

# Student Handbook

Academic Year 2023/2024



Faculty of Applied Sciences

Wayamba University of Sri Lanka



**Faculty of Applied Sciences**  
**Wayamba University of Sri Lanka**  
**Kuliyapitiya**  
**Sri Lanka**

**PROSPECTUS**  
**for the**  
**ACADEMIC YEAR 2023/2024**

N.B. Approved by the Faculty Board of Applied Sciences at its 90<sup>th</sup> Meeting held on 12.08.2011 & the Senate of the Wayamba University of Sri Lanka at its 95<sup>th</sup> Meeting held on 18.01.2012 with subsequent amendments.

## VISION

*To become the premier Applied Science Faculty  
that enriches the Sri Lankan community  
with graduates of vibrant intellectuality,  
outstanding professionalism and brilliant personality.*

## MISSION

*To prepare the graduates from the Faculty of Applied  
Sciences to become successful professionals within a  
global society through an education rooted in science  
and industry.*

*We intend to accomplish our mission by:*

*providing our graduates with solid knowledge  
through an educational experience rich in theory and  
reinforced with meaningful application based  
learning to solve challenging problems in reality,*

*creating an atmosphere that foster a balanced and  
increasing development in teaching, learning,  
research and other services, and*

*being responsive to industry needs and global  
opportunities.*

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# 1. INTRODUCTION

## GENERAL

The Faculty of Applied Sciences of the Wayamba University of Sri Lanka was established with effect from 01 October, 1999 by the Government Notification in the Extraordinary Gazette No. 1093/8 of Tuesday, 17 August, 1999. The Faculty is located at Kuliypitiya Premises of the University and consists of four Departments of Study namely, Computing & Information Systems, Electronics, Industrial Management, and Mathematical Sciences, contributing to the degree programmes on Applied Sciences.

The Department of Mathematical Sciences offers courses in the subject areas of Mathematics & Mathematical Modelling and Statistics and the other three Departments of Computing & Information Systems, Electronics, and Industrial Management offer courses in the subject areas indicated by their titles.

Although the Computer Laboratories of the Department of Computing & Information Systems are primarily intended to facilitate the conduct of practical components in Computing & Information Systems, they would provide facilities for the students undertaking project work and offering other major subjects at the other Departments of Study.

The Department of English Language Teaching, which comes under the purview of the Faculty of Business Studies and Finance, operates under the leadership of the Head of the Department. It offers service courses to undergraduate students of the faculties at the Kuliypitiya premises with the aim of enhancing their oral and written communication skills in English.

## ACADEMIC

An academic year consists of two semesters of 15 weeks each, and academic programmes are based on a course credit system, which embodies characteristics such as modularity, flexibility, and accumulation of credits. After each semester, a study leave period of 2 weeks will be given prior to the commencement of the respective end-semester examinations conducted within a period of 4 weeks. However, examinations of practical components, project work, inplant training programmes, etc., may be held prior to the end-semester examination period as decided by the relevant Department of Study.

Each course module is presented in the form of course unit(s) with specific credit values for its corresponding theory/ practical component(s). One credit is equivalent to 1 lecture hour or 2-3 practical hours a week throughout a semester. All academic programmes, including examinations, are conducted in English Medium and each student will be selected for a 3-subject combination at the beginning of Level 1 based on an internal selection criteria based on the Advanced Level Z-Score and the District Quota.

Three combinations of three subjects in each are available for students at Level 1 and Level 2, which open avenues for the students to qualify themselves to follow one of the

4-Year B.Sc. Honours Degree, 4-Year B.Sc. (Joint Major) Degree, or the 3-Year B.Sc. (General) Degree over the ensuing years within the original combination.

All students should register for the modules before the commencement of each academic year at the Faculty Office of Applied Sciences. Students are not permitted to change their choice of modules after the first two weeks of the relevant academic year. Students shall be permitted to sit for the examination of a particular module only if they are registered for that module.

All subject combinations comprise modules from three major disciplines, constituted with the following aims of the Faculty:

- to provide an education that will facilitate the engendering of graduates who are not only knowledgeable and skillful, but also confident, enterprising and well versed in communication skills and enriched with correct attitudes.
- to produce graduates of the caliber sought by industry and the public service.
- to respond to the needs of the community in particular through the provision of out-reach programmes.

After embarking on a particular stream (subject combination), a student must offer modules aggregating to a minimum of 30 credits in each academic year, including all compulsory modules specified by the respective Departments. As permitted by the semester Time Tables, a student shall be allowed to offer modules aggregating to a maximum of 33 credits in each academic year.

## GRADUATE ATTRIBUTES

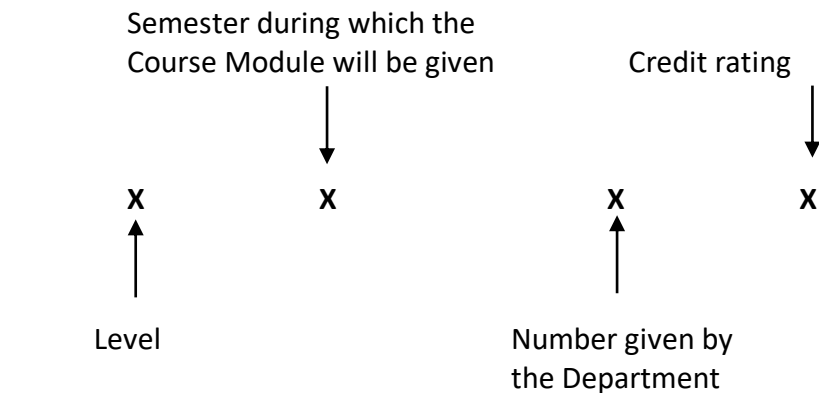
The graduate attributes of the Faculty encompass not only the future employment and contribution to the economic & social growth of the country but also producing a self-contained, committed and inquisitive person who has curiosity for continuous learning.

The undergraduates of the Faculty will be provided with different course modules creating the opportunity to develop the following specific attributes:

- Social accountability
- Economic engagement
- Self containment
- Lifelong learning

## 2. ABBREVIATIONS AND NOTATIONS

An alpha numeric code is used to identify a course module. The code consists of four digits prefixed by a set of four letters which refers to the subject area of the module. The first digit denotes the level at which the module is conducted, the second digit the semester during which it is conducted, the third a number assigned by the department which conducts it while the fourth signifies the credit rating of the module.



- CMIS      Computing & Information Systems
- ELTN      Electronics
- IMGT      Industrial Management
- INDT      Industrial Training
- MATH      Mathematics
- MMOD      Mathematical Modelling
- STAT      Statistics

Some modules require courses of study that must previously be completed before students are allowed to follow them. Such courses of study are called pre-requisites (PR). Some units require other units to be taken simultaneously, which are called co-requisites (CR). Some of the prerequisites are subjects offered for the GCE (Advanced Level) Examination.

Example: MATH 1234 is the Mathematics Level 1 module conducted during the second semester having course number 3 and a weighting of 4 credits.

The subject areas offered by each Department of Study are as follows:

|                                               |                     |
|-----------------------------------------------|---------------------|
| Department of Computing & Information Systems | : CMIS              |
| Department of Electronics                     | : ELTN              |
| Department of Industrial Management           | : IMGT              |
| Department of Mathematical Sciences           | : MATH & MMOD, STAT |

### 3. ACADEMIC & ADMINISTRATIVE STAFF OF THE FACULTY, LIBRARY AND THE COMMON SUPPORT UNITS

#### FACULTY OFFICE

**Dean:**

Prof. L.D.R.D. Perera, *B.Sc. (Hons.), M.Phil. (Kelaniya), D. Eng. (Kyushu)*  
*Physics, Electronic Device Engineering*

**Deputy Registrar:**

Mr. M. Piyathilaka, *B.A. (Kelaniya), MBA (Wayamba)*

#### DEPARTMENT OF COMPUTING AND INFORMATION SYSTEMS

**Head of the Department:**

Mr. T. Arudchelvam, *B.Sc. (Hons.) (Jaffna), M.Sc., M.Phil. (Peradeniya)*

**Associate Professors:**

Prof. V.G.T.N. Vidanagama, *B.Sc. (Hons.) (Peradeniya), M.Sc., D.Sc. (Waseda)*  
*Computer Science, Global Information & Telecommunication Studies*

**Senior Lecturers (Grade I):**

Mr. T. Arudchelvam, *B.Sc. (Hons.) (Jaffna), M.Sc., M.Phil. (Peradeniya)*  
*Computer Science, Numerical Computation, Image Processing*

Dr. (Mrs.) B. Munasinghe, *B.Sc. (Hons.), M.Sc. (SLIIT), Ph.D. (Canterbury)*  
*Computer Science, Information Management, Information Technology*

**Senior Lecturers (Grade II):**

Mrs. R.P.T.H. Gunasekara, *B.Sc. (Hons.) (Kelaniya), M.Sc. (UCSC)*  
*Statistics, Computer Science*

Mr. J.R.K.C. Jayakody, *B.Sc. (Hons.), M.Sc. (UoM)*  
*Data Science, Engineering and Analytics*

**Lecturers:**

Mr. W.C.C. Premarathna, *B.Sc. (Hons.) (Wayamba)*  
*Computer Science*

Mrs. W.M.L.N. Wanninayaka, *B.Sc. (Hons.), M.Sc. (Peradeniya)*  
*Computer Science*

#### DEPARTMENT OF ELECTRONICS

**Head of the Department:**

Dr. Y.A.A. Kumarayapa, *B.Sc. (Hons.) (Colombo), M.Sc. (Peradeniya), Ph.D. (HIT)*

**Senior Professor:**

Snr. Prof. K.P. Vidanapathirana, *B.Sc. (Peradeniya), Ph.D. (Peradeniya)*  
*Physics, Solid State Physics, Polymer Electronics*

Prof. (Mrs.) G.A.K.S. Perera, *B.Sc. (Peradeniya), M.Sc. (Peradeniya), Ph.D. (Peradeniya)*  
*Solid State Physics, Polymer Electronics*

**Professors:**

Prof. L.D.R.D. Perera, *B.Sc. (Hons.), M.Phil. (Kelaniya), D. Eng. (Kyushu)*  
*Physics, Electronic Device Engineering*

Prof. (Mrs.) J.M.J.W. Jayasinghe, *B.Sc. (Eng.) (Hons.) (Peradeniya), Ph.D. (Peradeniya)*  
*Electrical & Electronics Engineering*

Prof. M.A.A. Karunarathne, *B.Sc.(Hons.) (Ruhuna), M.Phil. (Moratuwa), Ph.D. (Wayamba)*  
*Physics, Electronic & Telecommunication Engineering*

**Senior Lecturers (Grade I):**

Dr. Y.A.A. Kumarayapa, *B.Sc. (Hons.) (Colombo), M.Sc. (Peradeniya), Ph.D. (HIT)*  
*Physics, Information & Communication Engineering, Opto-Electronics, Microprocessor-Based Systems*

Dr. W.A.S. Wijesinghe, *B.Sc. (Hons.) (Sri J'pura), M.Phil. (Colombo), Ph.D. (Wesleyan-USA)*  
*Configurable Hardware, Embedded Systems Design*

**Lecturers:**

Eng. S.R.L. Gunawardhana, *B.Sc. (Hons.) (Wayamba), Electronic and Telecommunication Engineering (IESL), M.Sc. (Colombo), Ph.D. (Reading) (Monash)*  
*Electronic & Telecommunication Engineering, Computer Vision, Image Processing (On Study Leave)*

Mr. P.G.T.R. Payagala, *B.Sc. (Hons.) (Colombo)*  
*Data acquisition and signal processing, Control Systems and Robotics*

## DEPARTMENT OF INDUSTRIAL MANAGEMENT

**Head of the Department:**

Prof. (Mrs.) R.A.R. Prabodanie, *B.Sc. (Hons.) (Kelaniya), Ph.D. (Canterbury)*  
*Industrial Management, Operations Research, Business Analytics*

**Professors:**

Prof. (Mrs.) R.A.R. Prabodanie, *B.Sc. (Hons.) (Kelaniya), Ph.D. (Canterbury)*  
*Industrial Management, Operations Research, Business Analytics*

Prof. M.M.D.R. Deegahawatura, *B.Sc. Business Administration (Hons.) (Sri J'pura), MBA (Colombo), MBA in MOT (AIT), Ph.D. (HUST)*  
*Business Administration, Management of Technology, Innovation Management (On Leave)*

Prof. E.A.C.P. Karunarathne, *B.Sc.(Hons.) (Kelaniya), MBA (AIT), Ph.D. (HUST)*  
*Industrial Management, Marketing Management*

Prof. A. Pallegedara, *B.Eng. (UEC), MA (GRIPS), Ph.D. (GRIPS)*  
*Economics, Finance, Information Technology*

**Senior Lecturers (Grade I):**

Dr. (Mrs.) W.G.E.J. Wattegama, *B.Sc. Business Administration (Hons.) (Sri J'pura), M.Sc. Management (Sri J'pura), Ph.D. (HZAU)*  
*Business Administration, Entrepreneurship, Marketing Management*

Dr. (Ms.) B.S. Habaragoda, *B.Sc. (Hons.) (Kelaniya), M.Sc. (Moratuwa), Ph.D. (HUST)*  
*Industrial Management, Financial Mathematics*

Mrs. P.A.A.U. Jothirathna, *B.Sc. (Hons.) (Kelaniya), M.Sc. (Moratuwa)*  
*Industrial Management, Operations Research*

Mr. D.M. Jayasena, *B.Sc. Business Administration (Hons.) (Sri J'pura), MBA (AIT), PG.Dip. (OUSL)*  
*Business Administration, Financial Management, Environmental Science*

Dr. (Mrs.) M.G.S. Dilanthi, *B.Sc. Eng. (Hons.) (Peradeniya), M.Sc. (Moratuwa), M.Phil. (Colombo)*  
*Production Engineering, Operations Research*

**Senior Lecturers (Grade II):**

Dr. A.D. Dharmawansa, *B.Sc. (Hons.) (Wayamba), M.Eng. (NUT), D.Eng. (NUT)*  
*Industrial Management, Educational Technology, Kansei Engineering*

**Lecturers:**

Mrs. G.M. Ranasinghe, *B.Sc. (Hons.) (Wayamba), MBA (AIT), Ph.D. (Reading) (VUW)*  
*Industrial Management, Statistics, Sustainability, Marketing Management*  
*(On Study Leave)*

## DEPARTMENT OF MATHEMATICAL SCIENCES

**Head of the Department:**

Mr. G.A.C.M. Karunananda, *B.Sc. (Hons.) (Kelaniya), M.Sc. (Moratuwa)*  
*Mathematics & Mathematical Modelling, Financial Mathematics*

**Chair Professor:**

Prof. E.M.P. Ekanayake, *B.Sc. (Hons.) (Kelaniya), M.Sc. (Kyushu), D.Sc. (Kyushu), Fellow (Oxford)*  
*Mathematics, Atmospheric Dynamics*

**Professor:**

Prof. P.M.N. Dharmawardane, *B.Sc. (Hons.), M.Phil. (Kelaniya), M.Sc., Ph.D. (Kyushu)*  
*Mathematics & Mathematical Modelling, Differential Equations*

**Senior Lecturers (Grade I):**

Dr. (Mrs.) G.S. Francisco, *B.Sc. (Hons.) (Kelaniya), M.Sc. (ECNU), Ph.D. (Keele)*  
*Mathematics & Mathematical Modelling, Differential Equations*

Dr. (Mrs.) N.A.D.N. Napagoda, *B.Sc. (Hons.) (Kelaniya), M.Sc. (Colombo), Ph.D. (CCNU)*  
*Statistics, Bioinformatics, Data Mining*

Mrs. P.A.D.A.N. Appuhamy, *B.Sc. (Hons.) (Kelaniya), M.Sc. (Colombo)*  
*Statistics*

**Senior Lecturers (Grade II):**

Mr. G.A.C.M. Karunananda, *B.Sc. (Hons.) (Kelaniya), M.Sc. (Moratuwa)*  
*Mathematics & Mathematical Modelling, Financial Mathematics*

Mr. G.M.L.M. Aponsu, *B.Sc. (Hons.) (Kelaniya), M.Sc. (Moratuwa)*  
*Statistics, Operations Research*

Mrs. S.D. Dahanayaka, *B.Sc. (Hons.) (Kelaniya), M.Phil. (Kelaniya)*  
*Mathematics & Mathematical Modeling*

Dr. M.I.G.S. Sampath, *B.Sc. (Hons.) (Ruhuna), M.S.Sc. (Kelaniya), Ph.D. (HUST)*  
*Queueing Theory, Markov Chains, Probability Theory*

Dr. G.V.R.K. Vithanage, *B.Sc. (Hons.) (Kelaniya), M.Sc. (Texas Tech), Ph.D. (Texas Tech)*  
*Mathematics, Differential Equations, Mathematical Biology*

Mrs. P.M.O.P. Panahatipola, *B.Sc. (Hons.) (Peradeniya), M.Phil. (Peradeniya)*  
*Statistics*

**Lecturers:**

Ms. W.H.D.T. Karunarathna, *B.Sc. (Hons.) (Peradeniya), M.Phil. (Peradeniya)*  
*Mathematics*

Ms. M.P.D.S. Lakshmi, *B.Sc. (Hons.) (Wayamba), M.Sc. (Kelaniya), M.Phil. (Reading)*  
*(Kelaniya)*  
*Statistics*

**LIBRARY:**

**Acting Librarian:**

Mrs. W.M. Thusithakumari, *B.A. (Hons.) (Kelaniya), M.S.Sc. in LIS (Kelaniya), Ph.D. (Reading), ASLLA*

**Senior Assistant Librarian:**

Mr. K.G.I. Jayawardana, *B.A. (Hons.) (Kelaniya), M.S.Sc. in LIS (Kelaniya), ASLLA*

**Assistant Librarian:**

Mr. A.P.M.M.D.B. Dayananda, *B.A. (Hons.) (Kelaniya), M.S.Sc. in LIS (Kelaniya), ASLLA*

**Senior Assistant Registrar/ Library Services:**

Ms. D.S.H.S.W. Hettiarachchi, *B.A. (Kelaniya), ASLLA*

**Programmer Cum Systems Analyst:**

Dr. E.M.C.L. Ekanayake, *B.Sc. (Wayamba), M.Sc. (Peradeniya), D.Eng. (China)*

## DEPARTMENT OF ENGLISH LANGUAGE TEACHING

### Head of the Department:

Dr. M.K.S.M. Samaranayake, *B.A. (Kelaniya), M.A. in Linguistics (Kelaniya), M.A. in TESL (OUSL), PGD TESL (Colombo), Ph.D. in TEOSL (IICUT)*

### Senior Lecturers (Grade II):

Dr. M.K.S.M. Samaranayake, *B.A. (Kelaniya), M.A. in Linguistics (Kelaniya), M.A. in TESL (OUSL), PGD TESL (Colombo)*

Ms. W.S.A. Fernando, *B.A. (USJP), M.A. in Linguistics (Kelaniya), M.A. in TESL (OUSL), PGD TESL (Colombo)*

Mr. E.M.H.J. Edirisinghe, *B.A. (USJP), M.A. in Linguistics (Kelaniya), M.A. in TESL (OUSL), PGD TESL & Lit (USJP)*

Dr. K.M. Dissanayake, *B.A. (Hons.)(Peradeniya), M.A. in Linguistics (Kelaniya), Ph.D. in TESL (UPSI) Malaysia*

### Lecturers:

Ms. P.D.S.N. Dissanayake, *B.A. (Hons.) in TESL (Kelaniya), M.A. in TESL (OUSL)*

Ms. W.M.C.A. Wickramasinghe, *B.A. (Hons.) in English (Peradeniya)*

Ms. P.W.R.C. Wijenayaka, *B.A. (Hons.) in TESL (USJP)*

Ms. A.P.L. Abesooriya, *B.A. (Hons.) in TESL (Kelaniya)*

## 4. DEPARTMENTS OF THE FACULTY, COMMON SUPPORT UNITS & OTHER DEPARTMENTS

### DEPARTMENT OF COMPUTING & INFORMATION SYSTEMS

The new information revolution, which began in business has gone farthest in every field of life, society and of technology. Information is the foundation for the challenges of knowledge.

The main objective of the Department of Computing & Information Systems is to equip the students with a sound knowledge on ICT to face the above challenges at their own work and employment. Therefore, the Department offers course modules in the following areas of the subjects, and multiple projects and an industrial training programme to achieve the above objectives.

- Operating Systems
- Computer Programming
- Software Engineering
- Database Management Systems
- Data Communication & Computer Networks
- Artificial Intelligence
- Data Structures & Analysis of Algorithms
- Web Designing & e-Commerce
- Computer Graphics & visualization
- Mobile & Ubiquitous Computing
- Distributed & Cloud Computing
- Parallel Computing

The department contributes to the academic programmes of the Faculty by offering Computing and Information Systems (CMIS) as a major subject for the B.Sc. (General) Degree and the B.Sc. (Joint Major) Degree programmes as well as the B.Sc. Honours in Computer Science for undergraduate students. The department is also ready to offer Master of Philosophy (M.Phil.) and Doctor of Philosophy (Ph.D.) for post graduate students.

### DEPARTMENT OF ELECTRONICS

Electronics is a fascinating subject that could make your time at the University a challenging, enriching, and rewarding experience. This subject has become so important to the society, that we simply cannot do many things without it. If you have the idea of creating electronics systems which could help millions of people on a day to day basis, like the systems used in phones, or computers, then you may be interested in studying the subject offered by the Department of Electronics.

The Department of Electronics offers course modules for three degree programmes of the Faculty of Applied Sciences, namely B.Sc. (General) Degree, B.Sc. (Joint Major) Degree, and B.Sc. Honours in Applied Electronics for undergraduate students, and

degrees Master of Philosophy (M.Phil.) and Doctor of Philosophy (Ph.D.) for postgraduate students.

Students who need general knowledge of Electronics may follow the Electronics course modules offered under the 3-year B.Sc. (General) programme. Those who wish to study Electronics to some depth with another main subject can follow the 4-year Joint Major Degree programme. Past graduates who followed Electronics as a Major subject had no difficulty in finding employment opportunities, where most of them started their career as an engineer or assistant engineer in the private sector. Recently started Special Degree in Applied Electronics provides deeper subject knowledge to students who wish to seek career opportunities in Research & Development or in Academia.

The Department of Electronics consists of well-qualified academic staff committed to provide conceptual knowledge as well as practical skills for undergraduate students in the following areas,

- Fundamentals of Electronics
- Analog Circuits
- Digital Systems
- Communication & Antenna Design
- Microprocessor Technology
- Signal Processing
- Embedded Systems
- Programmable Hardware

With the rapid expansion of the technology sector, the demand for experts in Electronics has been increasing accordingly. Therefore, students who study Electronics will have various career opportunities. The Department of Electronics takes all measures to equip students with sound knowledge and skills to succeed in their career, and meet the demands of socio-economic development of the country.

## DEPARTMENT OF INDUSTRIAL MANAGEMENT

The Department of Industrial Management has already realized the future challenges and the importance of socio-economic development of Sri Lanka. Therefore, the Department of Industrial Management has articulated its main objective to produce readily employable graduates to face 21<sup>st</sup> century management challenges.

To achieve the above objective, the Department offers a number of course modules, not only to gain the conceptual knowledge but also to have hands-on experience in all aspects of information system development with exposure to business problem analysis and problem solving through “Design & Development of Computer-Based Project” and hands-on managerial experience through “Industrial Training” at manufacturing and service organizations. These provide students with the opportunity to relate the academic contents of the modules to practical applications.

A systematic conceptual framework is built for the students in the following areas:

- Production, Operations & Quality Management
- Accounting and Financial Management
- Marketing Management
- Management of Technology
- Human Resource Management
- Operations Research
- Structured System Analysis & Design Methodology
- Management Information System
- Industrial and Business Law
- Strategic Management

Effective and efficient management in the industry is vital for enhancing productivity for the competitiveness of a nation. Therefore, Industrial Management plays a vital role to face the stringent competition in the future in the midst of rapid globalization.

## DEPARTMENT OF MATHEMATICAL SCIENCES

The main objective of the Department of Mathematical Sciences is to develop the logical and independent thinking power to face new and independent situations which are directly related to actual life. Therefore, the Department offers two subject streams in Mathematics & Mathematical Modelling and Statistics in the following areas including the most demanding disciplines such as Actuarial Mathematics, Operations Research and Time Series Analysis:

- Linear Algebra
- Analysis
- Computational Mathematics
- Numerical Analysis
- Theory of Interest
- Statistical Inference
- Data Analysis and Designing Experiments
- Sampling Methods
- Regression Analysis
- Stochastic Processes and Simulation
- Statistical Laboratory Works

Learning the above subject areas will develop the theoretical knowledge as well as the computer skills which support a deeper understanding of Mathematical and Statistical models and their practical implementations.

## COMMON ACADEMIC SUPPORT UNITS & OTHER DEPARTMENTS:

### MAIN LIBRARY

The Wayamba University Library started its full functions as a University Library after 2000. There are three Libraries at Kuliyaipitiya, Makandura and Labuyaya. The Library at Kuliyaipitiya is functioning as the Main Library and serving for the three faculties of Applied Sciences, Technology and Business Studies and Finance.

The Main Library has around 42,000 volumes related to the subjects of three Faculties. The collections of periodicals in print version are about 25 titles and all university scholars as well as researchers and undergraduate students and postgraduate students are provided access to online databases. This all web based information users can freely access within the all premises of Wayamba University. The E-Journals information listed below.

- Emerald <http://www.emeraldinsight.com/>
- SAGE Research <http://srmo.sagepub.com/>
- Wiley Online <http://onlinelibrary.wiley.com/>
- Cambridge University Press <http://journals.cambridge.org/>
- Science Direct <https://www.sciencedirect.com/>

Further users can ask to download useful articles from bellow sites,

- Taylor & Francis ( <http://www.tandfonline.com/> )
- Elsevier ( <http://www.sciencedirect.com/> )

Subject related DVDs and CDs are also available for reference in the computer unit at the Library. The Library also adds 1500 – 2000 to its collection every year.

In addition to the Reference and Lending services, Computer laboratory facilities, Staff Development collection, Special collection related to Social, Economic, Cultural, Political background in Sri Lanka, Paper cuttings, Past papers, Theses & students training reports, User Education programmes such as; Library Orientation and Learning skill Development programme covering Online Public Access Catalogue (OPAC) and online searching facilities, Information retrieving, analyzing organizing and presenting techniques with Citations and Reference styles etc. Inter Library Loan, Current Awareness Services and Referral Services are available at the Library.

### INFORMATION COMMUNICATION TECHNOLOGY (ICT) CENTRE

The Wayamba University of Sri Lanka has two ICT Centers, one in the Kuliyaipitiya premises and the other in the Makandura premises. The ICT Center Kuliyaipitiya provides computing and information technology resources, services, and support to Kuliyaipitiya premises of Wayamba University. It provides IT training programmes for students, staff, and external professionals to improve demanding IT skills. It is committed to support academic activities by promoting on-campus information literacy, and by providing a suitable information technology environment. To ensure the smooth proceeding of the educational and research activities, the center also offers comprehensive services using

the latest advances in information technology. These services include operating multiple services, updating and maintaining the Wayamba University Website, the Learning Management System and maintaining networks that form the University's ICT infrastructure.

The University has identified that the literacy in IT is one of the basic skills that makes graduates employable. The literacy in IT is salient in continuing the undergraduate education in Wayamba University of Sri Lanka. The ICT Center provides variety of programs for undergraduates including Diploma and Certificate Courses in Information Technology, Web Designing, Computer Graphics, and Software Programming.

## DEPARTMENT OF ENGLISH LANGUAGE TEACHING

A major fact to be emphasized is that the medium of instruction in the Faculty is English. Therefore, a high literacy standard of the language is obviously sought after. The main objective of English Language courses is to develop the proficiency level of English language of the undergraduates to enhance their pursuit of the degree programme successfully and effectively, which would ultimately lead to a better employability.

To achieve the above objective, the Department of English Language Teaching at Kuliyaipitiya Premises offers the following courses for the undergraduates of Applied Sciences:

### Compulsory Courses:

- Intensive English Course : New entrants to the Faculty
- English Language Proficiency Course I : Level 1 undergraduates
- English Language Proficiency Course II : Level 2 undergraduates

### Optional Courses:

- Certificate Course in Business English : Level 3 undergraduates
- Advanced English Proficiency Course : Level 3 undergraduates

## STUDENT COUNSELLING

It is understood that students would need the assistance and guidance to sort out many of the problems they would face from time to time during a 3-4 year long stay at the university. Irrespective of the nature of problems or grievances, the Faculty makes arrangements to provide a counselling service for all students of the Faculty.

A team of Student Counsellors/ Mentors is appointed in every academic year from both senior and junior staff of the Faculty, who are willing and prepared to listen to any student matter and provide the utmost guidance and advise to help the students.

The Student Counsellors thus appointed will be notified at the beginning of the academic year and all students are strongly advised to consult them prior to seeking appointments with Heads of Departments or Dean of the Faculty. Any written student request should be addressed to the Assistant Registrar of the Faculty through the Student Counsellor assigned to the student and where necessary through the relevant Head of the Department.

## 5. SUMMARY OF MODULES OFFERED BY THE DEPARTMENTS OF STUDY

The following convention has been used throughout to describe the significance attached to the modules offered by the Department:

- x - Compulsory modules, i.e. the students must offer the module if this symbol appears against it for a particular degree programme and **take all examination components of the module**. These modules cover the essential subject material for that subject area to be considered as a major subject.
- † - If this symbol appears with the code or against a particular module, it will be conducted throughout the academic year.
- ▼ - Optional modules, i.e. the students can choose such modules at will to fulfil the annual/overall credit requirements.
- \* - Only these modules are available for the students who are not offering the relevant subject as a major subject in the combination.
- ♣ - One of these modules is offered in the semester
- # - One of these modules is offered in the semester

## 5.1 COMPUTING & INFORMATION SYSTEMS

| Level | Module Code & Title                                         | B.Sc.<br>(General)      | B.Sc. (Joint Major)      |                          | B.Sc.<br>(Honors)  |
|-------|-------------------------------------------------------------|-------------------------|--------------------------|--------------------------|--------------------|
|       |                                                             |                         | Major 1                  | Major 2                  |                    |
| 1     | <b>Semester I</b>                                           |                         |                          |                          |                    |
|       | CMIS 1113 - Introduction to Computers and Operating Systems | x                       | x                        | x                        | x                  |
|       | CMIS 1123 - Computer Programming I                          | x                       | x                        | x                        | x                  |
|       | CMIS 1131 - Practical Computing I                           | x                       | x                        | x                        | x                  |
|       | <b>Semester II</b>                                          |                         |                          |                          |                    |
|       | CMIS 1212 - Computer Programming II                         | x                       | x                        | x                        | x                  |
|       | CMIS 1221 - Practical Computing II                          | x                       | x                        | x                        | x                  |
|       | <b>Credits from Level 1<br/>(Cumulative credits)</b>        | <b>10<br/>(10)</b>      | <b>10<br/>(10)</b>       | <b>10<br/>(10)</b>       | <b>10<br/>(10)</b> |
| 2     | <b>Semester I</b>                                           |                         |                          |                          |                    |
|       | CMIS 2113 - Object-oriented Programming                     | x                       | x                        | x                        | x                  |
|       | CMIS 2123 - Database Management Systems                     | x                       | x                        | x                        | x                  |
|       | <b>Semester II</b>                                          |                         |                          |                          |                    |
|       | CMIS 2214 - Data Structures & Analysis of Algorithms        | x                       | x                        | x                        | x                  |
|       | <b>Credits from Level 2<br/>(Cumulative credits)</b>        | <b>10<br/>(20)</b>      | <b>10<br/>(20)</b>       | <b>10<br/>(20)</b>       | <b>10<br/>(20)</b> |
| 3     | <b>Semester I</b>                                           |                         |                          |                          |                    |
|       | CMIS 3114 - Data Communication & Comp. Networks             | x                       | x                        | x                        | x                  |
|       | CMIS 3124 - Web Designing and e-commerce                    | ▼                       | x                        | x                        | x                  |
|       | CMIS 3134 - Computer Architecture & Compiler Design         | -                       | ▼                        | ▼                        | x                  |
|       | CMIS 3142 - Computational Methods                           | -                       | -                        | -                        | x                  |
|       | CMIS 3153 - Advanced Database Systems                       | -                       | -                        | -                        | x                  |
|       | <b>Semester II</b>                                          |                         |                          |                          |                    |
|       | CMIS 3214 - Software Engineering                            | x                       | x                        | x                        | x                  |
|       | CMIS 3222 - Rapid Application Development                   | ▼                       | x                        | x                        | x                  |
|       | CMIS 3234 - Computer Graphics and Visualization             | -                       | -                        | -                        | x                  |
|       | CMIS 3242 - Mobile and Ubiquitous Computing                 | -                       | -                        | -                        | x                  |
|       | CMIS 3253 - Data Mining                                     | -                       | -                        | -                        | x                  |
|       | <b>Credits from Level 3<br/>(Cumulative credits)</b>        | <b>8-14<br/>(28-34)</b> | <b>14-18<br/>(34-38)</b> | <b>14-18<br/>(34-38)</b> | <b>32<br/>(52)</b> |
| 4     | <b>Semester I</b>                                           |                         |                          |                          |                    |
|       | CMIS 4114 - Artificial Intelligence                         |                         | x                        | x                        | x                  |
|       | CMIS 4123 - Advanced Operating Systems                      |                         | -                        | -                        | x                  |
|       | CMIS 4134 - Distributed and Cloud Computing                 |                         | x                        | x                        | x                  |
|       | CMIS 4142 - Image Processing                                |                         | ▼                        | ▼                        | x                  |
|       | CMIS 4153 - Parallel Computing                              |                         | -                        | -                        | x                  |
|       | CMIS 4+18 - Research Project                                |                         | -                        | -                        | x                  |
|       | CMIS 4+26 - Research Project                                |                         | x                        | -                        | -                  |
|       | <b>Semester II</b>                                          |                         |                          |                          |                    |
|       | INDT 4216 - Industrial Training                             |                         | x (3)                    | x (3)                    | -                  |
|       | CMIS 4216 - Industrial Training                             |                         | -                        | -                        | x                  |
|       | <b>Credits from Level 4<br/>(Total credits)</b>             |                         | <b>17-19<br/>(51-57)</b> | <b>11-13<br/>(45-51)</b> | <b>30<br/>(82)</b> |

## 5.2 ELECTRONICS

| Level | Module Code / Title                                                 | B.Sc.<br>(General)      | B.Sc. (Joint Major)      |                          | B.Sc.<br>(Honors)        |
|-------|---------------------------------------------------------------------|-------------------------|--------------------------|--------------------------|--------------------------|
|       |                                                                     |                         | Major I                  | Major II                 |                          |
| 1     | <b>Semester I</b>                                                   |                         |                          |                          |                          |
|       | ELTN 1112 - Fundamentals of Electricity and Magnetism               | x                       | x                        | x                        | x                        |
|       | ELTN 1122 - Introduction to Semiconductors                          | x                       | x                        | x                        | x                        |
|       | ELTN 1132 - Basic Digital Electronics                               | x                       | x                        | x                        | x                        |
|       | <b>Semester II</b>                                                  |                         |                          |                          |                          |
|       | ELTN 1212 - Basic Electronics - Lab                                 | x                       | x                        | x                        | x                        |
|       | ELTN 1222 - General Physics                                         | x                       | x                        | x                        | x                        |
|       | <b>Credits from Level 1<br/>(Cumulative Credits)</b>                | <b>10<br/>(10)</b>      | <b>10<br/>(10)</b>       | <b>10<br/>(10)</b>       | <b>10<br/>(10)</b>       |
| 2     | <b>Semester I</b>                                                   |                         |                          |                          |                          |
|       | ELTN 2112 - Electricity and Magnetism                               | x                       | x                        | x                        | x                        |
|       | ELTN 2121 - Electricity and Magnetism - Lab                         | x                       | x                        | x                        | x                        |
|       | <b>Semester II</b>                                                  |                         |                          |                          |                          |
|       | ELTN 2213 - Semiconductor Devices                                   | x                       | x                        | x                        | x                        |
|       | ELTN 2221 - Semiconductor Devices - Lab                             | x                       | x                        | x                        | x                        |
|       | ELTN 2232 - Analogue Electronics                                    | x                       | x                        | x                        | x                        |
|       | ELTN 2241 - Analogue Electronics - Lab                              | x                       | x                        | x                        | x                        |
| 3     | <b>Credits from Level 2<br/>(Cumulative Credits)</b>                | <b>10<br/>(20)</b>      | <b>10<br/>(20)</b>       | <b>10<br/>(20)</b>       | <b>10<br/>(20)</b>       |
|       | <b>Semester I</b>                                                   |                         |                          |                          |                          |
|       | ELTN 3113 - Digital Electronics                                     | x                       | x                        | x                        | x                        |
|       | ELTN 3121 - Digital Electronics - Lab                               | x                       | x                        | x                        | x                        |
|       | ELTN 3133 - Data Acquisition and Signal Processing                  | ▼                       | x                        | x                        | x                        |
|       | ELTN 3141 - Data Acquisition and Signal Processing – Lab            | ▼                       | x                        | x                        | x                        |
|       | ELTN 3†53 - Applied Electronics Laboratory I                        |                         |                          |                          | x                        |
|       | <b>Semester II</b>                                                  |                         |                          |                          |                          |
|       | ELTN 3212 - AC Theory                                               | ▼                       | x                        | ▼                        | x                        |
|       | ELTN 3222 - Scientific Writing                                      |                         |                          |                          | x                        |
|       | ELTN 3233 - Microprocessor and Microcontroller Technology           | ▼                       | x                        | x                        | x                        |
|       | ELTN 3241 - Microprocessor and Microcontroller Technology - Lab     | ▼                       | x                        | x                        | x                        |
|       | ELTN 3252 - Electromagnetic Theory                                  |                         |                          |                          | ▼                        |
|       | ELTN 3262 - Power Electronics                                       |                         | ▼                        |                          | x                        |
|       | ELTN 3272 - Optimization Techniques and Applications                | ▼                       | x                        | ▼                        | x                        |
|       | ELTN 3282 - Mechatronics                                            |                         |                          |                          | ▼                        |
|       | <b>Credits from Level 3<br/>(Cumulative Credits)</b>                | <b>4-16<br/>(24-36)</b> | <b>16-18<br/>(36-38)</b> | <b>12-16<br/>(32-36)</b> | <b>23-27<br/>(43-47)</b> |
| 4     | <b>Semester I</b>                                                   |                         |                          |                          |                          |
|       | ELTN 4114 - Communication Theory and Systems                        |                         | x                        | x                        | x                        |
|       | ELTN 4122 - Optoelectronics Devices and Fiber Communication Systems |                         | ▼                        | x                        | x                        |
|       | ELTN 4131 - Communication Technology - Lab                          |                         | ▼                        |                          | x                        |
|       | ELTN 4143 - Programmable Logic Devices                              |                         | x                        | x                        | x                        |
|       | ELTN 4151 - Programmable Logic Devices -Lab                         |                         | x                        | x                        | x                        |

|  |                                                        |  |                      |                   |                      |
|--|--------------------------------------------------------|--|----------------------|-------------------|----------------------|
|  | ELTN 4†63 - Applied Electronics Laboratory II          |  |                      |                   | x                    |
|  | ELTN 4†78 - Research Project                           |  |                      |                   | x                    |
|  | ELTN 4†86 - Research Project                           |  | x                    |                   |                      |
|  | ELTN 4†92 Seminar in Electronics                       |  |                      |                   | x                    |
|  | <b>Semester II</b>                                     |  |                      |                   |                      |
|  | ELTN 4213 - Digital Signal Processing                  |  |                      |                   | x                    |
|  | ELTN 4222 - Nano-Technology Devices and Nano-Materials |  |                      |                   | ▼                    |
|  | ELTN 4232 - Data Communication Networks                |  |                      |                   | ▼                    |
|  | ELTN 4242 - Solid State Theory                         |  |                      |                   | ▼                    |
|  | ELTN 4252 - Polymer Electronics                        |  |                      |                   | ▼                    |
|  | ELTN 4272 - Embedded Systems                           |  |                      |                   | ▼                    |
|  | ELTN 4282 - Antenna Design                             |  |                      |                   | ▼                    |
|  | INDT 4216 - Industrial Training                        |  | x (3)                | x (3)             |                      |
|  | <b>Credits from Level 4 (Total Credits)</b>            |  | <b>17-20 (53-58)</b> | <b>13 (45-49)</b> | <b>27-39 (70-86)</b> |

## 5.3 INDUSTRIAL MANAGEMENT

| Level |           | Module Code/Title                                           | B.Sc.<br>(General)      | B.Sc. (Joint Major)      |                          | B.Sc.<br>(Honors)        |
|-------|-----------|-------------------------------------------------------------|-------------------------|--------------------------|--------------------------|--------------------------|
|       |           |                                                             |                         | Major 1                  | Major 2                  |                          |
| 1     |           | <b>Semester I</b>                                           |                         |                          |                          |                          |
|       | IMGT 1112 | Principles of Management *                                  | x                       | x                        | x                        | x                        |
|       | IMGT 1122 | Business Economics                                          | x                       | x                        | x                        | x                        |
|       | IMGT 1132 | Entrepreneurial Dynamics*                                   | x                       | x                        | x                        | x                        |
|       |           | <b>Semester II</b>                                          |                         |                          |                          |                          |
|       | IMGT 1212 | Principles of Accounting                                    | x                       | x                        | x                        | x                        |
|       | IMGT 1222 | Marketing Management*                                       | x                       | x                        | x                        | x                        |
|       |           | <b>Credits from Level 1<br/>(Cumulative Credits)</b>        | <b>10<br/>(10)</b>      | <b>10<br/>(10)</b>       | <b>10<br/>(10)</b>       | <b>10<br/>(10)</b>       |
| 2     |           | <b>Semester I</b>                                           |                         |                          |                          |                          |
|       | IMGT 2112 | Operations Management I                                     | x                       | x                        | x                        | x                        |
|       | IMGT 2122 | Cost & Management Accounting                                | x                       | x                        | x                        | x                        |
|       | IMGT 2132 | Service Industry Concepts*                                  | x                       | x                        | x                        | x                        |
|       |           | <b>Semester II</b>                                          |                         |                          |                          |                          |
|       | IMGT 2212 | Human Resource Management*                                  | x                       | x                        | x                        | x                        |
|       | IMGT 2222 | Operations Research I *                                     | x                       | x                        | x                        | x                        |
|       |           | <b>Credits from Level 2<br/>(Cumulative Credits)</b>        | <b>10<br/>(20)</b>      | <b>10<br/>(20)</b>       | <b>10<br/>(20)</b>       | <b>10<br/>(20)</b>       |
| 3     |           | <b>Semester I</b>                                           |                         |                          |                          |                          |
|       | IMGT 3112 | Operations Management II                                    | x                       | x                        | x                        | x                        |
|       | IMGT 3122 | Organization Development                                    | ▼                       | x                        | x                        | x                        |
|       | IMGT 3134 | Design & Development of Computer Based Project              |                         | x <sup>†</sup>           |                          | x <sup>†</sup>           |
|       | IMGT 3142 | System Analysis & Design and Management Information Systems |                         | ▼                        |                          | x                        |
|       | IMGT 3152 | Productivity Techniques                                     |                         |                          |                          | x                        |
|       | IMGT 3162 | Business & Industrial Law                                   | x                       | x                        | x                        | x                        |
|       | IMGT 3172 | Business Analytics                                          |                         | ▼                        |                          | ▼                        |
|       |           | <b>Semester II</b>                                          |                         |                          |                          |                          |
|       | IMGT 3212 | Operations Research II                                      | ▼                       | x                        | x                        | x                        |
|       | IMGT 3222 | Management of Technology                                    | ▼                       | x                        | x                        | x                        |
|       | IMGT 3232 | International Business                                      | ▼                       | x                        | x                        | x                        |
|       | IMGT 3242 | Project Management                                          |                         |                          |                          | x                        |
|       | IMGT 3252 | Industrial Technology*                                      | ▼                       | ▼                        | ▼                        | x                        |
|       | IMGT 3262 | Financial Management                                        |                         |                          |                          | x                        |
|       | IMGT 3272 | Research Methodology                                        |                         | ▼                        |                          | x                        |
|       |           | <b>Credits from Level 3<br/>(Cumulative Credits)</b>        | <b>4-14<br/>(24-34)</b> | <b>16-24<br/>(36-44)</b> | <b>12-14<br/>(32-34)</b> | <b>28-30<br/>(48-50)</b> |
| 4     |           | <b>Semester I</b>                                           |                         |                          |                          |                          |
|       | IMGT 4116 | Research Project                                            |                         |                          |                          | x <sup>†</sup>           |
|       | IMGT 4123 | Environmental Management                                    |                         | x                        | x                        | x                        |
|       | IMGT 4133 | Computer based Modelling & Simulation                       |                         | x                        | x                        | ▼                        |
|       | IMGT 4142 | Supply Chain Management                                     |                         | x                        | x                        | x                        |
|       | IMGT 4152 | Strategic Management                                        |                         | x                        | x                        | x                        |
|       | IMGT 4166 | Research Project                                            |                         | x                        |                          |                          |
|       |           | <b>Semester II</b>                                          |                         |                          |                          |                          |
|       | IMGT 4213 | Advanced Marketing Management                               |                         |                          |                          | x                        |
|       | IMGT 4222 | Applied Econometrics                                        |                         |                          |                          | x                        |
|       | IMGT 4234 | Advanced Operations Research                                |                         |                          |                          | x                        |
|       | IMGT 4242 | Strategic Business Analysis                                 |                         |                          |                          | x                        |
|       | IMGT 4254 | Industrial Training                                         |                         |                          |                          | x                        |
|       | INDT 4216 | Industrial Training                                         |                         | x(3)                     | x(3)                     |                          |
|       |           | <b>Credits from Level 4<br/>(Total Credits)</b>             |                         | <b>19<br/>(55-63)</b>    | <b>13<br/>(45-47)</b>    | <b>28-31<br/>(76-81)</b> |

## 5.4 MATHEMATICS & MATHEMATICAL MODELLING AND STATISTICS

| Level                           | Module Code/Title                                              | B.Sc. (General)      |               | B.Sc. (Joint Major)  |               | B.Sc. (Honours) |
|---------------------------------|----------------------------------------------------------------|----------------------|---------------|----------------------|---------------|-----------------|
|                                 |                                                                | MATH & MMOD and STAT |               |                      |               |                 |
|                                 |                                                                |                      | Major 1       | Major 2              |               |                 |
| 1                               | Semester I                                                     |                      |               |                      |               |                 |
|                                 | MATH 1112 - Introduction to Mathematics I                      | x                    | x             | x                    | x             |                 |
|                                 | STAT 1113 - Introduction to Probability and Statistics I       | x                    | x             | x                    | x             |                 |
|                                 | Semester II                                                    |                      |               |                      |               |                 |
|                                 | MATH 1212 - Introduction to Mathematics II                     | x                    | x             | x                    | x             |                 |
|                                 | MATH 1222 - Differential Equations                             | x                    | x             | x                    | x             |                 |
|                                 | STAT 1213 - Introduction to Probability and Statistics II      | x                    | x             | x                    | x             |                 |
|                                 | Credits from Level 1 (Cumulative Credits)                      | 12 (12)              | 12 (12)       | 12 (12)              | 12 (12)       |                 |
| 2                               | Semester I                                                     |                      |               |                      |               |                 |
|                                 | MATH 2114 - Linear Algebra I                                   | x                    | x             | x                    | x             |                 |
|                                 | STAT 2112 - Statistical Inference I                            | x                    | x             | x                    | x             |                 |
|                                 | Semester II                                                    |                      |               |                      |               |                 |
|                                 | MATH 2213 - Linear Algebra II                                  | x                    | x             | x                    | x             |                 |
|                                 | STAT 2212 - Design of Experiments                              | x                    | x             | x                    | x             |                 |
|                                 | STAT 2222 - Regression Analysis                                | x                    | x             | x                    | x             |                 |
|                                 | Credits from Level 2 (Cumulative Credits)                      | 13 (25)              | 13 (25)       | 13 (25)              | 13 (25)       |                 |
| 3                               | Semester I                                                     | MATH & MMOD          | STAT          | MATH & MMOD and STAT |               |                 |
|                                 | MATH 3114 - Advanced Calculus                                  |                      |               | ▼                    | ▼             | x               |
|                                 | MMOD 3113 - Mathematical Methods                               | x                    |               | x                    | x             | x               |
|                                 | MMOD 3124 - Mathematical Models                                | x                    |               | ▼                    | ▼             | ▼               |
|                                 | STAT 3112 - Statistical Inference II                           |                      | x             | x                    | ▼             | x               |
|                                 | STAT 3124 - Time Series Analysis                               |                      | x             | x                    | x             | x               |
|                                 | Semester II                                                    |                      |               |                      |               |                 |
|                                 | MATH 3214 - Discrete Mathematics                               | ▼                    |               | ▼                    | ▼             | ▼               |
|                                 | MMOD 3214 - Numerical Methods                                  | x                    |               | x                    | x             | x               |
|                                 | MATH 3224 - Applied Number Theory                              |                      |               | ▼                    |               | x               |
|                                 | STAT 3212 - Statistical Techniques                             |                      | x             | ▼                    | ▼             | x               |
|                                 | STAT 3223 - Operations Research                                |                      | x             | ▼                    | ▼             | ▼               |
|                                 | STAT 3232 - Data Analysis & Preparation of Statistical Reports |                      | x             | ▼                    | ▼             | x               |
|                                 | STAT 3243 - Theory of Interest                                 |                      | ▼             | ▼                    | ▼             | ▼               |
|                                 | Credits from Level 3 (Cumulative Credits)                      | 11-15 (24-28)        | 13-16 (25-28) | 13-39 (38-64)        | 11-35 (36-60) | 25-39 (50-64)   |
| 4                               | Semester I                                                     |                      |               |                      |               |                 |
|                                 | MATH 4114 - Complex Variables                                  |                      |               |                      |               | x               |
|                                 | MATH 4124 - Functional Analysis                                |                      |               | ▼                    | ▼             | ▼               |
|                                 | MATS 4†16 - Research Project                                   |                      |               | x†                   |               |                 |
|                                 | MATS 4†28 - Research Project                                   |                      |               |                      |               | x               |
|                                 | STAT 4114 - Stochastic Processes                               |                      |               | x                    | x             | x               |
|                                 | STAT 4124 - Quality Control                                    |                      |               | ▼                    | ▼             | ▼               |
|                                 | STAT 4134 - Actuarial Mathematics                              |                      |               | x                    | x             | x               |
|                                 | Semester II                                                    |                      |               |                      |               |                 |
|                                 | MATH 4214 - Partial Differential Equations                     |                      |               |                      |               | x               |
|                                 | MATH 4224 - Measure Theory                                     |                      |               |                      |               | x               |
|                                 | STAT 4214 - Multivariate Analysis                              |                      |               |                      |               | ▼               |
| INDT 4216 - Industrial Training |                                                                |                      | x(3)          | x(3)                 |               |                 |
|                                 | Credits from Level 4 (Total Credits)                           |                      |               | 17-25 (55-89)        | 11-19 (47-79) | 28-40 (78-104)  |

**NB:** The course module INDT 4216 – Industrial Training shall be considered a non-GPA course module

## 5.5 ENGLISH

The Department of English Language Teaching (DELT) at Kuliypitiya Premises is committed to improve the English language competency of the undergraduates from the very inception as they pursue the degree programme in English medium. The DELT offers the following courses to achieve the above objective as the successful performance of the students depends on the high standard of literacy in English Language.

### Compulsory Courses:

#### ➤ Intensive English Course:

- A short Intensive English Course would be conducted for the new entrants before the commencement of the academic programme depending on the availability of time after the students are admitted to the Faculty.

#### ➤ ELPC 1+10 - English Language Proficiency Course I:

- conducted throughout the academic year at Level 1.
- in addition to the continuous assessments during the course, the English Language Proficiency Test I (ELPT I) will be held at the end of Semester II at Level 1.
- a partial requirement for all degree programmes, i.e. the degree will not be awarded until the student obtains a minimum of an ordinary pass at ELPT I.

#### ➤ ELPC 2+20 - English Language Proficiency Course II:

- conducted throughout the academic year at Level 2.
- in addition to the continuous assessments during the course, the English Language Proficiency Test II (ELPT II) will be held at the end of Semester II at Level 2.
- a partial requirement for all degree programmes, i.e. the degree will not be awarded until the student obtains a minimum of an ordinary pass at ELPT II.

**N.B. After following ELPC 1+10 and ELPC 2+20, the students are expected to reach the Band 5 of the University Test of English Language (UTEL – Band 5).**

### Optional Courses:

#### ➤ Certificate Course in Business English:

- a professional course conducted during Semester II of the academic year at Level 3.
- a separate certificate will be issued by the Examination Branch to the students who complete the course successfully.

#### ➤ Advanced English Proficiency Course:

- enrollment is limited for only the best performers at ELPT I and ELPT II.
- an optional course conducted during semester I at Level 3.

- the aim is to prepare students to be confident enough in all four major skills of English Language and to perform well at any standard examination both at local and international level such as TOFEL and IELTS.
- at the end of the course the students would be able to follow with confidence any higher degree programme of study conducted in English medium at local or foreign Higher Educational Institutes.
- a separate certificate will be issued by the Examination Branch to the students who complete the course successfully.

**N.B.** At the end of Level 3, the students who have followed the above optional courses are expected to reach Band 6 of the University Test of English Language.

## 5.6 ENHANCEMENT/ AUXILIARY COURSES/ NON-CREDIT COURSES

- (a) These modules are indicated by \* ' in each subject area and provide the students, who are not offering it as a major subject, the opportunity to obtain basic knowledge and skills in another subject area outside their original combinations. Such modules may be offered by a student if permitted by the semester timetable.

Accordingly, the modules with \*s in the following subject areas will form the auxiliary modules for each combination:

| Combination | Auxiliary Subject Area          |
|-------------|---------------------------------|
| COMB 1      | Industrial Management           |
| COMB 2      | Computing & Information Systems |
| COMB 3      | Electronics                     |

**N.B.** The auxiliary courses will not be taken into account in computing the final GPA of a student. The grades obtained shall be mentioned in the academic transcript.

### (b) Career Guidance

There will be a programme to prepare the undergraduates to take on the challenges in looking for a suitable employment upon graduation. The objectives shall include to provide the undergraduates with an insight into the expectations in the corporate world, career opportunities in the respective fields and trends in the job market etc.

This will be offered for all students reading for any degree programme during Semester II at Level 3. **The participation and satisfactory performance upon the end of the course will be a compulsory partial requirement for awarding the degree.**

The Faculty Coordinator for Career Guidance shall design and organize this course annually with inputs from resource persons from the universities and industries.

## 6 ACADEMIC PROGRAMME

### 6.1 GENERAL

All four Departments of the Faculty offer course modules in the following subject area(s) indicated against their names:

| Department                      | Subject Area(s)                                  |                     |
|---------------------------------|--------------------------------------------------|---------------------|
| Computing & Information Systems | Computing & Information Systems                  | [CMIS]              |
| Electronics                     | Electronics                                      | [ELTN]              |
| Industrial Management           | Industrial Management                            | [IMGT]              |
| Mathematical Sciences           | Mathematics & Mathematical Modelling, Statistics | [MATH & MMOD, STAT] |

All Departments contribute to the following degree programmes by offering a number of course modules from the above subject area(s):

- ❖ 3-year B.Sc. (General) Degree
- ❖ 4-year B.Sc. (Joint Major) Degree in *Major 1* and *Major 2*
- ❖ 4-Year B.Sc. Honours Degree in *Subject Area* \*

The four academic years are indicated as Level 1, Level 2, Level 3, and Level 4 and each student shall be selected into one of the following 3-subject combinations based on the criteria described in section 6.2:

|                                    |
|------------------------------------|
| COMB 1 - MATH & STAT + CMIS + ELTN |
| COMB 2 - MATH & STAT + ELTN + IMGT |
| COMB 3 - MATH & STAT + IMGT + CMIS |

Based on the overall performance as at end of Level 2 (Semester II), the students can apply for the 4-Year B.Sc. (Joint Major) Degree and the available 4-Year B.Sc. Honours Degree Programmes in the relevant subject areas within the combination. The selection criteria is described in Section 6.2.

## 6.2 COMBINATIONS AND SELECTION CRITERIA FOR COMBINATIONS/DEGREE PROGRAMMES

### (a) 3-Year B.Sc. (General) Degree

The students, on admission to the Faculty, can apply for the following combinations in priority order:

|        |   |                           |
|--------|---|---------------------------|
| COMB 1 | - | MATH & STAT + CMIS + ELTN |
| COMB 2 | - | MATH & STAT + ELTN + IMGT |
| COMB 3 | - | MATH & STAT + IMGT + CMIS |

If there is a higher demand for a particular combination than the capacity of the Faculty, the maximum number of students will be selected based on the district quota. That is, the number of placements for a combination shall be decided based on the percentage of registration from each district and the Advanced Level Z-Score. The students not selected for their first preference shall be enrolled based on their second or third preference.

The students who fail to apply in time or who register after the initial selection shall be placed in other combinations depending on the availability of vacancies.

The students preferring a 3-Year Degree and those failing to qualify for the 4-year Degrees at Level 2 can proceed within the same combination of subjects by selecting Mathematics and Statistics, as separate major subjects at Level 3, and read for the 3-Year B.Sc. (General) Degree.

Accordingly, the students could proceed towards the 3-Year B.Sc. (General) Degree in one of the following combinations:

|         |   |      |   |      |   |      |
|---------|---|------|---|------|---|------|
| COMB 1A | : | MATH | + | CMIS | + | ELTN |
| COMB 1B | : | STAT | + | CMIS | + | ELTN |
| COMB 1C | : | MATH | + | STAT | + | CMIS |
| COMB 2A | : | MATH | + | ELTN | + | IMGT |
| COMB 2B | : | STAT | + | ELTN | + | IMGT |
| COMB 2C | : | MATH | + | STAT | + | ELTN |
| COMB 3A | : | MATH | + | IMGT | + | CMIS |
| COMB 3B | : | STAT | + | IMGT | + | CMIS |
| COMB 3C | : | MATH | + | STAT | + | IMGT |

**Note:** MATH includes modules from both Mathematics and Mathematical Modelling at Level 3.

## (b) 4-Year B.Sc. (Joint Major) Degree in *Major 1* and *Major 2*

This degree involves continuation in two subject areas called Major 1 and Major 2 from Level 3 and onwards with an outbound 06-month Industrial Training Programme during the last semester at Level 4. A minimum total of 120 credits is required to qualify for the degree over the four year period of which a minimum of 45 credits must be in each of the two subject areas: Major 1 and Major 2 (i.e. a minimum 90 credits in both subject areas)

### Combinations

The available combinations are listed below together with the credit distribution between the two major subjects and the third subject that was followed till end of Level 2.

| Combination | Major 1<br>[Min. Credits] |      | Major 2<br>[Min. Credits] |      | Subject 3<br>[Levels 1&2] | Optional<br>[Min. Credits] |
|-------------|---------------------------|------|---------------------------|------|---------------------------|----------------------------|
| COMB: 1A    | CMIS                      | [51] | ELTN                      | [45] | [25]                      | -                          |
| 1B          | CMIS                      | [51] | MMST                      | [47] | [20]                      | [2]                        |
| 1C          | CMIS                      | [51] | IMGT                      | [45] | [25]                      | -                          |
| COMB: 2A    | ELTN                      | [53] | CMIS                      | [45] | [25]                      | -                          |
| 2B          | ELTN                      | [53] | MMST                      | [47] | [20]                      | -                          |
| 2C          | ELTN                      | [53] | IMGT                      | [45] | [25]                      | -                          |
| COMB: 3A    | IMGT                      | [55] | ELTN                      | [45] | [25]                      | -                          |
| 3B          | IMGT                      | [55] | MMST                      | [47] | [20]                      | -                          |
| 3C          | IMGT                      | [55] | CMIS                      | [45] | [25]                      | -                          |
| COMB: 4A    | MMST                      | [55] | CMIS                      | [45] | [20]                      | -                          |
| 4B          | MMST                      | [55] | ELTN                      | [45] | [20]                      | -                          |
| 4C          | MMST                      | [55] | IMGT                      | [45] | [20]                      | -                          |

Note: MMST indicates Mathematics, Mathematical Modelling and Statistics.

### Selection Criteria

The students who wish to follow a 4-Year Joint Major Degree must reach the following threshold level as at end of Level 2 (Semester II) of the academic programme:

- (i) earn overall grade point average of 2.5 from all the modules registered **and**
- (ii) pass both English Language Proficiency Tests held at the end of Level 1 and Level 2 **and**
- (lii) pass the interview conducted by the relevant Department (Major 1) to assess the student's contribution to academic societies, participation in extracurricular activities, communication skills, and disciplinary conduct etc. and other specific needs of the Departments of majoring subjects.

The Major 1 subject area provides the students with the full complement of modules than the modules available for students offering the same subject as Major 2.

Due to limited resources, the intake for some Major 1 subject areas may be limited depending on the capacity at the Departments for that academic year. Therefore, if the demand is higher than the available vacancies, the students with the highest Y-Scores, defined below, will be selected into Major 1.

$$Y = 0.6x(A) + 0.4x(B)$$

where,

A – the average marks of the modules from the subject area chosen by the student for Major 1 at Level 1 and Level 2,

B – the average marks of the other modules offered by the student at Level 1 and Level 2.

The Major 1 and Major 2 subjects for which a student is selected will be notified before the commencement of the academic year at Level 3. The modules to be selected apart from the two major subject areas should be in accordance with the flexibility provided in the respective semester time tables.

### **Criteria to Accommodate Extra Curricular Activities/ Achievements**

#### **Compulsory**

Student should have minimum GPA 2.4.

#### **Priority 1:**

Student should possess a patent(s) after being enrolled at the University.

#### **Priority 2:**

Student should have peer-reviewed Journal/Conference publications after being enrolled at the University.

#### **Priority 3:**

Student should be a winner (one of first three places) of relevant subject related international, national or inter-university competitions such as Exhibitions.

#### **Priority 4:**

Student should be a winner (one of three places) of international, national or inter-university competitions such as Sports, English Debates, etc.

### **Changing the Major Subjects**

If a student wishes to change the Major 1 subject area to which he/she has been selected by the Faculty, such requests should be submitted to the Assistant Registrar of the Faculty **within three (03) days** from the commencement of the academic year at Level 3.

Although changing the choice of Major 2 subject area would be possible, changing the Major 1 subject area would be possible only if the vacancies are available and the student has reached the required level of competence at Level 1 and Level 2.

If such a request is allowed, the student should submit new registration forms.

Mutual changes will not be allowed under this provision.

Once the major subjects are finalized, the student will be considered as belonging to the Department of Study that offers his/her Major 1 subject area.

### (c) 4-Year B.Sc. Honours Degrees

These degree programmes will be very competitive for the students aspiring to continue their studies into postgraduate level and to become researchers or specialists in one subject area after graduation. Only a very limited number of students who record the best performance in a particular subject area together with other qualifications specified by the Departments would be selected for the honours degree programmes, which include a research project in the final year.

The following 4 year honours degree programmes are available for the students admitted to the academic year 2020/2021 and onwards.

|                                                       |
|-------------------------------------------------------|
| ❖ 4-Year B.Sc. Honours in Applied Electronics         |
| ❖ 4-Year B.Sc. Honours in Industrial Management       |
| ❖ 4-Year B.Sc. Honours in Mathematics with Statistics |
| ❖ 4-Year B.Sc. Honours in Computer Science            |

## SELECTION CRITERIA

The prospective students should satisfy the following entry qualifications as at end of Level 2 of the academic programme:

- (i) earn overall GPA of 2.5 and a GPA of 3.0 for the subject of specialization  
**and**
- (ii) pass both English Language Proficiency Tests held at the end of Level 1 and Level 2 **and**
- (iii) pass an interview conducted by the Faculty/ Departments to assess the student's contribution to academic societies, participation in extracurricular activities, communication skills, and disciplinary conduct etc. and other specific needs of the Departments.

### Changing the Area of Specialization

If a student is selected to more than one honours degree programme, he/she should inform the preference to the Assistant Registrar of the Faculty within

three (03) days from the commencement of the academic year at Level 3. Once the student is registered to a honours degree programme, he/she will not be allowed to change it and the relevant registration forms should be submitted.

All students reading for a honours degree will be considered as belonging to the Department that conducts the degree programme and should obtain the approval of the Head of Department for the modules he/she wishes to offer, prior to being registered at each Level 3 and level 4.

## 6.3 MEDIUM OF INSTRUCTION

The medium of instruction of all degree programmes will be English and therefore it should be noted that all examination work and material will be set in English medium and the answers should also be given in English medium.

## 6.4 REGISTRATION AND DE-REGISTRATION OF MODULES

As soon as the Time Table for semester I is announced, all students can get an idea about the modules for which they can register for the academic year without facing any clashes in their personal time tables.

At the beginning of each academic year, all students should register for the modules they wish to follow during the academic year by submitting a **Course Registration Form** obtainable from the Faculty Office. The Course Registration Form should be channeled through the Student Counsellor assigned to the student to be received by the Assistant Registrar of the Faculty Office within the first two weeks (02) of the academic year.

No student shall be permitted to change his or her choice of modules or cancel a registration after the first two weeks of the academic year.

**N.B.** Only the registered students shall be permitted to sit for the examination components of the modules.

Any registration for a course module that is not relevant to the combination offered by the Faculty will automatically be cancelled.

## 6.5 VALIDATION OF STUDENTS REGISTRATION

### 6.5.1 Repeat Examination

Renewal of Registration shall be compulsory to sit for repeat examinations.

### 6.5.2 Deferment

Students shall continue their registration to be eligible to request deferment.

## 6.6 ANNUAL & TOTAL MINIMUM/MAXIMUM CREDIT REQUIREMENTS

The minimum and maximum number of credits a student can take in an academic year are 30 and 33 respectively. These are excluding the course units to be repeated and the enhancement/auxiliary modules. It is the responsibility of the students to ensure that they are registered for the modules that account for the minimum annual credit requirement.

These annual credit requirements shall ensure that the student fulfills the following minimum/ maximum total credits for the respective following degree programmes:

|                                   |   | Minimum     | Maximum     |
|-----------------------------------|---|-------------|-------------|
| 3-Year B.Sc. (General) Degree     | - | 90 credits  | 99 credits  |
| 4-Year B.Sc. (Joint Major) Degree | - | 120 credits | 132 credits |
| 4-Year B.Sc. Honours Degree       | - | 120 credits | 132 credits |
|                                   |   |             |             |

## 6.7 ATTENDANCE

As all degree programmes are offered full-time, the students are expected to attend all academic activities regularly and be active participants during their stay at the university. There is obvious correlation between the attendance and examination results. The payment of Mahapola/ Bursaries are determined based on satisfactory attendance and performance of the students. Therefore, a minimum of 80% attendance should be registered by the students for all academic activities such as lectures, tutorial classes, practical classes etc.

However, the students representing the Faculty or the Wayamba University in sports or taking part in other extracurricular activities with prior approval from the Heads of Departments/Dean could be excused from the scheduled academic activities upon producing evidence of participation at such events to the Faculty Office.

## 7 EVALUATION CRITERIA

### 7.1 CREDIT

A credit is a time based quantitative measure assigned to a module and indicates the rating of the module in working towards a degree.

A credit is defined as follows for modules with lectures, practicals, and both lectures & practicals:

|                                              |                           |                                 |
|----------------------------------------------|---------------------------|---------------------------------|
| 15 hours                                     | for modules consisting of | lectures only,                  |
| 30-45 hours                                  | for modules consisting of | laboratory only,                |
| 10 lecture hours<br>&<br>15 laboratory hours | for modules consisting of | both lectures and<br>laboratory |

## 7.2 TESTING OF MODULES – METHOD OF EVALUATION

### 7.2.1 General

The performance of a student for a module is normally evaluated by a semester-end examination and continuous assessments which may consist of assignments, reports, presentations, mid-semester tests etc. as appropriate to the module.

The exact method of evaluation will be announced by the relevant lecturer at the commencement of the module.

### 7.2.2 Structure of Modules & Papers

Some modules may consist of a practical component and a theory component of appropriate credit values, which shall be evaluated separately.

Example: The course on Electricity and Magnetism consists of two modules namely,  
ELTN 2113 – Electricity and Magnetism  
ELTN 2121 - Electricity and Magnetism – Laboratory

A student selecting a theory module should necessarily offer the corresponding practical module as well.

Example: A student selecting the module ELTN 2113 must offer ELTN 2121 as well.

The duration of a semester-end examination paper is determined on the basis of the credit value of the module and is usually distributed as follows:

- 2 credit theory paper – 2 hours,
- 3 credit theory paper – 2 ½ hours,
- 4 credit theory paper – 3 hours, and
- a practical examination – 2-3 hours.

### 7.2.3 Evaluation of Modules

Though a greater weighting is given to the semester-end examination, the performance at continuous assessments is equally important because it determines the eligibility for sitting the semester-end examination and also accounts for a better overall grade for the module.

The overall mark is usually based on the following allocation:

Overall mark (100) = 70% (semester-end examination) + 30% (continuous assessments)

However, there may be exceptions to the above formula depending on the nature of course module.

#### 7.2.4 Absence for Continuous Assessments

Medical certificates will not be considered for continuous assessments and a student will not receive any marks for the components he/she fails to attend. The absence at continuous assessments will automatically deny the eligibility for sitting the semester-end examination of that module and such a student will belong to the “Not Eligible” category. A student who becomes Not Eligible must redo the continuous assessments at the next available opportunity to be eligible to repeat the module.

### 7.3 ELIGIBILITY FOR SITTING THE EXAMINATIONS

#### Proper Students:

The eligibility for sitting the semester-end examination of a module depends heavily on the active participation of the student in the academic activities arranged by the Department throughout the semester. A regular participant is expected to perform reasonably well at the continuous assessments held during a course.

It is compulsory that a student obtains a minimum weighted mean score of 30% from all continuous assessment components of a module, to be eligible to sit for the semester-end examination of a module. A student, who fails to get a minimum weighted mean score of 30% for continuous assessments, will fall into the ‘Not Eligible’ category and shall not be issued with admission in respect of the module concerned.

Such students must resubmit continuous assessments and earn eligibility from the relevant Department for obtaining admission to sit the next immediately available examination.

#### Repeat Students:

All students who earned eligibility by submitting continuous assessments but failed to reach the normal pass mark at the overall evaluation after the end-semester examination, will be considered as repeat students.

Such students need not resubmit continuous assessment assignments to obtain admission for subsequent attempt(s) but must resit the next immediately available end-semester examination.

The marks obtained for continuous assessment at the proper attempt will be carried forward to be combined with the marks at the end of semester examination(s) of subsequent resitting(s).

- N.B.**
- (1) The highest grade awarded to a student repeating an examination of any module will be C. In the event a student obtains a lower grade while attempting to better the grade, he/she will be entitled to the previous grade.**
  - (2) Students who sit for repeat examinations after the compulsory 3/4 year period of registration for a given degree programme should re-register for the particular academic year in order to maintain their studentship and they will be required to pay a nominal fee for such registration.**

## 7.4 PROCEDURE FOR SUBMITTING MEDICAL CERTIFICATES

*(As approved by the Senate of the Wayamba University of Sri Lanka)*

1. Students are required to support the absence from Course Work or Examination due to illness by a valid Medical Certificate conforming to the format of a Medical Certificate issued by a Government Hospital. Such Medical Certificate should be obtained from one of the following persons:

- University Medical Officer (UMO)
- District Medical Officer
- Consultant Specialist in the particular field
- Head of the Government Base Hospital
- Medical Superintendent of a Provincial Ayurvedic Government Hospital
- Heads of Government Medical Officer (Allopathic and Ayurvedic)

Under exceptional circumstances Medical Certificates issued by private Hospital or registered private practitioners could be considered by the University Medical Officer and a Medical Board.

2. Every medical certificate should have a date stamp from the Dean's Office and should be entered in the students' medical leave register maintained by the Dean's office and should be sent through proper channel.
3. The student concerned should inform of his/her absence immediately, he/she should tell the illness and should submit a medical certificate within 4 days of his/her return to the Faculty. The medical certificate submitted thereafter will be considered as late and no arrangements will be made to send them for revising the attendance for lectures, tutorials, practicals, and any other academic activities.
4. If a student takes medical leave in excess of 10 days per month, he/she should bring a Government Medical Certificate or should inform the University Medical Officer with valid clinical documents. In such situation, student is liable to be summoned before the University Medical Officer to furnish the reasons for leave. If such student fails to provide the evidence for genuineness of medical leave, his/her medical leave period is subject to revision by the University Medical Officer.

**N.B.** Under exceptional circumstances, if a student was not able to meet the deadline mentioned above, he/she could send his/her appeal to the Dean to be considered by the Faculty Board and the Senate with the observation of the University Medical Officer. The respective Faculty should obtain the observation of the University Medical Officer before reporting the matter to the Faculty Board and the Senate.

## 7.5 NUMBER OF ATTEMPTS FOR SITTING THE EXAMINATION

A student shall not be permitted more than three (03) consecutive sittings for the examination of modules conducted at the last academic year without a valid reason substantiated by documentary evidence acceptable to the Faculty Board.

### *B.Sc. (General) Degree*

The students shall not be permitted to re-sit for an examination if he/she has completed a period of five (05) academic years from the date of admission to the University under any circumstances (i.e. even with medical certificates).

### *All B.Sc. (Joint Major) Degrees and All B.Sc. Honours Degrees*

The students shall not be permitted to re-sit for an examination if he/she has completed a period of six (06) academic years from the date of admission to the University under any circumstances (i.e. even with medical certificates).

## 7.6 PROVISION FOR RE-SCRUTINIZING OF MARKS AND GRADES OF UNDERGRADUATES

### **Policy Guidelines**

- All marks and grades obtained by a student at any examination (i.e. in-course assessment, assignment, semester examination, final examination, etc.) must be free of any errors of addition, computation and transcription.
- Provisions shall be made for undergraduate students to submit request for verification of their examination marks and grades, if they wish to do so, particularly for the end-semester examinations and Final Examination.
- **However, the examiners' discretion to allocate marks for the answers presented in the answer scripts for the question(s) presented in the question paper, based on the pre-determined criteria and/or model answer expected shall not be undermined and hence the verification process will be limited only to check for accuracy of addition, computation and transcription (ACT Verification) and not for re-marking of scripts.**
- The provision for requesting re - scrutinization of marks and grades shall be limited only during the 2 weeks immediately following the release of results of an examination. As the cost of re-scrutinization process must be borne by the student, a non-refundable fee, calculated on the basis of actual cost of re-scrutiny process shall be levied on the student.
- The Dean of the Faculty in consultation with the Chief Examiner of the examination shall convene Results Verification Board, constituted as prescribed by these by-laws and verification of results must be conducted in accordance with the guidelines prescribed herein.

- If the marks and grades are not changed, the candidate shall be notified by the Dean through SAR/AR of the Faculty after the meeting of the Results Verification Board. However, if the marks and grades are changed, the outcome of the verification shall be notified to the candidate (s) only after the ratification of results by the Special Result Board of the Faculty in the case of end-semester examination. Whereas in the case of Final Examination, amended results should only be released after obtaining the approval of the Senate and Council of the University.
- The results issued to the student (s) following the re-scrutiny of marks and grades shall be the final and no more requests shall be entertained thereafter.

## Procedures

- SAR /AR of the Faculty should notify the students of the relevant examination the period during which the requests for verification of results are entertained by displaying a notice in the Notice Board of the Deans' Office.
- A payment of Rs. 500/= (subject to revision) per course/subject of an end – semester examination shall be charged for verification of the marks and grades and the issue of application forms must be done only upon submission of receipt for the prescribed payment.
- The Dean shall convene the Results Verification Board meeting for verification of marks/ grade within 3 working days upon closure of the applications.
- The Results Verification Board shall consist of the following persons:
  1. Dean of the Faculty (convener)
  2. Head of Department (s)
  3. Chief Examiner (if applicable)
  4. Examiners in-charge of each subject/paper
- When the Head is a Chief Examiner/Examiner in charge of each examination / subject/paper, another member from the same Department can be called for the Results Verification Board.
- The Head of Department in-charge of the relevant course (s) / subject(s) shall present the individual marks /grades sheets for different components of the examination (s) (i.e. written, oral, laboratory, continuous assessment, etc.) and the answer scripts for scrutiny of the Results Verification Board.
- The Results Verification Board should proceed to check the accuracy of addition, computation and transcription of results (ACT Verification).
- If the number of applications received is too large the Dean of the Faculty in consultation with the Chief Examiner can appoint relevant Sub-Committees for verification of marks and grades. In such instances verified results should be tabled at the Results Verification Board For ratification.

- If there is no change of grades, the Dean of the Faculty through the SAR/AR of the Faculty should inform the candidate (s) soon after the Results Verification Board meeting.
- A Special Results Board should be held within five working days to ratify the results if a revision of marks /grades is necessary and the decision of the Special Results Board shall be the final.
- If the marks and grades are changed, in the case of end-semester examination the outcome of the verification shall be notified to the candidate (s) following the ratification of amended results by the Special Results Board of the Faculty whereas in the case of final examination, amended results ratified by the Special Results Board further be approved by the Senate and Council of the University before it is released to the candidate (s).
- SAR/AR of the Faculty should maintain a record of all verification applications and the outcome of all applications and should submit a report to the Faculty Board after completion of re-scrutiny process.

## 8 CRITERIA FOR THE AWARD OF DEGREES & HONOURS

### 8.1 GRADING SYSTEM

Letter grades based on the grade point system and corresponding percentage marks, as illustrated in the Table below will be used to express the performance of a student at each module.

| Range of Marks | Grade | Grade Point Value | Description                                                                 |
|----------------|-------|-------------------|-----------------------------------------------------------------------------|
| 85 - 100       | A+    | 4.0               | Superior Performance <sup>(a)</sup>                                         |
| 70 - 84        | A     | 4.0               | Excellent                                                                   |
| 65 - 69        | A-    | 3.7               | Very Good                                                                   |
| 60 - 64        | B+    | 3.3               | Good, clearly above average                                                 |
| 55 - 59        | B     | 3.0               | Above average                                                               |
| 50 - 54        | B-    | 2.7               | Average performance                                                         |
| 45 - 49        | C+    | 2.3               | Quite Satisfactory                                                          |
| 40 - 44        | C     | 2.0               | Pass and possesses basic understanding of the subject matter <sup>(b)</sup> |
| 35 - 39        | C-    | 1.7               | Satisfactory                                                                |
| 30 - 34        | D+    | 1.3               | Weak                                                                        |
| 25 - 29        | D     | 1.0               | Quite Weak                                                                  |
| 00 - 24        | E     | 0.0               | Very weak                                                                   |
|                | I     | 0.0               | Incomplete <sup>(c)</sup>                                                   |

(a) Grade, A<sup>+</sup>, represents superior performance, showing comprehensive understanding of the subject matter.

(b) A student satisfying continuous assessment requirements and failing to sit the semester-end examination receives an incomplete grade "I". By repeating only the semester-end examination, the grade can be improved to a maximum of "C" grade.

A student registered for a module but failing to sit for continuous assessments or unable to obtain examination eligibility will also be given the grade I.

(c) A student who fails to sit for either the Semester-End Practical Examination or the Semester-End Theory Examination of a course module in CMIS will receive a Grade of I, and the student is required to sit only for the missed component in the next attempt. The maximum grade given for the course module when the student has sat for the missed component in the next attempt is C, unless the reason for absence is accepted by the Faculty Board.

## 8.2 GRADE POINT AVERAGE

Grade Point Average (GPA) is the credit-weighted arithmetic mean of the Grade Point Values, which is determined by dividing the total credit-weighted Grade Point Value by the total number of credits. GPA shall be computed to the second decimal place.

Example: A student who has completed one course unit with 2-credits, three course units each of 3-credits and two course units each of 1-credit with grades, A, C, B, D, B- and A+ respectively would have the GPA of 2.52 as calculated below.

$$= \frac{(2 \times 4.0) + (3 \times 2.0) + (3 \times 3.0) + (3 \times 1.0) + (1 \times 2.7) + (1 \times 4.0)}{2 + 3 + 3 + 3 + 1 + 1} = \frac{32.7}{13} = 2.5153$$

Grade Point Average = 2.52

Grade point values and credit values of all registered course units excluding the general studies course units, in a study programme of a student shall be taken into account in calculating the final GPA.

**N.B. All credits accumulated by a student shall be taken into account when computing the final GPA in respect of all the degree programmes offered by the Faculty.**

**Students should complete all modules registered and if they fail to complete a particular module, it will be indicated in the transcript as “Incomplete” and a zero (0.0) grade point value will be assigned to it.**

## 8.3 MINIMUM REQUIREMENTS FOR OBTAINING A DEGREE

### (a) 3-Year B.Sc. (General) Degree:

A student who has completed the first three academic years at Level 1, Level 2, and Level 3 as a full-time student can apply for the B.Sc. (General) Degree upon fulfilling the following credit requirements and the other partial requirements as prescribed in this Prospectus.

**Obtain grades of “D” or better in modules aggregating to a minimum of 90 credits with at least 30 credits at each level.**

**Furthermore, a student should**

- (i) obtain grades of “C” or better for modules worth of 72 credits from any subject area, with a minimum of 24 credits at each Level.**
- (ii) have a minimum overall GPA of 2.00,**
- (iii) obtain minimum ordinary passes at both English Language Proficiency Test I and II, and**
- (iv) complete the relevant requirements within a period of five (05) academic years.**

#### **(b) 4-Year B.Sc. (Joint Major) Degree in *Major 1* and *Major 2*:**

A student who has completed all four academic years at Level 1, Level 2, Level 3, and Level 4, as a full-time student can apply for the B.Sc. (Joint Major) Degree upon fulfilling the following credit requirements and the other partial requirements as prescribed in this Prospectus.

**Obtain grades of “D” or better in modules aggregating to a minimum of 120 credits with at least 30 credits at each level.**

**Furthermore, a student should**

- (i) obtain grades of “C” or better for modules worth of 102 credits from any subject area, with a minimum of 24 credits at each Level,**
- (ii) have a minimum overall GPA of 2.00,**
- (iii) obtain minimum ordinary passes at both English Language Proficiency Test I and II, and**
- (iv) complete the relevant requirements within a period of six (6) academic years.**

#### **(c) 4-Year B.Sc. (Honours) Degree in [*Subject Area*]:**

A student who has completed all four academic years at Level 1, Level 2, Level 3, and Level 4, as a full-time student can apply for the B.Sc. (Honours) Degree upon fulfilling the following credit requirements and the other partial requirements as prescribed in this Prospectus.

**Obtain grades of “D” or better in modules aggregating to a minimum of 120 credits with at least 30 credits at each level.**

**Furthermore, a student should**

- (i) obtain grades of “C” or better for at least 72 credits worth of modules from the subject of specialization aggregating to 110 credits from any subject area,**
- (ii) have a minimum overall GPA of 2.00,**
- (iii) obtain minimum ordinary passes at both English Language Proficiency Test I and II, and**
- (iv) complete the relevant requirements within a period of six (6) academic years.**

## **8.4 REVERTING TO THE B.Sc. (GENERAL) DEGREE**

The students reading for the 4-year B.Sc. (Joint Major) Degrees or the 4-Year B.Sc. (Honours) Degrees at Level 4 may request the award of the B.Sc. (General) Degree foregoing the B.Sc. (Joint Major/Honours) Degrees upon satisfying the requirements for the B.Sc. (General) Degree. This request should be made within two (02) weeks after the release of results of Semester II modules of Level 3 of the degree programme. In these cases, the results of the B.Sc. (General) Degree shall be

determined solely on the basis of modules offered at the first three Levels of the degree programme.

The clauses under Section 8.3(a) for minimum requirements for obtaining 3-Year B.Sc. (General) Degree and the clauses under Section 8.5(a) for award of Honours will be applicable as they are.

**N.B.**

1. A particular subject area shall be prescribed as a main subject for the B.Sc. (General) Degree in the academic transcript only if the student has completed course modules worth of a minimum of 24 credits from that area. To complete a course module, a student should complete all the assessment components of the course module and earn a Grade of E or better.  
Therefore, the students following the 4-year degrees from Level 3 onwards are strongly advised to offer a minimum of 4 more credits from the subject area to be dropped at Level 3.
2. The students who opt for the 3-year B.Sc. (General) Degree while being registered for Level 4, will be required to pay back all Mahapola or Bursary payments received from the University during Level 4 of the degree programme.

## **8.5 AWARD OF HONOURS**

The students should apply for the award of the degree on satisfying the necessary requirements. On completion of the B.Sc. (General/Joint Major/ Honours) Degree a student is entitled to a transcript giving the grades obtained the respective modules.

The students who have fulfilled the minimum requirements for obtaining a degree may be awarded honours (classes) if they further satisfy the following requirements.

### **(a) B.Sc. (General) Degree:**

#### **First Class Honours**

A student who is eligible for the B.Sc. (General) Degree under 8.3(a) may be awarded First Class Honours if he/she

- (i) obtains grades of "C" or better for all the modules registered except Auxiliary Courses,
- (ii) obtains grades of A or better in modules aggregating to at least half the minimum overall credit requirement (i.e. A grades for at least 45 credits from any subject area),
- (iii) obtains a minimum GPA of 3.70, and
- (iv) completes the relevant requirements within three academic years.

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

A student who is eligible for the B.Sc. (General) Degree under 8.3(a) may be awarded Second Class (Upper Division) Honours if he/she

- (i) obtains grades of “C” or better for at least 84 credits except Auxiliary Courses,
- (ii) obtains grades of B or better in modules aggregating to at least half the minimum overall credit requirement (i.e. B grades for at least 45 credits from any subject area),
- (iii) obtains a minimum GPA of 3.30, and
- (iv) completes the relevant requirements within three academic years.

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

A student who is eligible for the B.Sc. (General) Degree under 8.3(a) may be awarded Second Class (Lower Division) Honours if he/she

- (i) obtains grades of “C” or better for at least 80 credits except Auxiliary Courses,
- (ii) obtains grades of B or better in modules aggregating to at least half the minimum overall credit requirement (i.e. B grades for at least 45 credits from any subject area),
- (iii) obtains a minimum GPA of 3.00, and
- (iv) completes the relevant requirements within three academic years.

### **(b) B.Sc. (Joint Major) Degree in *Major 1 & Major 2*:**

#### **First Class Honours**

A student who is eligible for the B.Sc. (Joint Major) Degree under 8.3(b) may be awarded First Class Honours if he/she

- (i) obtains grades of “C” or better for all the modules registered except Auxiliary Courses.
- (ii) obtains grades of A or better in modules aggregating to at least half the minimum overall credit requirement (i.e. A grades for at least 60 credits from any subject area)
- (iii) obtains a minimum GPA of 3.70, and
- (iv) completes the relevant requirements within four academic years.

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

A student who is eligible for the B.Sc. (Joint Major) Degree under 8.3(b) may be awarded Second Class (Upper Division) Honours if he/she

- (i) obtains grades of “C” or better for at least 112 credits except Auxiliary Courses,
- (ii) obtains grades of B or better in modules aggregating to at least half the minimum overall credit requirement (i.e. B grades for at least 60 credits from any subject area)
- (iii) obtains a minimum GPA of 3.30, and
- (iv) completes the relevant requirements within four academic years.

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

A student who is eligible for the B.Sc. (Joint Major) Degree under 8.3(b) may be awarded Second Class (Lower Division) Honours if he/she

- (i) obtains grades of “C” or better for at least 104 credits except Auxiliary Courses,
- (ii) obtains grades of B or better in modules aggregating to at least half the minimum overall credit requirement (i.e. B grades for at least 60 credits from any subject area)
- (iii) obtains a minimum GPA of 3.00, and
- (iv) completes the relevant requirements within four academic years.

### **(c) B.Sc. Honours Degree in *Subject Area*:**

## **First Class Honours**

A student who is eligible for the B.Sc. (Honours) Degree under 8.3(c) may be awarded First Class Honours if he/she

- (i) obtains grades of “C” or better for all the modules registered except Auxiliary Courses,
- (ii) obtains grades of A or better in modules aggregating to at least half the minimum overall credit requirement (i.e. A or better grades for at least 60 credits),
- (iii) obtains grades of A or better in modules aggregating to at least half the number of credits accumulated at Level 3 and Level 4 from the subject of specialization,
- (iv) obtains a minimum GPA of 3.70, and
- (v) completes the relevant requirements within four academic years.

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

A student who is eligible for the B.Sc. (Honours) Degree under 8.3(c) may be awarded Second Class (Upper Division) if he/she

- (i) obtains grades of “C” or better for at least 112 credits except Auxiliary Courses,
- (ii) obtains grades of B or better in modules aggregating to at least half the minimum overall credit requirement (i.e. B or better grades for at least 60 credits),
- (iii) obtains grades of B or better in modules aggregating to at least half the number of credits accumulated at Level 3 and Level 4 from the subject of specialization,
- (iv) obtains a minimum GPA of 3.30, and
- (v) completes the relevant requirements within four academic years.

## Second Class (Lower Division) Honours

A student who is eligible for the B.Sc. (Honours) Degree under 8.3(c) may be awarded Second Class (Lower Division) if he/she

- (i) obtains grades of “C” or better for at least 110 credits except Auxiliary Courses,
- (ii) obtains grades of B or better in modules aggregating to at least half the minimum overall credit requirement (i.e. B or better grades for at least 60 credits),
- (iii) obtains grades of B or better in modules aggregating to at least half the number of credits accumulated at Level 3 and Level 4 from the subject of specialization,
- (iv) obtains a minimum GPA of 3.00, and
- (v) completes the relevant requirements within four academic years.

## 8.6 DEAN’S LIST

### Introduction

Undergraduates who achieve an outstanding overall result in the course of an academic year can have their names included in the Dean’s List. This is an award for academic excellence, promoted by the Deans of a University, and an honour which will also appear on a student’s University transcript.

The Faculty of Applied Sciences encourages excellence in scholarship and gives official recognition to undergraduate students whose academic achievements are outstanding in any given academic year. Any student who meets all the following conditions and obtains a credit-weighted annual grade point average of 3.70 or above for the academic year will be recorded on the Dean’s List. The award will be made annually and the Dean’s List citation will appear on the transcript.

### Criteria

To qualify and be placed on the Dean's List, students must meet the following minimum requirements:

- Be enrolled as a full time undergraduate for an approved Degree program at the Faculty of Applied Sciences.
- Be enrolled for course modules amounting to at least 30 credits (*the minimum prescribed for an academic year*) during the academic year.
- Earn a minimum of 30 letter-grade credits with  
No grade lower than “C”  
No failure grades or Incompletes in the qualifying academic year.
- Reach a minimum annual GPA of 3.70 in the qualifying academic year.
- Be not on academic warning or probation or subject to any disciplinary action.

The following shall also be applicable in respect of the selection criteria.

- **Calculation of Annual GPA:**  
All the course modules, excluding the non-credit modules, a student is registered for in an academic year shall be taken into account in calculating the annual GPA.
- **Failure grades:**  
Non-eligibility for a module shall be considered as a failure grade.
- **Incompletes:**  
Students with incomplete grades due to medical reasons or other reasons acceptable to the Faculty board will be evaluated after the incomplete grades are upgraded.
- **Disciplinary action:**  
A student who is found to have violated the Code of Student Conduct, Laws, by-laws or regulations of the University or who has received a suspension or greater punishment for a violation of the Code of Conduct will not be eligible for Dean's List in any academic year.

If the finding occurs after selections have been made, the student's name will be removed from all the Dean's Lists, the Dean's List citation will be removed from the transcript and any letters /certificates issued will be withdrawn.

- **Leave of absence:**  
Students who have to take a period of leave of absence for medical or personal reasons will retain their eligibility provided they satisfy the above criteria within the completion time stipulated by the Faculty for the academic year that has been interrupted.
- **Graduate students:**  
Graduate students are not eligible for Dean's List.

#### **Selection Process & the Award**

- Calculation of grades and selection of students for the Dean's list will take place over the following academic year, once the second semester results are released.
- On the recommendation of the Dean/ Faculty of Applied Sciences and on the approval by the Faculty Board, any student who is eligible under above criteria will be placed on the Dean's List.
- On graduation, students who were in the Dean's List will be issued with a certificate from the Dean.
- Notation of Dean's List standing will be made on the grade report and on the official transcript.
- Further recognition may be granted at graduation/convocation for students who were in the Dean's List for more than one academic year.



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