204	Plant Pathology	BIO 1201
	Zoology	ZOO 2201	Animal Histology & Physiology	BIO 1201
		ZOO 2202	General Entomology	ZOO 1201
		ZOO 2203	Animal Behaviour	ZOO 1302, BIO 2203, ZOO 2201
		ZOO 2204	Fish Biology	ZOO 1302
	Biology	BIO 2201	Systematic Biology	
		BIO 2302	Principles of Ecology	BOT 1201, ZOO 1201 ZOO 1302
		BIO 2203	Genetics and Evolution	

<b>Subject: Biology/Botany/Zoology/Biodiversity Conservation/ Fisheries and Aquaculture Management / Microbiology</b>				
<b>Year</b>		<b>Course Code</b>	<b>Course Title</b>	<b>Pre-requisite</b>
Third Year		BOT 3201	Plant Tissue Culture	
		BOT 3202	Principles and Practice of Horticulture and Landscaping	
		BOT 3203	Postharvest Technology of Plant Products	BOT 2204
		ZOO 3201	Medical Entomology	ZOO 2202
		ZOO 3202	Applied Parasitology	ZOO 1201
		ZOO 3203	Economic Entomology	ZOO 2202
		ZOO 3204	Embryology and Developmental Biology	BIO 2203, ZOO 2201
		BIO 3201	Molecular Biology	BIO 2203
		BIO 3102	Ecotourism	BIO 2302
		BIO 3203	Environmental Pollution	BIO 2302, BOT 2201
		BIO 3204	Bioinformatics	BIO 2203, BIO 3201
		BIO 3205	Ecotoxicology	BIO 2302
		BIO 3206	Experimental Design and Nonparametric Methods in Statistics	BIO 2204
		BIO 3207	Field Project	BIO 2302, BIO 2204
		BDC 3301	Concepts of Biodiversity Conservation	BIO 2302
		BDC 3202	Environmental Impact and Risk Assessment	
		BDC 3203	Introduction to Geographical Information Systems	
		BDC 3204	Wildlife Management and Conservation	BIO 2302
		FAM 3201	Fisheries and Aquaculture	
		FAM 3302	Breeding Techniques in Aquaculture	
		FAM 3303	Ornamental Fish Industry	
		MIB 3201	Industrial Microbiology	
		MIB 3202	Soil Microbiology	
		MIB 3203	Virology	
		MIB 3204	Food Microbiology	
		MIB 3205	Plant-Microbe Interactions	
		MIB 3206	Analytical Techniques in Molecular Biology	
		MIB 3207	Immunology	
	MIB 3208	Environmental Microbiology		

**TABLE 3.3 COURSES OFFERED BY DEPARTMENT OF PHYSICAL SCIENCES FOR B.SC. (THREE-YEAR) DEGREE PROGRAMES**

<b>Subject: Chemistry</b>				
<b>Year</b>	<b>Course Code</b>	<b>Course Title</b>	<b>Pre-requisite</b>	<b>Co-requisite</b>
First Year	CHE 1201	General Chemistry	A/L Chemistry	CHE 1104* CHE 1105*
	CHE 1302	Physical Chemistry I		
	CHE 1203	Organic Chemistry I		
	CHE 1104	Inorganic Chemistry-Laboratory		
	CHE 1105	Organic Chemistry-Laboratory		
Second Year	CHE 2201	Physical Chemistry II	CHE 1202, CHE 1104, CHE 1105	CHE 2101 CHE 2102*
	CHE 2202	Organic Chemistry II	CHE 1203, CHE 1105, CHE 1105	
	CHE 2103	Analytical Chemistry	CHE 1204	
	CHE 2104	Introduction to Biochemistry	1 <sup>st</sup> year Chemistry courses	
	CHE 2205	Inorganic Chemistry	CHE 1201, CHE 1204	
	CHE 2106	Spectroscopic Methods in Organic Chemistry	CHE 1203, CHE 1204	
	CHE 2107	Organic Chemistry-Laboratory	CHE 1104, CHE 1105	
	CHE 2108	Physical Chemistry-Laboratory	CHE 1104, CHE 1105	
Third Year	CHE 3201	Industrial Inorganic Materials	CHE 1201, CHE 2201	
	CHE 3202	Advanced Biochemistry	1 <sup>st</sup> and 2 <sup>nd</sup> years Chemistry	
	CHE 3203	Chemistry of Polymers	1 <sup>st</sup> year Chemistry	
	CHE 3204	Food Chemistry	CHE 1203, CHE 2202	
	CHE 3205	Advanced Inorganic Chemistry –I	1 <sup>st</sup> and 2 <sup>nd</sup> years Chemistry	
	CHE 3306	Chemical and Process Technology	CHE 1202, CHE 2201	
	CHE 3207	Electrochemistry	CHE 1302	
	CHE 3208	Environmental Chemistry	1 <sup>st</sup> year Chemistry	
	CHE 3209	Natural Products Chemistry	CHE 2202	
	CHE 3210	Research Project	1 <sup>st</sup> and 2 <sup>nd</sup> years Chemistry	
	CHE 3311	Advanced Analytical Chemistry	CHE 2103, CHE 2106	
	CHE 3212	Solid State Chemistry	1 <sup>st</sup> and 2 <sup>nd</sup> years Chemistry	
	CHE 3213	Industrial Chemistry	1 <sup>st</sup> and 2 <sup>nd</sup> years Chemistry	
	CHE 3214	Chemistry – Laboratory	1 <sup>st</sup> and 2 <sup>nd</sup> years Chemistry	
	CHE 3215	Heterocyclic and Synthetic Organic Chemistry	1 <sup>st</sup> and 2 <sup>nd</sup> years Chemistry	
	CHE 3216	Advanced Analytical and Environmental Chemistry - Laboratory	1 <sup>st</sup> and 2 <sup>nd</sup> years Chemistry	
	CHE 3217	Advanced Inorganic Chemistry-Laboratory	1 <sup>st</sup> and 2 <sup>nd</sup> years Chemistry	
	CHE 3218	Advanced Organic Chemistry-Laboratory	1 <sup>st</sup> and 2 <sup>nd</sup> years Chemistry	
CHE 3219	Advanced Physical Chemistry-Laboratory	1 <sup>st</sup> and 2 <sup>nd</sup> years Chemistry		
CHE 3120	Calculations in Chemistry	1 <sup>st</sup> and 2 <sup>nd</sup> years Chemistry		
CHE 3121	Industrial Training	1 <sup>st</sup> and 2 <sup>nd</sup> years Chemistry		

<b>Subject: Physics</b>				
<b>Year</b>	<b>Course Code</b>	<b>Course Title</b>	<b>Pre-requisite</b>	<b>Co-requisite</b>
First Year	PHY 1201	General Physics	A/L Physics	PHY 1205**
	PHY 1102	Waves and Vibrations		
	PHY 1203	Fundamentals of Electromagnetism		
	PHY 1104	Modern Physics		
	PHY 1205	Practical Unit		
Second Year	PHY 2101	Thermodynamics & Radiation	A/L Physics	PHY 2207**
	PHY 2102	Electromagnetism	A/L Physics, PHY 1203	
	PHY 2103	Electronics		
	PHY 2204	Physical Optics	PHY 1102	
	PHY 2105	Quantum Mechanics	A/L Physics or FDN 1203	
	PHY 2106	Atomic & Nuclear Physics	PHY 1104, PHY 1205, FDN 1203	
	PHY 2207	Practical Unit	A/L Physics, PHY 1205	

Third Year	PHY 3301	Atmospheric Physics		
	PHY 3302	Mathematical Methods for Physicists	A/L Physics or FDN 1203	
	PHY 3203	Physical Oceanography	1 <sup>st</sup> year Physics courses, PHY 2101, PHY 2102, PHY 2207	
	PHY 3204	Applied Geophysics	1 <sup>st</sup> year Physics courses	
	PHY 3105	Physical Geology	PHY 1101, PHY 1201, PHY 1205, PHY 2102, PHY 2207	
	PHY 3206	Soil Physics	PHY 1101, PHY 1201, PHY 1205, PHY 2102, PHY 2207	
	PHY 3207	Energy Resources	PHY 2103 and PHY 2106	
	PHY 3208	Project / Seminar	Any course offered in the 3 <sup>rd</sup> year	
	PHY 3209	Solid State Physics	1 <sup>st</sup> and 2 <sup>nd</sup> year Physics courses	
	PHY 3210	Properties of Materials	PHY 3209	
	PHY 3211	Medical Physics I		
	PHY 3212	Electronics II	PHY 2103	
	PHY 3213	The Curved Space Times of General Relativity		
	PHY 3214	Graphical Programming for Physics		
	PHY 3215	Practical Unit	PHY 1205, PHY 2207	

\*This Co-requisite is only for students those who follow Chemistry as a subject

\*\*This Co-requisite is only for students those who follow Physics as a subject

<b>Subject: Computer Science</b>				
<b>Year</b>	<b>Course Code</b>	<b>Course Title</b>	<b>Pre-requisite</b>	<b>Co-requisite</b>
First Year	COM 1201	Principles of Program Design		
	COM 1302	Database Management Systems		
	COM 1305	Object Oriented Programming	COM 1201	
	COM 1407	Computer Programming	COM 1201	
	COM 1308	Digital Logic Design		
Second Year	COM 2301	Systems Analysis and Design	COM 1302	
	COM 2303	Web Design	COM 1201, COM 1302	
	COM 2304	Computer Graphics and Image Processing	A/L Combined Mathematics or FDN 1204 and COM 1407	
	COM 2307	Data Structures and Algorithms	COM 1201	
	COM 2308	Software Engineering	COM 1305, COM 2301	
Third Year	COM 3401	Data Communication and Networking		
	COM 3303	Artificial Intelligence	COM 1407, COM 2307	
	COM 3204	Information Security	A/L Combined Mathematics, or BIO 2204, COM 1407, COM 2307	
	COM 3405	Research Project	COM 2301	
	COM 3306	Operating Systems		
	COM 3307	Embedded systems	COM1407, COM3401, COM3306	

<b>Subject: Mathematics</b>				
<b>Year</b>		<b>Course Code</b>	<b>Course Title</b>	<b>Pre-requisites</b>
First Year	Pure Mathematics	MAP 1301	Linear Algebra	A/L Combined Mathematics
		MAP 1302	Differential Equations I	
		MAP 1203	Real Analysis I	
	Applied Mathematics	MAA 1201	Mathematical Methods I	
		MAA 1302	Probability & Statistics I	
		MAA 1203	Numerical Analysis I	A/L Combined Mathematics
		MAA 1104	Mathematical Modelling	
Second Year	Pure Mathematics	MAP 2301	Algebra	MAP 1301
		MAP 2202	Real Analysis II	MAP 1203
		MAP 2203	Differential Equations II	MAP 1302
		MAP 2204	Complex Calculus	MAP 1203
	Applied Mathematics	MAA 2201	Mathematical Methods II	MAA 1201
		MAA 2302	Probability & Statistics II	MAA 1302
		MAA 2203	Numerical Analysis II	MAA 1203
		MAA 2204	Linear Programming	
Third Year	Financial Mathematics	MAT 3301	Advanced Linear Programming	MAA 2204
		MAT 3302	Network Optimization	
		MAT 3203	Regression Analysis	MAA 2302
		MAT 3204	Index Numbers	
		MAT 3205	Introduction to Statistical Decision Theory	
		MAT 3206	Data Analysis Using a Computer Software	MAA 1302or BIO 1208
		MAT 3307	Project	
		MAT 3208	Time Series	MAA 2302
		MAT 3209	Statistical Computing using software	MAA 1302or BIO 1208
		Industrial Mathematics	MAT 3301	Advanced Linear Programming
	MAT 3302		Network Optimization	
	MAT 3203		Regression Analysis	MAA 2302
	MAT 3205		Introduction to Statistical Decision Theory	
	MAT 3206		Data Analysis Using a Computer Software	MAA 1302or BIO 1208
	MAT 3307		Project	
	MAT 3208		Time Series	MAA 2302
	MAT 3209		Statistical Computing using software	MAA 1302or BIO 1208
	MAT 3310		Integer Programming	MAT 3301
	MAT 3312		Statistical Quality Control	MAA 2302
	MAT 3213	Graph Theory		
MAT 3214	Applied Statistics	MAA 2302		
MAT 3217	Non Linear Programming	MAA 2204		
MAT 3319	Fluid Dynamics I			

## FOURTH YEAR PROGRAMME OF STUDY

TABLE 3.4 FOURTH YEAR COURSES OFFERED BY DEPARTMENT OF BIOLOGICAL SCIENCES

<b>Specialization area I: Biodiversity Conservation</b>	
<b>Course Code</b>	<b>Course Title</b>
BDC 4201	Environmental Policies and Management
BDC 4202	Wetland Conservation and Management
BDC 4203	Forest Conservation
BDC 4204	Advanced Geographical Information Systems
BDC 4205	Economics of Biodiversity
BDC 4206	Aquatic Resources and Conservation
BDC 4207	Coastal and Marine Biodiversity Conservation
BDC 4208	Current Topics in Biodiversity Conservation
BDC 4209	Inplant Training
BDC 4810	Research Project

<b>Specialization area II: Fisheries and Aquaculture Management</b>	
<b>Course Code</b>	<b>Course Title</b>
FAM 4201	Fishery Resources Management
FAM 4202	Aquaculture Engineering
FAM 4203	Aquafarming of Macrophytes
FAM 4204	Fish Nutrition and Growth
FAM 4205	Fish Health Management
FAM 4206	Postharvest Techniques in Fisheries
FAM 4207	Fishery Economics
FAM 4208	Current Topics in Fisheries and Aquaculture Management
FAM 4209	Inplant Training
FAM 4810	Research Project

<b>Specialization area III : Microbiology</b>	
<b>Course Code</b>	<b>Course Title</b>
MIB 4201	Applied Mycology
MIB 4202	Medical Microbiology
MIB 4103	Molecular Microbiology
MIB 4204	Microbial Taxonomy
MIB 4205	Techniques and Strategies in Molecular Biology
MIB 4206	Molecular Biotechnology
MIB 4207	Microbial Genetics
MIB 4208	Current Topics in Microbiology
MIB 4209	Inplant Training
MIB 4810	Research Project

TABLE 3.5 FOURTH YEAR COURSES OFFERED BY DEPARTMENT OF PHYSICAL SCIENCES

<b>Subject: Chemistry</b>		
<b>Course Code</b>	<b>Course Title</b>	<b>Pre-requisites</b>
CHE 4201	Computational Chemistry	All chemistry courses in 1 <sup>st</sup> year and 2 <sup>nd</sup> year
CHE 4202	Advanced Physical Chemistry -I	
CHE 4203	Surface and Colloidal Chemistry	
CHE 4204	Advanced Inorganic Chemistry –II	
CHE 4605	Research Project (Joint Major & Applied Science Degree programs)	
CHE 4206	Nanochemistry	
CHE 4307	Advanced Physical Chemistry –II	
CHE 4308	Advanced Environmental Chemistry	
CHE 4209	Advanced Organic Chemistry	
CHE 4210	Molecular and Surface Spectroscopy	
CHE 4211	Electronics and IT for Chemists	
CHE 4212	Pharmaceutical and Medicinal Chemistry	
CHE 4213	Chemical Toxicology	
CHE 4814	Research Project and Seminars (Special Degree Program)	

<b>Subject: Computer Science</b>		
<b>Course Code</b>	<b>Course Title</b>	<b>Pre-requisites</b>
COM 4201	Introduction to Mobile Computing	COM 1401, COM 1302, COM 1305
COM 4202	Bioinformatics and Computational Biology	COM 1401
COM 4203	Geographical Information System	COM 1401, COM 1302
COM 4604	Research Project	
ICT 4201	ICT for Education	
ICT 4402	Intelligent Systems	COM 3303
ICT 4303	Advanced Computer Networks	COM 3401 COM 2307
ICT 4306	E Commerce	COM 2303

<b>Subject: Mathematics</b>		
<i>Industrial Mathematics</i>		
<b>Course Code</b>	<b>Course Title</b>	<b>Pre-requisite</b>
MAT 4301	Operational Research I	
MAT 4302	Financial Mathematics	
MAT 4303	Dynamic Programming	
MAT 4304	Operational Research II	
MAT 4305	Stochastic Processes	MAA 2302, MAT 3214
MAT 4306	Optimization Modelling	
MAT 4307	Design of Experiments	
MAT 4608	Project Work	
MAT 4309	Combinatorics	MAT 3213
MAT 4310	Computational Mathematics	MAA 1203, MAA 2203

<b>Subject: Physics</b>		
<b>Course Code</b>	<b>Course Title</b>	<b>Pre-requisite</b>
PHY 4201	Biophysics	1 <sup>st</sup> and 2 <sup>nd</sup> year Physics
PHY 4202	The Curved Space Times of General Relativity	
PHY 4203	Classical Mechanics	PHY 1201, PHY 3302
PHY 4304	Current Topics in Biophysics	
PHY 4205	Seminar in Biophysics	
PHY 4606	Project in Biophysics	
PHY 4207	Medical Physics II	
PHY 4308	Characterization Techniques	PHY 3209, PHY3210
PHY 4209	Physics of Semiconductor Devices	PHY 2103, PHY 2105

PHY 4210	Advanced Quantum Mechanics	PHY 2105
PHY 4211	Nanomaterials and Nanotechnology	PHY 2105
PHY 4312	Statistical Thermodynamics	1 <sup>st</sup> and 2 <sup>nd</sup> year Physics
PHY 4613	Research Project	
PHY 4314	Current Topics in Chemistry and Physics	
PHY 4217	Advanced Energy Resources	

*N.B. (1) The minimum and maximum numbers of credits a student can offer in an academic year, excluding repeat courses are 26 and 33, respectively.*

*(2) A student has to follow at least 24 credits including compulsory courses from a particular subject for him/ her to be considered that he/ she followed that subject for the degree programme.*

*(3) The availability of a particular course in a particular year will depend on the number of applicants (minimum No.05) as well as the availability of lecturers.*

### 3.7.2 DEGREE PROGRAMMES IN HEALTH PROMOTION

**TABLE 3.6 FOUNDATION COURSES AND INTERDISCIPLINARY COURSES**

Year	Course Code	Credit Rating	Course Title
First Year	FDN 1201	0	General English
	FDN 1202	0	Introduction to Computers
	FDN 1204	0	Basic Mathematics
	IDC 1201*	2	Philosophy of Science
Second Year	IDC 2201	2	English for Professional Purposes

\* Will not be calculated for the final GPA.

**TABLE 3.7 COURSES OFFERED BY THE DEPARTMENT OF BIOLOGICAL SCIENCES FOR DEGREE PROGRAMMES IN HEALTH PROMOTION**

#### First Year

Field of study: Health Promotion

Course Code	Credit Rating	Course Title
HPT 1201	2	Basic Physiology
HPT 1202	2	Introduction to Human Diseases & Health
HPT 1103	1	Concepts of Health
HPT 1104	1	History and Evolution of Health Promotion
HPT 1105	1	Introduction to Mass Communication
HPT 1206	2	Nutrition and Metabolism
HPT 1107	1	Reproductive Physiology & Developmental Biology
HPT 1208	2	Principles, Strategies and Practices in Health Promotion
HPT 1209	2	Measures of Health
HPT 1210	2	Research Methods
HPT 1211	2	Early Childhood Care and Development (ECCD) & Maternal and Child Health (MCH)
HPT 1212	2	Commercial Influences on Health
BIO 1201	2	Cell Biology & Biochemistry
BIO 1202	2	Statistical Methods in Biology
HPF 1101	1	Devising Applicable Measures of Individual and Group Health
HPF 1102	1	Measuring Health Status of a Student Group
HPF 1203	2	Activities to Improve Health of a Student Group

**Second Year**

Course Code	Credit Rating	Course title
HPT 2301	3	Psychology and Human Behaviour
HPT 2202	2	Working with Communities
HPT 2103	1	Principles of Evaluation
HPT 2104	1	Introduction to Epidemiology
HPT 2205	2	Structural Determinants of Health
HPT 2206	2	Indicators and Measurements of Community Health
HPT 2207	2	Health Improvement
BIO 2204	2	Ecology
HPF 2201	2	Applying Measures to Improve Health Status of Student Groups
HPF 2102	1	Introduction to Field Settings
HPF 2103	1	Engagement of Communities
HPF 2204	2	Clarifying Health Issues with Assigned Communities
HPF 2105	1	Devising Measures of Health in Partnerships with Communities
HPF 2106	1	Assessing Changes in Health Status of Student Groups
HPF 2207	2	Clarifying Structural Determinants of Health with Communities
HPF 2208	2	Engaging Structural Determinants of Health of Communities
HPF 2109	1	Monitoring Progress of Communities
HPF 2110	1	Clarifying Obstacles to Progress with Communities

**Third Year**

Course Code	Credit Rating	Course title
HPT 3301	3	Family and Community Health Promotion
HPT 3203	2	Social Structure and Social Influence
HPT 3104	1	Philosophical and Ethical Issues in Health Education and Promotion
HPT 3205	2	Healthy Public Policy & Legislation
HPT 3306	3	Report Writing, Assessing and Scientific Communication
HPT 3107	1	Future Directions
HPT 3108	1	Leadership
HPT 3309	3	The Sri Lankan Setting
BIO 3203	2	Environmental Pollution
HPF 3101	1	Reporting Health Changes in Student Groups
HPF 3302	3	Addressing Obstacles to Progress with Communities
HPF 3103	1	Reviewing Progress with Communities and Redirecting Efforts
HPF 3204	2	Evaluation of Progress
HPF 3205	2	Final Evaluation of Field Settings
HPF 3206	2	Report Writing
HPF 3207	2	Follow Up and Continuing Contact with Communities

**Fourth Year**

Course Code	Credit Rating	Course title
HPT 4501	5	Child Well-being and Development
HPT 4202	2	Reduction of Spread of Sexually Transmitted Diseases
HPT 4503	5	Reduction of Tobacco, Alcohol and Other Drug Related Harm
HPT 4204	2	Reduction of Suicide
HPP 4801	8	Project (Part I)
HPP 4802	8	Project (Part II)

**3.7.3 DEGREE PROGRAMMES IN INFORMATION & COMMUNICATION TECHNOLOGY****TABLE 3.8 FOUNDATION COURSES AND INTERDISCIPLINARY COURSES**

Year	Course Code	Credit Rating	Course Title
First Year	FDN 1201	0	General English
	FDN 1203	0	General Biology
	FDN 1204	0	Basic Mathematics
	FDN 1205	0	Basic Science for Non-Science Students
	IDC 1201	2	Philosophy of Science



Second Year	IDC 2202	2	English for Professional Purposes
	IDC 2202	2	Principles and Practices of Marketing
Third Year	IDC 3201	2	Entrepreneurship Development
	IDC 3202	2	Standards and Quality Management Systems

**TABLE 3.9 COURSES OFFERED BY THE DEPARTMENT OF PHYSICAL SCIENCES FOR DEGREE PROGRAMMES IN INFORMATION & COMMUNICATION TECHNOLOGY**

**First Year Compulsory Courses**

Course Code	Credit Rating	Course Title
ICT 1201	2	Fundamentals of Computer Systems
ICT 1402	4	Principles of Program Design and Programming
ICT 1303	3	Basic Electronics and Digital Logic Design
ICT 1404	4	Mathematics and Statistics for Computing
ICT 1305	3	Data Structures
ICT 1306	3	Object Oriented Programming
ICT 1407	4	Database Systems
ICT 1308	3	Operating Systems

**Second Year Compulsory Courses**

Course Code	Credit Rating	Course title
ICT 2301	3	Design and Analysis of Algorithms
ICT 2402	4	Software Engineering
ICT 2403	4	Graphics and Image Processing
ICT 2404	4	Multimedia and Web Technology
ICT 2305	3	Computer Networks
ICT 2406	4	Internet Programming
ICT 2207	2	Management Information Systems
ICT 2408	4	Computer Organization and Architecture
ICT 2209	2	Communication Skills

**Third Year Compulsory Courses**

Course Code	Credit Rating	Course title
ICT 3301	3	Human Computer Interaction
ICT 3202	2	Operational Research
ICT 3303	3	Information Systems Security
ICT 3304	3	Embedded Systems
ICT 3205	2	Information Technology Project Management
ICT 3207	2	Professional Practice and Ethics
ICT 3208	2	Entrepreneurship
ICT 3411	4	Group Project
ICT 3209	2	Principles of Accounting

**Third Year Optional Courses**

Course Code	Credit Rating	Course title
ICT 3212	2	Introduction to Intelligent Systems
ICT 3213	2	Advanced Operating Systems

*N.B. Students who wish to proceed to fourth year program are required to follow ICT 3212*

**Fourth Year Compulsory Courses**

Course Code	Credit Rating	Course title
ICT 4201	2	ICT for Education
ICT 4302	3	Intelligent Systems
ICT 4303	3	Advanced Computer Networks
ICT 4204	2	Mobile Computing
ICT 4305	4	Parallel and Cluster Computing
ICT 4306	3	E- Commerce
ICT 4307	3	Bio Informatics and Computational Biology
ICT 4208	2	Geographic Information Systems
ICT 4609	6	Research Project
ICT 4410	4	Industrial Training

**3.8. ASSESSMENT****3.8.1. METHODS OF ASSESSMENT**

The knowledge and skills of a student in a course will be assessed throughout the semester as well as at the end of each semester by means of

- Continuous assessments,
- End of semester Examination,
- Evaluation of Reports, Dissertations and Presentations, etc.

Weightage given to each assessment component will be announced at the beginning of the course.

**Continuous assessment**

Marks obtained for mid semester examination /tutorials / spot tests / practical sessions/ assignments / quizzes / records / reports / presentations, etc. will be taken into account in the determination of the final grade, depending on the requirements of each course.

End of Semester Examination:

A student will be assessed at the end of each semester either by a theory paper or a practical examination or both, depending on the course. The duration of each end of semester theory examination will be as follows:

- For a Course of one credit - a minimum of one hour paper
- For a Course of two credits - a two-hour paper
- For a Course of three credits - a two and half or three-hour paper
- For a Course of more than three credits - a three-hour paper or two papers of two hours duration

The duration of each end of semester practical examination will be notified by the respective Department at the beginning of the semester.

**IMPORTANT**

**Students are required to satisfy 80% of attendance in lectures/practical classes/ tutorials to qualify for the end of semester examination.**

**A student should sit all the examinations of all the courses for which he/ she has registered at the beginning of each Semester. A sitting any examination after the relevant Semester to which the student has registered for, shall not be considered as first attempt, unless the consent of the Faculty Board for such postponement has been obtained.**

**3.8.2 GRADING SYSTEM**

Grade	Grade Point Value
A <sup>+</sup>	4.0
A	4.0
A <sup>-</sup>	3.7
B <sup>+</sup>	3.3
B	3.0
B <sup>-</sup>	2.7
C <sup>+</sup>	2.3
C	2.0
C <sup>-</sup>	1.7
D <sup>+</sup>	1.3
D	1.0
E	0.0

### 3.8.3 GRADE POINT AVERAGE

Grade Point Average (GPA) is the credit-weighted arithmetic mean of the Grade Point Values, i.e. the GPA is determined by dividing the total credit-weighted Grade Point Value by the total number of credits.

$$\text{GPA} = \frac{\sum (\text{Grade point value of a course unit} \times \text{number of credits of that course unit})}{\text{Total number of credits}}$$

For example, a student who completed three courses of three credits each, two courses of two credits each and two courses of one credit each with grades A<sup>+</sup>, B, D, C<sup>+</sup>, E, B<sup>+</sup> and C respectively would have a GPA of

$$\frac{4.0 \times 3 + 3.0 \times 3 + 1.0 \times 3 + 2.3 \times 2 + 0.0 \times 2 + 3.3 \times 1 + 2.0 \times 1}{3 + 3 + 3 + 2 + 2 + 1 + 1} = \frac{33.9}{15} = 2.26$$

(Truncated to two decimal places without rounding)

### 3.8.4 PRE-REQUISITES

The students are required to obtain **at least D grades** for the courses considered as pre-requisites.

### 3.8.5 REFERRED STUDENTS

A student who obtains a grade below C in a particular course may re-sit the examination in respect of that course for the purpose of improving the grade; the best grade obtainable in this instance is C. In the event a student obtains a lower grade while attempting to better the grade, he/she will be entitled to the previous grade.

## 3.9. DEGREE AWARDING CRITERIA

### 3.9.1. B.SC. (GENERAL) DEGREE IN APPLIED SCIENCES

To be eligible for the B.Sc. (General) degree in Applied Sciences, a student should offer a minimum of **90 credits**, with at least **26 credits** per each academic year. In case where a student has accumulated more than **90 credits**, the courses corresponding to the best **90 credits** will be considered. (In cases where the total number of credits does not add exactly to **90**, the best **91-93** credits may be considered.)

*N.B. All courses specified as compulsory for a subject are included in the best 90 credits and hence will be counted for the calculations of the final GPA.*

Furthermore a student should

- i. have a minimum Grade Point Average (GPA) of **2.00**,
- ii. obtain grades of C or better in the specified courses aggregating to a minimum of **69 credits**, with at least 22 credits per each academic year, and at least grades of D in the remaining courses,
- iii. obtain at least **C grades** for the Foundation Courses given in Table 3.1 and
- iv. complete the relevant requirements within a period of five academic years.

*Guidelines for the selection of courses in the B. Sc. (General) Degree in Applied Sciences are given in the Tables in section 4.1.*

#### Award of Classes

*N.B. A student has to complete all the requirements given in section 3.9.1. to be considered for the award of Class.*

#### **First Class**

A student may be awarded First Class provided he/she,

- i. obtains a minimum Grade Point Average of **3.70** and
- ii. obtains grades of C or better in the specified courses aggregating to at least **90 credits** within three academic years.

#### **Second Class (Upper Division)**

A student may be awarded Second Class (Upper Division) provided he/she,

- i. obtains a minimum Grade Point Average of **3.30** and
- ii. obtains grades of C or better in the specified courses aggregating to at least **85 credits** and grades of at least D in the remaining courses within three academic years.

#### **Second Class (Lower Division)**

A student may be awarded Second Class (Lower Division) provided he/she,

- i. obtains a minimum Grade Point Average of **3.00** and
- ii. obtains grades of C or better in the specified courses aggregating to at least **80 credits** and grades of at least D in the remaining courses within four academic years.

### **3.9.2. B.SC. (SPECIAL) DEGREE IN APPLIED BIOLOGY**

- **SPECIALIZATION AREA I: BIODIVERSITY CONSERVATION**
- **SPECIALIZATION AREA II: FISHERIES AND AQUACULTURE MANAGEMENT**
- **SPECIALIZATION AREA III: MICROBIOLOGY**

#### **3.9.2.1 Selection of Students**

At the end of their third semester, students may apply to follow a Special Degree Programme offered by the Faculty. A limited number of students will be selected to pursue the programme, by a sub committee appointed by the Faculty Board.

The number of places available in each year will be decided by the sub-committee and will depend on the availability of resources such as laboratory facilities, supervisors etc. The students who are selected to follow the Special Degree Programme will study for a total period of four academic years.

The minimum requirements for applying for the Special Degree Programme are as follows:

- (a) A student should have obtained a grade point average of 3.00, for all the compulsory courses for Botany and Zoology or Biology.
- (b) The best 45 credits accumulated during the first three semesters should not include more than 6 credits with D grades and any credit with an E grade.

*N.B. Extra-curricular activities of the student will be considered as additional qualifications, provided he/she has obtained the minimum requirements for applying, given above.*

#### **3.9.2.2 Course structure of the Special Degree Programme**

During the first two years a student should accumulate a minimum of 60 credits of which not less than 21 credits should be in Botany and Zoology or Biology. By the end of the third year a student should have accumulated a minimum of 42 credits in the area of specialization. During the fourth year the student should accumulate a minimum of 30 credits in the area of specialization.

During the fourth year, a special degree student should carry out a specified project on a given topic under the supervision of a senior member of the academic staff. The project will be assigned to the student at the beginning of the 4<sup>th</sup> academic year and should be completed within the course of that year.

The credits accumulated over the entire four-year period shall be considered for the award of the degree.

*Guidelines for the selection of courses in the B. Sc. (Special) Degree in Applied Biology are given in the Tables in sections 4.2.*

#### **3.9.2.3 Option of reverting to the General Degree**

A student reading for a B.Sc. special degree may request the award of the B.Sc. General Degree foregoing the special degree, upon satisfying the requirements for the award of the B.Sc. General Degree.

#### **3.9.2.4 B.Sc. (Special) Degree – Awarding Criteria**

To be eligible for the B.Sc. (Special) Degree, a student should offer a minimum of 120 credits, with at least 26 credits per academic year and with not less than 72 credits in the area of specialization.

*N.B. All courses specified as compulsory by a student's area of specialization are included in the best 120 credits and hence will be counted for the calculations of the final GPA.*

Furthermore, a student should

- i. have a minimum Grade Point Average (GPA) of **2.00**,
- ii. obtain grades of C or better in the specified courses aggregating to a minimum of 92 credits equivalent to 23 credits per each academic year, and at least grades of D in the remaining courses,
- iii. obtain at least **C grades** for the Foundation Courses given in Table 3.1 and
- iv. complete the relevant requirements within a period of 6 academic years.

**Award of Class**

*N.B. A student has to complete all the requirements given in section 3.9.2.4 to be considered for the award of Class.*

**First Class**

A student shall be awarded First Class provided he/ she

- i. obtains a minimum GPA of **3.70** and
- ii. obtains grades of C or better in courses aggregating to at least **120 credits** within four academic years.

**Second Class (Upper Division)**

A student shall be awarded Second Class (Upper Division) provided he/ she

- i. obtains a minimum GPA **3.30** and
- ii. obtains grades of C or better in courses aggregating to at least **112 credits** and grades of at least D in the remaining courses, within four academic years.

**Second Class (Lower Division)**

A student may be awarded Second Class (Lower Division) provided he/she

- i. obtains a minimum GPA **3.00** and
- ii. obtains grades of C or better in courses aggregating to at least **108 credits** and grades of at least D in the remaining courses, within five academic years

**3.9.3. B.SC. (FOUR-YEAR) DEGREE IN APPLIED SCIENCES****3.9.3.1 Selection of Students**

This degree would offer an extra year for the third year degree students to change to a four year degree program. Selection would be at the end of the third year based on the results of five semesters. A minimum requirement higher than that necessary to pass the three year degree is imposed for selection for the fourth year. This requirement will be based on the performance of the students during that particular year.

**3.9.3.2 Course Structure**

A student enrolled for a degree programme in Applied Sciences may select courses from any combination of two or more subjects, provided that he/she offers an average of 30 credits per year including the compulsory courses. On this basis the student has the flexibility of formulating his/her own programme of study and is expected to offer a minimum of 120 credits to be eligible for the B.Sc. (four-year) Degree in Applied Sciences.

*N.B. (1) The minimum and maximum numbers of credits a student can offer in an academic year, excluding repeat courses are 26 and 33, respectively.*

*(2) A student has to follow at least 24 credits from a particular subject for him/ her to be considered that he/ she followed that subject for the degree programme.*

The fourth year will consist of lectures/ practical classes/ industrial training/ mini projects etc.

*Guidelines for the selection of fourth year courses in the B.Sc. (four-year) Degree in Applied Sciences is given in Table 4.3.1.*

**3.9.3.3 Option of reverting to the General Degree**

A student reading for a B.Sc. (four-year) degree in Applied Sciences may request the award of the B.Sc. General Degree foregoing the four-year degree, upon satisfying the requirements for the award of the B.Sc. General Degree.

**3.9.3.4 B.Sc. (Four-year) Degree in Applied Sciences – Awarding Criteria**

To be eligible for the B.Sc. (four-year) Degree in Applied Sciences, a student should offer a minimum of 120 credits, with at least 26 credits per academic year including the compulsory courses.

*N.B. All courses specified as compulsory by a student's subjects are included in the best 120 credits and hence will be counted for the calculations of the final GPA.*

Furthermore, a student should

- i. have a minimum Grade Point Average (GPA) of **2.00**,
- ii. obtain grades of C or better in the specified courses aggregating to a minimum of 92 credits equivalent to 23 credits per each academic year, and at least grades of D in the remaining courses,
- iii. obtain at least C **grades** for the Foundation Courses given in Table 3.1 and
- iv. complete the relevant requirements within a period of 6 academic years.

### **Award of Class**

*N.B. A student has to complete the requirements given in section 3.9.3.4 to be considered for the award of Class.*

#### **First Class**

A student shall be awarded First Class provided he/ she

- i. obtains a minimum GPA of **3.70** and
- ii. obtains grades of C or better in courses aggregating to at least **120 credits** within four academic years.

#### **Second Class (Upper Division)**

A student shall be awarded Second Class (Upper Division) provided he/ she

- i. obtains a minimum GPA **3.30** and
- ii. obtains grades of C or better in courses aggregating to at least **112 credits** and grades of at least D in the remaining courses, within four academic years.

#### **Second Class (Lower Division)**

A student may be awarded Second Class (Lower Division) provided he/ she

- i. obtains a minimum GPA **3.00** and
- ii. obtains grades of C or better in courses aggregating to at least **108 credits** and grades of at least D in the remaining courses, within five academic years

### **3.9.4 B.SC. (JOINT MAJOR) DEGREES**

#### **3.9.4.1 Selection of Students**

The degrees involve specialization in two different areas *viz.* Biology & Physics, and Chemistry & Physics and will be offered as a B.Sc. (Joint Major) degree. The selection would be at the end of second year based on the results of three semesters.

The minimum requirements for applying for the B.Sc. (Joint Major) degree Programme are as follows:

- a) A minimum of 2.90 GPA should be obtained for the courses offered during first 3 semesters in Physics and Biology or Chemistry.
- b) The best 45 credits accumulated during the first three semesters should not include more than 6 credits with D grades and any credit with an E grade.

A total of 120 credits would be required to qualify for the degree over a four year period and of this, a minimum of 45 credits must be in each of the two subject areas (90 credits in the two subjects).

#### **3.9.4.2 Course Structure**

*Guidelines for the selection of courses in the Joint Major Degree in Chemistry and Physics are given in the Tables in section 4.4. Guidelines for the selection of courses in the Joint Major Degree in Biology and Physics are given in the Tables in section 4.5.*

#### **3.9.4.3 Option of reverting to the General Degree**

A student reading for a B.Sc. (Joint Major) degree may request the award of the B.Sc. General Degree foregoing the Joint Major Degree, upon satisfying the requirements for the award of the B.Sc. General Degree.

**3.9.4.4 B.Sc. (Joint Major) Degree – Awarding Criteria**

To be eligible for the B.Sc. (Joint Major) Degree, a student should offer a minimum of 120 credits, with at least 26 credits per academic year.

*N.B. All courses specified as compulsory by a student's subjects are included in the best 120 credits and hence will be counted for the calculations of the final GPA.*

Furthermore, a student should

- i. have a minimum Grade Point Average (GPA) of **2.00**,
- ii. obtain grades of C or better in the specified courses aggregating to a minimum of 92 credits equivalent to 23 credits per each academic year, and at least grades of D in the remaining courses
- iii. obtain at least C **grades** for the Foundation Courses given in Table 3.1 and
- iv. complete the relevant requirements within a period of 6 academic years.

**Award of Class**

*N.B. A student has to complete the requirements given in section 3.9.4.4 to be considered for the award of Class.*

**First Class**

A student shall be awarded First Class provided he/ she

- i. obtains a minimum GPA of **3.70** and
- ii. obtains grades of C or better in courses aggregating to at least **120 credits** within four academic years.

**Second Class (Upper Division)**

A student shall be awarded Second Class (Upper Division) provided he/ she

- i. obtains a minimum GPA **3.30** and
- ii. obtains grades of C or better in courses aggregating to at least **112 credits** and grades of at least D in the remaining courses, within four academic years.

**Second Class (Lower Division)**

A student may be awarded Second Class (Lower Division) provided he/ she

- i. obtains a minimum GPA **3.00** and
- ii. obtains grades of C or better in courses aggregating to at least **108 credits** and grades of at least D in the remaining courses, within five academic years

**3.9.5. B.SC. (FOUR-YEAR) DEGREE IN INDUSTRIAL MATHEMATICS****3.9.5.1 Selection of Students**

This degree would offer an extra year to third year degree students who follow Mathematics to change to a four year degree program. Selection would be at the end of the third year based on the results of five semesters. A minimum requirement higher than that necessary to pass the three year degree is imposed for selection for the fourth year. **This requirement will be based on the performance of the applicants during that particular year.**

A total of 120 credits would be required to qualify for the degree over a four year period, out of which a minimum of 72 credits should be in the subject / disciplines. The fourth year will consist of lectures / practical classes / industrial training / mini Projects etc.

**3.9.5.2 Course Structure**

*Guidelines for the selection of courses in the B. Sc. (four-year) degree in Industrial Mathematics are given in the Tables in section 4.6.*

### **3.9.5.3 Option of reverting to the General Degree**

A student reading for a B.Sc. (four-year) degree in Industrial Mathematics may request the award of the B.Sc. (General) Degree foregoing the four-year degree, upon satisfying the requirements for the award of the B.Sc. (General) Degree.

### **3.9.5.4 B.Sc. (four-year) Degree in Industrial Mathematics – Awarding Criteria**

To be eligible for the B.Sc. (four-year) Degree in Industrial Mathematics, a student should offer a minimum of 120 credits, with at least 26 credits per academic year.

*N.B. that all courses specified as compulsory by a student's subject /disciplines are included in the best 120 credits and hence will be counted for the calculations of the final GPA.*

Furthermore, a student should

- i. have a minimum Grade Point Average (GPA) of **2.00**,
- ii. obtain grades of C or better in the specified courses aggregating to a minimum of 92 credits equivalent to 23 credits per each academic year, and at least grades of D in the remaining courses
- iii. obtain at least **C grades** for the Foundation Courses given in Table 3.1 and
- iv. complete the relevant requirements within a period of 6 academic years.

### **Award of Class**

*N.B. A student has to complete the requirements given in section 3.9.5.4 to be considered for the award of Class.*

#### **First Class**

A student shall be awarded First Class provided he/ she

- i. obtains a minimum GPA of **3.70** and
- ii. obtains grades of C or better in courses aggregating to at least **120 credits** within four academic years.

#### **Second Class (Upper Division)**

A student shall be awarded Second Class (Upper Division) provided he/ she

- i. obtains a minimum GPA **3.30** and
- ii. obtains grades of C or better in courses aggregating to at least **112 credits** and grades of at least D in the remaining courses, within four academic years.

#### **Second Class (Lower Division)**

A student may be awarded Second Class (Lower Division) provided he/ she

- i. obtains a minimum GPA **3.00** and
- ii. obtains grades of C or better in courses aggregating to at least **108 credits** and grades of at least D in the remaining courses, within five academic years

### **3.9.6. B.SC. (GENERAL) DEGREE IN INFORMATION & COMMUNICATION TECHNOLOGY**

To be eligible for the B.Sc. (General) degree in Information & Communication Technology, a student should offer a minimum of **90 credits**, with at least **26 credits** per each academic year. In a case where a student has accumulated more than **90 credits**, the courses corresponding to the best **90 credits** will be considered. (In cases where the total number of credits does not add exactly to **90**, the best **91-93 credits** may be considered.)

*N.B. All courses specified as compulsory in the field of study are included in the best 90 credits and hence will be counted for the calculations of the final GPA.*



Furthermore a student should

- i. have a minimum Grade Point Average (GPA) of **2.00**,
- ii. obtain grades of C or better in the specified courses aggregating to a minimum of **69 credits**, with at least 22 credits per each academic year, and at least grades of D in the remaining courses
- iii. obtain at least **C grades** for the Foundation Courses given in Table 3.8 and
- iv. complete the relevant requirements within a period of five academic years.

### **Award of Class**

*N.B. A student has to complete all the requirements given in section 3.9.6 to be considered for the award of Class.*

#### **First Class**

A student may be awarded First Class provided he/she,

- i. obtains a minimum Grade Point Average of **3.70** and
- ii. obtains grades of C or better in the specified courses aggregating to at least **90 credits** within three academic years

#### **Second Class (Upper Division)**

A student may be awarded Second Class (Upper Division) provided he/she,

- i. obtains a minimum Grade Point Average of **3.30** and
- ii. obtains grades of C or better in the specified courses aggregating to at least **85 credits** and grades of at least D in the remaining courses within 3 academic years.

#### **Second Class (Lower Division)**

A student may be awarded Second Class (Lower Division) provided he/she,

- i. obtains a minimum Grade Point Average of **3.00** and
- ii. obtains grades of C or better in the specified courses aggregating to at least **80 Credits** and grades of at least D in the remaining Courses within 4 academic years.

### **3.9.7 B.SC. (FOUR-YEAR) DEGREE IN INFORMATION & COMMUNICATION TECHNOLOGY**

#### **3.9.7.1 Selection of Students**

At the end of their second year, students may apply to follow B. Sc. (four-year) Degree Programme in Information & Communication Technology. A limited number of students will be selected to pursue the programme, by a sub-committee appointed by the Faculty Board.

The number of places available in each year will be decided by the sub-committee and will depend on the availability of resources such as laboratory, supervisors etc. The students who are selected to follow the four year degree programme will study a total period of four years.

The minimum requirements for applying for the four-year degree programme are as follows:

- i. student should obtain grades of C or better for the first four semesters' courses in the field of study accumulating to 50 credits with an average grade point of 2.9
- ii. a total of 61 credits accumulated during first four semesters should not include more than 6 credits with D grades and any credit with E grade

*N.B. Extra-curricular activities of the student will be considered as additional qualifications, provided he has obtained the minimum requirements for applying, given above.*

#### **3.9.7.2 Course Structure**

During the fourth year, a student should carry out a specified project on a given topic under the supervision of a senior member of the academic staff. The project will be assigned to the student at the beginning of the 4<sup>th</sup> academic year and should be completed within the course of that year.

The credits accumulated over the entire four-year period shall be considered for the award of the degree.

### **3.9.7.3 Option of Reverting to the General Degree**

A student reading for a B.Sc. (four-year degree) in Information and Communication Technology may request the award of the B.Sc. General Degree foregoing the four-year degree, upon satisfying the requirements for the award of the B.Sc. General Degree.

### **3.9.7.4 B.Sc. (four-year) Degree in Information & Communication Technology – Awarding Criteria**

To be eligible for the B.Sc. (four-year) Degree in Information & Communication Technology, a student should offer a minimum of 120 credits, with at least 26 credits per academic year.

*N.B. All courses specified as compulsory in the field of study are included in the best 120 credits and hence will be counted for the calculations of the final GPA.*

Furthermore, a student should

- i. have a minimum Grade Point Average (GPA) of **2.00**,
- ii. obtain grades of C or better in the specified courses aggregating to a minimum of 92 credits equivalent to 23 credits per each academic year, and at least grades of D in the remaining courses,
- iii. obtain at least **C grades** for the Foundation Courses given in Table 3.8 and
- iv. complete the relevant requirements within a period of 6 academic years.

### **Award of Class**

*N.B. A student has to complete the requirements given in section 3.9.7.4 to be considered for the award of Class.*

#### **First Class**

A student shall be awarded First Class provided he/ she

- i. obtains a minimum GPA of **3.70** and
- ii. obtains grades of C or better in courses aggregating to at least **120 credits** within four academic years.

#### **Second Class (Upper Division)**

A student shall be awarded Second Class (Upper Division) provided he/ she

- i. obtains a minimum GPA **3.30** and
- ii. obtains grades of C or better in courses aggregating to at least **112 credits** and grades of at least D in the remaining courses, within four academic years.

#### **Second Class (Lower Division)**

A student may be awarded Second Class (Lower Division) provided he/ she

- i. obtains a minimum GPA **3.00** and
- ii. obtains grades of C or better in courses aggregating to at least **108 credits** and grades of at least D in the remaining courses, within five academic years

### 3.9.8 B.SC. (GENERAL) DEGREE IN HEALTH PROMOTION

To be eligible for the B.Sc. (General) degree in Health Promotion, a student should offer a minimum of **90 credits**, with at least **26 credits** per each academic year. In a case where a student has accumulated more than **90 credits**, the courses corresponding to the best **90** credits will be considered. (In cases where the total number of credits does not add exactly to **90**, the best **91-93** credits may be considered.)

*N.B. All courses specified as compulsory in the field of study are included in the best 90 credits and hence will be counted for the calculations of the final GPA.*

Furthermore a student should

- i. have a minimum Grade Point Average (GPA) of **2.00**,
- ii. obtain grades of C or better in the specified courses aggregating to a minimum of **69 credits**, with at least 22 credits per each academic year, and at least grades of D in the remaining courses,
- iii. obtain at least **C grades** for the Foundation Courses given in Table 3.6 and
- iv. complete the relevant requirements within a period of five academic years.

#### Award of Class

*N.B. A student has to complete all the requirements given in section 3.9.8 to be considered for the award of Class.*

#### **First Class**

A student may be awarded First Class provided he/she,

- i. obtains a minimum Grade Point Average of **3.70** and
- ii. obtains grades of C or better in the specified courses aggregating to at least **90 credits** within three academic years

#### **Second Class (Upper Division):**

A student may be awarded Second Class (Upper Division) provided he/she,

- i. obtains a minimum Grade Point Average of **3.30** and
- ii. obtains grades of C or better in the specified courses aggregating to at least **85 credits** and grades of at least D in the remaining courses within 3 academic years.

#### **Second Class (Lower division):**

A student may be awarded Second Class (Lower Division) provided he/she,

- i. obtains a minimum Grade Point Average of **3.00** and
- ii. obtains grades of C or better in the specified courses aggregating to at least **80 Credits** and grades of at least D in the remaining Courses within 4 academic years.

### 3.9.9 B.SC. SPECIAL DEGREE IN HEALTH PROMOTION

#### **3.9.9.1 Selection of Students**

At the end of their fourth semester, students may apply to follow B. Sc. Special Degree Programme in Health Promotion. A limited number of students will be selected to pursue the programme, by a sub-committee appointed by the Faculty Board.

The number of places available in each year will be decided by the sub-committee and will depend on the availability of resources such as supervisors etc. The students who are selected to follow the special degree programme will continue for four academic years.

The minimum requirements for applying for the four year degree programme are as follows:

- i. a student should obtain a grade point average of 2.90 for Health Promotion courses in the first four semesters, and
- ii. credits accumulated during first four semesters should not include more than 6 credits with D grades and any credit with E grade.

*N.B. Extra-curricular activities of the students will be considered as additional qualifications, provided he has obtained the minimum requirements for applying, given above.*

**3.9.9.2. Course Structure**

During the fourth year, a student should carry out a specified project on a given topic under the supervision of a senior member of the academic staff. The project will be assigned to the student at the beginning of the 4<sup>th</sup> academic year and should be completed within the course of that year.

The credits accumulated over the entire four-year period shall be considered for the award of the degree.

**3.9.9.3 Option of reverting to the General Degree**

A student reading for B.Sc. Special degree in Health Promotion may request the award of the B.Sc. General Degree foregoing the special degree, upon satisfying the requirements for the award of the B.Sc. General Degree.

**3.9.9.4 B.Sc. Special Degree in Health Promotion – Awarding Criteria**

To be eligible for the B.Sc. Special Degree in Health Promotion, a student should offer a minimum of 120 credits, with at least 26 credits per academic year.

*N.B. All courses specified as compulsory in the field of study are included in the best 120 credits and hence will be counted for the calculations of the final GPA.*

Furthermore, a student should

- i. have a minimum Grade Point Average (GPA) of **2.00**,
- ii. obtain grades of C or better in the specified courses aggregating to a minimum of 92 credits equivalent to 23 credits per each academic year, and at least grades of D in the remaining courses,
- iii. obtain at least **C grades** for the Foundation Courses given in Table 3.6 and
- iv. complete the relevant requirements within a period of 6 academic years.

**Award of Class**

*N.B. A student has to complete the requirements given in section 3.9.9.4 to be considered for the award of Class.*

**First Class**

A student shall be awarded First Class provided he/ she

- i. obtains a minimum GPA of **3.70** and
- ii. obtains grades of C or better in courses aggregating to at least **120 credits** within four academic years.

**Second Class (Upper Division)**

A student shall be awarded Second Class (Upper Division) provided he/ she

- i. obtains a minimum GPA **3.30** and
- ii. obtains grades of C or better in courses aggregating to at least **112 credits** and grades of at least D in the remaining courses, within four academic years.

**Second Class (Lower Division)**

A student may be awarded Second Class (Lower Division) provided he / she

- i. obtains a minimum GPA **3.00** and
- ii. obtains grades of C or better in courses aggregating to at least **108 credits** and grades of at least D in the remaining courses, within five academic years

**3.9.10. B.SC. (SPECIAL) DEGREE IN CHEMISTRY****3.9.10.1 Selection of Students**

At the end of their third semester, students may apply to follow a Special Degree Programme offered by the Faculty. A limited number of students will be selected to pursue the programme, by a sub committee appointed by the Faculty Board.

The number of places available in each year will be decided by the sub-committee and will depend on the availability of resources such as laboratory facilities, supervisors etc. The students who are selected to follow the Special Degree Programme will study for a total period of four academic years.

The minimum requirements for applying for the Special Degree Programme are as follows:

- (a) A student should have obtained a grade point average of 3.00, for all the compulsory chemistry courses.
- (b) The best 45 credits accumulated during the first three semesters should not include more than 6 credits with D grades and any credit with an E grade.

*N.B. Extra-curricular activities of the student will be considered as additional qualifications, provided he/she has obtained the minimum requirements for applying, given above.*

**3.9.10.2. Course structure of the Special Degree Programme**

During the fourth year, a special degree student should carry out a specified project on a given topic under the supervision of a senior member of the academic staff. The project will be assigned to the student at the beginning of the 4<sup>th</sup> academic year and should be completed within the course of that year.

The credits accumulated over the entire four-year period shall be considered for the award of the degree.

*Guidelines for the selection of courses in the B. Sc. (Special) Degree in Chemistry are given in section 4.2.*

**3.9.10.3. Option of reverting to the General Degree**

A student reading for a B.Sc. special degree may request the award of the B.Sc. General Degree foregoing the special degree, upon satisfying the requirements for the award of the B.Sc. General Degree.

**3.9.10.4 B.Sc. (Special) Degree – Awarding Criteria**

To be eligible for the B.Sc. (Special) Degree, a student should offer a minimum of 120 credits, with at least 26 credits per academic year and with not less than 72 credits in the area of specialization.

*N.B. All courses specified as compulsory by a student's area of specialization are included in the best 120 credits and hence will be counted for the calculations of the final GPA.*

Furthermore, a student should

- v. have a minimum Grade Point Average (GPA) of **2.00**,
- vi. obtain grades of C or better in the specified courses aggregating to a minimum of 92 credits equivalent to 23 credits per each academic year, and at least grades of D in the remaining courses,
- vii. obtain at least **C grades** for the Foundation Courses given in Table 3.1 and
- viii. complete the relevant requirements within a period of 6 academic years.

**Award of Class**

*N.B. A student has to complete all the requirements given in section 3.9.2.4 to be considered for the award of Class.*

**First Class**

A student shall be awarded First Class provided he/ she

- iii. obtains a minimum GPA of **3.70** and
- iv. obtains grades of C or better in courses aggregating to at least **120 credits** within four academic years.

**Second Class (Upper Division)**

A student shall be awarded Second Class (Upper Division) provided he/ she

- iii. obtains a minimum GPA **3.30** and
- iv. obtains grades of C or better in courses aggregating to at least **112 credits** and grades of at least D in the remaining courses, within four academic years.

**Second Class (Lower Division)**

A student may be awarded Second Class (Lower Division) provided he/she

- iii. obtains a minimum GPA **3.00** and
- iv. obtains grades of C or better in courses aggregating to at least **108 credits** and grades of at least D in the remaining courses, within five academic years

## GUIDELINES FOR THE SELECTION OF COURSES

The courses available for fields of study of Health Promotion & Information and Communication Technology are given in Tables 3.6 and 3.7 & Tables 3.8 and 3.9 respectively in Section 3.7.

The available courses for different subject combinations in Applied Sciences are given in Tables below.

### CODES

C – Chemistry CS – Computer Science P – Physics M – Mathematics BO – Botany ZO – Zoology  
BI – Biology

## 4.1. GUIDELINES FOR THE SELECTION OF COURSES FOR B. SC. (GENERAL) DEGREE IN APPLIED SCIENCES

### 4.1.1. THREE SUBJECT COMBINATIONS

**TABLE 4.1.1.1. AVAILABLE COMBINATIONS OF COURSES FOR B.SC. (GENERAL) DEGREE IN APPLIED SCIENCES (THREE SUBJECT COMBINATIONS) – YEAR 1**

Credits	Course	CCSP	CCSM	CMP	CSMP	CCSBO	CCSZO	CBOZO	CPBO	CPZO	PBOZO	CSPBO	CSPZO	CSBOZO	CPBI	CCSBI	PCSBI
02	FDN 1201	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
	FDN 1202	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
	FDN 1203	C*	C	C	C												
	FDN 1204	C**				C	C	C	C	C	C	C	C	C	C	C	C
	IDC 1201	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
09	CHE 1201	C	C	C		C	C	C	C	C	O	O	O	O	C	C	O
	CHE 1302	C	C	C		C	C	C	C	C	O	O	O	O	C	C	O
	CHE 1203	C	C	C		C	C	C	C	C	O	O	O	O	C	C	O
	CHE 1104	C	C	C		C	C	C	C	C	O	O	O	O	C	C	O
	CHE 1105	C	C	C		C	C	C	C	C	O	O	O	O	C	C	O
09	COM 1201	C	C	O	C	C	C	O	O	O	O	C	C	C	C	C	C
	COM 1302	C	C	O	C	C	C	O	O	O	O	C	C	C	O	C	C
	COM 1308	O	O	O	O	O	O					O	O	O	O	O	O
	COM 1407	C	C	O	C	C	C					C	C	C	O	C	C
	COM 1305	O	O	O	O	O	O					O	O	O	O	O	O
11	MAP 1301	O	C	C	C												
	MAP 1302	O	C	C	C												
	MAP 1203	O	C	C	C												
	MAA 1201	O	O	O	O												
	MAA 1302	O	C	C	C												
	MAA 1203	O	O	O	O												
	MAA 1104	O	O	O	O												
08	PHY 1201	C	O	C	C	O	O	O	C	C	C	C	C	O	C	O	C
	PHY 1102	C	O	C	C	O	O	O	C	C	C	C	C	O	C	O	C
	PHY 1203	C	O	C	C				C	C	C	C	C	O	C	O	C
	PHY 1104	C	O	C	C				C	C	C	C	C	O	C	O	C
	PHY 1205	C		C	C				C	C	C	C	C		C		C
06	BOT 1201					C	O	C	C	O	C	C	O	C	C	C	C
	BOT 1202					C		C	C		C	C		C	O	O	O
	BOT 1203					C		C	C		C	C		C	C	C	C
06	ZOO 1201					O	C	C	O	C	C	O	C	C	C	C	C
	ZOO 1302						C	C		C	C		C	C	C	C	C
	ZOO 1103					O	C	C	O	C	C	O	C	C	O	O	O
04#	BIO 1201					C	C	C	C	C	C	C	C	C	C	C	C
	BIO 1202					C	C	C	C	C	C	C	C	C	C	C	C
Compulsory credits (Year 1)	total	(28)26	(31)29	(30)28	(30)28	(30)28	(30)28	(27)25	(29)27	(29)27	(26)24	(29)27	(29)27	(27)25	(32)30	(33)31	(32)30
Subj.		9,9,8	9,9,11	9,11,8	9,11,8	9,9,10	9,9,10	9,8,8	9,8,10	9,8,10	8,8,8	9,8,10	9,8,10	9,8,8	9,8,13	9,9,13	8,9,13
		CCSP	CCSM	CMP	CSMP	CCSBO	CCSZO	CBOZO	CPBO	CPZO	PBOZO	CSPBO	CSPZO	CSBOZO	CPBI	CCSBI	PCSBI

\* Not available for students those who have followed Biology for A/Ls

\*\* Not available for students those who have followed Mathematics for A/Ls

# *BIO 1201 shall be counted as a Zoology course and BIO1202 shall be counted as a Botany course when both Botany and Zoology are offered as subjects. If either Botany or Zoology is offered, BIO 1201 and BIO 1202 shall be counted under that subject.*

**TABLE 4.1.1.2. AVAILABLE COMBINATIONS OF COURSES FOR B.SC. (GENERAL) DEGREE IN APPLIED SCIENCES (THREE SUBJECT COMBINATIONS) – YEAR 2**

Credits	Course	CCSP	CCSM	CMP	CSMP	CCSBO	CCSZO	CBOZO	CPBO	CPZO	PBOZO	CSPBO	CSPZO	CSBOZO	CPBI	CCSBI	PCSBI
0	IDC 2201	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	IDC 2202	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	IDC 2203	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
10	CHE 2201	C	C	C		C	C	C	C	C					C	C	
	CHE 2202	C	C	C		C	C	C	C	C					C	C	
	CHE 2103	C	C	C		C	C	C	C	C	O	O	O	O	C	C	O
	CHE 2104	O	O	O		O	O	O	O	O					O	O	
	CHE 2205	C	C	C		C	C	C	C	C					C	C	
	CHE 2106	C	C	C		C	C	C	C	C	O	O	O	O	C	C	O
	CHE 2107	C	C	C		C	C	C	C	C	O	O	O	O	C	C	O
CHE 2108	C	C	C		C	C	C	C	C	O	O	O	O	C	C	O	
06	COM 2301	C	C	O	C	C	C					C	C	C		C	
	COM 2303	O	O	O	O	O	O	O	O	O	O	O	O	O		O	
	COM 2304	O	O	O	O	O	O	O	O	O	O	O	O	O		O	
	COM 2308	O	O	O	O	O	O	O	O	O	O	O	O	O		O	
	COM 2307	C	C	O	C	C	C	O	O	O	O	C	C	C		C	
7	MAP 2301	O	O	O	O												
	MAP 2202	O	O	O	O												
	MAP 2203	O	O	O	O												
	MAP 2204	O	C	C	C												
	MAA 2201	O	O	O	O												
	MAA 2302	O	C	C	C												
	MAA 2203	O	O	O	O												
MAA 2204	O	C	C	C													
9	PHY 2101	C	O	C	C	O		O	C	C	C	C	C	O	C		C
	PHY 2102	C	O	C	C	O	O		C	C	C	C	C		C		C
	PHY 2103	C	O	C	C	O		O	C	C	C	C	C	O	C		C
	PHY 2204	C	O	C	C	O	O	O	C	C	C	C	C	O	C		C
	PHY 2105	C	O	C	C				C	C	C	C	C		C		C
	PHY 2106	C	O	C	C	O	O	O	C	C	C	C	C	O	C		C
	PHY 2207	C	O	C	C				C	C	C	C	C		C		C
4/2	BOT 2201					C	O	C	C	O	C	C	O	C	C	C	C
	BOT 2202					O		O	O		O	O		O	O	O	O
	BOT 2203					O		O	O		O	O		O	O	O	O
	BOT 2204					C	O	C	C	O	C	C	O	O	O	O	O
4/2	ZOO 2201						C	C	C	C	C		C	C	C	C	C
	ZOO 2202					O	C	C	O	C	C	O	C	C	O	O	O
	ZOO 2203						O	O	O	O	O		O	O	O	O	O
	ZOO 2204						O	O	O	O	O		O	O	O	O	O
07 BO 03 ZO 04	BIO 2201					C	C	C	C	C	C	C	C	C	C	C	C
	BIO 2302					C	C	C	C	C	C	C	C	C	C	C	C
	BIO 2203					C	C	C	C	C	C	C	C	C	C	C	C

Compulsory total (25)25 (23)23 (26)26 (22)22 (27)27 (27)27 (25)25 (30)30 (30)30 (24)24 (26)26 (26)26 (21)21 (30)30 (27)27 (26)26  
 credits (Year 2)2 Subj. 10,6,9 10,6,7 10,7,9 6,7,9 10,6,11 10,6,11 10,7,8 10,9,11 10,9,11 9,7,8 6,9,11 6,9,11 6,9,11 6,7,8 10,9,11 10,6,11 9,6,11

CCSP CCSM CMP CSMP CCSBO CCSZO CBOZO CPBO CPZO PBOZO CSPBO CSPZO CSBOZO CPBI CCSBI PCSBI

**N.B. BIO 2302 shall be counted as a Botany course whereas BIO 2201 and BIO 2203 shall be counted as Zoology courses when both Botany and Zoology are offered as subjects. If either Botany or Zoology is offered, these courses shall be counted under that subject.**



**TABLE 4.1.1.3. AVAILABLE COMBINATIONS OF COURSES FOR B.S.C. (GENERAL) DEGREE IN APPLIED SCIENCES (THREE SUBJECT COMBINATION) – YEAR 3**

Credits	Course	CCSP	CCSM	CMP	CSMP	CCSBO	CCSZO	CBOZO	CPBO	CPZO	PBOZO	CSPBO	CSPZO	CSBOZO	CPBI	CCSBI	PCSBI
0	IDC 3201	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	IDC 3202	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
02	CHE 3201	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	CHE 3203	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	CHE 3204	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	CHE 3206	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	CHE 3207	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	CHE 3208	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	CHE 3209	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	CHE 3210	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	CHE 3311	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	CHE 3213	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	CHE 3214	C	C	C	C	C	C	C	C	C	C	O	O	O	O	C	C
07	COM 3401	O	O	O	O	O	O	O	O	O	O	O	O	O		O	O
	COM 3302	O	O	O	O	O	O	O	O	O	O	O	O	O		O	O
	COM 3303	O	O	O	O	O	O					O	O	O		O	O
	COM 3204	O	O	O	O	O	O					O	O	O		O	O
	COM 3405	C	C	O	C	C	C					C	C	C		C	C
	COM 3306	C	C	O	C	C	C	O	O	O	O	C	C	C		C	C
08	MAT 3301	O	C	C	C												
	MAT 3302	O	O	O	O												
	MAT 3203	O	O	O	O												
	MAT 3204	O	O	O	O												
	MAT 3205	O	O	O	O												
	MAT 3206	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	MAT 3307	O	O	O	O												
	MAT 3208	O	O	O	O												
	MAT 3209	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	MAT 3310	O	O	O	O												
	MAT 3312	O	C	C	C												
	MAT 3213	O	C	C	C												
	MAT 3214	O	O	O	O												
	MAT 3217	O	O	O	O												
MAT 3319	O	O	O	O													
04	PHY 3301	O	O	O	O	O	O	O	O	O	O	O	O	O	O		O
	PHY 3302	O	O	O	O				O	O	O	O	O	O			O
	PHY 3203	O	O	O	O	O	O	O	O	O	O	O	O	O	O		O
	PHY 3204	O	O	O	O	O	O	O	O	O	O	O	O	O	O		O
	PHY 3105	O	O	O	O				O	O	O	O	O	O			O
	PHY 3206	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	PHY 3207	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	PHY 3208	O	O	O	O				O	O	O	O	O	O			O
	PHY 3209	C	O	C	C				C	C	C	C	C	C		C	C
	PHY 3210	C	O	C	C				C	C	C	C	C	C		C	C
	PHY 3211	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	PHY 3212	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	PHY 3213	O	O	O	O				O	O	O	O	O	O		O	O
	PHY 3214	O	O	O	O				O	O	O	O	O	O		O	O
	PHY 3215															O	O
0	BOT 3201					O		O	O		O	O		O	O	O	O
	BOT 3202					O		O	O		O	O		O	O	O	O
	BOT 3203					O		O	O		O	O		O	O	O	O
04	ZOO 3201					O	O	O	O		O	O		O	O	O	O
	ZOO 3202					O	O	O	O		O	O		O	O	O	O
	ZOO 3203					O	C	C	O	C	C	O		C	O	O	O
	ZOO 3204					O	C	C	O	C	C	O	O	C	C	C	C

04	BIO 3201					C	C	C	C	C	C	C	C	C	C	C	
	BIO 3102					O	O	O	O	O	O	O	O	O	O	O	
	BIO 3203					O	O	O	O	O	O	O	O	O	O	O	
	BIO 3205					O	O	O	O	O	O	O	O	O	O	O	
	BIO 3206					C	C	C	C	C	C	C	C	C	C	C	
	BIO 3207					O	O	O	O	O	O	O	O	O	O	O	
03/0	BDC 3301					O	O	O	O	O	O	O	O	O	C	C	C
	BDC 3202					O	O	O	O	O	O	O	O	O	O	O	O
	BDC 3203					O	O	O	O	O	O	O	O	O	O	O	O
	BDC 3204						O	O	O	O	O	O	O	O	O	O	O
0	FAM 3201						O	O			O		O	O	O	O	O
	FAM 3302						O	O			O		O	O	O	O	O
0	MIB 3201					O			O		O	O		O	O	O	O
	MIB 3202					O			O		O	O		O	O	O	O
	MIB 3204					O			O		O	O		O	O	O	O
	MIB 3205					O			O		O	O		O	O	O	O
Compulsory total	13	17	14	19	13	17	10	10	14	12	15	19	15	17	16	22	
credits (Year 3) subj.	2,7,4	2,7,8	2,8,4	7,8,4	2,7,4	2,7,8	2,4,4	2,4,4	2,4,8	4,4,4	7,4,4	7,4,8	7,4,4	2,8,7	2,7,7	8,7,7	
Requirement for a subj.	3,1,3	3,1,0	3,0,3	1,0,3	3,1,4	3,1,0	3,6,4	3,3,7	3,3,0	3,6,4	1,3,4	1,3,0	1,6,4	3,3,0	3,1,0	3,1,0	
To complete 90 credits	24(17)	19(15)	20(14)	19(15)	20(12)	16(12)	28(15)	21(8)	17(11)	28(15)	20(12)	16(12)	27(16)	11 ( 5)	14(10 )	10 ( 6 )	
	CCSP	CCSM	CMP	CSMP	CCSBO	CCSZO	CBOZO	CPBO	CPZO	PBOZO	CSPBO	CSPZO	CSBOZO	CPBI	CCSBI	PCSBI	

***N.B. ZOO and FAM courses shall be counted as Zoology courses whereas BOT and MIB courses shall be counted as Botany courses, when both subjects are offered. The credits earned by BIO and BDC courses shall be divided equally among Botany and Zoology.***

***BIO3201 and BIO 3206 courses shall be counted as compulsory for Botany, Zoology and Biology***

## 4.1.2. TWO SUBJECT COMBINATIONS

TABLE 4.1.2.1 AVAILABLE COMBINATIONS OF COURSES FOR B.SC. (GENERAL) DEGREE IN APPLIED SCIENCES (TWO SUBJECT COMBINATION) – YEAR 1

Credits	Course	CCS	CM	CP	MP	CSM	CSP	CBO	CZO	CBI	PBO	PZO	PBI	CSBO	CSZO	CSBI
02	FDN 1201	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
	FDN 1202		C	C	C			C	C	C	C	C	C			
	FDN 1203	*	C	*	C	C	C									
	FDN 1204	**		**			**	C	C	C	C	C	C	C	C	C
	IDC 1201	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
09	CHE 1201	C	C	C	O	O	O	C	C	C	O	O	O	O	O	O
	CHE 1302	C	C	C	O	O	O	C	C	C	O	O	O	O	O	O
	CHE 1203	C	C	C	O	O	O	C	C	C	O	O	O	O	O	O
	CHE 1104	C	C	C	O	O	O	C	C	C	O	O	O	O	O	O
	CHE 1105	C	C	C	O	O	O	C	C	C	O	O	O	O	O	O
09	COM 1201	C	O	O	O	C	C	O	O	O	O	O	O	C	C	C
	COM 1302	C	O	O	O	C	C	O	O	O	O	O	O	C	C	C
	COM 1305	O	O	O	O	O	O							O	O	O
	COM 1407	C	O	O	O	C	C							C	C	C
	COM 1308	O	O	O	O	O	O							O	O	O
11	MAP 1301	O	C	O	C	C	O									
	MAP 1302	O	C	O	C	C	O									
	MAP 1203	O	C	O	C	C	O									
	MAA 1201	O	O	O	O	O	O									
	MAA 1302	O	C	O	C	C	O									
	MAA 1203	O	O	O	O	O	O									
	MAA 1104	O	O	O	O	O	O									
08	PHY 1201	O	O	C	C	O	C	O	O	O	C	C	C	O	O	O
	PHY 1102	O	O	C	C	O	C	O	O	O	C	C	C	O	O	O
	PHY 1203	O	O	C	C	O	C				C	C	C			
	PHY 1104	O	O	C	C	O	C				C	C	C			
	PHY 1205	O	O	C	C	O	C				C	C	C			
06	BOT 1201							C	O	C	C	O	C	C	O	C
	BOT 1202							C			C		C	C		C
	BOT 1203							C		C	C		C	C		C
06/05	ZOO 1201							O	C	C	O	C	C	O	C	C
	ZOO 1102								C			C			C	
	ZOO 1303							O	C	C	O	C	C	O	C	C
04	BIO 1201							C	C	C	C	C	C	C	C	C
	BIO 1202							C	C	C	C	C	C	C	C	C

Compulsory total (20)18 (22)20 (19)17 (21)19 (22) 20 (19)17 (21)19 (21)19 (24)22 (20)18 (20)18 (23)21 (21)19 (21)19 (24)22  
credits (Year 1) Subj. 9,9 9,11 9,8 11,8 9,11 9,8 9,10 9,10 9,13 8,10 8,10 8,13 9,10 9,10 9,13

CCS CM CP MP CSM CSP CBO CZO CBI PBO PZO PBI CSBO CSZO CSBI

\* FDN 1203 - Compulsory for those who followed Physical Science stream for A/L and not available for others

\*\* FDN 1204 - Compulsory for those who followed Biology stream for A/L and not available for others

**TABLE 4.1.2.2. AVAILABLE COMBINATIONS OF COURSES FOR B.SC. (GENERAL) DEGREE IN APPLIED SCIENCES (TWO SUBJECT COMBINATIONS) – YEAR 2**

Credits	Course	CCS	CM	CP	MP	CSM	CSP	CBO	CZO	CBI	PBO	PZO	PBI	CSBO	CSZO	CSBI
0	IDC 2201	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	IDC 2202	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	IDC 2203	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
10	CHE 2201	C	C	C	O	O	O	C	C	C	O	O	O	O	O	O
	CHE 2202	C	C	C	O	O	O	C	C	C	O	O	O	O	O	O
	CHE 2103	C	C	C	O	O	O	C	C	C	O	O	O	O	O	O
	CHE 2104	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	CHE 2205	C	C	C	O	O	O	C	C	C	O	O	O	O	O	O
	CHE 2106	C	C	C	O	O	O	C	C	C	O	O	O	O	O	O
	CHE 2107	C	C	C	O	O	O	C	C	C	O	O	O	O	O	O
	CHE 2108	C	C	C	O	O	O	C	C	C	O	O	O	O	O	O
06	COM 2301	C	O	O	O	C	C							C	C	C
	COM 2303	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	COM 2304	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	COM 2308	O	O	O	O	O	O							O	O	O
	COM 2307	C	O	O	O	C	C	O	O	O	O	O	O	C	C	C
07	MAP 2301	O	O	O	O	O										
	MAP 2202	O	O	O	O	O										
	MAP 2203	O	O	O	O	O										
	MAP 2204	O	C	O	C	C										
	MAA 2204	O	C	O	C	C										
	MAA 2201	O	O	O	O	O										
	MAA 2302	O	C	O	C	C										
	MAA 2203	O	O	O	O	O										
09	PHY 2101	O	O	C	C	O	C				C	C	C		O	
	PHY 2102	O	O	C	C	O	C	O	O	O	C	C	C	O	O	O
	PHY 2103	O	O	C	C	O	C				C	C	C		O	
	PHY 2204	O	O	C	C	O	C	O	O	O	C	C	C	O	O	O
	PHY 2105	O	O	C	C	O	C				C	C	C			
	PHY 2106	O	O	C	C	O	C	O	O	O	C	C	C	O	O	O
	PHY 2207	O	O	C	C	O	C				C	C	C	O	O	
04	BOT 2201							C	O	C	C	O	C	C	O	C
	BOT 2202							O		O	O		O	O		O
	BOT 2203							O		O	O		O	O		O
	BOT 2204							C	O	C	C	O	C	C	O	C
04/02	ZOO 2201								C	C		C	C		C	C
	ZOO 2202							O	C	O	O	C	O	O	C	O
	ZOO 2203								O	O		O	O		O	O
	ZOO 2204								O	O		O	O		O	O
07	BIO 2301							C	C	C	C	C	C	C	C	C
	BIO 2302							C	C	C	C	C	C	C	C	C
	BIO 2203							C	C	C	C	C	C	C	C	C

Compulsory total 16 17 19 16 13 15 21 21 23 20 19 22 17 17 19  
credits (Year 2) Subj. 10,6 10,7 10,9 7,9 6,7 6,9 10,11 10,11 10,13 9,11 9,10 9,13 6,11 6,11 6,13  
CCS CM CP MP CSM CSP CBO CZO CBI PBO PZO PBI CSBO CSZO CSBI

**TABLE 4.1.2.3. AVAILABLE COMBINATIONS OF COURSES FOR B.SC. (GENERAL) DEGREE IN APPLIED SCIENCES (TWO SUBJECT COMBINATIONS) – YEAR 3**

Credits	Course	CCS	CM	CP	MP	CSM	CSP	CBO	CZO	CBI	PBO	PZO	PBI	CSBO	CSZO	CSBI
0	IDC 3201	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	IDC 3202	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
02	CHE 3201	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	CHE 3203	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	CHE 3204	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	CHE 3206	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	CHE 3207	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	CHE 3208	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	CHE 3209	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	CHE 3210	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	CHE 3311	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	CHE 3213	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	CHE 3214	C	C	C	O	O	O	O	C	C	C	O	O	O	O	O
07	COM 3401	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	COM 3302	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	COM 3303	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	COM 3204	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	COM 3405	C	O	O	O	C	C	O	O	O	O	O	O	C	C	C
	COM 3306	C	O	O	O	C	C	O	O	O	O	O	O	C	C	C
08	MAT 3301	O	C	O	C	C										
	MAT 3302	O	O	O	O	O										
	MAT 3203	O	O	O	O	O										
	MAT 3204	O	O	O	O	O										
	MAT 3205	O	O	O	O	O										
	MAT 3206	O	O	O	O	O		O	O	O	O	O	O	O	O	O
	MAT 3307	O	O	O	O	O										
	MAT 3208	O	O	O	O	O										
	MAT 3209	O	O	O	O	O		O	O	O	O	O	O	O	O	O
	MAT 3310	O	O	O	O	O										
	MAT 3312	O	C	O	C	C										
	MAT 3213	O	C	O	C	C										
	MAT 3214	O	O	O	O	O										
	MAT 3217	O	O	O	O	O										
MAT 3318	O	O	O	O	O		O	O	O	O	O	O	O	O	O	
04	PHY 3301	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	PHY 3302	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	PHY 3203	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	PHY 3204	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	PHY 3105	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	PHY 3206	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	PHY 3207	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	PHY 3208	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	PHY 3209	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
	PHY 3210	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
	PHY 3211	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	PHY 3212	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	PHY 3213	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	PHY 3214	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	PHY 3215	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
0	BOT 3101							O		O	O		O	O		O
	BOT 3202							O		O	O		O	O		O
	BOT 3203							O		O	O		O	O		O
02	ZOO 3201							O	O	O	O	O	O	O	O	O
	ZOO 3202							O	O	O	O	O	O	O	O	O
	ZOO 3203							O	O	O	O	O	O	O	O	O

	ZOO 3204							O	C	C	O	C	C	O	C	C
04	BIO 3201							C	C	C	C	C	C	C	C	C
	BIO 3102							O	O	O	O	O	O	O	O	O
	BIO 3203							O	O	O	O	O	O	O	O	O
	BIO 3205							O	O	O	O	O	O	O	O	O
	BIO 3206							C	C	C	C	C	C	C	C	C
	BIO 3207							O	O	O	O	O	O	O	O	O
0	BDC 3301							O	O	O	O	O	O	O	O	O
	BDC 3203							O	O	O	O	O	O	O	O	O
	BDC 3204								O	O		O	O		O	O
0	FAM 3201							O	O		O	O		O	O	
	FAM 3302							O	O		O	O		O	O	
0	MIB 3201							O			O			O		
	MIB 3202							O			O			O		
	MIB 3204							O			O			O		
	MIB 3205							O		O			O	O		O
Compulsory credits (Year 3)		9	10	6	12	15	11	4	4	6	6	6	8	9	9	11
Requirement for a subj.		3,0	3,0	3,2	0,2	0,0	0,2	3,4	3,2	3,0	2,0	2,2	2,0	0,4	0,2	0,0
To complete 90 credits		45(42)	41(38)	44(39)	41(39)	40(40)	45(43)	44(37)	44(39)	27(24)	44(42)	45(41)	43(41)	43(39)	43(41)	36(36)
		CCS	CM	CP	MP	CSM	CSP	CBO	CZO	CBI	PBO	PZO	PBI	CSBO	CSZO	CSBI

## 4.2. GUIDELINES FOR THE SELECTION OF COURSES FOR B. SC. (SPECIAL) DEGREE PROGRAMMES

### 4.2.1. B.SC. (SPECIAL) DEGREE PROGRAMMES IN APPLIED BIOLOGY

TABLE 4.2.1. COMPULSORY COURSES OFFERED IN THIRD YEAR AND FOURTH YEAR FOR THE SPECIAL DEGREE PROGRAMMES IN APPLIED BIOLOGY

Specialization Area		Biodiversity Conservation		Fisheries and Aquaculture Management		Microbiology	
		Stat us	Credits	Stat us	Credits	Stat us	Credits
<b>Third Year</b>							
BOT 3201	Plant Tissue Culture	C	02 C	C	02 C 02 O	O	02 C 02 O
BOT 3202	Principles and Practice of Horticulture and Landscaping			O			
BOT 3203	Postharvest Technology of Plant Products					C	
ZOO 3201	Medical Entomology	C	06 C 02 O		04 C		02 O
ZOO 3202	Applied Parasitology	O		C			
ZOO 3203	Economic Entomology	C		O			
ZOO 3204	Embryology and Developmental Biology	C		C			
BIO 3201	Molecular Biology	C	09 C 02 O	C	10 C 01 O	C	10 C
BIO 3102	Ecotourism	C		O			
BIO 3203	Environmental Pollution	C		C			
BIO 3204	Bioinformatics	C		C			
BIO 3205	Ecotoxicology	C		C			
BIO 3206	Experimental Design and Nonparametric Methods in Statistics	C		C			

BDC 3301	Concepts of Biodiversity Conservation	C	09 C	O	04 C 05 O	O	04 O
BDC 3202	Environmental Impact and Risk Assessment	C		C			
BDC 3203	Introduction to Geographical Information Systems	C		C			
BDC 3204	Wildlife Management and Conservation	C		O			
FAM 3201	Fisheries and Aquaculture		08 C	C			
FAM 3302	Breeding Techniques in Aquaculture			C			
FAM 3303	Ornamental Fish Industry			C			
MIB 3201	Industrial Microbiology		02 C	C	02 C	C	16 C
MIB 3202	Soil Microbiology					C	
MIB 3203	Virology					C	
MIB 3204	Food Microbiology					C	
MIB 3205	Plant-Microbe Interactions					C	
MIB 3206	Analytical Techniques in Biology					C	
MIB 3207	Immunology					C	
MIB 3208	Environmental Microbiology					C	
IDC 3201	Entrepreneurship Development	O	04 O	O	04 O	O	04 O
IDC 3202	Standards and Quality Management Systems	O		O			
<b>Fourth Year Courses</b>							
BDC 4201	Environmental Policies and Management	C	26 C				
BDC 4202	Wetland Conservation and Management	C					
BDC 4203	Forest Conservation	C					
BDC 4204	Advanced Geographical Information Systems	C					
BDC 4205	Economics of Biodiversity	C					
BDC 4206	Aquatic Resources & Conservation	C					
BDC 4207	Coastal and Marine Biodiversity Conservation	C					
BDC 4208	Current Topics in Biodiversity Conservation	C					
BDC 4209	In plant Training	C					
BDC 4810	Research Project	C					
FAM 4201	Fishery Resources Management		26 C	C			
FAM 4202	Aquaculture engineering			C			
FAM 4203	Aquafarming of Macrophytes			C			
FAM 4204	Fish nutrition and Growth			C			
FAM 4205	Fish health Management			C			
FAM 4206	Postharvest Techniques in fisheries			C			
FAM 4207	Fishery Economics			C			
FAM 4208	Current Topics in Fisheries and Aqua. Manag.			C			

FAM 4209	In plant Training			C			
FAM 4810	Research Project			C			
MIB 4201	Applied Mycology					C	25 C
MIB 4202	Medical Microbiology					C	
MIB 4103	Molecular Microbiology					C	
MIB 4204	Microbial Taxonomy					C	
MIB 4205	Techniques and Strategies in Molecular Biology					C	
MIB 4206	Molecular Biotechnology					C	
MIB 4207	Microbial Genetics					C	
MIB 4208	Current Topics in Microbiology					C	
MIB 4209	In plant Training					C	
MIB 4810	Research Project					C	

**Compulsory courses in First Year and Second Year:**

**Biodiv. Conserv:** BOT 1201 Plant Diversity, ZOO 1201 Invertebrate Diversity, ZOO 1303 Vertebrate Diversity, BIO 1201 Cell Biology & Biochemistry, BIO 1202 Statistical Methods in Biology, ZOO 2204 Fish Biology, ZOO 2203 Animal Behaviour, BIO 2201 Plant Physiology, BOT 2203 Flora of Sri Lanka, ZOO 2201 Animal Histology & Physiology, ZOO 2202 General Entomology, BIO 2301 Systematic Biology, BIO 2202 Genetics and Evolution, BIO 2302 Principles of Ecology, IDC 2201 Scientific Communication (33 credits)

**For Fish. and Aqua. Manage:** BOT 1201 Plant Diversity, ZOO 1201 Invertebrate Diversity, ZOO 1303 Vertebrate Diversity, BIO 1201 Cell Biology & Biochemistry, BIO 1202 Statistical Methods in Biology, BOT 1203 General Microbiology, ZOO 2201 Animal Histology & Physiology, ZOO 2204 Fish Biology, BIO 2301 Systematic Biology, BIO 2202 Genetics and Evolution, BIO 2302 Principles of Ecology, IDC 2201 Scientific Communication (27 credits)

**For Microbiology:** BOT 1201 Plant Diversity, ZOO 1201 Invertebrate Diversity, ZOO 1303 Vertebrate Diversity, BOT 1203 General Microbiology, BIO 1201 Cell Biology & Biochemistry, BOT 2201 Plant Physiology, BIO 1202 Statistical Methods in Biology, BOT 2204 Plant Pathology, BIO 2301 Systematic Biology, BIO 2202 Genetics and Evolution, BIO 2302 Principles of Ecology, BIO 2203 Statistical Methods in Biology, IDC 2201 Scientific Communication (27 credits)

Total Compulsory Credits (Year 3 and Year 4)	52		56		53
Credits from subject area (Year 1 and Year 2)	33		27		27
Total Compulsory Credits from field of specialization	85		83		80
Min. other Credits from Year 1 and Year 2 (Min. 26 Credits per Year)	22		24		24
Max. credits required for 120 Credits	13		13		16



**TABLE 4.2.1.2 RECOMMENDED OPTIONAL COURSES FROM OTHER SUBJECTS**

Specialization Area		Biodiversity and Conservation	Fisheries and Aquaculture Management	Microbiology
Year	Course			
Year 1	COM 1302	Database Management Systems	O	O
Year 2	PHY 2101	Thermodynamics and Radiation	O	
Year 3	CHE 3208	Environmental Chemistry	O	O
	CHE 3209	Natural Products Chemistry	O	O
	PHY 3301	Atmospheric Physics	O	
	PHY 3203	Physical Oceanography	O	O
	PHY 3206	Soil Physics		O
	PHY 3207	Energy Resources	O	
	MAT 3209	Statistical Computing using software	O	O

**4.2.2. B. SC. (SPECIAL) DEGREE IN CHEMISTRY**

**Eligible Subject Combinations: CCS CM CP CBO CZO CBI CCSP CCSM CCSBO CCSZO CBOZO CPBO CPZO CMP**

**Prerequisites: Year 1** CHE 1201, CHE 1302, CHE 1203, CHE 1104, CHE 1105  
- 09 Credits

**Year 2** CHE 2201, CHE 2202, CHE 2103, CHE 2104, CHE 2205, CHE 2106, CHE 2107, CHE 2108  
- 11 Credits

**Please refer to relevant Columns of Tables 3.3 and 3.5.**

**4.2.2.1. COMPULSORY COURSES OFFERED IN THIRD AND FOURTH YEAR FOR THE SPECIAL DEGREE PROGRAMME IN CHEMISTRY**

**Year 3** CHE 3202, CHE 3203, CHE 3204, CHE 3205, CHE 3207, CHE 3208, CHE 3209, CHE 3311, CHE 3212, CHE 3315, CHE 3316, CHE 3317, CHE 3118, CHE 3219, CHE 3120, CHE 3121  
- 29 Crédits

**Year 4** CHE 4201, CHE 4202, CHE 4203, CHE 4204, CHE 4206, CHE 4307, CHE 4308, CHE 4309, CHE 4210, CHE 4814,  
- 29 Crédits

**4.2.2.2. OPTIONAL COURSES OFFERED IN THIRD AND FOURTH YEAR FOR THE SPECIAL DEGREE PROGRAMME IN CHEMISTRY**

**Year 3** CHE 3201, CHE 3201, CHE 3206 - 06 credits

**Year 4** CHE 4211, CHE 4212, CHE 4213 - 06 Credits

#### 4.3. GUIDELINES FOR THE SELECTION OF COURSE STRUCTURE FOR B. SC. (FOUR-YEAR) DEGREE IN APPLIED SCIENCES

**TABLE 4.3.1. FOURTH YEAR COURSES FOR B. SC. (FOUR-YEAR) DEGREE IN APPLIED SCIENCES**

Discipline	Course Code	Course Title	Pre-requisite	Co-requisite
Applied Botany	MIB 4302	Medical Microbiology		
	MIB 4205	Analytical Techniques in Biology		
Applied Zoology	ZOO 4307	Ornamental Fisheries	BIO 2211, ZOO 3204	
	ZOO 4309	Fish health Management	BIO 2211, ZOO 3204, ZOO 3108	
	ZOO 4211	Culture and propagation of ornamental Aquatic plants		
Applied Biology	BDC 4201	Environmental Policies and Management	BIO 2302	
	BDC 4202	Wetland Conservation and Management	BIO 2302	
	BIO 4603*	Research Project		
Industrial Chemistry	CHE 4201	Computational Chemistry	PHY 2105, PHY 4210, PHY 4312 CHE 2201, CHE 1302	
	CHE 4202	Advanced Electrochemistry	CHE1302, CHE 3207	
	CHE 4203	Surface and Colloidal Chemistry	CHE 2201	
	CHE 4210	Molecular and Surface Spectroscopy	CHE 2201, CHE 1203	
	CHE 4605*	Research Project		
Applied Physics	PHY 4308	Characterization Techniques	PHY 3309	
	PHY 4209	Physics of Semiconductor Devices	PHY 2103, PHY 2105	
	PHY 4210	Advanced Quantum Mechanics	PHY 2105	
	PHY 4211	Nanomaterials and Nanotechnology	PHY 2105	
	PHY 4312	Statistical Thermodynamics		
	PHY 4613*	Research Project		
	PHY 4215	Applied Meteorology		
	PHY 4216	Soil Physics		
Computer Science	COM 4201	Introduction to Mobile Computing	COM 1407, COM 1302, COM 1305	
	COM 4202	Bioinformatics and Computational Biology	COM 1407	
	COM 4203	Geographical Information System	COM 1407, COM 1302	
	ICT 4201	ICT for Education		
	ICT 4302	Intelligent Systems	COM 3303	
	ICT 4303	Advanced Computer Networks	COM 3401 COM 2307	
	ICT 4306	E Commerce	COM 2303	
	COM 4604*	Research Project		
Industrial Mathematics	MAT 4301	Operational Research I		
	MAT 4302	Financial Mathematics		
	MAT 4608*	Research Project		
	MAT 4310	Computational mathematics		
	MAT 4311	Quantitative Modelling I		
Industrial training	MAT 4312	Quantitative Modelling II		
	BIO / PHY / CHE / MAT/COM 4320	Industrial Training		

\* Research project of one discipline can be offered

#### 4.4. GUIDELINES FOR THE SELECTION OF COURSE STRUCTURE FOR B. SC. (JOINT MAJOR) DEGREE IN CHEMISTRY AND PHYSICS

Possible Subject Combinations: CCSP CMP CP CPBO CPZO

Please refer to relevant Columns of Tables 4.1.1.1, 4.1.2.1 for Year 1, Tables 4.1.1.2 and 4.1.2.2 for Year 2 and Tables 4.1.1.3 and 4.1.2.3 for Year 3 Courses.

**TABLE 4.4.1 AVAILABLE COMBINATIONS TO SELECT COURSES IN YEAR 4 FOR B. SC. (JOINT MAJOR) DEGREE IN CHEMISTRY AND PHYSICS**

Credits	Course	Status	Possible Subject Combinations				
			CCSP	CMP	CP	CPBO	CPZO
4+6	CHE 4201	O	O	O	O	O	O
	CHE 4202	O	O	O	O	O	O
	CHE 4203	C	C	C	C	C	C
	CHE 4210	C	C	C	C	C	C
	CHE 4605*	C	C	C	C	C	C
5+6	PHY 4207/ PHY 3212	O	O	O	O	O	O
	PHY 4308	C	C	C	C	C	C
	PHY 4209	O	O	O	O	O	O
	PHY 4210	O	O	O	O	O	O
	PHY 4211	C	C	C	C	C	C
	PHY 4312	O	O	O	O	O	O
	PHY 4613*	C	C	C	C	C	C
	PHY 4314	O	O	O	O	O	O
	PHY 4315	O	O	O	O	O	O
	PHY 4316/ PHY 3206	O	O	O	O	O	O
	PHY 4314/ PHY 3207	O	O	O	O	O	O
	Total Compulsory Credits (Year 4)			15	15	15	15
<b>Total of compulsory credits</b>			<b>86</b>	<b>91</b>	<b>65</b>	<b>90</b>	<b>92</b>
<b>45 credits requirements for CHE</b>			<b>17 or 23</b>	<b>17 or 23</b>	<b>17 or 23</b>	<b>17 or 23</b>	<b>17 or 23</b>
<b>45 credits requirements for PHY</b>			<b>12 or 18</b>	<b>12 or 18</b>	<b>12 or 18</b>	<b>12 or 18</b>	<b>12 or 18</b>
<b>To complete 120 credits need</b>			<b>8</b>	<b>3</b>	<b>29</b>	<b>0</b>	<b>0</b>

\* Either CHE 4605 or PHY 4613 can be offered.

#### 4.5. GUIDELINES FOR THE SELECTION OF COURSE STRUCTURE FOR B. SC. (JOINT MAJOR) DEGREE IN BIOLOGY AND PHYSICS

Eligible Subject Combination: PBI, PBOZO

Please refer to relevant Columns of Table 4.1.2.1 for Year 1, Table 4.1.2.2 for Year 2 and Table 4.1.2.3 for Year 3 Courses.

**TABLE 4.5.1. AVAILABLE COMBINATIONS TO SELECT COURSES IN YEAR 4 FOR B. SC.(JOINT MAJOR) DEGREE IN BIOLOGY AND PHYSICS**

Credits	Course	Status	PBI	PBOZO
6+11=17	BIO 4201	C	C	C
	BIO 4202	C	C	C
	MIB 4302	O	O	O
	MIB 4205	O	O	O
	ZOO 4307	O	O	O
	ZOO 4309	O	O	O
	ZOO 4211	O	O	O
	PHY 4201/ PHY 3211	O	O	O
	PHY 4312	O	O	O
	PHY 4304	C	C	C
	PHY 4205	O	O	O
	PHY 4606	C	C	C
	PHY 4207/ PHY 3212	O	O	O
	PHY 4308	C	C	C
	Total Compulsory Credits (Year 4)			18
<b>Total of compulsory credits</b>			<b>70</b>	<b>73</b>
<b>45 credits requirements for BIO</b>			<b>11</b>	<b>0</b>
<b>45 credits requirements for PHY</b>			<b>22</b>	<b>22</b>
<b>To complete 120 credits need</b>			<b>50(26)</b>	<b>47(24)</b>

#### 4.6. GUIDELINES FOR THE SELECTION OF COURSE STRUCTURE FOR B. SC. (FOUR-YEAR) DEGREE IN INDUSTRIAL MATHEMATICS

Eligible Subject Combinations: CCSM CMP CSMP CM CSM MP

Please refer to relevant Columns of Tables 4.1.1.1, 4.1.2.1 for Year 1, Tables 4.1.1.2 and 4.1.2.2 for Year 2 and Tables 4.1.1.3 and 4.1.2.3 for Year 3 Courses.

**TABLE 4.6.1. AVAILABLE COMBINATIONS TO SELECT COURSES IN YEAR 4 FOR B. SC.(FOUR-YEAR) DEGREE IN INDUSTRIAL MATHEMATICS**

Credits	Course	Status	Subject Combinations					
			CCSM	CMP	CSMP	CM	CSM	MP
27	MAT 4301	C	C	C	C	C	C	C
	MAT 4302	C	C	C	C	C	C	C
	MAT 4303	O	O	O	O	O	O	O
	MAT 4304	C	C	C	C	C	C	C
	MAT 4305	O	O	O	O	O	O	O
	MAT 4306	C	C	C	C	C	C	C
	MAT 4307	O	O	O	O	O	O	O
	MAT 4608	C	C	C	C	C	C	C
	MAT 4309	O	O	O	O	O	O	O
	MAT 4310	O	O	O	O	O	O	O
	Total Compulsory Credits (Year 4)			18	18	18	18	18
<b>Total of compulsory credits</b>			<b>93</b>	<b>81</b>	<b>70</b>	<b>72</b>	<b>75</b>	<b>71</b>
<b>Requirement for other subjects</b>			<b>6,3,0</b>	<b>6,0,2</b>	<b>3,0,2</b>	<b>8,0</b>	<b>3,0</b>	<b>0,2</b>
<b>To complete 120 credits</b>			<b>37(28)</b>	<b>49(41)</b>	<b>60(55)</b>	<b>58(50)</b>	<b>55(52)</b>	<b>59(57)</b>