Faculty of Engineering
University of Ruhuna
Galle
Sri Lanka

STUDENT HANDBOOK

ACADEMIC YEAR 2025 - 2026

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Faculty of Engineering

University of Ruhuna

Hapugala, Wakwella

Galle 80000

Sri Lanka

http://www.eng.ruh.ac.lk

Our Vision

To be the prime intellectual thrust of the nation

Our Mission

To advance knowledge and skills through teaching, research and services to serve the society

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1
University of Ruhuna

1.1 Introduction

The University of Ruhuna was officially established on 1st of September 1978 as Ruhuna University College under a Special Presidential Decree, marking a significant milestone in the higher education landscape of southern Sri Lanka. This strategic initiative aimed to decentralize higher education opportunities, foster regional development, and provide access to world-class education for students across the southern province and beyond.

Over the years, University of Ruhuna has undergone remarkable growth and transformation, evolving from its modest beginnings into a comprehensive, full-fledged national university recognized for academic excellence, research innovation, and community engagement. Today, University of Ruhuna proudly encompasses ten states of art faculties, each dedicated to advancing knowledge and nurturing future leaders. These faculties are Agriculture, Engineering, Fisheries and Marine Sciences & Technology, Humanities and Social Sciences, Management & Finance, Medicine, Science, Technology, Allied Health Sciences, and Graduate Studies.

The Faculties of Humanities and Social Sciences, Fisheries and Marine Sciences and Technology, Management and Finance, Science, and Graduate Studies are located at the main University premises in Wallamadama, Matara. The Faculties of Agriculture and Technology are sited in Mapalana and Karagoda- Uyangoda (Kamburupitiya). The Faculty of Engineering is in Hapugala, Galle, while the Faculty of Medicine is situated in Karapitiya, Galle, and the Faculty of Allied Health Sciences is based in Walahanduwa, Galle. The central administrative unit of the University also operates from the Wallamadama complex.

The University of Ruhuna offers undergraduate, postgraduate (Master's), and doctoral (PhD) degree programmes across its academic disciplines, in addition to diploma and certificate-level courses.

At its inception in 1978, the University admitted 272 students to its bachelor's degree programmes. By 2025, this number has risen dramatically to 15,788 students across nine faculties (refer; Table 1.1), reflecting the University's remarkable expansion and sustained growth over the past four decades.

Table 1.1 Distribution of students among the faculties
(As at 30.06.2025)

Name of the Faculty	No. of Students
Agriculture	1338
Engineering	2646
Fisheries and Marine Sciences & Technology	653
Humanities and Social Sciences	2852
Management and Finance	2630
Medicine	1628
Science	1791
Allied Health Sciences	1028
Technology	1222
Total student population of the University	**15788**

1.2 Location of the University

The University of Ruhuna is strategically situated on the southern coast of Sri Lanka, with its main campus located approximately 4 kilometers from the city of Matara, along the Colombo–Hambantota (A2) main road. Matara (Sinhala: මාතර Tamil: மாத்தறை) (Originally Mahathota) is a city 160 km from Colombo. Matara historically belongs to the area called Ruhuna, one of the three kingdoms in Sri Lanka.

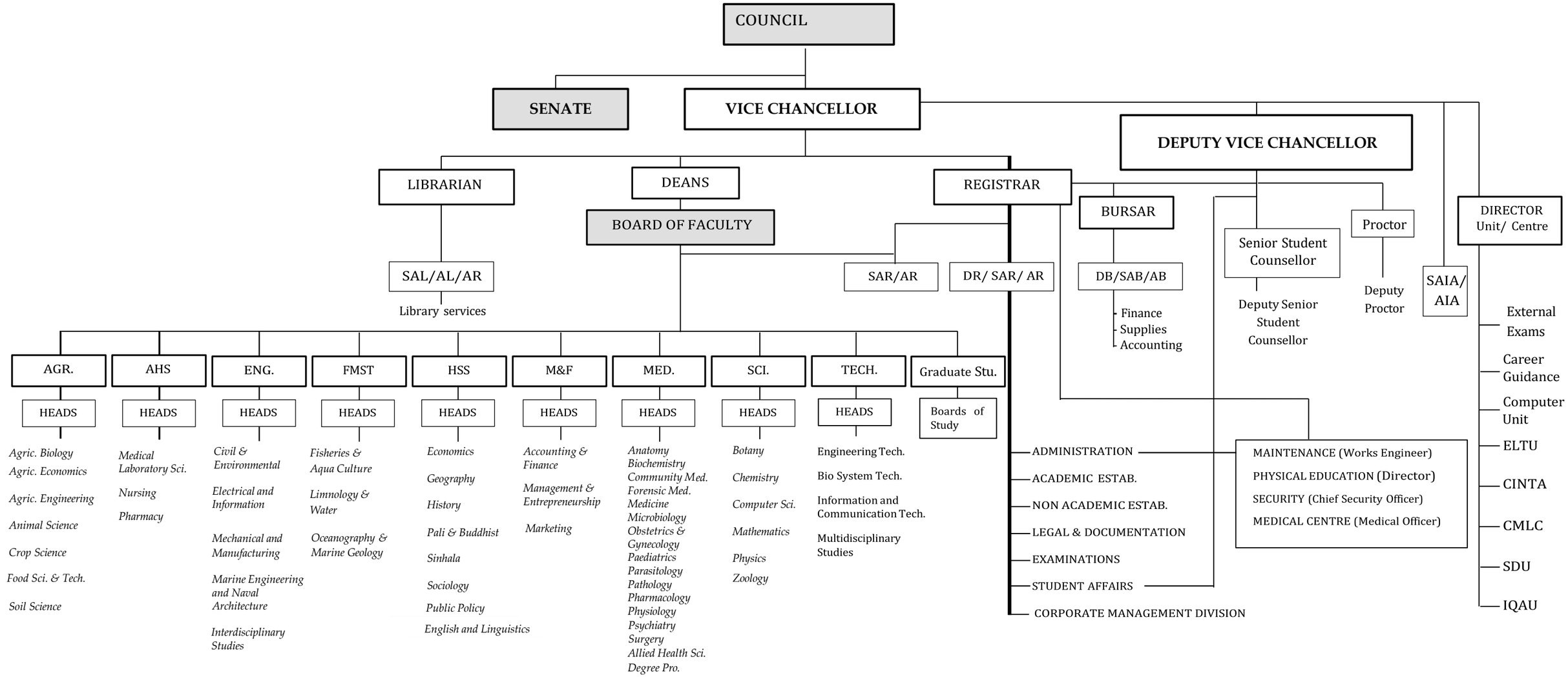
Public Transportation and Accessibility

- **By Train**: Although train services between Colombo and Matara are limited in frequency, provide a scenic journey along Sri Lanka's picturesque southern coastline, offering a comfortable and affordable travel option for passengers.

- **By Bus**: Bus transportation is highly reliable and frequent. Services are available approximately every 30 minutes, following either the traditional coastal route or the Southern Expressway.

The traditional coastal route is a longer but more scenic journey, taking roughly four hours from Colombo to Matara. In contrast, the Southern Expressway offers a much faster and more efficient mode of travel, reducing the journey time to approximately one and a half hours, seeking speed and convenience.

1.3 Organisational Structure of the University



1.4 Officers of the University

Chancellor	Ven. Dr. Akuratiye Nanda Nayake Thero
Vice- Chancellor	Senior Professor P.A Jayantha *B.Sc.(Math.), M.Sc.(Ind. Math.), Ph.D. (Comp. Math.)*
Registrar (Acting)	Mrs. C. Senevirathne *B.Sc. (Ruhuna), PDBA (Ruhuna)*
Dean, Faculty of Agriculture	Senior Professor G.Y. Jayasinghe *B.Sc. Agric. (Ruhuna), M.Sc. (Kelaniya), M.Sc. (Ryukyus, Japan), Ph.D. (Kagoshima, Japan)*
Dean, Faculty of Engineering	Prof. H.C.P. Karunasena *PhD (QUT, Australia), MSc (Moratuwa, SL), BSc Eng (Moratuwa, SL)*
Dean, Faculty of Fisheries and Marine Sciences & Technology	Prof. K.H.M.A. Deepananda *BSc (Hons) (Ruhuna, SL), MSc (Bremen, Germany), PhD (Kelaniya, SL)*
Dean, Faculty of Graduate Studies	Senior Professor. P.M.C.S.De Silva *B.Sc. Honors (Ruhuna, SL), M.Phil (Bergen,Norway), PhD (Amsterdam, The Netherlands), Post-Doctoral Fellow (Harvard Medical School, Boston, USA)*
Dean, Faculty of Humanities and Social Sciences	Mr. I. Renuka Priyantha *MPhil (Bergen), PG Dip. (Bradford), BA (Peradeniya)*
Dean, Faculty of Management and Finance	Mr. Rohan Laksiri W.M. *MSc (Agder, Norway), PDBA (Ruh, SL), BBA (Ruh, SL)*
Dean, Faculty of Medicine	Senior Professor. T.P. Weerarathna *MBBS(Ruhuna), MD (Col). FCCP, FRCP(Edin), FACP*
Dean, Faculty of Science	Prof. D.H.N. Munasinghe *BSc(Ruhuna, Sri Lanka), PhD (Deakin, Australia)*
Dean, Faculty of Technology	Prof. P.K. Subash Jayasinghe *M.Sc(Ibaraki, Japan), B.Sc (Hons)(Ruhuna, SL), PhD (Tokyo, Japan)*
Dean, Faculty of Allied Health Sciences	Prof. K.G. Imendra *BDS (Peradeniya, SL), PhD (Japan)*

Librarian	Mr. Nimal Hettiarachchi *BSc(Ruhuna), MSSc (Lib. & Inf. Science) (Kelaniya)*
Bursar (Acting)	Mr. D. L.R De Zoyza *Bsc.Accounting (Sp) USJP , ACA , M.Bus(Fin) UoK*

1.5 Contact Information of the University

1.5.1 Postal Addresses

The main administrative complex of the University of Ruhuna is situated at Wellamadama, which serves as the central hub for governance and institutional management. This location houses the key administrative offices responsible for overseeing university's strategic planning, academic coordination, financial operations, and overall organizational development.

Faculty of Fisheries & Marine Sciences and Technology, Faculty of Humanities & Social Sciences, Faculty of Management& Finance, Faculty of Science, Faculty of Graduate Studies are located in the Wellamadama.

University of Ruhuna,
Wellamadama, Matara,
81000,
Sri Lanka

Addresses of the other five campuses are as follows.

Faculty of Agriculture
University of Ruhuna
Mapalana, Kamburupitiya,
81100, Sri Lanka.

Faculty of Engineering
University of Ruhuna
Hapugala, Galle,
80000, Sri Lanka.

Faculty of Medicine
University of Ruhuna
Karapitiya, Galle,
80000, Sri Lanka.

Faculty of Technology
University of Ruhuna
Karagoda-Uyangoda,
Kamburupitiya,
81100, Sri Lanka

Faculty of Allied Health Sciences
University of Ruhuna
Narawala Road, Uluwitike,
Godakanda, Galle,
80000, Sri Lanka

1.5.2 Telephone and Fax Numbers of the University

	Telephone	Fax
Wellamadama Complex	+94(0)41222681-2 +94(0)412227001-4	+94(0)412222683
Faculty of Engineering	+94(0)912245765	+94(0)912245762
Faculty of Agriculture	+94(0)41229220	+94(0)412292384
Faculty of Fisheries and Marine Science & Technology	+94(0)412227026	+94(0)412227026
Faculty of Humanities and Social Sciences	+94(0)412227010	+94(0)412227010
Faculty of Management &Finance	+94(0)412227015	+94(0)412227015
Faculty of Medicine	+94(0)912234730	+94(0)912222314
Faculty of Science	+94(0)412222701	+94(0)412222701
Faculty of Allied Health	+94(0)912234676	+94(0)912243900
Faculty of Technology	+94(0)413006134	+94(0)413006134

1.5.3 Electronic Mail/Web

The university can be reached by electronic mail. The mail domain is *ruh.ac.lk*. The email addresses of the administration staff, academic staff and other offices are available in the University Web site: **http://www.ruh.ac.lk.**

1.5.4 Internal Telephone Numbers

Vice Chancellor	2000
Office	2101
Deputy Vice Chancellor	2001
Office	2137
Registrar	2110
Office	2109
Dean, Faculty of Fisheries and Marine Sciences & Technology	5101
Assistant Registrar	5102
Dean, Faculty of Science	4101
Assistant Registrar	4102
Dean, Faculty of Humanities and Social Sciences	3101
Assistant Registrar	3102
Dean, Faculty of Management & Finance	3901
Assistant Registrar	3902
Dean, Faculty of Technology	4501
Assistant Registrar	4502
Dean, Faculty of Graduate Studies	2147
Senior Assistant Registrar	2160
Librarian	2210
Bursar	2150
Senior Assistant Bursar (Finance)	2108
Assistant Bursar (Finance)	2103
Senior Assistant Bursar (Supplies)	2115
Deputy Registrar (General Administration)	2120
Deputy Registrar (Examinations)	2130
Senior Assistant Registrar (Student Affairs)	2135
Senior Assistant Registrar (Academic Establishment)	2144
Senior Assistant Registrar (Non-Academic Establishment)	2140
Works Engineer	2145
Director, Physical Education	2223
Director, Internal Quality Assurance Unit	2153
Medical Officer	2121
Career Guidance Unit	2132
Chief Security Officer	2126
Office	2127

Chapter

2
Faculty of Engineering

2.1 Introduction

The Faculty of Engineering of University of Ruhuna was established on 1st July 1999 at Hapugala, Galle. First batch of students was admitted on 27th March 2000. This is the third conventional Faculty of Engineering in Sri Lanka after University of Peradeniya and University of Moratuwa. The Open University of Sri Lanka has a Faculty of Engineering Technology where teaching is in the distance mode.

Admission to the Faculty of Engineering, University of Ruhuna, is subject to the University Grants Commission policy on university admissions. The present annual intake to the faculty is 540.

The Faculty of Engineering offers full-time modules leading to the Degree of Bachelor of the Science of Engineering Honours (BSc Eng. Hons), which is accredited by the Institution of Engineers, Sri Lanka (IESL).

Five academic departments in this Faculty are,

i. Department of Civil and Environmental Engineering,
ii. Department of Electrical and Information Engineering,
iii. Department of Mechanical and Manufacturing Engineering,
iv. Department of Marine Engineering and Naval Architecture,
v. Department of Interdisciplinary Studies.

The first four departments prepare students for the BSc Eng. Hons. Degree in disciplines as indicated in their titles, while the fourth department offers course modules in areas such as Mathematics, Personal Development, Humanities, Social Sciences, Economics, Finance, Management and Entrepreneurship which are considered common. Computer Engineering specialization programme is offered by the Department of Electrical and Information Engineering.

Degree modules have been developed with the aim of building undergraduate education around a central core of Fundamentals of Engineering Science and Technology modules, complemented by several General and Technical Elective modules which provide the flexibility and adaptability required in a constantly changing world.

Vision Statement - Faculty of Engineering

"To be the centre of excellence in Engineering Education and research of the nation"

Mission Statement - Faculty of Engineering

"To create opportunities for the benefit of the society in Engineering and applied technologies through education, research and associated services"

2.2 Aims of the Faculty

The primary objective of the faculty is to produce highly competent engineers of exceptional caliber who, with accumulated experience, will be capable of assuming leadership roles at the highest echelons of the profession. Engineers are expected to possess the discernment and humility to acknowledge their own limitations when confronted with advancements, while demonstrating the adaptability and pledge required to engage in lifelong learning and continuous professional development.

The programme of study offered by the faculty is dedicated to develop in each student:

- The technical and scientific skills and the creativity required to solve all aspects of engineering problems.
- An understanding of the human interaction with the environment so that the impact of engineering activity can be assessed.
- The ability to direct and manage engineering activities.
- The ability to communicate with members of other professions, administrators, workers and members of the public.
- The desire and ability for continuing self-education and reappraisal of current practice, including the ability to innovate.
- The ability to evaluate and criticise constructively one's own work and the work of other engineers.

To fulfil these aims, the students are offered well designed modules that provide:

Sound knowledge of the fundamentals of engineering science with appreciation of their application to contemporary problems.

- An understanding of the principles of the scientific method and practice in their application.
- An understanding of principles of design and practice with an appreciation of the industrial environment and the socioeconomic conditions under which the industry operates.

- Training and practice in many forms of communication.
- Training in the techniques of acquiring information by personal study, experimentation and discussion.
- An opportunity to develop creativity.

While the fundamentals of engineering remain largely unchanged, our modules also reflect the rapid changes in modern engineering advancements. As the technical aspect of the modules is not sufficient to tackle engineering problems, an opportunity is provided throughout the modules to develop the intellectual and communicative abilities among the students.

2.3 Staff and Contact Information of the Faculty Office

		Email
Dean's Office		
Dean		
Prof. H.C.P. Karunasena *PhD (QUT, Australia), MSc (Moratuwa, SL), BSc Eng (Moratuwa, SL)*		dean@eng.ruh.ac.lk
Deputy Registrar Mr. Isuru Kalpage *BSc in Finance(Sp) SJP,MA MIM,CBA*	+94 (0)91 2245764	isurukl@admin.ruh.ac.lk
Assistant Bursar Ms. Y.D.G.Jayawardena *BSc.Business Administration (Business Economics)* *Master of Professional Accounting (USJ)* *CAB II (CA Sri Lanka)*	+94 (0)91 2245763	ab@eng.ruh.ac.lk
Engineering Education Centre		
Coordinator Dr. Terrance M. Rengarasu *PhD (Hokkaido), MEng (Hokkaido), PGDip(Sustainability), PG Dip(Land System Modelling), BSc Eng(Hons) (Peradeniya)*		eec@eng.ruh.ac.lk

Library

Senior Assistant Librarian

Dr. J.J. Garusing Arachchige	jagathga@lib.ruh.ac.lk

Career Guidance Unit

Coordinator

Dr. P. Weerasinghe	weera@eie.ruh.ac.lk

Deputy Proctor

Prof. P.G.C.R. Gallage	rgallage@mme.ruh.ac.lk

Student Counselling

Deputy Senior Student Counsellor

Dr. K.C Wickramasinghe	krishan@mme.ruh.ac.lk

Student Counsellors

Prof. (Mrs.) S. N. Malkanthi	snmalkanthi@cee.ruh.ac.lk
Dr. T. M. Rengarasu	rengarasu@cee.ruh.ac.lk
Mr. H.G. Sushan Mayuranga	sushan.m@cee.ruh.ac.lk
Dr.(Mrs.) G.G.N. Sandamali	nadeesha@eie.ruh.ac.lk
Dr. P. Weerasinghe	weera@eie.ruh.ac.lk
Ms. O.G.Y.N. Gamlath	yugani@eie.ruh.ac.lk
Mr. Saahith Ahamed	saahith@eie.ruh.ac.lk
Dr. N.K. Hettiarachchi	nandita@mme.ruh.ac.lk
Dr.(Ms) Thilini M. DeSilva	muthumali@mme.ruh.ac.lk
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Mr. T.D. Jayasekera	tharindu@mena.ruh.ac.lk
Dr. W.T.G. Samantha	samantha@is.ruh.ac.lk
Dr. Kumudu Seneviratna	seneviratna@is.ruh.ac.lk
Dr. J.J. Garusing Arachchige	jagathga@lib.ruh.ac.lk

Halls of Residence

Academic Wardens

Dr. Kushan Sudheera (Male Hostels)	kushan@eie.ruh.ac.lk
Mrs. T.K.K.S. Pathmasiri (Female Hostels)	kalpani@mme.ruh.ac.lk

Sub-wardens

Mr. A.M.J.R. Wijerathne (Male Hostels)

Ms. N.W.N.P.D. Nagahawathta (Female Hostels)

Sports

Sports Advisors

Dr. Chithral Ambawatte chithral@mme.ruh.ac.lk

Dr. S.W. Seneviratne samanthi@cee.ruh.ac.lk

Instructor in Physical Education

Mr. W.P.NT. Lakmal wpntlakmal@gmail.com

Engineering Workshop

Workshop Engineer

Mr. A.G.K.M.S. Sriyantha Konarathna ssriyantha@mme.ruh.ac.lk
BSc Eng (Peradeniya)

Maintenance Engineering Unit

Work Engineer

Mr. L.R. Vithanawasm lakshitha@eng.ruh.ac.lk
BSc Eng (Ruhuna), AMIE(SL)

Telephone and Computer Network

Assistant Network Manager

Mr. T. A. M. Kalpage thilina@eng.ruh.ac.lk
BSc (Hons) IT (Computer Systems and Networking) (SLIIT)

Programmer Cum System Analyst shanthal@admin.ruh.ac.lk
Mr. Shantha Kumara
BSc (Ruhuna)

Medical Centre

Medical Officer

Dr. K.A.D. Gunarathne

Security Office

Security Inspector

Mr. M.V. Ranjith +94(0)91-2245768

2.4 Degree Programmes

The Bachelor of the Science of Engineering (BSc Eng) degree programme is a full-time course of modular structure, organised on a two-semesters-a-year system, over duration of four academic years. Examinations and evaluations are held throughout each semester. A Development programme of 8 – 10 weeks consisting of modules in Computer Applications, English, and Social Awareness is provided as a preparation for the degree programme, and all students should follow it. During the development programme, the students are expected to get used to the University-style of education, while bringing up their standard of English and Computer usage to a level required.

In the first two semesters, all students follow a common core course. The specialization modules are offered in the three major fields of study. Civil and Environmental Engineering, Computer Engineering, Electrical and Information Engineering, and Mechanical and Manufacturing Engineering, from the third semester onwards.

The medium of instruction is English. Answers at examinations and all other formal submissions shall be presented in English. All students are encouraged to apply the English language in everyday use as much as possible.

2.5 Specifications of the degree programme

2.5.1 SLQF

The Sri Lankan Qualifications Framework (SLQF) is a recognized nationally consistent framework for all higher education qualifications offered within Sri Lanka. It recognizes the volume of learning and identifies learning outcomes that are to be achieved by the qualification holders. SLQF comprises of ten levels and the descriptors of each of these levels are stated in a comprehensive manner. Since the volume of learning is considered in the SLQF, the number of credits that should be earned by students for each qualification is also given. To complete four years full time BSc Engineering Honours degree programme, a student must earn minimum 150 credits which falls to SLQF Level 7.

2.5.2 Accreditation

BSc Engineering Degree Programme conducted by Faculty of Engineering are accredited by Institution of the Engineers Sri Lanka (IESL) a signatory to the "Washington Accord" of International Engineering Alliance (IEA) which is an International Accreditation agreement for professional engineering academic degrees.

Being signatory to Washington Accord, four-year full-time degree programmes accredited by the IESL are considered as substantially equivalent to four-year degree programmes that have been accredited by other signatories to the Accord. Accordingly, graduates from the Civil and Environmental Engineering degree, Electrical and Information Engineering degree programme, Mechanical and Manufacturing Engineering degree programme, of three departments are well recognized by other signatory countries (Australia, Canada, Taiwan, Hong Kong, India, Ireland, Japan, Korea, Malaysia, New Zealand, Russia, Singapore, South Africa, Turkey, United Kingdom and the United States) as having met the academic requirements for entry to the practice of Engineering

The faculty obtained full IESL accredited status for undergraduate programmes in 2010. IESL conducted re-accreditation in 2020, and the degree programmes were granted unconditional "Full Accreditation" for next 5 years till year 2025.

Chapter

3
Academic Regulations and Procedures

3.1 Admission Requirements

All applicants for the admission to the Bachelor of the Science of Engineering Honours (BSc Eng Hons) degree programme in the Faculty of Engineering must satisfy general University admission requirements for Faculty of Engineering as laid down by the University Grants Commission (UGC), Sri Lanka and must have been selected according to the stipulated University Admission Criteria. Applicants with foreign qualifications referred for admission by the UGC will be admitted only with the consent of the Faculty Board of Engineering.

3.2 Registration

Students admitted to the faculty must register as full-time students. Registration on part time basis requires the approval of the Faculty Board. A student should pay any fees prescribed by the University and maintain registration during the period of study.

A student must register for course modules during the first week of every semester as prescribed by the Faculty Board. The student is duly informed regarding the registration procedure prior to the commencement of every semester by the administration of the Faculty of Engineering. A student is required to consult with designated Academic Advisor (section 14.2) before registration in every semester regarding the academic load (section 12.1) and the options available.

With relevant permissions, a student is allowed to add or drop modules after the registration only within the period prescribed by the Faculty Board, and the registration form should be amended accordingly.

A student may withdraw from the programme due to valid reasons for a period with the approval of the Senate on the recommendation of the Faculty Board.

3.3 Academic Calendar

The official academic calendar of dates approved by the Faculty Board is announced prior to the commencement of each academic year. A typical academic year is as follow.

Odd Semester (1st half)	7 weeks	Even Semester (1st half)	7 weeks
Mid-Semester Recess	1 week	Mid-Semester Recess	1 week
Odd Semester (2nd half)	7 weeks	Even Semester (2nd half)	7 weeks
Study Leave	1 week	Study Leave	1 week
Examination Period	2 weeks	Examination Period	2 weeks
Vacation	1 week	Industrial Training, Work Camp / Vacation	15 weeks

3.4 Orientation Programme

Developmental Programme of 8 - 10 weeks consisting of courses in Computer Applications, English, and Social Awareness is provided as a preparation for the degree programme, and all students shall follow it. Grade 'H' indicating an Excellent achievement or a grade 'M' indicating good achievement or a grade 'S' indicating Satisfactory achievement shall be awarded on successful completion of each course. A student, who receives a grade fail, 'E', shall improve it to a grade 'S'. Two repeat attempts along with supplementary sessions to improve the grade shall be offered within the first year of study. Registration for the specialisation courses shall be withheld unless all courses offered in the Developmental Programme are successfully completed by a student.

However, a student who failed the Development programme even after the repeat attempts may appeal to the Dean, Faculty of Engineering to consider for registration for specialization modules. Such appeals will be considered on a case-by-case basis based on satisfactory attendance during the Development programme and completion of 18 credits in Semesters 1 and 2. In the event that appeal is granted the student will be allowed to register for the specialization course subject to the condition specified by the Faculty Board of Engineering with the approval of the Senate.

3.5 Course Structure

The programme of study leading to the BSc Eng (Hons) degree consists of:

1. A common core course extending over the first two semesters, and
2. A specialisation course of three academic years' duration extending over the next six semesters.

In the Common Core Course, a student has to earn 36 (thirty-six) credits prescribed by the Faculty Board. In the specialisation course a student, in-addition to Core modules prescribed for the field of specialisation, will have to choose Technical Electives (TE) and General Elective (GE) modules as recommended by the Senate on the recommendation of the Faculty Board. The syllabus for each course module, mode of evaluation, examination criteria will be prescribed by the Senate on the recommendation of the Faculty Board.

3.5.1 Common Core Course

The Common Core Course offered jointly by all departments of study in the faculty consists of 15 (fifteen) modules carrying thirty-six (36) credits towards graduation requirement.

Semester 1		**Semester 2**	
CE 1101	Basic concepts in Environmental Engineering	CE 2201	Fundamentals of Fluid Mechanics
CE 1202	Introduction to Infrastructure Planning	CE 2302	Mechanics of Materials
EE 1102	Programming Fundamentals	EE 2201	Fundamentals of Electronics
EE 1301	Fundamentals of Electricity	EE 2202	Object-Oriented Programming
ME 1201	Engineering Drawing	ME 2201	Engineering Mechanics
ME 1202	Fundamentals of Thermodynamics	ME 2302	Fundamentals of Materials and Manufacturing Engineering
IS 1301	Communication for Engineers	IS 2401	Linear Algebra and Differential Equations
IS 1402	Mathematical Fundamentals for Engineers		
18 Total Credits		**18 Total Credits**	

Note: The first two letters in module number represent the department of study, first numeral stands for the semester number; second numeral stands for the credit value, and the last two numerals stand for the departmental module number.

Minimum of eighteen (18) total credits is required to register for specialization course. A student who fails any module in the Common Core Course should improve the grade to pass level (grade C) by reattempting the module as a repeater during his/her academic duration satisfying the conditions in section 12.2. Note that those who are reattempting the modules should follow the procedures mentioned in section 12.2.

3.6 Selection of Students for Different Fields of Specialisation

The selection of students to the fields of specialization will be made at the end of Semester 2 of the programme. Student should apply for their preferred field of study within the period prescribed by the Faculty Board. When the number of applicants for a field of specialization is more than the number of vacancies available, selection would be done according to the merit list based on the mean of the Semester Grade Point Average (SGPA) of Semesters 1 and 2. When calculating the mean SGPA for preparing the merit list the Grade Point Values (GPV) for Grades N and W are taken as zero.

If a student fails to obtain the minimum requirement of eighteen (18) credits due to medical or any other acceptable reason, he/she should get proper approval through the Faculty Board for the academic concession. His/her registration for the specialisation modules will be determined as in sections 3.5 paragraph 4 (above). In addition, such a student has the option to complete all modules in the next available attempt and obtain required total credits to register for a specialisation course as a first attempt candidate. In this case, the student should inform the Dean about his/her option within one week after the final date of the relevant semester examination.

When several applicants having the same Common Core SGPA are competing for a fewer number of vacancies under a specialization, tie breaking in allocation is done based on the performance in tie breaking modules. List of tie breaking modules for each department is shown below.

Civil and Environmental Engineering	CE 2201	Fundamentals of Fluid Mechanics
	CE 2302	Mechanics of Materials
Computer Engineering Specialization	EE1102	Programming Fundamentals
	EE2202	Object Oriented Programming
Mechanical and Manufacturing Engineering	ME 1202	Fundamentals of Thermodynamics
	ME 2302	Fundamentals of Materials and Manufacturing Engineering
Marine Engineering and Naval Architecture	ME 1202	Fundamentals of Thermodynamics
	ME 2302	Fundamentals of Materials and Manufacturing Engineering
Electrical and Information Engineering Specialization	EE 1301	Fundamentals of Electricity
	EE 2201	Fundamentals of Electronics

3.7 Credit Framework Policy

Each module is assigned a credit value that indicates the student's workload associated with class attendance and preparation. One credit shall typically be equivalent to academic work involved in attending one hour of lecture/two hours of seminar per week; or two to four hours of laboratory/field/design work per week, over a period of one semester. A Work Camp/Training Course of two weeks' duration or Industrial Training attachment of four weeks' duration is considered as the equivalent of one credit. The modules offered in a semester and the number of credits assigned to each module is determined by the Faculty Board and the students duly informed ahead of the commencement of that semester.

3.8 Selection of Course Units

Specialisation modules shall be offered in the five major fields of study. Civil and Environmental Engineering, Computer Engineering, Electrical and Information Engineering, Mechanical and Manufacturing Engineering. Marine Engineering and Naval Architecture. The number of students admitted to the specialisation modules will be limited by the number of places available in each specialisation. Admission of a student to a particular specialisation course is based on the student's preference and academic performance in the Common Core Course.

The core module Industrial Training is conducted outside the normal semesters, inside or outside the faculty. A minimum of five credits is required from Industrial Training to satisfy the graduation requirement.

Industrial Training comprises Industrial Training attachments, Work Camps and/or Training Modules prescribed by the Faculty Board as mandatory. A grade 'Pass-H' indicating an Excellent achievement or a grade 'Pass-M' indicating a good achievement or a grade 'Pass-S' indicating a satisfactory achievement is required to be awarded on successful completion of this module. Graduation shall be withheld if Industrial Training is not successfully completed by a student.

The Technical Elective (TE) and General Elective (GE) modules offered in any particular academic year are subject to the availability of resources and the need as determined by the Faculty Board. The modules approved by the Faculty Board and the Senate for conducting in a semester shall be announced to the students ahead of the commencement of that semester. From time to time, each department can define, with the approval of the Faculty Board, certain limiting criteria with regard to the choice of Technical and General Elective modules.

During the degree programme, a student is required to take a minimum total of 150 credits, comprising all the Core modules, a number of Technical Elective (TE) modules, General Elective (GE) modules and Industrial Training for each degree program are as indicated below.

Module type	Minimum Credit Requirement			
	Civil and Environmental Engineering	Electrical and Information Engineering	Mechanical and Manufacturing Engineering	Computer Engineering
Core Modules	130	116	127	115
Technical/General Elective Modules	14	28	17	29
Industrial Training	6	6	6	6

Technical Elective (TE) modules and General Elective (GE) modules must be chosen from the list offered by the department satisfying the accreditation requirements for an engineering degree as specified by the Institution of Engineers Sri Lanka (IESL).

A student is allowed to follow a core or an elective module, only if the student has fulfilled the prerequisites for that module and the module level is not greater than the highest semester of eligibility of the student (section 12.1), as determined by his/her Class Standing. To fulfil the requirement of prerequisites specified, a student should at least follow the module/s specified as prerequisites of a particular module before registering for said module. With relevant permission, a student is allowed to add or drop modules after the registration only within the period prescribed by the Faculty Board, and the registration form should be amended accordingly.

3.9 Attendance Requirement

By regulations, the minimum of 80% attendance for theory classes and completion of all laboratory sessions/field sessions/design sessions/work camp(s)/project(s) are required for a student to be eligible to appear for end semester examination(s) of the relevant course module. In addition, by not attending lectures and simply copying other students' lecture notes much explanation that is rarely recorded in students' notes will be missed and there is the risk of repeating any errors that might have been made by others.

3.10 Medical Certificates

Students who become absent from theory classes/ laboratory sessions/in class assessments/field/design sessions/work camp(s)/project(s)/ submission of assignments because of illness, disability or any other acceptable reason should request excuse for the absence from the relevant module coordinator providing supporting documents with the recommendation of the faculty medical doctor and academic advisor. Appeal for the excuse should be submitted within one week from the date of report to the faculty after the illness or any other acceptable reason. Submitted medical certificates should be in accordance with the Internal Circular issued by the University of Ruhuna.

3.11 By-Law of the Faculty

By-Laws of the Engineering Faculty consists of all academic related information regulations and activities. The By-Laws document is distributed among all the student in their enrolment process. All the students should aware and refer the By-Laws of the faculty to continue their studies during the academic period.

Chapter

4

Management Information System (FEMIS) Hostel Facilities and Scholarships

The FEMIS of Faculty of Engineering is an initiative taken for converting the conventional registration documenting activities to an online system for the purpose of improving the convenience of user access. This system grants access to Undergraduate/ Postgraduate Students, Dean, Head of the Departments, Academic Staff, Assistant Registrar, Librarian, Academic Supportive Staff and Non-Academic Staff. All the tasks' students must carry out involving matters related to administration can be conducted through the FEMIS online.

An account is provided for all student registered in the Faculty of Engineering. A student can access their account by entering respective username and password (which would be facilitated by the faculty administration) to the FEMIS website found through the following URL.

http://paravi.ruh.ac.lk/foenmis/index.php.

However, the students should change their password after first attempt to login to the system. Using FEMIS, students can perform following functions.

- Register for modules
- Register for semester examinations and repeat examinations
- View the registered modules
- View the results of completed modules
- View the eligibility for examinations, semester continuation and credit achievement
- View notices corresponding to modules

4.1 Registration for Modules

It is a compulsory requirement for students to register for modules in the FEMIS before the commencement of each semester. The deadline for course selection would be announced by the Engineering faculty administration (Usually one week after commencement of each semester). Students are entirely responsible for registration process. Before the deadline, students should complete the course selection process according to the guidelines given below in Phase1 to Phase3.

- Phase 1: In the 1st and 2nd semesters, all the modules been offered are compulsory modules. But from 3rd semester onwards, students should select technical and general elective modules offered by each department (given in sections 5.3, 6.4, 6.5, 7.3, and 8.3) based on their interest and credit requirements given in sections 5.4, 6.4, 6.5, 7.3 and 8.3.

- Phase 2: Once the deadline is met, the finalized course selection should be recommended by the academic advisor of the student in the FEMIS. The academic advisor would consider the factors such as workload of the students for a semester, shortages in credit achievements and any other special circumstances in which students face difficulties on continuing the academic activities. Students are advised to meet the academic advisor while approving the registration. During this process students could request the academic advisor to drop any selected modules from the list of registered modules.

- Phase 3: After the approval process, students are given another week for adding or dropping modules based on a request forwarded to the Assistant Registrar through a letter.

Before each semester registration, FEMIS would enable or disable students' ability to register for that semester depending on their achievement of minimum credit requirement to be eligible for the next semester. If the student fails to acquire the minimum number of credits at the end of the semester, they would not be able to register for the modules through FEMIS.

4.2 Registration for Examinations

When a student is registered for a particular course, the relevant student would be automatically registered to the corresponding end semester examination of the course. The examination admission would be issued to the student before the exam. However, faculty administration would cancel the registration of the course if the student does not satisfy the following requirements.

- Attain 80% attendance for lectures of the course

- Satisfy the necessary requirement for Continuous Assessment marks of the course which is specified under the module information sheet of the course.

4.3 Hostel Facilities and Policy

There are hostel facilities in the Faculty of Engineering for male and female students. All the Hostels are located inside the faculty premises. All the hostels are administered under Wardens and Sub-wardens of the faculty. The academic sub-wardens (male and female) and non-academic sub-wardens (male and female) are staying at every hostel for aiding students whenever necessary.

Hostel policy followed by the University of Ruhuna is to grant priority to first and final year students when accommodating. Hostel room vacancies, current hostel fee and other necessary information can be obtained from the Deputy Registrar, Faculty of Engineering.

4.4 Scholarships

For students with high academic achievements and/or are facing financial difficulties are assisted through scholarship schemes that are offered by the Faculty of Engineering in addition to Mahapola Higher Education Scholarships.

4.4.1 Mahapola Higher Education Scholarships

This scholarship scheme is a nationwide scholarship granted for the university students which is administered by University Grants Commission (UGC). The students should submit the completed Mahapola application (received with the university application) to the UGC. The student's parent's income, the number of siblings studying under 18 years of age, the distance from his/her home to the university and the student's rank at district level are considered when granting the scholarship. Amount and number of instalments of Mahapola scholarships is decided by the Mahapola Scholarship trust fund.

4.4.2 Bursaries

The students who were not eligible for Mahapola Scholarship scheme are given the opportunity to apply for bursaries. University administration would issue the bursary applications to all the students who gained admission to the university with their application. The same factors that were considered for Mahapola scholarship are applied for bursary selections.

4.4.3 Other Scholarships

There are several other scholarship schemes available for undergraduate students of Faculty of Engineering which are offered annually. In most cases Engineering Faculty Scholarship Committee (EFSC) is responsible for selecting the most suited and deserving candidates for the scholarships. Selection procedure for these scholarships might consider the factors such as level of the financial status, academic performance and achievement at extra-curricular activities of the students. Faculty will time to time advertise the availability and the selection criteria for the scholarships. Students are encouraged to apply.

	Scholarship Name / Scholarship Granting Institution	**Selection Criteria**
01.	Association of Sri Lankan Engineers Australia (ASLEA)	- Academic Performance - Financial Difficulties
02.	Chaya De Silva Memorial Trust Fund	- Financial Difficulties/Critical health conditions
03.	Ceylon Steel Cooperation (LANWA) (Pvt) Ltd. sponsored scholarships	- Academic Performance - For final year students of Department of Civil and Environmental Engineering
04.	Ruhuna Engineering Faculty Scholarship Foundation	- Academic Performance - Financial Difficulties - Involvement and Achievement in Extra Curricular Activities
05.	DCEE scholarships for Final Year students	- Academic Performance - Financial Difficulties - For final year students of Department of Civil and Environmental Engineering
06.	Jayamini Samaraweera Scholarship	- Financial Difficulties - For students who admitted from Matara District
07.	Chandrapala Weerakoon Scholarship	-Academic Performance - Financial Difficulties
08.	Ensina Wickramasekara Scholarship	-Academic Performance - Financial Difficulties
09.	K. G. K. Wedahitha Scholarship	- Advanced Level Examination results - Financial Difficulties - For students who admitted from Sujatha BalikaVidyalaya and WalgamaMahaVidyalaya, Matara

10.	Scholarships presented by anonymous Private Sponsors	- Financial Difficulties/Critical health conditions
11.	Chinese Ambassador Scholarships	- Financial Difficulties
12.	IESL Ruhuna Chapter	- Financial Difficulties
13.	Matara Bhodi Arakshaka Sabha	- Only the Application process is arranged through the Faculty of Engineering. Selection Criteria to be decided by the scholarship granting institution/fund.
14.	YMBA - Colombo	
15.	Scholarships offered by UGC	
16.	Scholarships offered by the Lions Club, Hikkaduwa	- Financial Difficulties

* Note: Selection criteria might change without notice.

Chapter

5

Department of Civil and Environmental Engineering

5.1 Research Areas

- Construction Materials
- Concrete Structures
- Steel Structures
- Dynamics and Vibration Control
- Geotechnical Engineering
- Highway Engineering
- Pavement Engineering
- Infrastructure Planning
- Transportation Engineering
- Hydraulics Engineering
- Hydrology
- Coastal Engineering
- Water and Wastewater Engineering
- Solid Waste Management
- Ecological Engineering
- Green Technology
- Renewable Energy
- Project Management
- Building Information Modelling
- Railway Engineering
- Disaster Management

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5.3 Modules Offered by the Department

The curriculum offered by the Department of Civil and Environmental Engineering (DCEE) includes a set of modules undergoing frequent upgrades, that caters to the emerging requirements of the state-of-the-art technologies. The curriculum is designed to comply with the Outcome Based Education (OBE) methods stipulated in the Washington Accord agreement, based on which an engineering degree is accredited by the Institution of Engineers, Sri Lanka (IESL).

5.3.1 Main Subdivisions

1. Building and Structural Engineering
2. Geotechnical and Geo-Environmental Engineering
3. Water and Environmental Engineering
4. Infrastructure Development and Management

5.3.2 Compulsory Course Modules

01.	CE3201	Concrete Technology
02.	CE3202	Construction Processes and Technology
03.	CE3303	Engineering Surveying
04.	CE3304	Fluid Mechanics
05.	CE3205	Structural Analysis I

06.	IS3301	Complex Analysis and Mathematical Transforms
07.	IS3322	Society and the Engineers
08.	CE4301	Building Planning and Cost Estimating
09.	CE4302	Design of Concrete Structures I
10.	CE4303	Engineering Geology and Soil Mechanics
11.	CE4304	Structural Analysis II
12.	CE4305	Water and Wastewater Engineering
13.	IS4301	Probability and Statistics
14.	CE5201	Building Services Engineering
15.	CE5202	Design of Steel Structures
16.	CE5303	Hydraulic Engineering
17.	CE5204	Structural Analysis III
18.	CE5205	Traffic and Transport Engineering
19.	IS5101	Engineering Ethics
20.	IS5302	Numerical Methods
21.	CE6301	Design of Concrete Structures II
22.	CE6302	Engineering Hydrology
23.	CE6303	Environmental Engineering Design
24.	CE6304	Geotechnical Engineering
25.	CE6105	Surveying Work Camp
26.	IS6301	Mathematical Modelling
27.	CE7401	Comprehensive Design Project
28.	CE7302	Construction Environmental Management
29.	CE7303	Geotechnical Engineering Design
30.	CE7204	Integrated Solid Waste management
31.	CE7205	Matrix Structural Analysis and Finite Element Method
32.	CE7606	Undergraduate Research Project
33.	CE7401	Comprehensive Design Project (Continued)
34.	CE8302	Construction Management
35.	CE8303	Highway and Pavement Engineering
36.	CE7606	Undergraduate Research Project (Continued)

5.3.3 Technical Elective Modules

Technical Elective modules are generally arranged to offer from third semester onwards. However, the Department will announce the modules to be offered semester at the commencement based on the availability of resource persons and number of students registering to follow the modules. Technical Elective modules offered by the Department of Civil and Environmental Engineering are:

CE 4251	Uncertainty in Engineering Measurement
CE 5251	Design of Timber and Masonry Structures
CE 5252	Remote Sensing and GIS
CE 5253	Advanced Surveying
CE 6251	Coastal Engineering
CE 6252	Dynamic and Control of Structures
CE 6253	Sustainable Built Environment Principles
CE 7251	Building Information Modelling for Project Management
CE 7252	Coastal and Port Engineering Design
CE 7253	Ground Improvement Techniques
CE 7254	Highway Maintenance
CE 7255	Irrigation Engineering
CE 7256	Research Methodology
CE 7257	Water Reclamation and Reuse
CE 7258	Railway Geotechnics
CE 8251	Bridge Engineering
CE 8252	Data Analysis and Interpretation in Research
CE 8253	Disaster Management
CE 8254	Ecological Engineering
CE 8255	Urban Hydrology and Hydraulics

5.4 Credit Requirement based on Subject Categories

To satisfy the IESL accreditation requirements, students should select above Technical Elective modules (TE) and General Elective modules (GE) offered by the Department of Interdisciplinary Studies or any other Department as follows.

Category	Module Code and Module Name		Minimum Credit Requirement
Engineering Sciences and Engineering Design	CE4251	Uncertainty in Engineering Measurement (TE)	Minimum **9** credits should be obtained from this category.
	CE5251	Design of Timber and Masonry Structures (TE)	
	CE5252	Remote Sensing and GIS (TE)	
	CE5253	Advanced Surveying (TE)	
	CE6251	Coastal Engineering (TE)	
	CE6252	Dynamic and Control of Structures (TE)	
	CE6253	Sustainable Built Environment Principles (TE)	
	CE7251	Building Information Modelling for Project Management (TE)	
	CE7252	Coastal and Port Engineering Design (TE)	
	CE7253	Ground Improvement Techniques (TE)	
	CE7254	Highway Maintenance (TE)	
	CE7255	Irrigation Engineering (TE)	
	CE7256	Research Methodology (TE)	
	CE7257	Water Reclamation and Reuse (TE)	
	CE7258	Railway Geotechnics (TE)	
	CE8251	Bridge Engineering (TE)	
	CE8252	Data Analysis and Interpretation in Research (TE)	
	CE8253	Disaster Management (TE)	
	CE8254	Ecological Engineering (TE)	
	CE8255	Urban Hydrology and Hydraulics (TE)	
Management, Engineering Economics and Communication	IS3321	Fundamentals of Management for Engineers(GE)	Minimum **4** credits should be obtained from this category.
	IS4224	Financial Management* (GE)	
	IS4225	Innovation Management & Entrepreneurship(GE)	
	IS4322	Basic Economics* (GE)	
	IS5123	Project Management(GE)	
	IS5211	Graph Theory (GE)	
	IS5221	Industrial Management(GE)	
	IS5222	Organizational Behaviour and Human Resource Management (GE)	
	IS6121	Industrial Law (GE)	
	IS6222	Japanese Culture and Language (GE)	
	IS7111	Computer Aided Statistics (GE)	
	IS7221	Academic English (GE)	
	IS8221	English for the Professional World (GE)	

Humanities, Social Sciences, Arts and Professional Ethics	IS4121 IS4123 IS4126 IS4227 IS4128	Appreciation of Music (GE) Digital Modelling and Animation (GE) Mindfulness(GE) Technology and Society*(GE) Industrial Sociology (GE)	Minimum **1** credit should be obtained from this category.
* Students are allowed to select these modules as GPA or Non-GPA			

5.5 Laboratory Facilities

1. Building Materials and Construction Laboratory
2. Hydraulics and Coastal Engineering Laboratory
3. Geotechnical Engineering Laboratory
4. Environmental Engineering Laboratory
5. Structural Mechanics Laboratory
6. Transportation Engineering and Surveying Laboratory
7. Computer Laboratory

Chapter

6

Department of Electrical and Information Engineering

6.1 Research Areas

- Artificial Intelligence
- Augmented and Virtual Reality
- Biomedical Engineering Applications
- Computer Systems
- Cyber Security
- Embedded Systems
- High-Performance Computing
- Human Computer Interface
- Internet of Things (IoT)
- Machine Learning
- Power Electronics
- Renewable Energy
- Sensor Fusion Techniques
- Smart Grid Technologies
- Software Engineering
- Underwater Devices and Communication
- Wireless and Radio Frequency Communication

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6.3 Study Programmes and Specializations Offered by the Department

The Department of Electrical and Information Engineering (DEIE) offers two specialization programs in (1) Electrical and Information Engineering and (2) Computer Engineering for the Bachelor of the Science of Engineering Honours degree programme. Specific details about the modules of different specialization programmes are provided in the following sections. In addition, the department also offers postgraduate study programmes leading to MPhil and PhD degrees.

6.4 Modules Offered by the Department: Electrical and Information Engineering Specialization Programme

The curriculum offered by the Department of Electrical and Information Engineering (DEIE) in Electrical and Information Engineering specialization program includes a rapidly evolving set of modules that address the emerging needs of cutting-edge technologies. The compulsory core modules focus on providing fundamental engineering knowledge and practical skills in the specialized fields of Electrical, Electronic, Telecommunication, and Information Engineering. The elective modules are designed and regularly updated to meet the latest industry requirements and technological advancements. Curriculum is structured according to the guidelines of the Outcome Based Education (OBE) system, as stipulated by the Washington Accord, ensuring that the engineering degree is accredited by the Institution of Engineers, Sri Lanka (IESL).

6.4.1 Main Subdivisions

The modules offered for Electrical and Information Engineering specialization can be further categorized into following four subdivisions based on the module contents.

1. Electric Power Engineering
2. Electronic Engineering
3. Software Engineering
4. Telecommunication Engineering

6.4.2 Compulsory Course Modules

Core modules for Electrical and Information Engineering specialization shall consist of the following:

01. EE3301 Analog Electronics
02. EE3202 Data Structures and Algorithms
03. EE3203 Electrical and Electronic Measurements
04. EE3304 Engineering Electromagnetism
05. EE3205 Power and Energy
06. EE3306 Signals and Systems
07. IS3301 Complex Analysis and Mathematical Transforms
08. IS3321 Fundamentals of Management for Engineers (GPA or NGPA)
09. IS3322 Society and the Engineers (GPA or NGPA)

10. EE4201 Analog and Digital Communication
11. EE4202 Computer Architecture and Operating Systems
12. EE4203 Database Systems
13. EE4304 Digital Logic Design
14. EE4305 Electric Machines
15. EE4206 Engineering Design Methodology
16. EE4207 Web Application Development
17. IS4301 Probability and Statistics
18. IS4322 Basic Economics (GPA or NGPA)

19. EE5201 Communication Systems
20. EE5202 Electronic Circuit Design
21. EE5203 Machine Learning
22. EE5304 Power Electronics
23. EE5305 Power Systems
24. EE5206 Software Project
25. IS5101 Engineering Ethics
26. IS5302 Numerical Methods

27. EE5206 Software Project (Continued)
28. EE6301 Computer Networks
29. EE6302 Control Systems Design
30. EE6203 Digital Signal Processing
31. EE6304 Embedded Systems Design
32. IS6301 Mathematical Modelling

33. EE7201 Design and Management of Networks
34. EE7302 Electrical Installations
35. EE7803 Undergraduate Project

36. EE7803 Undergraduate Project (Continued)
37. EE8201 Comprehensive Design Project

6.4.3 Technical Elective (TE) Modules

Under the Electrical and Information Engineering specialization programme, Technical Elective modules are offered from the fifth semester onwards with bulk of the TE modules being offered in the final two semesters (7 and 8). Students are encouraged to select the TE modules based on their specialization interest. However, the Department will announce the modules to be offered in a particular semester at the commencement of the semester based on the availability of the resource person(s) and number of students registered to follow the modules. Some TE modules relevant to Electrical and Information Engineering specialization are listed below.

EE5207	Advanced Digital Communications
EE5210	Hardware Description Language
EE5212	Operating Systems
EE5213	Power System Analysis
EE5214	Special Purpose Electric Machines
EE6305	Artificial Intelligence
EE6206	Energy Economics
EE6207	Information Security
EE6208	Introduction to Biomedical Engineering
EE6309	Renewable Energy Systems
EE6210	Wireless and Mobile Communications
EE7204	Advanced Data Communications
EE7205	Cloud Computing
EE7206	Computer Vision and Image Processing
EE7207	Electric Motor Drives
EE7208	High Performance Computing
EE7209	Optimization Techniques for Engineers
EE7210	Power Electronic Applications
EE7211	Robotics and Automation
EE7212	Telecommunication Networks
EE7213	Object Oriented Patterns and Principals
EE8102	Research Dissemination in Engineering
EE8203	Autonomous Systems and Mobile Robotics
EE8204	Big Data and Analytics
EE8205	Blockchain and Cyber Security
EE8206	Digital Control

EE8307	High Voltage Engineering
EE8208	Integrated Circuit Design
EE8209	Microwave Communication
EE8210	Optical Fiber Communication
EE8211	Power System Protection
EE8212	Smart Grid
EE8213	Software Architecture

6.4.4 Credit Requirements based on Subject Categories

To satisfy the IESL accreditation requirements and the faculty graduation requirements, students should select the above Technical Elective (TE) modules offered by the Department of Electrical and Information Engineering and General Elective (GE) modules offered by the Department of Interdisciplinary Studies in accordance with the minimum credit requirements given in the following table.

Category	Module Code and Module Name		Minimum Credit Requirement
Engineering Sciences and Engineering Design	EE5207	Advanced Digital Communications (TE)	Minimum Credit requirement is not defined in this category.
	EE5210	Hardware Description Language (TE)	
	EE5212	Operating Systems (TE)	
	EE5213	Power System Analysis (TE)	
	EE5214	Special Purpose Electric Machines (TE)	
	EE6207	Information Security (TE)	
	EE7204	Advanced Data Communications (TE)	
	EE7205	Cloud Computing (TE)	
	EE7206	Computer Vision and Image Processing (TE)	
	EE7207	Electric Motor Drives (TE)	
	EE7208	High Performance Computing (TE)	
	EE7209	Optimization Techniques for Engineers (TE)	
	EE7210	Power Electronic Applications (TE)	
	EE7211	Robotics and Automation (TE)	
	EE7212	Telecommunication Networks (TE)	
	EE8203	Autonomous Systems and Mobile Robotics (TE)	
	EE8204	Big Data and Analytics (TE)	
	EE8205	Blockchain and Cyber Security (TE)	
	EE8206	Digital Control (TE)	

Engineering Sciences and Engineering Design	EE8307 High Voltage Engineering (TE) EE8208 Integrated Circuit Design (TE) EE8209 Microwave Communication (TE) EE8210 Optical Fiber Communication (TE) EE8211 Power System Protection (TE) EE8212 Smart Grid (TE) EE6305 Artificial Intelligence (TE) EE6206 Energy Economics (TE) EE6208 Introduction to Biomedical Engineering (TE) EE6309 Renewable Energy Systems (TE) EE6210 Wireless and Mobile Communications (TE) EE7213 Object Oriented Patterns and Principals (TE) EE8213 Software Architecture (TE)	Minimum Credit requirement is not defined in this category.
Management, Engineering Economics and Communication	IS4224 Financial Management (GE) IS4225 Innovation Management and Entrepreneurship (GE) IS5221 Industrial Management (GE) IS5123 Project Management (GE) IS5222 Organizational Behaviour and Human Resource Management (GE) EC7251 Planning and Management and Carrer Pathways (GE) IS7221 Academic English (GE) IS8221 English for the Professional World (GE)	Minimum of **3** credits must be earned from any of the courses within this category.
Humanities, Social Sciences, Arts and Professional Ethics	EE8102 Research Dissemination in Engineering (TE) IS4121 Appreciation of Music (GE) IS4123 Digital Modelling and Animation (GE) IS4126 Mindfulness (GE) IS4227 Technology and Society (GE) IS6121 Industrial Law (GE)	

6.5 Computer Engineering

The newly introduced Computer Engineering specialization program is offered to cater the increasing demand for Computer Engineering graduates in the industry. Computer Engineering specialization integrates several fields of computer science and electronics engineering that is required to develop computer hardware and software with the target of addressing design, construction, implementation, and maintenance of modern computing systems and computer-controlled equipment.

Compulsory Core Modules of Computer Engineering curriculum are mainly focused on providing fundamental engineering knowledge and practice in the specialized fields of Computer, Electronic and Information Engineering. The elective modules offered by the department are designed and updated to address the evolving requirements of the industry based on novel technological advancements. Like Electrical and Information Engineering specialization, the curriculum is designed to comply with the OBE approach stipulated in the Washington Accord agreement, based on which an engineering degree is accredited by the IESL.

6.5.1 Main Subdivisions

The modules offered for the Computer Engineering specialization can be further categorized into following subdivisions based on the module contents.

1. Artificial Intelligence and Data Science Engineering
2. Embedded System Engineering
3. Networking and Cyber Security Engineering
4. Software Engineering

6.5.2 Compulsory Course Modules

Compulsory Core modules for the Computer Engineering specialization programme shall consist of the following:

01.	EC3301	Analog Electronics
02.	EC3202	Data Structures and Algorithms
03.	EC3203	Electrical and Electronic Measurements
04.	EC3404.	GUI Programming
05.	EC3305	Signals and Systems
06.	IS3301	Complex Analysis and Mathematical Transforms
07.	IS3321	Fundamentals of Management for Engineers (GPA or NGPA)
08.	IS3322	Society and Engineer (GPA or NGPA)

09.	EC4201	Advanced Data Structures and Algorithm
10.	EC4202	Computer Architecture and Operating System
11.	EC4203	Database Systems
12.	EC4304	Digital Logic Design
13.	EC4205	Software Engineering Principles
14.	EC4206	Software Testing and Quality Assurance
15.	EC4307	Web Application Development
16.	IS4301	Probability and Statistics
17.	IS4322	Basic Economics (GPA or NGPA)
18.	EC5301	Control System Design
19.	EC5202	Digital Systems Design with HDL
20.	EC5203	Machine Learning
21.	EC5204	Object Oriented Design Patterns and Principles
22.	EC5205	Operating Systems and Network Programming
23.	EC5406	Software Group Project
24.	IS5311	Discrete Mathematics
25.	EC5406	Software Group Project (Continued)
26.	EC6301	Artificial Intelligence
27.	EC6302	Computer Networks
28.	EC6303	Embedded Systems Design
29.	EC6204	Information Security
30.	EC6105	Research Methodologies
31.	IS6102	Engineering Ethics
32.	IS6303	Numerical Methods
33.	EC7802	Undergraduate Project
34.	EC7802	Undergraduate Project (Continued)

6.5.3 Technical Elective (TE) Modules

The Computer Engineering specialization offers Technical Elective modules from fourth semester onwards. Students are encouraged to select the TE modules based on their specialization interest. However, the Department will announce the modules to be offered in a particular semester at the commencement of the semester based on the availability of the resource person(s) and number of students registered to follow the modules. Some Technical Elective modules relevant to Computer Engineering specialization are:

EC5207	DevOps Engineering
EC5208	Mobile Application Development
EC5209	Wireless Communications
EC6206	Computer Vision and Image Processing
EC6207	Digital Signal Processing
EC6208	Software Architecture
EC7201	Advanced Artificial Intelligence
EC7202	Bioinformatics
EC7203	Cloud Computing
EC7204	Design and Management of Networks
EC7205	High Performance Computing
EC7206	Human Computer Interactions
EC7207	Optimization Techniques for Engineers
EC7208	Power Electronics
EC7209	Robotics and Automation
EC7210	Telecommunication Networks
EC7211	Advanced Data Communication
EC7212	Object Oriented Patterns and Principals
EC8201	Autonomous Systems and Mobile Robotics
EC8202	Big Data and Analytics
EC8203	Blockchain and Cyber Security
EC8204	Digital Control
EC8205	Functional Programming
EC8206	Integrated Circuit Design
EC8207	Renewable Energy Systems
EC8208	Virtual and Augmented Reality

6.5.4 Credit Requirement based on Subject Categories

To satisfy the IESL accreditation requirements and the faculty graduation requirements, students should select the above Technical Elective (TE) modules offered by the Department of Electrical and Information Engineering and General Elective (GE) modules offered by the Department of Interdisciplinary Studies in accordance with the minimum credit requirements given in the following table.

Category	Module Code and Module Name	Minimum Credit Requirement
Engineering Sciences and Engineering Design	EC5207 DevOps Engineering (TE) EC5208 Mobile Application Development (TE) EC5209 Wireless Communications (TE) EC6206 Computer Vision and Image Processing (TE) EC6207 Digital Signal Processing (TE) EC6208 Software Architecture (TE) EC7201 Advanced Artificial Intelligence (TE) EC7202 Bioinformatics (TE) EC7203 Cloud Computing (TE) EC7204 Design and Management of Networks (TE) EC7205 High Performance Computing (TE) EC7206 Human Computer Interactions (TE) EC7207 Optimization Techniques for Engineers (TE) EC7208 Power Electronics (TE) EC7209 Robotics and Automation (TE) EC7210 Telecommunication Networks (TE) EC7211 Advanced Data Communication (TE) EC7212 Object Oriented Patterns and Principals (TE) EC8201 Autonomous Systems and Mobile Robotics (TE) EC8202 Big Data and Analytics (TE) EC8203 Blockchain and Cyber Security (TE) EC8204 Digital Control (TE) EC8205 Functional Programming (TE) EC8206 Integrated Circuit Design (TE) EC8207 Renewable Energy Systems (TE) EC8208 Virtual and Augmented Reality (TE)	Minimum **16** credits should be obtained from this category.
Management, Engineering Economics and Communication	IS4225 Innovation Management and Entrepreneurship (GE) IS5221 Industrial Management (GE) IS5123 Project Management (GE) IS5222 Organizational Behaviour and Human Resource Management (GE) EC7251 Planning and Management and Carrer Pathways (GE) IS7221 Academic English (GE) IS8222 English for the Professional World (GE)	Minimum Credit requirement is not defined in this category.

Humanities, Social Sciences, Arts and Professional Ethics	IS4121 IS4123 IS4126 IS4327 IS6121	Appreciation of Music Digital Modelling and Animation (GE) Mindfulness (GE) Technology and Society (GE) Industrial Law (GE)	Minimum Credit requirement is not defined in this category.

6.6 Laboratory Facilities

1. Electric Machines and Power Systems Laboratory
2. High Voltage and Renewable Energy Laboratory
3. Electronics and Measurements Laboratory
4. Electronics Workshop
5. Communication and Systems Laboratory
6. Computer and Information Engineering Laboratory
7. Networking Laboratory
8. Undergraduate Project Development Laboratory

In addition, the following laboratories are proposed to be constructed in congruence with the newly introduced Computer Engineering specialization programme.

1. Computing Laboratory
2. Artificial Intelligence and Machine Learning Laboratory
3. Embedded Systems and IoT Laboratory
4. Digital Systems Laboratory
5. Innovation and Startup Lab
6. Robotics and Automation Laboratory
7. High-Performance Computing Laboratory
8. Network Engineering and Cyber Security Laboratory
9. Student Project Laboratory
10. Communications Laboratory
11. Augmented and Virtual Reality Laboratory

Chapter

7

Department of Mechanical and Manufacturing Engineering

7.1 Research Areas

- Applied Mechanics
- Automobile Engineering
- Control Systems and Engineering
- Composite Designing and Manufacturing
- Computational Fluid Dynamics
- Fluid Mechanics and Fluid Power Systems
- Industrial Engineering and Management
- Industrial Automation
- Manufacturing Engineering
- Marine Engineering
- Materials Engineering
- Mechatronics
- Nanotechnology
- Naval Architecture
- Product Design
- Renewable Energy
- Robotics
- Thermal Engineering and Energy Management

7.2 Academic Staff of the Department

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7.3 Modules offered by the Department

The Department of Mechanical and Manufacturing Engineering presently conducts BSc Engineering Honours degree programme in Mechanical and Manufacturing Engineering (MME). The Department in recent times has undergone significant changes and widened its scope to accommodate challenges of the 21st century.

The department is also offering postgraduate programmes leading to MSc., MPhil, and PhD degrees in Engineering. In year 2023, a comprehensive curriculum revision was carried out in the areas of Applied Mechanics-Control Engineering & Robotics, Industrial Engineering & Management, Materials & Manufacturing Engineering, Thermo-Fluids & Energy Engineering to accommodate the Washington Accord Accreditation needs and achieve 12 programme outcomes to match the 21st century skills requirements of Sri Lanka.

7.3.1 Main Subdivisions

1. Applied Mechanics-Control Engineering & Robotics
2. Industrial Engineering & Management
3. Materials & Manufacturing Engineering
4. Thermo-Fluids & Energy Engineering

7.3.2 Compulsory Course Modules

Core modules for Mechanical and Manufacturing Engineering specialisation shall consist of the following:

01.	ME3301	Applied Thermodynamics
02.	ME3202	Engineering Design Methodology
03.	ME3303	Fluid Mechanics
04.	ME3204	Manufacturing Processes and Practices
05.	ME3305	Metallurgy for Engineers
06.	ME3206	Strength of Materials
07.	IS3301	Complex Analysis and Mathematical Transforms
08.	ME4301	Advanced Materials Engineering
09.	ME4302	Design of Machine Elements
10.	ME4303	Manufacturing Engineering
11.	ME4304	Mechanics of Machines
12.	ME4305	Modelling and Analysis of Dynamic Systems
13.	IS4301	Probability and Statistics
14.	ME5301	Advanced Control Systems
15.	ME5302	Computer Aided Design
16.	ME5303	Mechanical Engineering Design
17.	ME5204	Production Planning and Control
18.	ME5305	Refrigeration and Air Conditioning
19.	IS5101	Engineering Ethics
20.	IS5302	Numerical Methods

21. ME6201 Advanced Fluid Mechanics
22. ME6302 Computer Aided Manufacturing
23. ME6303 Electrical Machines
24. ME6104 Industry-based Project
25. ME6305 Maintenance Management
26. ME6206 Power Hydraulics
27. ME6207 Solid Mechanics

28. ME7601 Comprehensive Design Project
29. ME7402 Final Year Project
30. ME7303 Heat and Mass Transfer
31. ME7304 Production and Operations Management

32. ME8301 Building Service Engineering
33. ME8202 Lean Manufacturing and Supply Chain Management
34. ME7601 Comprehensive Design Project (Continued)
35. ME7402 Final Year Project (Continued)

7.3.3 Technical Elective Modules

Technical Elective modules are generally arranged to be offered from third semester onwards. However, the Department will announce the modules to be offered in a particular semester at the commencement of the semester based on the availability of resource persons and number of students registering to follow the modules. Technical Elective modules relevant to Mechanical and Manufacturing Engineering course are:

ME3210 Principles and Application of Microcontrollers

ME4210 Analog and Digital Electronics
ME4211 Automobile Engineering
ME4212 Nanotechnology

ME5210 Electric and Hybrid Vehicle Engineering
ME5211 Mechatronics System Design

ME6210 Industrial Automation
ME6211 Naval Architecture and Hull Design - I
ME6212 Technical Report Writing and Presentation*
IS6301 Mathematical Modelling**

ME7210 Composite Materials Design and Manufacturing Technologies
ME7211 Computational Fluid Dynamics for Engineering Systems Design
ME7212 Energy Technology

ME7213 Mobile Robot Design
ME7214 Naval Architecture and Hull Design – II

ME8210 Aerospace Engineering
ME8211 Energy Management
ME8212 Non-Destructive Testing Applications
ME8213 Robot Manipulator Kinematics

* A Non- GPA General Elective (GE) Module offered by the Department.
** A Technical Elective Module Offered by DIS

7.3.4 Credit Requirement based on Subject Categories

To satisfy the IESL accreditation requirements and the faculty graduation requirements, students should select the above Technical Elective modules (TE) and General Elective modules (GE) offered by the Department of Interdisciplinary Studies or any other Department as follows.

Category	Module Code and Module Name	Minimum Credit Requirement
Engineering Science and Engineering Design	ME3210 Principles and Application of Microcontrollers (TE) ME4210 Analog and Digital Electronics (TE) ME4211 Automobile Engineering (TE) ME4212 Nanotechnology (TE) ME5210 Electric and Hybrid Vehicle Engineering (TE) ME5211 Mechatronics System Design (TE) ME6210 Industrial Automation (TE) ME6211 Naval Architecture and Hull Design – I (TE) ME7210 Composite Materials Design and Manufacturing Technologies (TE) ME7211 Computational Fluid Dynamics for Engineering Systems Design (TE) ME7212 Energy Technology(TE) ME7213 Mobile Robot Design (TE) ME7214 Naval Architecture and Hull Design - II (TE) ME8210 Aerospace Engineering (TE) ME8211 Energy Management (TE) ME8212 Non-Destructive Testing Applications (TE) ME8213 Robot Manipulator Kinematics (TE)	Minimum **6** credits should be obtained from this category

Management, Engineering Economics and Communication	ME6213 Technical Report Writing and Presentation (GE) IS3301 Basic Economics* (GE) IS4304 Management and Organizational Behaviours(GE) IS5302 Financial Management* (GE) IS5303 Industrial Management (GE) IS5204 Industrial Safety and Resource Management (GE) IS5205 Information Literacy and Scientific Communication Skills (GE) IS6201 Entrepreneurship and Project Management* (GE) IS8201 English for the Professional World (GE)	Minimum **7** credits should be Obtained from this category
Humanities, Social Sciences, Arts and Professional Ethics	IS3307 Society and the Engineer* (GE) IS4201 Aesthetics and Design (GE) IS4102 Appreciation of Music (GE) IS4103 Digital Modelling and Animation (GE) IS4126 Mindfulness (GE) IS4227 Technology and Society* (GE) IS4128 Industrial Sociology (GE) IS4129 History of Engineering in Sri Lanka (GE)	Minimum **4** credits should be obtained from this category

TE – Technical Elective, GE – General Elective
* Students are allowed to select these modules as GPA or Non-GPA.
All other GE modules are non-GPA.

7.3.5 Laboratory Facilities

1. Engineering Workshop
2. Engineering Materials Laboratory
3. Thermodynamics and Automobile Laboratory
4. Fluid Mechanics Laboratory
5. Applied Mechanics and Mechatronics Laboratory
6. Computer Aided Design Laboratory

Chapter

8

Department of Marine Engineering and Naval Architecture

8.1 Research Areas

- Hull Design
- Propulsion of marine vessels
- Remotely operated underwater vehicles
- Offshore energy
- Oil spill response
- Hazardous and Noxious Substance (NHS) spills
- Stability of Ships
- Ship Vibration
- Design and optimization of hull structures of ships
- Design and optimization of Refrigeration systems for Reefer ships
- Design and optimization of Air Conditioning systems for Ships
- Drag reduction in hulls
- Fluid-structure interactions
- Effect of cavitation and two-phase flow on hulls
- Fluid Power Systems
- Advanced design methodologies of ships
- Advanced joining and manufacturing simulation
- Analysis of operational risk and reliability of ships
- Design of Marine and offshore structures
- Marine renewable energy
- Structural and hydro-acoustics
- Flow-induced noise and vibration
- Development of unmanned ships
- Safety, environmental protection, and productivity in the Port
- Study of safety at liquid cargo terminals
- Safety assessment of Ports
- Protection and rescue plan for Ports
- Port and waterways safety assessment
- Marine accident analysis
- Yacht and small boat designs

8.2 Academic Staff of the Department

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05. Mr. I. H. D. Seneviratne hirun.s@mena.ruh.ac.lk

    MSc (Reading), BSc(Eng) Hons (Ruhuna)

06. Ms. R. M. A. S. Wijerathna anusara.w@mena.ruh.ac.lk

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Lecturers (Temporary):

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    BSc in Marine Engineering (Ocean University)

8.3 Marine Engineering and Naval Architecture Degree Programme

The BSc Engineering (Honors) in Marine Engineering and Naval Architecture (MENA) programme has been designed to comply with international standards and meet the requirement stipulated by International Maritime Organization (IMO) through Model Courses and STCW (Standards for Training Certificate and Watch keeping)'78 as amended.

Names of the professional modules are unique. To continuation of the marine engineering carrier up to the Certificate of Competency, the module names of professional subjects remain unchanged. The MENA program shall comply with the same requirement and regulations applied by International Maritime Organization as the course is continuously under the Inspection and Audit of the Local Administration and International Authorities.

8.3.1 Main Subdivisions

1. Marine Engineering
2. Naval Architecture
3. Shipboard Electrical, Instrumentation and Control Systems
4. Ship Design and Construction
5. Maintenance and Watch keeping
6. Shipboard Management
7. Operation and Control of ships
8. Safety in Work at Sea

8.3.2 Compulsory Course Modules

Core modules for Marine Engineering and Naval Architecture specialisation shall consist of the following:

01.	MN3201	Fundamentals of Naval Architecture
02.	MN3302	Engineering Knowledge (General) I
03.	MN3303	Engineering Knowledge (Motor) I
04.	MN3204	Maritime English – I
05.	MN3305	Hydrostatics and Stability of Marine Vehicles
06.	MN3206	Marine Engineering Drawing
07.	ME3204	Manufacturing Processes and Practices
08.	ME3206	Strength of Materials
09.	IS3302	Complex Analysis and Mathematical Transforms

10.	MN4201	Applied Thermodynamics
11.	MN4202	Maritime English - II
12.	MN4303	Marine Engineering Computer Aided Drawing
13.	MN4304	Engineering Knowledge (General) II
14.	MN4205	Mechanics of Machines
15.	MN4206	Ship Design and Construction Technology-I
16.	MN4307	Engineering Knowledge (Motor) II
17.	IS4305	Probability and Statistics
18.	MN5301	Engineering Knowledge (General) III
19.	MN5302	Engineering Knowledge (Motor) III
20.	MN5303	Marine Engineering Instrumentation and Control Systems - I
21.	MN5204	Maritime Law and Safety I
22.	MN5305	Marine Power and Shipboard Electrical Systems
23.	MN5307	Ship Design and Construction Technology -II
24.	MN6201	Application of CFD for Marine Design
25.	MN6302	Electro-Technology-I
26.	MN6303	Engineering Knowledge (General) IV
27.	MN6204	Engineering Knowledge (Motor) IV
28.	MN6205	Marine Engineering Instrumentation and Control Systems - II
29.	MN6206	Marine Engine Room Simulator Training -I
30.	MN7201	Automated Systems
31.	MN7202	Electro-Technology-II
32.	MN7303	Engineering Knowledge (General) V
33.	MN7304	Engineering Knowledge (Motor) V
34.	MN7305	Marine Engineering Instrumentation and Control Systems - III
35.	MN7406	Marine Engineering and Naval Architecture Design Project
36.	MN7205	Maritime Law and Safety II
37.	MN8201	Electro-Technology-III
38.	MN8202	Engineering Knowledge (Motor) VI
39.	MN8203	Engineering Knowledge (General) VI
40.	MN8304	Marine Engine Room Simulator Training - II
41.	MN8305	Shipboard Leadership & Management
42.	MN7406	Marine Engineering and Naval Architecture Design Project (Continued)

8.3.3 Technical Elective Modules

Technical Elective modules are generally arranged to offer from third semester onwards. However, the Department will announce the modules to be offered in a particular semester at the commencement of the semester based on the availability of resource persons and number of students registered for the modules. Some Technical Elective modules relevant to Marine Engineering and Naval Architecture are:

MN3311	Ocean and Coastal Engineering
ME3201	Engineering Design Methodology
ME3304	Metallurgy for Engineers
ME3110	Basic Concepts of Product Design
ME3211	Principles and Applications of Microcontrollers
MN4210	Analog and Digital Electronics
ME4304	Manufacturing Engineering
ME4212	Nanotechnology
MN5312	Design of Machine Elements
MN5313	Fluid Mechanics
MN6311	Heat and Mass Transfer
MN6112	Ship Hull Design and Simulation
MN7411	Individual Design Project
MN7312	Mechanical Engineering Design
MN7313	Power Hydraulics
MN8311	Floating Offshore Installations
MN8312	Small Craft Design
IS8113	Engineering Ethics (GE)

8.3.4 Credit Requirement based on Subject Categories

In order to satisfy the faculty graduation requirements and the international and local accreditation requirements, students should select the above Technical Elective modules (TE) and General Elective modules (GE) offered by the Department of Interdisciplinary Studies or any other Departments as follows,

Category	Module Code and Module Name	Minimum Credit Requirement
Engineering Science and Engineering Design	ME 3110 Basic Concepts of Product Design ME 3201 Engineering Design Methodology MN 5312 Design of Machine Elements MN 6112 Ship Hull Design and Simulation (TE) MN 7411 Individual Design Project (TE) MN 8305 Small Craft Design (TE)	Minimum **8** credits should be obtained from this category.
Humanities, Social Sciences, Arts and Professional Ethics	IS3322 Society and the Engineers (GE) IS4121 Appreciation of Music (GE) IS4123 Digital Modelling and Animation (GE) IS4126 Mindfulness (GE) IS4227 Technology and Society(GE) IS8113 Engineering Ethics (GE) IS4128 Industrial Sociology (GE)	Minimum **5** credits should be obtained from this category.

8.3.5 Laboratory Facilities

1. Naval Architecture Laboratory
2. Marine Dynamics Laboratory
3. Marine Engine Simulation Laboratory
4. Thermodynamics and Automobile Laboratory
5. Marine Engineering Instrumentation and Control Systems Laboratory
6. Ship Design and Construction Laboratory
7. Engineering Workshop
8. Engineering Materials Laboratory
9. Fluid Mechanics Laboratory
10. Applied Mechanics and Mechatronics Laboratory
11. Computer Aided Design Laboratory

Chapter

9

Department of Interdisciplinary Studies

9.1 Research Areas

- Applied Mathematics
- Applied Statistics
- Artificial Neural Networks
- English Language and Literature
- Teaching English as a Second Language
- Entrepreneurship Development of Engineering Graduates
- Financial Data Analysis
- Innovation Management
- Numerical Methods
- Organizational Behaviour
- Small Business Development
- Strategic Orientation
- Time Series Modelling and Forecasting
- Engineering Ethics
- Professional Development
- Cryptography

9.2 Permanent Academic Staff of the Department

Department of Interdisciplinary Studies		4001
Head:	hod@is.ruh.ac.lk	4000
Dr. N.M. Wagarachchi		
Senior Lecturers:		
01. Dr. W.T.G. Samantha	samantha@is.ruh.ac.lk	4203
PhD (UBD), MBA (AIT), BSc Special in Industrial Mgmt. (Hons) (Kelaniya), MIM		

02.	Dr. D.M.K.N. Senevirathna *PhD (Wuhan, China), MSc (J'Pura), BSc Special in Maths(Hons) (Ruhuna)*	seneviratna@is.ruh.ac.lk	4202
03.	Dr. (Mrs.) W.M.I. Udayanganie *PhD (Malaysia), MBA (Ruhuna), Dip in HRM (IPM), BBMgt. Special in HRM (Kelaniya),*	iresham@is.ruh.ac.lk	4205
04.	Dr. N.M. Wagarachchi *PhD (Moratuwa), MSc (Pune), BSc Special in Maths (Hons) (Colombo)*	mihirini@is.ruh.ac.lk	4206
05.	Dr. D.P.S. Wijesinghe *PhD (Moratuwa), BSc Eng (Hons) (Moratuwa), AMIESL*	praneeth@is.ruh.ac.lk	4214

Lecturers (Probationary) :

06.	Ms. R.L. Perera *PhD (Reading), MBA (AIT), BSc Special in (MIT) (Hons) (Kelaniya), PCM(CIM), FHRM(IPM)*	ranjika@is.ruh.ac.lk	4211
07.	Ms. D.D.A. Jayarathna *MTESL (OUSL), B.A. (Hons)(Kelaniya)*	dilinij@is.ruh.ac.lk	4213
08.	Ms. Swasni Randunu *M.Phil (Reading, Peradeniya), BSc. (Hons) (Peradeniya)*	randunu@is.ruh.ac.lk	
09.	Mr. D.M.S. Bandara *M.Eng (XMU, China BSc Special in Maths (Hons) (Peradeniya)*	bandaradms@is.ruh.ac.lk	

9.3 Modules Offered by the Department

The Department of Interdisciplinary Studies offers course modules in areas such as Mathematics, Personal Development, Humanities, Social Sciences, Economics, Finance, Management, and Entrepreneurship, which are considered common to all disciplines.

9.3.1 Main Subdivisions

1. Mathematics
2. Management
3. Economics
4. Personal Development

9.3.2 Compulsory Course Modules

The compulsory modules offered by the Department of Interdisciplinary Studies shall consist of the following:

1. IS1301 Communication for Engineers
2. IS1402 Mathematical Fundamentals for Engineers
3. IS2401 Linear Algebra and Differential Equations
4. IS3301 Complex Analysis and Mathematical Transforms
5. IS4301 Probability and Statistics
6. IS5302 Numerical Methods
7. IS5101 Engineering Ethics
8. IS5311 Discrete Mathematics (Core/TE)
9. IS6301 Mathematical Modelling (Core/TE)

In addition to that, the department offers IS1003: Proficiency in English [similar to UTEL-University Test of English Language] as a mandatory graduation requirement prescribed by the Faculty Board with the approval of the Senate.

9.3.3 General Elective Modules

General Elective modules offered by the Department of Interdisciplinary Studies belong to the following two categories:

GE 01: Management, Engineering Economics and Communication
GE 02: Humanities, Social Sciences, Arts and Professional Ethics

Students are required to select modules from the above two categories to satisfy the IESL accreditation requirements and the faculty graduation requirements prescribed by the department. These modules are arranged to offer as follow from the third semester onwards. However, the Department will announce what are the modules to be offered semester at the commencement of the semester based on the availability of resource persons and number of students registering to follow the modules.

The list of general elective modules offered by the department is shown below.

GE 01: Management, Engineering Economics and Communication		GE 02: Humanities, Social Sciences, Arts and Professional Ethics	
IS1301	Communication for Engineers	IS3322	Society and the Engineers
IS3321	Fundamentals of Management for Engineers	IS4121	Appreciation of Music
IS4322	Basic Economics	IS4123	Digital Modelling and Animation
IS4224	Financial Management	IS4126	Mindfulness
IS4225	Innovation Management & Entrepreneurship	IS4227	Technology and Society
IS5221	Industrial Management	IS4128	Industrial Sociology
IS5222	Organizational Behaviour and Human Resource Management	IS5101	Engineering Ethics
IS5123	Project Management		
IS6121	Industrial Law		
IS7221	Academic English		
IS7122	Business communication for Engineers		
IS8221	English for the Professional World		
24 Total Credits		**10 Total Credits**	

9.3.4 Technical Elective Modules

The Technical Elective modules offered by the Department of Interdisciplinary Studies shall consist of the following:

IS5311 Discrete Mathematics (Core/TE)

IS5211 Graph Theory (TE)

IS6301 Mathematical Modelling (Core/TE)

IS7111 Computer-Aided Statistics (TE)

9.4 Laboratory/ Service Facilities

1. **Computer Centres**

   To enhance the competency in information technology of the engineering undergraduates there are two Computer Centres have been established.

   Computer Centre I (New CC)

   Computer Center I is currently well equipped with 280 personal computers along with internet facilities with the aim to provide quality ICT services.

   Computer Centre II (Old CC)

   Computer Center II is currently well equipped with 146 personal computers along with internet facilities with the aim to provide quality ICT services.

   An online reservation system is available for the reservations of the Computer Center.

2. **Seminar Room**

   The Seminar room is equipped with built- in data projection and facilitates audio facilities. It enables to accommodate 125 students. Seminar Room is available for other departments of the faculty. Reservation has to be made in advance with the approval of the Head/ Department of Interdisciplinary Studies.

Chapter

10
Learning Resources

10.1 Library

The library plays an important role in supporting self-learning at the University. It is the main source of information for finding out things and all students must make a habit of using the library regularly. The Faculty of Engineering library meets the basic needs of students and the academic staff, and contains textbooks, CDs, geographical maps, standards, and periodicals in the fields of Civil, Electrical, Mechanical, Marine Engineering and Interdisciplinary subjects such as Mathematics, Management, Communication, Literature and Natural Sciences. All students are required to get themselves registered at the library to make use of its borrowing facilities.

Please log on to the http://www.eng.ruh.ac.lk for more information regarding the library.

10.2 Engineering Education Centre

There are two primary responsibilities attached to the Engineering Education Centre (EEC). (1) Planning, supervising and coordinating the Industrial Training for undergraduates; (2) Planning, organizing and conducting the Development Programme for the new engineering undergraduates.

Industrial Training is a compulsory element of the undergraduate curriculum at the Faculty of Engineering, University of Ruhuna. The EEC is responsible for planning, coordinating in liaison with the National Apprentice and Industrial Training Authority (NAITA) and supervising the Industrial Training. Successful completion of the Industrial Training Programme is a mandatory requirement for graduation.

The Development Programme, which consists of English, Computer Awareness, Social Awareness modules, is conducted annually for the new undergraduates before the start of academic semester 1 of the engineering degree programme. Aim of the Development Programme is to help new undergraduates understand the nature of the University, the educational opportunities available to them, the values and functions of the University community, while bringing them up to a minimum required standard on English and Computer usage so that they can be successful in the years to come.

10.3 English Language Teaching Unit

English Language Teaching Unit (ELTU) attached to the Faculty of Humanities and Social Sciences is located in University of Ruhuna, Matara. It is common to all the students in all the faculties of the university since English as a compulsory constituent of respective degree programmes. Currently, the English Intensive Course under the Orientation Programme is conducted by the ELTU. It offers academic programmes aiming at developing undergraduate's reading, writing, listening and speaking skills based on their academic fields.

10.4 Physical Education Unit

The main aim of the Physical Education Unit (PEU) is to produce graduates with good physical and mental standing who possess good leadership qualities and obey common decisions and the law of the Nation. To fulfil the above aim, the unit conducts many physical education and sports activities. The unit is advised by a sports advisory board, which consists of officials of the unit and two academics from each of the Faculty. The organizational structure of the PEU is given in Figure 10.1.

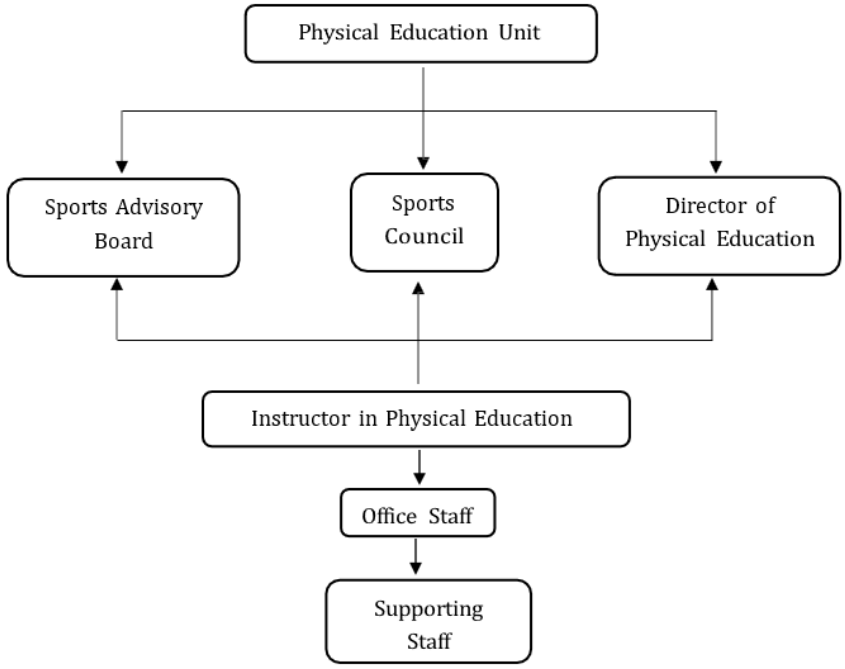

Figure 10.1 Organisational Structure of Physical Education Unit

Chapter

11
Sports and Recreation

All sports and recreational activities are conducted by the Physical Education Unit of the Faculty. The staff of the physical education unit is mentioned below.

Designation	Name	Contact Details
Director	Mr. P.N. Weerasinghe Physical Education Unit, University of Ruhuna, Matara	phyedu@admin.ruh.ac.lk
Sports Advisory Board Members (Academic)	Dr. Chithral Ambawatte Department of Mechanical and Manufacturing Engineering	chithral@mme.ruh.ac.lk
	Dr. S.W. Seneviratne Department of Civil and Environmental Engineering	samanthi@cee.ruh.ac.lk
Instructor (Non-Academic)	Mr. W.P.NT. Lakmal	wpntlakmal@gmail.com

The Physical Education unit is located at the top floor of the faculty canteen. The sports instructor is available in the office in weekdays from 8.30 am to 4.30 pm.

11.1 Available Sports in the Faculty

Students can take part in various indoor and outdoor sports in the Faculty of Engineering. Outdoor sports activities are carried out at the faculty playground and the indoor sports are carried out in the faculty gymnasium and the indoor facility available at the upper floor of the faculty canteen.

Outdoor Sports

- Basketball (Men/Women)
- Volleyball (Men/Women)
- Swimming (Men/Women)
- Athletics (Men/Women)
- Hockey (Men/Women)
- Elle (Men/Women)
- Cricket – Hardball (Men)
- Cricket – Softball (Women)
- Football (Men)
- Baseball (Men)
- Road Race (Men)
- Rugby (Men)
- Tennis (Men/Women)
- Kabaddi (Men/Women)
- Rowing (Men/Women)
- Netball (women)

Indoor Sports

- Badminton (Men/Women)
- Table Tennis (Men/Women)
- Weightlifting (Men/Women)
- Chess (Men/Women)
- Taekwondo (Men/Women)
- Karate (Men/Women)
- Carom (Men/Women)
- Wrestling (Men)
- Scrabble (Men/Women)
- Powerlifting (Men/Women)

11.2 Sports Tournaments

The university is organizing several sports tournaments throughout the year. In addition, university level tournaments are organized by Sri Lanka University Sports Association (SLUSA).

- **Fresher's Sports Meet**

This tournament is organized among the first-year students in all faculties in University of Ruhuna for the purpose of discovering talented students in sports to make the selections for the faculty teams at the earliest stages of their university life.

- **Inter-Faculty Sports Tournament**

The Inter-faculty tournaments are organized within the university among faculties for each year. The faculty teams are selected based on the performance at faculty level selection games organized by the physical education unit of the faculty.

- **Inter-University Sports Championship**

Games are organized in between Sri Lanka University Games and conducted at different universities depending on the type of sport.

The university teams are selected from a pool of players based on performances and skills demonstrated during Inter-Faculty games. The selected players for university teams are eligible for subsistence's and allowances granted from the university.

- **Sri Lanka University Games (SLUG)**

The SLUG is a major sporting event that is being organized by SLUSA. SLUG tournaments are held once in three years with the participation of all the universities in the country. This tournament is hosted by a selected university, and most of the games are held there within a span of months.

In addition, winners of the SLUG and Inter-University Championship are given the opportunity to represent the country as university undergraduates in international tournaments such as Asian University Championship and World University Games, which are held once every two years.

11.3 Sports Facilities

The Engineering faculty is equipped with a novel gymnasium and a playground located near the vicinity of the faculty for carrying out indoor and outdoor sports. The upper floor of the faculty canteen is used as the physical fitness unit along with the weightlifting equipment, which is also facilitating carom, chess and table tennis. The coaching is available for university level teams and sometimes, services of an external coach / trainer is sought out on part time basis.

The university is granting special facilities for students who are representing the university team / pool in university level tournaments. Sports equipment and gear are available for them freely for playing. A subsistence of LKR. 500 is paid per day when a student participates in an event held outside the University. For team events, the required clothing is provided to students at a cost of only 20% of the value. If the student is representing several sports, the cost would be charged only once. For practice sessions of Inter University Championships, the University provides an amount of LKR. 50 per day per student as a nourishment allowance.

11.4 Colours

There are two types of colours awarded for university students who are engaging and demonstrating exceptional talent in sports activities.

- **University Colours**

University colours are awarded in Colours Award Ceremony of the university, which is held once in every two years. The students who excelled at the inter-university level competitions at certain sports are eligible to receive the university colours.

- **Sri Lanka University Sports Association (SLUSA) Colours**

The SLUSA colours are awarded to sportsman and sportswoman in universities who show unprecedented talent at university level. A sub-committee would be formed by SLUSA for each sport for selecting the soothing candidates for colours. The skill level, commitment and achievements of sportsman would be assessed by the appointed sub-committees. This award is considered as the highest achievement a university level sportsman could receive in Sri Lanka.

Chapter

12
Examinations

12.1 Academic Load, Class Standing and Attendance

The normal academic load of a full-time student in a semester shall be 18 credits. With the approval of the Academic Advisor, a student is permitted to take a maximum of 6 credits above or below the normal semester academic load. A student may, with valid reason, follow an academic load beyond the above limits, after obtaining approval of Faculty Board, given on the recommendation of the student's Academic Advisor.

Students can use the Faculty Online Registration System; FoEMIS at the beginning of each semester to register modules in that semester. Registration for a particular semester and class standing depend upon the total number of credits earned by a student at the end of the preceding semester.

The class standing for the specialization areas of Civil and Environmental Engineering, Mechanical and Manufacturing Engineering, Marine Engineering and Naval Architecture is determined by the cumulative number of credits a student has acquired by the end of the preceding semester as follows.

Total Credits	Class Standing	Semesters of Eligibility
0-17	I	1,2
18-61	II*	1,2,3,4
62-95	III	1,2,3,4,5,6
96 or more	IV	1,2 3,4,5,6,7,8

The class standing for the specialization programs of Electrical and Information Engineering and Computer Engineering is determined by the cumulative number of credits a student has acquired by the end of the preceding semester as follows.

Total Credits	Semesters of Eligibility
0-17	1,2
18-90*	1,2,3,4,5,6
91 or more	1,2 3,4,5,6,7,8

Notes:

1. To reach Class Standing II a student shall have successfully completed the Development Programme.

2. When calculating the total number of credits for the eligibility of the semesters, the credits earned from the elective modules (TE and GE) are calculated in order to satisfy only the minimum credits requirements for the elective's modules prescribed by relevant degree offering Department.

Once registered for a module, they are required to attend all the lectures, laboratory classes, tutorials, continuous assessments, etc. which are parts of that module. The minimum of 80% attendance for theory classes and completion of all laboratory sessions/field sessions/design sessions/work camp(s)/project(s) are required for a student to be eligible to appear for the end semester examination(s) of the relevant course module. In case of Industrial Training, attendance is required as prescribed in the Industrial Training Manual.

12.2 Evaluation and Grading

The module coordinator, lecturers/ examiners for each module conducted in a semester shall be nominated by the Faculty Board and approved by the Senate. A committee comprising of the module coordinators and lecturers/ examiners for all modules under the supervision of the Head of the relevant Department, is responsible for evaluating the performance of a student in all modules offered by the Department and for issuing the respective grade. The Board of Examiners comprising examiners/ lecturers and coordinators of all modules and the Heads of the Departments relevant to the specialisation/ level of the course shall meet at the end of each semester and decide on the performance/ class standing of each student.

The performance of a student shall be evaluated for each course module as prescribed by the Senate on the recommendation of the Faculty Board subject to eligibility requirements stipulated in the Rules and Regulations. The evaluation of a Core module, a Technical Elective (TE) module and a General Elective (GE) module which is counted for Grade Point Average (GPA) shall be expressed by a letter grade on a 4.0 grading scale according to given marks range as described below.

Marks Range	Grade	Grade Point Values (GPV)	Notes
85 - 100	A+	4.0	1
75 - 84	A	4.0	
70 - 74	A-	3.7	
65 - 69	B+	3.3	
60 - 64	B	3.0	
55 - 59	B-	2.7	
50 - 54	C+	2.3	
45 - 49	C	2.0	2
40 - 44	C-	1.7	3
0 - 39	E	0.0	4,5

Grade	Reason	Note
MC	Academic Concession for medical reasons	6
AC	Academic Concession other reasons except medicals	7
WH	Results Withheld	8

Notes:

1. Grade A+ signifies superior performance.
2. Grade C or above is the normal requirement to pass a module.
3. Grade C- is a conditional pass grade and is counted in the calculation of the Semester Grade Point Average (SGPA). In the proper attempt, students can earn credits for C- grades only if he/she has achieved a SGPA of 2.00 or above and has, in that semester, no more than three grades at the level of C- or below. In the repeat attempts, students cannot earn credits for C- grades. A student may improve a grade C- to the highest possible grade of C by repeating the module. Except grade C- other grades obtained in the A, B and C category cannot be improved by repeating the module.
4. Grade E signifies failure in the module. In order to complete the module, a student shall repeat the module. The grade is counted in the calculation of the Semester Grade Point Average (SGPA).
5. The Continuous Assessment marks shall be carried forward up to maximum of two consecutive academic years (except the proper attempt) and shall only be replaced with improvement by reattempting. Improved Continuous Assessment marks shall be eligible for the improvement of overall grade to the highest possible grade of C.
6. Grade MC signifies Academic Concession for medical reasons which enables the student to repeat the module as the first attempt. In such case, SGPA will not be calculated.

7. Grade AC signifies Academic Concession for reasons other than medicals considered under Note 6 which enables the student to repeat the module as the first attempt. In such case, SGPA will not be calculated.
8. Grade WH signifies Results Withheld. In such a case, SGPA will not be calculated.

General Elective (GE) modules that are not evaluated based on the Four Point Grading System and Industrial Training are not counted towards SGPA. Upon successful completion of each of these modules, a grade 'Pass-H' indicating a Excellent achievement or a grade 'Pass-M' indicating a good achievement or a grade 'Pass-S' indicating a satisfactory achievement is awarded according to the given marks range as shown below. A student who receives a failure grade 'Fail-E' may improve it to a grade 'Pass-S' by repeating the module. The grades MC, AC or WH may also be assigned to these modules. However, individual Departments may, from time to time, allow the students the option of taking a number of General Elective (GE) Modules which are counted for GPA, in which case, their evaluation shall follow the procedure laid out in second paragraph of section 11.2.

Marks Range	Grade	Description
75 - 100	H	Excellent
60 - 74	M	Good
45 - 59	S	Satisfactory
0 - 44	E	Fail

The Continuous Assessment component may include marks from one or more of the following: class participation, marked assignments, laboratory/field reports, project(s) work, seminars, and in-class assessments. The minimum of 80% attendance in the proper attempt for theory classes and completion of all laboratory sessions/field sessions/design sessions/work camp(s)/project(s) are required for a student to be eligible to appear for the end semester examination(s) of the relevant course module. In case of Industrial Training, attendance is required as prescribed in the Industrial Training Manual. The mode of assessment and the distribution of weight between continuous assessment and end-of-semester examination for each module shall be determined by the Senate on the recommendation of the Faculty Board.

Outline of the module, class activities, assignments, examinations and weights assigned shall be announced to the students by the coordinator/lecturer-in-charge at the commencement of the module.

A student who has missed an end-of-semester examination because of illness or other acceptable reason should immediately inform the Dean by a telegram and may appeal with supporting documents to the Dean for an Academic Concession within one week from the date of report to the faculty. An Academic Concession (grade MC or AC) shall require the approval of the Faculty Board. Medical certificates submitting for his/her claim for an Academic Concession should be in accordance with the Internal Circular issued by the University of Ruhuna for submitting medical certificates.

The highest grade obtainable at a repeat attempt is the Grade C (or Pass-S, as the case may be) except when an Academic Concession has been granted. Every grade shall be entered on the student's permanent record. The grade at the first attempt and the improved grade earned at a subsequent attempt, if any, shall be recorded alongside the number of attempts for each module.

All repeat students shall pay the prescribed fee, and receipt should be attached to registration form.

12.3 Semester Grade Point Average

The grade earned by a student for any Core Module, Technical Elective Module or General Elective Module which is counted for GPA shall be converted into Grade Point Value (GPV) according to section 12.2 above. The calculation of the Semester Grade Point Average (SGPA) shall be based on the summation of Grade Point Values earned for all modules registered in the semester for credits, weighted according to the number of credits as in Equation 12.1.

$$SGPA = \frac{\sum_{j=1}^{n} c_j GPV_j}{\sum_{j=1}^{n} c_j} \qquad \text{Equation (12.1)}$$

Where, n is the number of registered GPA modules, C_j is the number of credits allocated to j^{th} module and GPV_j is the Grade Point Value earned for j^{th} module for the particular semester.

The Semester Grade Point Average shall not be calculated if grade MC, AC or WH is received. The Semester Grade Point Average is rounded up to the nearest second decimal. The SGPA is reported on transcripts and Statement of Results.

12.4 Academic Dishonesty

Students are expected to act with full integrity in all academic endeavours: any use of words, formulas or ideas that are not one's own must be acknowledged whether the source is a book, an article, the internet, a lecture, or a peer.

Providing or receiving unauthorized help on papers, examinations or other academic work is also a violation of the University's policies on academic integrity.

The consequences of cheating, plagiarism, unauthorized collaboration and other forms of academic dishonesty are serious, which, if proven, could result in the student's suspension or expulsion from the University.

12.5 Graduation Requirements

To be admitted to the degree of the Bachelor of the Science of Engineering Honours (BSc Eng. Hons) a student shall satisfy the following requirements:

1. A minimum total of 150 credits that comprising all the Core modules, several Technical Elective (TE) modules, General Elective (GE) modules and Industrial Training satisfying the conditions in section 12.2 as relevant.
2. Technical Elective (TE) modules and General Elective (GE) modules must be chosen from the list offered by the relevant Department satisfying the accreditation requirements for an engineering degree as specified by the Institution of Engineers, Sri Lanka (IESL).
3. Completion of the Development programme, Industrial Training, and English Language Proficiency Test, and any mandatory requirements prescribed by Faculty Board with the approval of the Senate. Proficiency in English Test may include UTEL (University Test of English Language) or any equivalent examination conducted by the Faculty of Engineering, to evaluate reading, writing, listening, and speaking skills with a pass mark equivalent to International English Language Testing System IELTS 5.0 (academic test) or equivalent. As an encouragement for students to test their English language skills with internationally renowned testing platform for English language, those students with scores above IELTS 5.0 (academic test) for all components of reading, writing, listening and speaking skills, or equivalent grade of any other renown Equivalent English Language test qualification, e.g. TOEFL (Test of English as Foreign Language), upon independent recording of results, may apply for exemptions for English proficiency test conducted by the Faculty of Engineering. Completion of the Development programme, Industrial Training and any other mandatory requirements prescribed by the Faculty Board with the approval of the Senate.
4. A Grade Point Average (GPA) not less than 2.00.
5. Completion of all programme requirements to the satisfaction of the Senate within a period of four academic years from the commencement of the common core course.

6. A residence requirement of four academic years as a duly registered full-time student of the University.
7. A student shall be deemed to be eligible for the award of the degree of the BScEngHons with a class by satisfying following requirements.

GPA Value	Class Awarded
GPA $\geq$ 3.70	First Class
3.30 $\leq$ GPA < 3.70	Second Class Upper Division
3.00 $\leq$ GPA < 3.30	Second Class Lower Division

Notwithstanding the above provisions, individual cases may be dealt with on the basis of their own merits by the Faculty Board with the approval of the Senate on the recommendation of the Board of Examiners.

Cumulative Grade Point Average (CGPA)

The grade earned by a student for any Core Module, Technical Elective Module or General Elective Module which is counted for GPA shall be converted into Grade Point Value (GPV) according to section 12.2 above. The calculation of the Cumulative Grade Point Average (CGPA) shall be based on the summation of Grade Point Values earned for all modules registered for credits, up to the time of calculation, weighted according to the number of credits and module weight as in Equation 12.2.

$$\text{CGPA} = \frac{\sum_{i=1}^{n} w_i C_i \, \text{GPV}_i}{\sum_{i=1}^{n} w_i C_i} \qquad \text{Equation (12.2)}$$

n is the number of modules with an earned GPA up to the time of calculation, C_i is the number of credits allocated to i^{th} module,

$$w_i = \begin{cases} 0.05 \text{ weight for } i^{th} \text{ module in semesters } 1, 2 \\ 0.15 \text{ weight for } i^{th} \text{ module in semesters } 3, 4, 5, 6, 7, 8 \end{cases}$$

GPV_i is the Grade Point value earned for the i^{th} module.

The Cumulative Grade Point Average shall not be calculated if grade MC, AC or WH is received. The Cumulative Grade Point Grade Point Average is rounded up to the nearest second decimal place.

Grade Point Average(GPA)

The Grade Point Average (GPA) is the CGPA calculated at the end of the degree program after fulfilling all the graduation requirements in Section 12. The Grade Point Average (GPA) is calculated at the end of the student's study programme in the faculty, by considering all the core modules, Technical Elective (TE) modules and General Elective (GE) modules which are counted for GPA, optimized for maximum value of GPA using Equation 12.3. If the number of Technical Elective and General Elective (counted for GPA) modules completed by a student exceeds the requisite number, the excessive number of modules is selected and removed in GPA calculation to maximize the GPA.

$$\text{GPA} = \frac{\sum_{i=1}^{n} w_i C_i \, \text{GPV}_i}{\sum_{i=1}^{n} w_i C_i} \qquad \text{Equation (12.3)}$$

n is the number of modules with an earned GPA up to the end of study period, C_i is the number of credits allocated to i^{th} module,

$$w_i = \begin{cases} 0.05 \text{ weight for } i^{th} \text{ module in semesters } 1, 2 \\ 0.15 \text{ weight for } i^{th} \text{ module in semesters } 3, 4, 5, 6, 7, 8 \end{cases}$$

GPV_i is the Grade Point value earned for the i^{th} module.

A student shall not qualify for the award of the BSc Eng. Hons degree if the graduation requirements are not satisfied within eight academic years from the time of admission to the Common Core Course except with the consent of the Senate on the recommendation of the faculty.

12.6 Maximum Allowed Duration of Study

A student shall not qualify for the award of the BSc Eng. Hons degree if the graduation requirements given are not satisfied within eight academic years from the date of commencement of the programme of study. Under medical reasons, with the recommendation of Faculty Board, the Senate may grant permission to extend maximum allowed duration of study. Under exceptional circumstances other than medical reasons, the Senate may grant permission to extend the maximum allowed duration of study by not more than one additional academic year on the recommendation of the faculty.

12.7 Effective Date of Award

The effective date of the degree shall be the date following the last day of the final evaluation conducted by the faculty when the student fulfils all the requirements for graduation.

Chapter

13
Awards and Medals

University of Ruhuna and Faculty of Engineering has many awards and medals for students performing well in academic activities and other external activities. University will call application from the eligible candidates from time to time and the students are encouraged to apply.

13.1 Annual Students Awards

Vice Chancellor's and Dean's Awards shall be awarded annually to the students with the best overall performances in the Faculty of Engineering. Full time undergraduate students who achieve prescribed criteria by the Senate for the evaluation of awards, and have no disciplinary actions against them, are eligible for awards. Only the Vice Chancellor's Award shall be noted on students' academic transcript.

13.2 Gold Medals

Recipients of Gold Medals are recommended by the Faculty Board of Engineering considering the overall academic performance during the course and will be awarded at the convocation ceremony.

Ronnie De Mel Gold Medal – Awarded for the best Engineering Graduate who obtained the highest Overall Grade Point Average with the First Class Honours.

Lambert Weerasekara Memorial Gold Medal - Awarded for the Best Engineering Graduate who obtained the highest Overall Grade Point Average with a First Class Honours in the Civil and Environmental Engineering Degree Programme.

Dr. A.D.V. Premaratne Memorial Gold Medal- Awarded for the Best Engineering Graduate who obtained the highest Overall Grade Point Average in the Department of Electrical and Information Engineering.

S.D. Jayasundere Memorial Gold Medal - Awarded for the Graduate who qualifies for the Degree of Bachelor of the Science of Engineering with the best performance in the best final year undergraduate project in the Department of Electrical and Information Engineering.

Mr. Colombapatabandige Jinasena Memorial Gold Medal -Awarded for the Graduate who qualifies for the Degree of Bachelor of the Science of Engineering specialized in Mechanical and Manufacturing Engineering with at least a Second Class (Upper Division) Honours, securing the highest Overall Grade Point Average.

Rupasinghe Annasiwaththa Gold Medal and Cash Award - Awarded for the Graduate who obtained the highest marks for the final year project from the Department of Mechanical and Manufacturing Engineering and have obtained a grade of A in the 4-point grading system for the final year project.

13.3 Best Student Awards

The certificates are awarded to the Grandaunt who excels in the identified areas in each Engineering Degree Programme.

13.3.1 Department of Civil and Environmental Engineering

Award Categories

- Best Student in Structural Engineering
- Best Student in Geotechnical Engineering
- Best Student in Hydraulics and Environmental Engineering
- Best Student in Surveying and Transportation Engineering
- Best Student in Building and Construction Management
- Best Undergraduate Researcher

Module Distribution for each Award Category

Best Student in Structural Engineering	
CE3201	Concrete Technology
CE3205	Structural Analysis I
CE4302	Design of Concrete Structures I
CE4304	Structural Analysis II
CE5202	Design of Steel Structures
CE5204	Structural Analysis III
CE6301	Design of Concrete Structures II
CE7205	Matrix Structural Analysis and Finite Element Methods

Best Student in Geotechnical Engineering	
CE4303	Engineering Geology and Soil Mechanics
CE6304	Geotechnical Engineering
CE7303	Geotechnical Engineering Design
Best Student in Hydraulics and Environmental Engineering	
CE3304	Fluid Mechanics
CE4305	Water and Wastewater Engineering
CE5303	Hydraulic Engineering
CE6302	Engineering Hydrology
CE6303	Environmental Engineering Design
CE7204	Integrated Solid Waste Management
CE7302	Construction Environmental Management
Best Student in Surveying and Transportation Engineering	
CE3303	Engineering Surveying
CE5305	Traffic and Transport Engineering
CE6105	Surveying Work Camp
CE8303	Highway and Pavement Engineering
Best Student in Building and Construction Management	
CE3202	Construction Processes and Technology
CE4301	Building Planning and Cost Estimating
CE5201	Building Services Engineering
CE7401	Comprehensive Design Project
CE8302	Construction Management
Best Undergraduate Researcher	
CE7606	Undergraduate Research Project

Selection Criteria

Selection of students to the above award categories is done as shown below :

The students with the highest DGPA (Divisional Grade Point Average) in each award categories will be awarded the best student certificate for that category.

The calculation of DGPA is based on the summation of Grade points (GP) earned for each module, which belongs to that award category, weighted according to the number of credits using the following equation:

$$DGPA = \frac{\sum_{i=1}^{n} C_i GP_i}{\sum_{i=1}^{n} C_i}$$

In which

C_i – Credit value of ith module
GP_i – Grade Points earned for the ith module
n – Number of modules in the award category

If the highest DGPA is achieved by two or more students in a particular award category, then the students with the maximum number of A+ earned for the modules in that category will be given the award. If the number of A+ are equal, the number of A, A-, B+, B, B-, C+, C will be considered in that order and will be awarded to the student with higher grades. If still equal, the student with the highest OGPA will be qualified to receive the certificate. In case, the OGPAs are identical, the students with the identical OGPAs will jointly be awarded.

13.3.2 Department of Electrical and Information Engineering

Award Categories: Electrical and Information Engineering Specialization

- Best Student in Electric Power Engineering
- Best Student in Electronic Engineering
- Best Student in Information Engineering
- Best Student in Research and Development (EIE)
- Best Student in Telecommunication Engineering

Module Distribution for each Award Category

Best Student in Electric Power Engineering	
EE1301	Fundamentals of Electricity
EE3205	Power and Energy
EE4305	Electric Machines
EE5304	Power Electronics
EE5305	Power Systems
EE5213	Power System Analysis (TE)
EE5214	Special Purpose Electric Machines (TE)
EE6302	Control Systems Design
EE6206	Energy Economics (TE)

EE6309 Renewable Energy Systems (TE)
EE7302 Electrical Installations
EE7207 Electric Motor Drives (TE)
EE7210 Power Electronic Applications (TE)
EE8206 Digital Control (TE)
EE8307 High Voltage Engineering (TE)
EE8211 Power System Protection (TE)
EE8212 Smart Grid (TE)

Best Student in Electronic Engineering

EE2201 Fundamentals of Electronics
EE3301 Analog Electronics
EE3203 Electrical and Electronic Measurements
EE4202 Computer Architecture and Organization
EE4304 Digital Logic Design
EE5202 Electronic Circuit Designs
EE5304 Power Electronics
EE5210 Hardware Description Language (TE)
EE6302 Control Systems Design
EE6213 Introduction to Biomedical Engineering (TE)
EE7211 Robotics and Automation (TE)
EE8208 Integrated Circuit Design (TE)

Best Student in Information Engineering

EE1102 Programming Fundamentals
EE2202 Object Oriented Programming
EE3202 Data Structures and Algorithms
EE4202 Computer Architecture and Organization
EE4203 Database Systems
EE4207 Web Application Development
EE5203 Machine Learning
EE5206 Software Project
EE5212 Operating Systems (TE)
EE6305 Artificial Intelligence (TE)
EE6207 Information Security (TE)
EE7205 Cloud Computing (TE)
EE7206 Computer Vision and Image Processing (TE)
EE7208 High Performance Computing (TE)
EE7209 Optimization Techniques for Engineers (TE)
EE8203 Autonomous Systems and Mobile Robotics (TE)
EE8204 Big Data and Analytics (TE)
EE8205 Blockchain and Cyber Security (TE)

Best Student in Research and Development (EIE)	
EE4206	Engineering Design Methodology
EE5206	Software Project
EE6304	Embedded Systems Design
EE7803	Undergraduate Project
EE8201	Comprehensive Design Project
EE8102	Research Dissemination in Engineering (TE)

Best Student in Telecommunication Engineering	
EE3304	Engineering Electromagnetism
EE3306	Signals and Systems
EE4201	Analog and Digital Communication
EE5201	Communication Systems
EE5207	Advanced Digital Communications (TE)
EE6301	Computer Networks
EE6203	Digital Signal Processing
EE6207	Information Security (TE)
EE6211	Wireless and Mobile Communications (TE)
EE7201	Design and Management of Networks (TE)
EE7204	Advanced Data Communication (TE)
EE7212	Telecommunication Networks (TE)
EE8209	Microwave Communications (TE)
EE8210	Optical Fibre Communication (TE)

Award Categories: Computer Engineering Specialization

- Best Student in Artificial Intelligence and Data Science
- Best Student in Embedded Systems Engineering
- Best Student in Networking and Cyber Security
- Best Student in Research and Development (CE)
- Best Student in Software Engineering

Best Student in Artificial Intelligence and Data Science	
EC5203	Machine Learning
EC6301	Artificial Intelligence
EC6206	Computer Vision and Image Processing (TE)
EC7201	Advanced Artificial Intelligence (TE)
EC7202	Bioinformatics (TE)
EC7206	Human Computer Interactions (TE)

EC7207	Optimization Techniques for Engineers
EC7209	Robotics and Automation (TE)
EC8201	Autonomous Systems and Mobile Robotics (TE)
EC8202	Big Data and Analytics (TE)
EC8208	Virtual and Augmented Reality (TE)

Best Student in Embedded Systems Engineering

EE2201	Fundamentals of Electronics
EC3301	Analog Electronics
EC3203	Electrical and Electronic Measurements
EC4202	Computer Architecture and Organization
EC4304	Digital Logic Design
EC5301	Control Systems Design
EC5202	Digital Systems Design with HDL
EC6303	Embedded Systems Design
EC6207	Digital Signal Processing (TE)
EC6212	Electronics Circuit Designs (TE)
EC7206	Human Computer Interaction (TE)
EC7208	Power Electronics (TE)
EC7209	Robotics and Automation (TE)
EC8201	Autonomous Systems and Mobile Robotics (TE)
EC8204	Digital Control (TE)
EC8206	Integrated Circuit Design (TE)

Best Student in Networking and Cyber Security

EC3202	Data Structures and Algorithms
EC3305	Signals and Systems
EC5205	Operating System and Network Programming
EC5207	DevOps Engineering (TE)
EC5209	Wireless Communications (TE)
EC6302	Computer Networks
EC6204	Information Security
EC6207	Digital Signal Processing (TE)
EC7203	Cloud Computing (TE)
EC7204	Design and Management of Networks (TE)
EC7210	Telecommunication Networks (TE)
EC7211	Advanced Data Communication (TE)
EC8203	Blockchain and Cyber Security (TE)

Best Student in Research and Development (CE)	
EC5406	Software Group Project
EC6303	Embedded Systems Design
EC6105	Research Methodology
EC7802	Undergraduate Project
Best Student in Software Engineering	
EE1102	Programming Fundamentals
EE2202	Object Oriented Programming
EC3202	Data Structures and Algorithms
EC3404	GUI Programming
EC4201	Advanced Data Structures and Algorithms
EC4203	Database Systems
EC4205	Software Engineering Principles
EC4206	Software Testing and Quality Assurance
EC4307	Web Application Development
EC5204	Object Oriented Design Patterns and Principles
EC5205	Operating System and Network Programming
EC5406	Software Group Project
EC5207	DevOps Engineering (TE)
EC5208	Mobile Application Development (TE)
EC6208	Software Architecture (TE)
EC7205	High Performance Computing (TE)
EC8205	Functional Programming (TE)

Selection Criteria

Selection of students to the above award categories is done as shown below

The students with the highest DGPA in each award category will be awarded the best student certificate for that category. The calculation of DGPA is based on the summation of Grade points earned for each module which are fallen in that award category weighted according to the number of credits using following equation.

$$DGPA = \frac{\sum_{i=1}^{m} C_i GP_i}{\sum_{i=1}^{n} C_i}$$

In which,
Ci - Credit value of ith module
GPi- Grade Points earned for the ith module
m - Number of modules completed each category
n - Number of modules in the award category

If the highest DGPA is achieved by two or more students in a particular award category, then the students with the maximum number A+ earned for the modules in that category will be given the award. If the number of A+ are equal, number of A, A-, B+, B, B-, C+, C will be considered in that order and will be awarded to the student with higher grades. In case the grades are identical, the award will be jointly awarded between the students with identical grades.

13.3.3 Best Student Awards-Department of Mechanical and Manufacturing Engineering

Award Categories

- Best Student in Thermo-Fluids and Energy Engineering
- Best Student in Materials and Manufacturing Engineering
- Best Student in Industrial Engineering and Management
- Best Student in Applied Mechanics, Control Engineering and Robotics
- Best Student in Mechanical Engineering Design
- Best Student in Undergraduate Projects

Module Distribution for each Award Category

Best Student in Thermo-Fluids and Energy Engineering
ME1202 Fundamentals of Thermodynamics ME3301 Applied Thermodynamics ME3303 Fluid Mechanics ME4211 Automobile Engineering (TE) ME5305 Refrigeration and Air Conditioning ME5210 Electric and Hybrid Vehicle Engineering (TE) ME6201 Advanced Fluid Mechanics ME6206 Power Hydraulics ME7303 Heat and Mass Transfer ME7211 Computational Fluid Dynamics for Engineering Systems Design (TE) ME7303 Heat and Mass Transfer ME7212 Energy Technology (TE) ME8301 Building Service Engineering ME8210 Aerospace Engineering (TE)
Best Student in Materials and Manufacturing Engineering
ME2302 Fundamentals of Materials and Manufacturing Engineering ME3204 Manufacturing Processes and Practices ME3305 Metallurgy for Engineers ME3206 Strength of Materials

ME4301 Advanced Materials Engineering ME4303 Manufacturing Engineering ME4212 Nanotechnology (TE) ME6302 Computer Aided Manufacturing ME6207 Solid Mechanics ME7210 Composite Materials Design and Manufacturing Technologies (TE) ME8212 Non-Destructive Testing Applications (TE)
Best Student in Industrial Engineering and Management
ME5204 Production Planning and Control ME6305 Maintenance Management ME7304 Production and Operations Management ME8202 Lean Manufacturing and Supply Chain Management ME8211 Energy Management (TE)
Best Student in Applied Mechanics, Control Engineering and Robotics
ME2201 Engineering Mechanics ME3210 Principles and Application of Microcontrollers (TE) ME4304 Mechanics of Machines ME4305 Modelling and Analysis of Dynamic Systems ME4210 Analog and Digital Electronics (TE) ME5301 Advanced Control Systems ME5211 Mechatronics System Design (TE) ME6303 Electrical Machines ME6210 Industrial Automation (TE) ME7213 Mobile Robot Design (TE) ME8213 Robot Manipulator Kinematics (TE)
Best Student in Mechanical Engineering Design
ME1201 Engineering Drawing ME3202 Engineering Design Methodology ME4302 Design of Machine Elements ME5302 Computer Aided Design ME5303 Mechanical Engineering Design ME6211 Naval Architecture and Hull Design – I (TE) ME7214 Naval Architecture and Hull Design – II (TE)
Best Student in Undergraduate Projects
ME6104 Industry-based Project ME7601 Comprehensive Design Project ME7402 Final Year Project

TE- ***Technical Electives***

The list of technical elective modules, which are considered for Divisional Grade Point Average (DGPA) calculations; are to be decided by the Department and to be informed/displayed to the students at the beginning of each semester.

Selection Criteria

Selection of students to the above award categories is done as shown below:

The students with the highest DGPA in each award categories will be awarded the best student certificate for that category except the Best Undergraduate Researcher award. The calculation of DGPA is based on the summation of Grade points (GP) earned for each module which are fallen into that award category weighted according to the number of credits using the following equation.

$$DGPA = \frac{\sum_{i=1}^{m} C_i GP_i}{\sum_{i=1}^{n} C_i}$$

In which,

C_i - Credit value of i^{th} module
GP_i- Grade Points earned for the i^{th} module
m - Number of modules completed each category
n - Number of modules in the award category

If the highest *DGPA* is achieved by two or more students in a particular award category, then the students with the maximum number A+ earned for the modules in that category will be given the award. If the number of A+ are equal, number of A, A-, B+, B, B-, C+, C will be considered in that order and will be awarded to the student with higher grades. In case the grades are identical, the award will be jointly awarded between the students with identical grades.

The selection of **Best Undergraduate Researcher** award will be conducted by an independent panel appointed by Head of the Department which shall include at least one academic member from each subdivision in the department. The representative member from each subdivision is recommended by the lecturer in-charge of each subdivision. The panel evaluation will be conducted only for the top 5 students who have scored highest marks for ME6104 Industry- based Project, ME7601 Comprehensive Design Project, and ME7402 Final Year Project in the revised curriculum.

13.3.4 Best Student Awards – Department of Marine Engineering and Naval Architecture

Award Categories

- Best Student in Award in Naval Architecture & Ship Construction
- Best Award in Marine Engineering and Naval Architecture (MENA) Design Project
- Best Student Award in Engineering Knowledge
- Best Student Award in Shipboard Electrical and Control Systems
- Best Student Award in Thermo-Fluids and Energy Engineering

Best Student Award in Naval Architecture & Ship Construction	
MN3201	Fundamentals of Naval Architecture
MN3305	Hydrostatics and Stability of Marine Vehicles
MN4206	Ship Design and Construction Technology - I
MN5307	Ship Design and Construction Technology – II
MN6307	Ship Structural Analysis and Design
Best Award in Marine Engineering and Naval Architecture (MENA) Design Project	
MN6201	Application of CFD for Marine Design
MN7406	Marine Engineering and Naval Architecture Design Project
MN5312	Design of Machine Elements(TE)
MN8312	Small Craft Design (TE)
MN7411	Individual Design Project (TE)
MN7312	Mechanical Engineering Design
ME3110	Basic Concepts of Product Design (TE)
ME3201	Engineering Design Methodology (TE)
MN6112	Ship Hull Design and Simulation (TE)
MN7312	Mechanical Engineering Design
Best Student Award in Engineering Knowledge	
MN3302	Engineering Knowledge (General) I
MN3303	Engineering Knowledge (Motor) I
MN4304	Engineering Knowledge (General) II
MN4307	Engineering Knowledge (Motor) II
MN5301	Engineering Knowledge (General) III
MN5302	Engineering Knowledge (Motor) III
MN6303	Engineering Knowledge (General) IV
MN6304	Engineering Knowledge (Motor) IV
MN7303	Engineering Knowledge (General) V

MN7304	Engineering Knowledge (Motor) V
MN8202	Engineering Knowledge (Motor) VI
MN8203	Engineering Knowledge (General) VI
Best Student Award in Shipboard Electrical and Control Systems	
MN5303	Marine Engineering Instrumentation and Control Systems - I
MN4210	Analog and Digital Electronics (TE)
MN5305	Marine Power and Shipboard Electrical Systems
MN5306	Marine Refrigeration and Air Conditioning
MN6206	Marine Engineering Instrumentation and Control Systems - II
MN6302	Electro-Technology-I
MN7202	Electro-Technology-II
MN7201	Automated System
MN7305	Marine Engineering Instrumentation and Control Systems- III
MN8201	Electro-Technology-III
Best Student Award in Thermo-Fluids and Energy Engineering	
ME3206	Strength of Materials
MN4201	Applied Thermodynamics
MN4205	Mechanics of Machines
MN5313	Fluid Mechanics
MN6311	Heat and Mass Transfer
MN7313	Power Hydraulics

TE- ***Technical Electives***

The list of technical elective modules, which are considered for Divisional Grade Point Average (DGPA) calculations; are to be decided by the Department and to be informed/displayed to the students at the beginning of each semester.

Selection Criteria

Selection of students to the above award categories is done as shown below:

The students with the highest DGPA in each award categories will be awarded the best student certificate for that category except the Best Award in Marine Engineering and Naval Architecture (MENA) Design Project .The calculation of DGPA is based on the summation of Grade points (GP) earned for each module which are fallen into that award category weighted according to the number of credits using the following equation.

$$DGPA = \frac{\sum_{i=1}^{m} C_i GP_i}{\sum_{i=1}^{n} C_i}$$

In which,

C_i - Credit value of i^{th} module
GP_i- Grade Points earned for the i^{th} module
m - Number of modules completed each category
n - Number of modules in the award category

If the highest *DGPA* is achieved by two or more students in a particular award category, then the students with the maximum number A+ earned for the modules in that category will be given the award. If the number of A+ are equal, number of A, A-, B+, B, B-, C+, C will be considered in that order and will be awarded to the student with higher grades. In case the grades are identical, the award will be jointly awarded between the students with identical grades.

The selection of Best Award in Marine Engineering and Naval Architecture (MENA) Design Project award will be conducted by an independent panel appointed by the Head of the Department which shall include at least one academic member from each subdivision in the department. The representative member from each subdivision is recommended by the lecturer in-charge of each subdivision. The panel evaluation will be conducted only for the top 5 students who have scored highest marks for MN7404 Marine Engineering and Naval Architecture (MENA) Design Project, MN8305 Small Craft Design (TE) and, MN7411 Individual Design Project (TE) in the curriculum.

13.3.5 Department of Interdisciplinary Studies Award

Category - Best Student in Engineering Mathematics

Module Distribution for the Award Category

Best Student in Engineering Mathematics	
IS1402	Mathematical Fundamentals for Engineers
IS2401	Linear Algebra and Differential Equations
IS3301	Complex Analysis and Mathematical Transformations
IS4301	Probability and Statistics
IS5302	Numerical Methods
IS6301	Mathematical Modelling

Note: Students who followed all the modules given in the above table are considered for this award

Selection Criteria

Selection of the student/s to the above award is done as shown below: The student/s with the highest DGPA (Divisional Grade Point Average) in Mathematics modules will be awarded the best student certificate for engineering mathematics. The calculation of DGPA is based on the summation of Grade Points (GP) earned for each module which is shown above weighted according to the number of credits using the following equation.

$$DGPA = \frac{\sum_{i=1}^{n} C_i GP_i}{\sum_{i=1}^{n} C_i}$$

In which,

C_i - Credit value of i^{th} module

GP_i- Grade Points earned for the i^{th} module

n - Number of modules in the award category

If the highest DGPA is achieved by two or more students, then the students with the maximum number of A+ earned for the modules in Mathematics stream will be given the award. If the number of A+ is equal, number of A, A-, B+, B, B-, C+, C will be considered in that order and will be awarded to the student with higher grades. In case the grades are identical, award will be jointly awarded between the students with identical grades.

Chapter

14

Student Services Facilities

14.1 Student Counselling Service

Counselling services are offered on a confidential basis to students by deputy senior student counsellor and student counsellors appointed among the members of the academic staff of the Faculty of Engineering. They will assist the students to overcome difficulties with learning as well as in personal problems that may interfere with the academic progress. When special attention is required, they will arrange the service of a professional counsellor. Students are urged to use the student counselling service to get advice on personal problems.

14.2 Academic Advisory Service

In addition to Deputy Senior Student Counsellor and Student Counsellors, the faculty will appoint an Academic Advisor for each student. Students are urged meet the Academic Advisors on a regular basis and to use the academic advisory service to get advice on academic related problems.

14.3 Career Guidance Service

Career Guidance services are available for students throughout their stay in the Faculty of Engineering. The services are beneficial for improving soft skills of the students and keep them at an advantageous position in the job market as well as their day-to-day life. There will be a series of seminars, workshops and a job fair held for this purpose in connection with the Career Guidance Unit of the University of Ruhuna. Career guidance services also include a Certificate Course in Soft Skills Development (CCSSD) offered at the beginning of the first semester and is an optional course that students can follow.

14.4 Health Service

Medical care is provided by the University health service. The service of medical staff will be available at the Health Centre located in Student Centre building.

14.5 Student Welfare Services

Registrations for semesters and examinations shall be done at Dean's Office. Mahapola and Student bursaries can be obtained from Shroff counter on specified dates.

Accommodation facilities for eligible students are provided at the premises. All students in hostels shall abide by the hostel rules and regulations.

Social interactions among students are encouraged through facilities provided at the Student Centre. Canteen, Newspapers and photocopying service are some of the facilities available in the Student Centre.

Chapter

15

Alumni Association, Student Union and Societies

15.1 Ruhuna Engineering Faculty Alumni Association (REFAA)

The Ruhuna Engineering Faculty Alumni Association (REFAA) is a vibrant community that connects graduates of the Faculty of Engineering, University of Ruhuna. Established with the goal of fostering lasting relationships among alumni, REFAA serves as a bridge between past and present students, creating opportunities for collaboration, mentorship, and professional growth.

Purpose and Objectives

- Networking: Providing a platform for alumni to connect with each other and with current students.
- Mentorship: Guiding students in academic and career development through advice, workshops, and seminars.
- Support: Assisting the Faculty in organizing events, competitions, and development projects.
- Recognition: Honouring the achievements of alumni and encouraging professional excellence.

Activities and Contributions

- Sponsoring student competitions, projects, and exhibitions.
- Organizing alumni gatherings and industry networking events.
- Supporting infrastructure development and providing scholarships for deserving students.
- Sharing industry insights and emerging trends to help students prepare for the professional world.

Student Engagement

REFAA encourages students to actively engage with alumni to gain valuable guidance and exposure. By participating in REFAA activities, students can:

- Build professional connections that may help in internships and job placements.
- Learn from the experiences of successful alumni in various engineering fields.
- Contribute to events, gaining leadership and organizational experience.

15.2 Student Union of the Faculty

Engineering Faculty Student Union (EFSU) is the student body which represents common interests of all students of the faculty. The EFSU consists of 13 representatives of students and one office bearer as Senior Treasurer from academic staff in the Faculty of Engineering, University of Ruhuna, who are elected for a period of one year. Students can get actively involved with the union by becoming a committee member and attending councils and general meetings or by becoming an elected officer.

The EFSU is at the fore front to help lift the faculty for academic excellence in engineering sciences and applications through education, knowledge creation, innovation and transfer of technology while encouraging students to improve their leadership qualities to become world class graduates. The EFSU organizes social service programs and entertainment events to provide students a solid platform and exposure to express their talents during the stay at the university. Some of the specific activities carried out by the EFSU include:

- Holding Annual General Meeting to elect office bearers for tenure of one year.
- Holding common meetings to make decisions on students' issues
- Maintaining Ruhuna Engineering Faculty Scholarship Foundation (REFSF) to provide financial scholarships to needy students in the faculty
- Organizing entertaining and musical events in collaboration with the Art Society of the Faculty
- Organizing sport events in collaboration with the Sports Club of the Faculty
- Organizing various social programs as community services to the society being the recipients of benefits of free education.

15.3 Other Societies of the Faculty

15.3.1 Civil and Environmental Engineering Society (CEES)

Civil and Environmental Engineering Society (CEES) is the main society within the department that consists of the academic staff and students. The role of academic staff within the society is mainly advisory. The goal of the Civil and Environmental Engineering Society is to upgrade student's life in the department giving them opportunity to improve their leadership and interpersonal qualities. Apart CEES represent the department in inter-university, national and international activities.

Some of the specific activities carried out by the CEES include:

- Organizing guest lectures by inviting key personnel from the industry and research organizations.
- Organizing charity work to promote and encourage students of serving underprivileged sectors of the society.
- Organizing a campaign on public's awareness of the environment to celebrate the World Environmental Day.
- Conducting "Civil Engineering Research Exchange Symposium (CERES)" every year, collaborating with Civil Engineering Societies of the University of Peradeniya and University of Moratuwa.
- Conducting Graduate Symposium to share the research outcomes of undergraduate research work.

15.3.2 Highway Engineering Society (HES)

Student chapter of Highway Engineering Society was established as the second student chapter after University of Moratuwa. The aims of this society is to enhance the student knowledge on highway related works by organising workshops, expert forums and field visits.

15.3.3 Electrical and Information Engineering Society (EIES)

Electrical and Information Engineering Society (EIES) is the main society within the department that consists of the academic staff and students. The academic staff of the department facilitates to EIES as an advisory board and the students lead each and every activity organized by the society. The goal of the Electrical and Information Engineering Society is to upgrade student's life in the department giving them opportunity to improve not only academic and technical skills but also their leadership interpersonal and professional qualities. Some of the specific activities carried out by the EIES include:

- Organizing guest lectures by inviting key personnel from the industry and research organizations.
- Organizing workshops to junior students who have entered to Electrical and Information Engineering stream as their field of specialization.
- Organizing charity work to promote and encourage students of serving underprivileged sectors of the society.
- Conducting "XbotiX" every year, collaborating with IEEE Student Branch University of Ruhuna, IET Ruhuna Chapter and MMESS.
- Organizing workshops for school children.

15.3.4 Institute of Electrical and Electronics Engineers (IEEE) Student Branch, Faculty of Engineering

IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity. There are over 3,000 Student Branches in over 100 countries, globally. The IEEE Student Branch, University of Ruhuna which was initiated in 2012, is one of the conspicuous student branches in Sri Lanka. The society has been at the forefront of conducting many annual activities to enhance socio-dynamic and technical skills of the students.

They include 'XbotiX' Annual Robotic Competition, Application Development Contests, IEEE Invictus Day, IEEE Xtreme Coding Competition and workshops in Electronics, Power Engineering, Telecommunication and related fields. Further it helps conduct workshops in robotics, field visits and laboratory sessions, educational, charity events for school children as a service to the society.

15.3.5 The Institution of Engineering and Technology Young Professional Section (IET-YP) Ruhuna Chapter

The Institution of Engineering and Technology (IET) is an international Professional Institution for Engineering professionals and Technical related personal, having headquarters in UK and consists branches in 127 countries and many members across the world. IET promotes the advancement of electrical, electronic, communication, and manufacturing engineering disciplines, and facilitates the exchange of knowledge and ideas. It also provides a broad range of services to members in assisting them in developing their careers by improving their capabilities as engineers.

The IET-Young Professionals' Sri Lanka Network in under the umbrella of the main IET of Sri Lanka, members of the IET-YP are Undergraduates and young professionals involved in Engineering and Technology fields. At present there are IET-YP chapters at the Engineering faculties of the Universities of Moratuwa, Peradeniya and Ruhuna.

The IET-YP conducts various activities throughout the year to develop and to nurture more competent and able resource personalities to the nation. While it conducts guest lectures with resource personal both locally and internationally, many field visits too are organized to allow the members first-hand experience to the field of study and to groom them to new emerging technologies.

15.3.6 Mechanical and Manufacturing Engineering Students' Society (MMESS)

Mechanical and Manufacturing Engineering Students' Society (MMESS) is the main society within the department that consists of academic staff and students. The academic staff of the department facilitates to MMESS as an advisory board and the students lead each and every national and international activities organized by the society. The goal of the MMESS is to upgrade student's life in the department giving them opportunities to improve not only academic and technical skills but also their leadership, interpersonal, management and professional qualities. Some of the specific activities which are carried out each year by the MMESS include:

- Organizing workshops to students who have entered to Mechanical and Manufacturing Engineering stream as their field of specialization.
- Organizing guest lecturers by inviting key personnel from the industry and research organizations.
- Organizing charity work to promote and encourage students of serving underprivileged sectors of the society.
- Hosting some other cultural events.

15.3.7 Institution of Mechanical Engineers-United Kingdom, Ruhuna Student Chapter (IMechE, UK)

The Institution of Mechanical Engineers is the fastest growing professional engineering institution in the UK. Over 100,000 members work at the heart of the country's most important and dynamic industries. Ruhuna Engineering Students Chapter - IMechE is the chapter established to provide a better relation between the Faculty and IMechE. University of Ruhuna was the first ever university in Srilanka to have a IMechE Student Chapter. IMechERuhuna student chapter helps coordinate

- Local and international competitions among undergraduate students (IMechE Formula Student Motorsport Competition, Speak Out for Engineering (SOFE) Presentation Competition, Engineering Design Competitions).
- Awareness sessions and membership drive campaigns.
- Guest lectures on related technical and non-technical subjects.

- Annual general meetings and membership gatherings.

15.3.8 International Association of Students in Economic and Commercial Sciences (AIESEC) Ruhuna Chapter

AIESEC is global, independent, non-political, non-profit, youth-run organization. AIESEC does not discriminate on the basis of gender, sexual orientation, disabilities, creed, national ethnic group or social region. AIESEC is present in 126 countries and territories, 70,000 active members worldwide and 2,400 university representations.

The vision of AIESEC is to develop responsible and entrepreneurial young leaders who can meet the modern-day challengers in the world by providing practical leadership experiences through volunteer experience and professional internships.

As an educational institution in Sri Lanka, University of Ruhuna has already launched AIESEC chapter - AIESEC in University of Ruhuna with groundwork commenced by Faculty of Engineering. Now, it has been expanded among whole the university community. AIESEC is one of the societies in which students and academic staff from all the departments of Faculty of Engineering works on a common platform.

Typical annual activities of AIESEC in University of Ruhuna include

- Annual General Meeting to elect office bearers for a tenure of 12 months
- Participation for national conferences organized by AIESEC Sri Lanka Chapter; National Leadership Development Summit (NLDS), Expansion Conference (ExCon)
- Organizing charity activities with the collaboration of foreign students to serve underprivileged sectors in Sothern Province
- Providing opportunities for the students in University of Ruhuna to have international volunteer experience in abroad through Global Volunteer Program
- Providing opportunities to participate for internship programs in other countries through Global Internship Program

15.3.9 Art Society, Faculty of Engineering, University of Ruhuna

Engineering Faculty Art Society plays a great role to open up the talents of undergraduates by organizing various extracurricular activities/functions in a calendar year. The society was formed with the help of the student union, academic staff and the Dean of Faculty of Engineering, University of Ruhuna.

Typical functions of one calendar year.

- "Thambarawila", Aesthetic Talent Show (Every other year).
- "Sinhala/Tamil New Year Festival" (Annual)
- "SadhahamBathi Gee" during the Wesak Season (Annual)
- "Carol" function in the Christmas Season (Annual)
- "Saraswathee Pooja" in October (Annual)
- "Padura" Outdoor Musical Show (Annual)
- "PirithDeshana and Alms Giving" (Annual)

15.3.10 Buddhist Society, Faculty of Engineering, University of Ruhuna

The Buddhist Society of the Faculty of Engineering, University of Ruhuna is for all who have an interest to experience the Buddhist philosophy. Membership of the society is free and open to students, academic staff and non-academic staff. We welcome everyone regardless of cultural or religious background to join with us and discover the Buddha's teaching, the Law of Dharma running through everything that exists beyond religious boundaries. The president of the Buddhist society is a senior academic member of the Faculty of Engineering, University of Ruhuna and the other office bearers of the society are elected from students, academic staff and non-academic staff. The objectives of the Buddhist society are,

- To encourage faculty community to achieve their spiritual development through Buddhist philosophy.
- To help live free from suffering, filled with joy and compassion according to the Dharma, the true Wisdom. To coordinate and organise Buddhist activities within the Faculty of Engineering, University of Ruhuna.
- To protect Buddhist culture and its values fast disappearing from the society.
- To contribute to the religious harmony within the university community and beyond.

15.3.11 Green Club Ruhuna Engineering Faculty (GREF)

The aim of the Green Club is to create an awareness of Green Concept and Sustainability among students, faculty, staff and administration of the Faculty of Engineering, University of Ruhuna and ultimately transform the Faculty of Engineering to a Sustainable Green Campus.

The purpose of the GREF shall be.

- to raise the environmental awareness of the students and staff of the Faculty of Engineering, University of Ruhuna and to contributing to the process of making Faculty of Engineering a more environmentally educated and responsible institution.
- to diminish the impact of ecological footprints by implementing the principles of sustainability at a possible level of faculty functioning.
- to encourage student and staff on technical innovation and research on Green Concept (eg; energy conservation, emissions reduction, sustainable water management, solid waste management, enhancing environmental quality, sustainable engineering, etc)
- to support sustainable green campus/education institute development in the country

15.3.12 Ruhuna Engineering Faculty Sports Club

Ruhuna Engineering Faculty Sports Club of University of Ruhuna guides the Engineering Faculty students in developing their sports skills and in carrying out regular practicing in a productive manner. Also, by organizing intra-faculty sports tournaments REFSC is liable to promote sports in the Faculty of Engineering. Some of the specific activities carried out by the REFSS Include,

- Holding Annual General Meeting to elect office bearers for tenure of one year.
- Supports to meet the needs of students engage in sports.
- Helps to develop sporting facilities at the Faculty of Engineering.
- Organizing sports activities and competitions such as SOCCER 7's, Intra-faculty Cricket tournament, Intra-faculty Volleyball tournament, Intra-faculty Carrom tournament, Intra-faculty Table Tennis tournament, Intra-faculty Badminton tournament etc.
- Guides to instil discipline through sports.

15.3.13 Ruhuna Engineering Gavel Club

Ruhuna Engineering Gavel Club was initiated in 2015 aiming to enhance interpersonal and communication skills of engineering undergraduates. The society mainly comprises undergraduate students of the faculty.

The present counsel or of the club is the Head of the department, Electrical and Information Engineering. The club regularly conducts activities and workshops on English Speaking, Presentations, Leadership and Interpersonal skills which are essential to foster professional skills of undergraduates. The Gavel club helps students:

- Overcome nervousness when speaking before an audience.
- Organize and present ideas logically and convincingly.
- Listen carefully to others' ideas.
- Participate and lead group discussions or meetings.
- Offer advice to help others improve their speaking and leadership skills.

15.3.14 Marvel Crew Innovation and Entrepreneurship Club (MCEIC)

Marvel Crew is Sri Lanka's first University Society dedicated to enhancing the innovative and entrepreneurial skills of students. Marvel Crew focuses on building big meaningful projects which would revolutionize student thinking and behaviour. It also works towards building a South Asian business market which would allow Asian start-ups to grow and create success globally.

The statement idea of Marvel Crew: "Creating a World Where Everyone Has a Sense of Purpose".

The purpose of Marvel Crew was structured on building a Silicon Valley in Asia. The founding members initially pitched in motivating and generating an idea about how Silicon Valley giants; Bill Gates, Steve Jobs, and Mark Zuckerberg played a revolutionizing role in technology that pushed humans forward. Marvel Crew mainly focuses on a cultural change in Asia, based on the following key factors

- Facilitate to generate big thinking,
- Create the door of opportunities for innovation,
- Search on change,
- Push towards excellence.

15.3.15 IEEE WIE Student Branch Affinity Group of University of Ruhuna

Institute of Electrical and Electronic Engineers, Women in Engineering (IEEE WIE) Student Branch Affinity Group of the University of Ruhuna was established to empower women engineers' involvement in technical fields. It was formed on 11th November 2018, having fulfilled the requirements of the Member and Geographic Activities Board Operations Manual of IEEE. Being the seventh WIE Affinity Group in Sri Lanka, IEEE WIE Ruhuna strives for the promotion and betterment of women engineers and increasing the interest, awareness, and involvement of young females in technical disciplines, especially in the field of Engineering. The group mainly comprises undergraduate students of the Faculty of Engineering. The present counsellor of the affinity group is the Head of the department, Electrical and Information Engineering. As a recently established group, the committee aims to conduct programs with guest lectures, hands-on sessions, competitions, etc. with the objectives of awaking the undergraduates to become a member of this group and exploring the opportunities.

The IEEE WIE Ruhuna Student Branch strives to,

- empower young females to take part in events, competitions related to STEM (Science, Technology, Engineering and Math) fields,
- encourage female engineers to take challenges, overcome nervousness and to become leadership roles,
- support young technological enthusiasts to collaborate and perform in technical disciplines,
- recognize the outstanding accomplishments of women in the fields of electrical, electronic and mechanical engineering,
- provide assistance with the selection of ones' field of interest, career development and advancement in the engineering profession.

Chapter

16
Guidelines to Students

16.1 The Purpose of University Education

University modules offer opportunities for education, and the development of transferable, social and vocational skills. Socrates said that 'unexamined life is not worth living' and the purpose of education is to enable people to lead an examined life. Education is about understanding the human condition and enabling people to adapt their understanding in wide ranging ways. It will enable logical questioning of complex concepts, help consider ideas of the most abstract nature and encourage curiosity.

It is appropriate now to differentiate between education and training. The object of training is to develop the skills and the knowledge appropriate to the performance of specific tasks. Since technology changes very rapidly these skills frequently have a short useful life. Education, on the other hand, lets people assess their current position in terms of life and career, decide upon the desired position and construct the steps by which to achieve it.

In a large measure university education is built on books. In traditional university language an undergraduate does not study a subject, but he reads that subject. This describes the main part of the process of learning. It is important for University students to acquire confidence and skill in using the library. Lectures are ancillary to reading. A graduate is not educated unless he has covered a wide range of reading in many fields of knowledge and experience, which are not directly tested by examination. More time should be spent on general education. A good general education not only helps in successful participation in every aspect of work as an engineer but also provides enrichment in personal life outside the profession. Success of University education depends on the depth and breadth of its foundations.

Transferable skills facilitate progress in any profession or activity. They include, for example, the ability for concise expression, both verbal and written; presentational skills; and the ability to extract critical points from a large volume of information.

Universities offer unique opportunities for the student to develop a range of cultural, social and sports interests. The period of university education is a period of heavy concentration and demands physical fitness which plays an important part by creating mental alertness. People who are physically fit live longer, have a greater resistance to disease, and can work harder and better.

Physical fitness depends upon adequate physical exercise. Games are useful because they:

- Are a pleasant way of taking exercise.
- Teach the value of co-operative effort and leads to development of team spirit.
- Teach leadership.
- Improves efficient coordination and memory; and
- Keep the person healthier and less sluggish.

Most good students play games regularly. There are other forms of recreation like music, drama and literature, which help to stimulate healthy activity in the University and development of "character". A thing which is worth doing is worth doing well, and therefore one can win colours in sports and do well academically too.

The academic record is not the sole criterion for employment. Employers generally look for personal integrity, loyalty, interest in the job, the capacity for sustained and conscientious work.

Engineering is about improving the quality of life of people and hence it reflects society's values. The application of appropriate engineering systems involves understanding people in wide-ranging ways. The ability to interact appropriately with people from a wide range of backgrounds during both professional and social level is important to the engineer.

Engineering degree modules vary from the very theoretical type to the highly vocational and skill based. The programmes offered by the Faculty of Engineering cover the middle ground within the profession and combine elements of education, vocational training and transferable skills development. The students are also exposed to the deeper theoretical aspects of Engineering, recognising that they are drawn from the cream of the country and therefore need their intellects to be challenged to the utmost. The programmes permit a very high degree of flexibility in career choice.

16.2 Guidelines to Good Study Practices

16.2.1 Study Skills

University modules tend to guide students through a self-learning experience. This may be very different from your previous education at school. One of the most important things a university degree gives is the ability to pursue continuing Professional Development throughout the future career. It is the personal responsibility of the students to pursue studies, identify difficulties and approach teaching staff to remedy them. Teaching staff is there to assist the students and guide them to make the right decisions, but the responsibility of learning lies with the student.

Continuous assessment helps the students to recognise their own strengths and weaknesses. They can notice the faults before being told and plan action accordingly. Academic Advisors are available to discuss study skills and self-learning techniques with the students.

Motivation or wanting to learn is the key to successful learning. It makes the task interesting and the learning process rewarding. Experiences that challenge the intellect require active participation. Problem solving skills promote this experience and give the confidence of being competent and effective which enhances the self-esteem. The lecture room is the centre of educational activities but active participation is limited. Opportunities for more active learning, learning by doing and learning by observation is provided through laboratory experiments, field work, homework assignments, industrial visits and industrial training. In engineering education, laboratory experiments allow knowledge to be used. This makes it easier to understand the lectures and retain them longer.

Laboratory work is beneficial because they:

- add meaning to the theory;
- give training in the use of laboratory equipment and techniques;
- teach the scientific method of investigation;
- teach the method of analysing experimental data;
- provide experience in report writing and presentation;
- awaken curiosity and allows exercise of ingenuity; and
- cultivate good work habits, and provide experience in sharing responsibility and group activities.

Field trips, training programmes, films and other media provide opportunity for learning by observation. Homework assignments are aimed at improving understanding through reading, writing and problem-solving exercises. Reports on assignments and projects teach students to present their thoughts in words.

They develop the ability to think creatively, to identify problems and seek solutions and explain to others what has been learnt. Discipline of planning, drafting, editing and presenting written work is essential to clear thinking and effective writing. Ability to express ideas clearly on paper is important for academic success and is crucial for many aspects in life.

16.2.2 Personal Time Management

The work in the engineering course is demanding but it is a challenging and a rewarding experience of developing abilities. The performance and grades earned will have an important influence on the future career prospects and it is important to aim for excellence. It is important to adopt a planned approach with short term and long-term objectives. Through a well-prepared schedule it is possible to cover lot of work and derive positive enjoyment in study. The sense of achievement strengthens the confidence, and constant successful experiences generate eagerness for more, and motivate one to do better. Nothing succeeds like success.

Time being a precious commodity, all possible time saving skills such as efficient studying, effective reading and speed learning and also better examination techniques must be adopted in organising the study plan. Preparation for examinations, though is a matter of some importance, should not dominate the student's life at the university.

A full-time undergraduate student will be studying about 6 modules in a semester or taking about 18 hours a week of lectures. Mere attendance at lectures, tutorials and practical will not be sufficient. Over and above the timetabled contact hours, sufficient time should be allocated for self-study. With private study time added, as much as 40 hours a week should be devoted for studies. Some of this time will be on a continuous basis and some will be more intensive for specific tasks like writing reports. Use the schedule of submission deadlines and assessments to plan the work. Because there is virtually no time for revision between the last lectures and examinations in the semester system, students will be required to work continually throughout the semester and keep up with all modules. There is simply not enough time to catch up later. In order to complete a module successfully, all the tutorials and assignments must be attempted without being selective.

At the University, students are responsible for organising their own study patterns in a balanced and sensible manner to keep on top of the workload and to meet the deadlines in homework assignments and still have time to relax and enjoy life. Make it a regular habit to prepare a schedule with list of things to do each week with time slots for independent study, revision, preparing notes, library use, attending to home assignments plus all other social commitments.

16.2.3 Attending Classes and What to Do if You Miss Them

By regulations, the minimum of 80% attendance for theory classes and completion of all laboratory sessions/field sessions/design sessions/work camp(s)/project(s) are required for a student to be eligible to appear for the end semester examination(s) of the relevant course module. In addition, by not attending lectures and simply copying other students' lecture notes much explanation that is rarely recorded in students' notes will be missed and there is the risk of repeating any errors that might have been made by others. Students who become absent from theory classes/ laboratory sessions/in class assessments/field sessions/design sessions/work camp(s)/project(s)/the date of submission of assignments because of illness, disability or any other acceptable reason should request excuse for the absence from the relevant module coordinator providing supporting documents with the recommendation of the academic advisor. Appeal for the excuse should be submitted within one week from the date of report to the Faculty after the illness or any other acceptable reason. Submitted medical certificates should be in accordance with the Internal Circular issued by the University of Ruhuna.

16.3 Procedures/ Guidelines for Examinations and Evaluations

- All students registered for proper semester in the Faculty do not have to register for the examinations of the same semester.
- All applicants for any repeat should register for the said examination during the period prescribed by the Faculty and make relevant payment. Students under academic concession for any module should also register for the relevant examination of the module.
- All students duly registered for the proper semester and those who registered for repeat examinations/ evaluations shall collect the admission cards during the period prescribed by the Faculty.
- All candidates sitting for any examination conducted by the Faculty:
  - must reach the examination hall at least 10 minutes before the scheduled time.
  - must make sure to carry the University Identity Card/ Record Book and Admission Card with them in to the examination hall and produce to duty staff whenever requested.
  - must make sure that no mobile phones and any unauthorised materials are brought into the examination hall.
  - must make sure that no short notes, equations or any subject related notes are written on calculator case, pencil case, palm or any part of the body or dress before entering in to the examination hall.

- are only allowed to use nonprogrammable calculators. FX991-ES and FX991-ES *Plus* calculators are also allowed to use subject to the condition that memory of the calculator is erased before entering in to the examination hall.
- are not permitted borrowing of calculators, drawing equipment or any stationary from other candidates in the examination hall.
- must observe strict silence during examination.
- must make sure that answer sheets, rough sheets are blank and date stamped before starting answering.
- must not remove any used or unused examination stationary from examination hall.

- Continuous assessment marks of modules will be displayed prior to the end semester examinations.

16.4 Safety Guidelines

In preparation for the career as a professional engineer, safety consciousness and its practice must be developed while at the university. The following are intended as general guidelines:

- Students must not enter workshops or laboratories that display hazard signs unless accompanied by a member of departmental staff. Unauthorised visitors are not allowed into laboratories or workshops unless they are being conducted by a member of staff.
- Do not work alone in a laboratory or workshop. All laboratory and workshop activities must be supervised by a member of academic or technical staff. Do not operate laboratory or workshop equipment without permission and supervision.
- For practical work, loose clothing, jewellery or long hair could be a danger and compliance with Health and Safety requirements is necessary. Similarly, when outside the University on industrial visits or training programmes, safety requirements of the organisation must be complied with.
- As part of the course activities, if any safety equipment like gloves, goggles, overalls, helmet, earmuffs and film badges was issued, it must be used in the correct fashion. While been engaged in any activity where safety equipment should have been issued and was not, a member of academic or technical staff must be consulted.
- Any hazardous spillages, accidents or broken or defective equipment should be reported to a member of academic or technical staff. Do not attempt to clean up or rectify the matter without supervision.

16.5 Standards of Conduct

The students are expected to be responsible for the wellbeing of the campus by respecting the codes of academic conduct and the safety of all members of the community and faculty property. In this respect, they are expected to act as responsible individuals, to conduct themselves with honesty and integrity both personally and academically, and to respect the rights of others. This faculty considers these standards as essential to its mission and its community.

All forms of academic dishonesty such as misrepresentation in coursework, cheating, submission of the work of another person, making false statements to a member of the faculty and alteration or misuse of university documents are considered serious offences within the university community.

Following forms of misconduct are considered serious offences and may be reported for disciplinary action.

- Any student commits or participates in any form of ragging within or outside the faculty,
- Any student conduct which makes it difficult or impossible to proceed with scheduled lectures, seminars, discussion group meetings and related activities, and with examinations or tests.
- Any student's conduct which leads to damage to or theft of university properties or the personal properties of members of faculty and staff, or of fellow students. It also includes conduct which leads to physical injury to, or emotional disturbances of any of the above-mentioned persons.
- Violations of the rules and regulations of the Government and the University.
- Unauthorised use of university facilities, including unauthorised gatherings and having unauthorised guests in hostels.
- Safety violations.
- Violations of rules governing residence in university hostels or in other premises rented for accommodation of students.
- Failure to remit, return or submit financial obligations, property or records of the University, within the time prescribed by the University.

16.6 Some Practicalities

Access to Faculty buildings is restricted after normal working hours due to security, health and safety reasons. Students are not allowed in laboratories, lecture theatres, drawing offices outside normal working hours without special permission. The library and the computer centre will be kept opened for longer hours and students must vacate these premises on request at closing times. All

students entering the Administration Building after 18.00 hrs should sign in and out at the registry maintain by the security.

Photocopying facilities are available during normal working hours in the library and in the Student Centre. When copying from textbooks copyright laws must be adhered to and copies be made only for personal study purposes.

Universities attach a great deal of importance to lectures because they form an indispensable way of introducing the students to a new subject, of introducing fundamental concepts and ideas, giving them sources of information and reading material.

The taking of notes during a lecture is a matter for the student to decide. Efficient note taking keeps the student active while fixing the attention on what is said. It provides the raw material for preparing assignments and revision work for examinations.

To keep systematic notes of lectures, laboratory work, field work, design work and drawing work students are expected to possess basic equipment like science record books, drawing and writing paper, staples, hole puncher, scientific calculators and drawing equipment. Module Coordinator or Academic Advisor may be consulted on making purchase of such personal equipment.

All notices relating to time tabling, visiting lectures, guest lectures, examinations and other official announcements will be placed on notice boards in the administration building. Important notices are also displayed in the web page. Changes in timetables, lecture and laboratory schedules will be placed in the notice boards in lecture theatre building and laboratory buildings.

At various times throughout the course, students will be asked to complete questionnaires relating to various aspects of the degree programme. Responses to them will help to make improvements and take remedial action when necessary.

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