2024
Student Handbook

Faculty of Technology

General Sir John Kotelawala Defence University

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1. General Sir John Kotelawala Defence University

1.1. The University Crest

The Symbolic Composition of The University Crest

The Emblem of Sri Lanka	– Allegiance to the Nation
Cross Swords	– Sri Lanka Army
The Anchor	– Sri Lanka Navy
Two Wings	– Sri Lanka Air Force
The Torch	– Education

1.2. Vision and Mission of the University

1.2.1. Vision

To be a university nationally and internationally known for its unique ability to engage both undergraduate and graduate students in distinctive and interdisciplinary defence related higher education that best serves the tri-services, the state sector and society at large.

1.2.2. Mission

To ensure a high-quality, learner-centred educational experience through undergraduate, graduate, and professional programs along with high quality research across many disciplines in the field of defence, in both residential and non-residential settings in the campus.

1.3. University Song

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Lyrics : Prof HSS Nissanka
Music : Dr Premasiri Kemadasa

1.4. Message from the Vice Chancellor

Greetings on behalf of the entire University community! It is with great pleasure that I extend a warm welcome to each one of you as you embark on a transformative journey at General Sir John Kotelawala Defence University.

Congratulations on your admission to KDU! The next four years of your life here promise to be a blend of challenges and rewards, shaping you into well-rounded individuals ready to make a positive impact. Your presence at KDU is a testament to your potential, and we have high expectations for your academic and personal growth.

As you step into this vibrant academic community, I encourage you to embrace the values of hard work, meticulousness, and accountability for your own learning journey. Uphold principles of honesty, inclusiveness, teamwork, and diversity throughout your undergraduate studies. Now, more than ever, it is your prime duty to seize every opportunity presented to you and work diligently towards fulfilling your higher educational dreams, emerging not just as graduates but as responsible and resourceful Technologists.

KDU is committed to providing you with a dynamic and enriching environment. Our dedicated academic staff, up-to-date curricula, and excellent academic setting are all designed to facilitate your intellectual and personal development. Beyond academics, the University offers a plethora of opportunities for you to engage in sports, arts, culture, and recreational activities, fostering an all-rounded growth.

May your time at KDU be both pleasant and memorable. We envision nurturing you into tomorrow's leaders, inventors, innovators, entrepreneurs, and, most importantly,

responsible individuals contributing actively to the betterment of our Motherland. Wishing you a successful and fulfilling academic journey at General Sir John Kotelawala Defence University.

Rear Admiral HGU Dammika Kumara, VSV, USP, psc, MMaritimePol, BSc (DS)
Vice-Chancellor
General Sir John Kotelawala Defence University

1.5. About KDU

General Sir John Kotelawala Defence University (KDU) was initially established as "Sir John Kotelawala Defence Academy" by the Parliamentary Act No 68 of 1981. The Academy was granted University status by the Sir John Kotelawala Defence Academy (Amendment) Act No 27 of 1988. Subsequently, it was renamed as "General Sir John Kotelawala Defence University" on 11th October 2007. At present, the degrees awarded by the University are recognized by the University Grants Commission of Sri Lanka. It is also a member of the Association of Commonwealth Universities (United Kingdom) and International Association of Universities (IAU).

The University is located in Ratmalana, 12 kilometers from Colombo, on a 48-acre plot of land that was formerly the residence of late General Sir John Kotelawala, Sri Lanka's third Prime Minister. This estate is a sight to behold, and it is further enhanced by the presence of a spectacular lake. Nature's surrounding environment, which includes several unique and rare species of plants, is meticulously maintained to ensure that the historic nature of the building is preserved in its original state.

KDU has continued to make significant strides forward since its renaming to General Sir John Kotelawala Defence University in 2007 and the end of the thirty-year-old war. There have been numerous positive and forward-thinking developments, particularly since 2009. The establishments of the Faculties of Graduate Studies, Defence and Strategic Studies, Medicine, Engineering, Law, Management, Social Sciences and Humanities, Allied Health Science, and the Faculty of Research and Development, which resulted in a significant increase in both human and physical resources. It has also added many new courses under various disciplines, affiliated with other defense educational institutions. With the addition of the two new faculties, the faculty of technology and the faculty of criminal justice in 2022, KDU has grown to become one of the largest universities in the country.

KDU is currently ranked 4th in the country among all universities in Sri Lanka by Times Higher Education Impact ranking system. It was ranked 2nd in the country for 'Quality Education', a remarkable achievement for a young university. The university's desire to establish itself as a truly international institution resulted in the establishment of more than fifty collaborations with other reputable universities throughout the world. It has also taken a significant step forward by becoming a member of the QS University Ranking System's international university ranking league tables. KDU plans to become the best university in the country in the not-too-distant future, with the goal of becoming one of the best in the region.

2. Faculty of Technology

2.1. Vision and Mission

2.1.1. Vision

To be the leading and most sought-after Technology Faculty in the country.

2.1.2. Mission

To produce skilful graduates/ workforce who can support the development drive of the country.

2.2. Message from the Dean

As the Dean of the Faculty of Technology at General Sir John Kotelawala Defence University (KDU), it is my distinct pleasure to extend a heartfelt welcome to each of you, the newest members of our academic family. Congratulations on securing a place in our prestigious faculty; your decision to pursue higher education reflects courage and a commitment to personal and professional growth.

Here at KDU, we are dedicated to providing an environment that fosters innovation, critical thinking, and practical skills that will equip you for the challenges of a rapidly evolving technological landscape. Together, we will explore new horizons, pushing the boundaries of what is possible and discovering solutions to real-world problems.

Upon completing your degree programme, you will emerge as technologists—professionals who transform an engineer's ideas into practical reality. Your focus on practical skills and industry experience will set you apart, positioning you as leaders in your chosen fields. I encourage you to dedicate yourselves to your studies, acquiring the knowledge and skills necessary to become highly sought-after technologists.

Our faculty offers unique degree programmes meticulously designed to meet the real needs of the industry. Aligned with Sri Lanka Qualification Framework Level 6, our programmes adhere to the guidelines set by the country's professional bodies. The degrees we confer not only meet local standards but also align with international benchmarks, ensuring global recognition.

As you embark on the next four years of your academic journey, I wish you the very

best. Enjoy your time at the faculty, but always keep in mind that studying at KDU is an opportunity to carve your own path to success. Engage with the curriculum, participate in research projects, and make the most of our state-of-the-art facilities. I have no doubt that your time here will be enriching and transformative. Welcome to the KDU family,

Warm regards,

Prof. Prasanna Premadasa

Dean

2.3. About the Faculty

The Faculty of Technology was established officially in February 2021, with the approval of the Board of Management of KDU. Under the phase one, the faculty was established with, with two departments and offering four-degree programs.

1. Department of Engineering Technology
2. Department of Biosystems Technology

The new faculty offers Bachelor of Engineering Technology Honours (BET Hons) and Bachelor of Technology Honours (BT Hons) degree programmes in the following four specializations.

i. Bachelor of Engineering Technology Honours in Construction Technology

ii. Bachelor of Engineering Technology Honours in Building Services Technology

iii. Bachelor of Technology Honours in Information and Communication Technology

iv. Bachelor of Engineering Technology Honours in Biomedical Instrumentation Technology

v. Bachelor of Biosystems Technology Honours in Applied Biotechnology

2.4. Academic and non-academic staff members of the faculty

2.4.1. Academic staff

Prof KMGP Premadasa

Dean Faculty of Technology

Professor in Biotechnology

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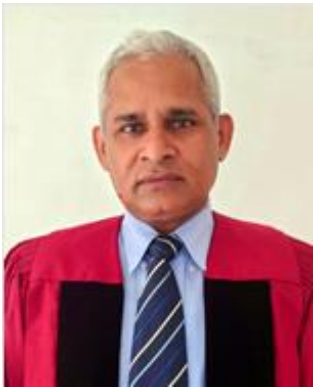

NSMDK Nanayakkara

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2.4.2. Non- academic staff

Ms. KH Malwenna
Assistant Registrar
MLRHRM(Colombo), MHRM(Colombo), BLE(Colombo)
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Ms. WDP Upeksha
Management Assistant

2.4.3. Adjunct staff

Prof George Dias
Adjunct Professor (Teaching & Research)
BDS (S Lanka) MS (Dental Surgery), PhD (Otago), Specialist in Dental Surgery PGIM (Colombo)

Dr Jithendra Bandara Ratnayaka

Adjunct Senior Lecturer Gr. II (Teaching & Research)

BEng(Hons) (Sheffield) PhD (Otago)

Prof Klintean Wunnapuk

Adjunct Senior Lecturer Gr. I (Teaching & Research)

PhD (Toxicology)

Prof KR Koswattage

Adjunct Professor

PhD (Kobe University),M.Sc(Kobe University), BSc. (Hons), Special degree in Physics, University of Colombo

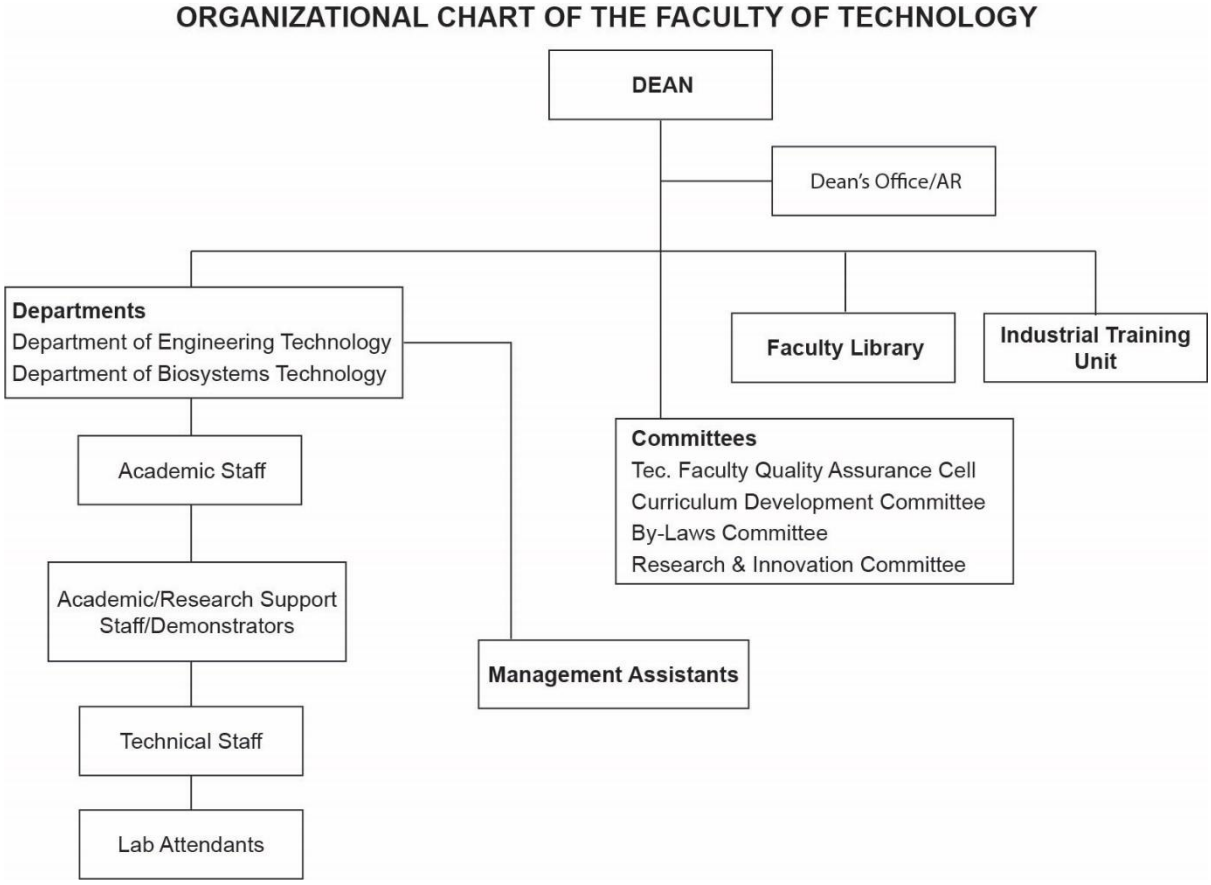
2.5. Graduate Profile

The Faculty of Technology's goal is to produce graduates who have the necessary knowledge, technical skills, and competencies, as well as the communication, managerial, lifelong learning, entrepreneurial and attitudes to work in the industry as part of a team to ensure the highest standards and best practices, and to contribute to the nation's economic and industrial development.

At the completion of a degree programme, a student of the Faculty of Technology will:

1. Have a thorough understanding of numerical and computational methods used in technological applications, as well as the ability to apply them.
2. Have instilled the knowledge and skills required to apply best practices in science and engineering to a wide range of real-world problems in industry, as well as the ability to collaborate with industry to solve well-defined problems.
3. Developed technical skills to address current and emerging industry challenges, as well as a desire and willingness to participate in the broadest context of technological change, self-directed learning, and lifelong learning.
4. Be able to show leadership, problem-solving, teamwork, communication, attitudes, professional ethics, and ethical behavior as essential professional abilities.
5. Developed entrepreneurial skills by learning to be creative and innovative.
6. Have the necessary knowledge, skills, attitudes, and ethical stance to conduct applied research and implement appropriate practices in order to meet societal needs and contribute to long-term economic growth.

2.6. Organizational Structure



2.7. Orientation & Intensive Programmes

A three-week pre-academic preparatory program is conducted immediately following the student's acceptance into the program. This Intensive Program is designed to help students improve their knowledge of the English language and mathematics prior to the start of their academic activities at their respective degree programmes.

In order to assist new students in becoming acquainted with the University's life, environment, culture, and activities, a three-week Orientation Program is offered to all new students. It is the Dean of the Faculty of Technology, along with the heads of departments and Orientation and Intensive Programme Coordinators of the Faculty, as well as University officers and resource persons from various organizations such as the Library, Career Guidance Unit and External Organizations, who plan and carry out the activities of this Orientation Program. As part of the faculty's mentoring program, each new student is paired with a lecturer who will serve as a mentor throughout their time at the university. Students are encouraged to maintain positive relationships with academic staff in order to gain the most benefit from their educational experiences and to address any other issues that may arise during their time at the university.

2.8. Accreditation and Quality Assurance of Degree Programmes

The Technology Faculty Quality Assurance Cell (TQAC) is responsible for assisting faculty in the implementation of Quality Assurance-related policies. In accordance with Sri Lanka Qualification Framework, all of the degree programs offered by the faculty are placed at level 6. (SLQF). The Volume of Learning is a minimum of 120 credits. The degree program will take four academic years to complete in its entirety. As a result, the Bachelor of Engineering Technology and Bachelor of Technology degree programs are both recognized as Honours degrees.

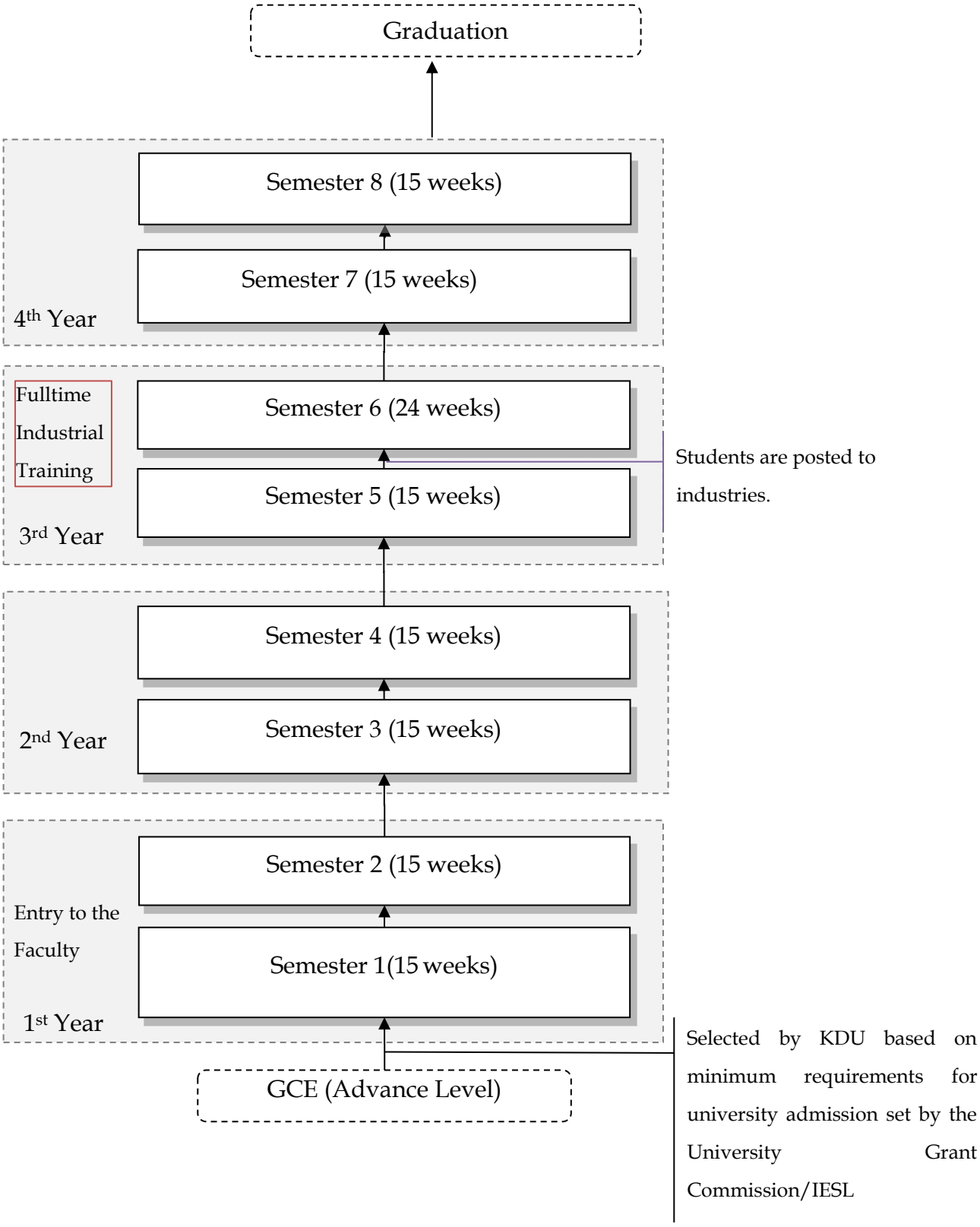
BET degrees are accredited in accordance with the Sydney Accord. The Institution of Engineers Sri Lanka (IESL) is the professional body that recognizes and accredits Bachelor of Engineering Technology (BET) degrees. As a result, all BET degree programs have been developed in accordance with the rules and guidelines established by the IESL. Similarly, the Computer Society of Sri Lanka (CSSL) is the governing body for degree programs in information and communication technology (ICT). Hence, the ICT program, has been developed in accordance with the guidelines of the Soul Accord.

2.9. Academic Rules and Procedures

Students should be aware of rules and regulations that govern the assessment of student learning, the maintenance of academic grade records, monitoring of academic standing and adherence to codes of conduct. Student responsibilities, including academic rules, are set forth in the University's 'RULES FOR THE CONDUCT OF DEGREE PROGRAMME, which is available online. Any deviations made with regard to the Faculty of Technology are described in the "Rules for the Faculty of Technology," which is also available online. Students are also subject to certain University policies which are also made available online.

2.10. Semester System

A semester system typically consists of two 15-week terms separated by a week break in the middle. A student typically takes 8-10 modules (subjects) per semester, for a total of 15 to 20 credits. As a result, a student must study for eight semesters during his or her four years at university. A semester usually begins in January or July. Throughout the semester, lectures, practical, and formative assessments are held. Students are given one week of study leave at the end of the semester to prepare for end semester exams, also known as summative assessments. Typically, the examination lasts three weeks, followed by a vacation week. Following their vacation, students begin the next semester. The industrial training is scheduled for the second semester of the third year. The average duration of industrial training is 24 weeks. Which is a requirement imposed by regulatory bodies. During this time, students are assigned to appropriate industries to gain experience in real-world work environments.


Graduation
Semester 8 (15 weeks)
Semester 7 (15 weeks)
4th Year
Fulltime Industrial Training
Semester 6 (24 weeks)
Semester 5 (15 weeks)
3rd Year
Students are posted to industries.
Semester 4 (15 weeks)
Semester 3 (15 weeks)
2nd Year
Semester 2 (15 weeks)
Entry to the Faculty
Semester 1(15 weeks)
1st Year
GCE (Advance Level)
Selected by KDU based on minimum requirements for university admission set by the University Grant Commission/IESL

2.10.1. Grading System

GPA System

Your GPA, or Grade Point Average, is a number that indicates how well or how high you performed on average in your modules. It is intended to grade you on a GPA scale ranging from 1.0 to 4.0 throughout your studies, indicating whether your overall grades have been high or low. This number is then used to determine whether you meet the university's standards and expectations for classes.

Student performance is graded on a scale ranging from "A+" to "D+". Grades in respect of all Courses Unit examination is determined as in the table below.

Grades and Grade Point Value (GPV)

Marks	**Grade**	**GPV**
85-100	A+	4.00
75-84	A	4.00
70-74	A-	3.70
65-69	B+	3.30
60-64	B	3.00
55-59	B-	2.70
50-54	C+	2.30
45-49	C	2.00
40-44	C-	1.70
35-39	D+	1.30
<35	F	0.00
ES <35	le	0.00
CA <35	la	0.00
Both ES & CA <35	lb	0.00
Not eligible	ne	0.00
Absent	ab	0.00
Excused	ex	0.00

a. Grade "C" and above are pass grades. They require, in addition to achieving the overall mark indicated, a mark of 35% or above in the ES component, and 35% or above in the CA component.
b. Grade "C– "and "D+" are conditional pass grades and require, in addition to achieving the overall mark indicated, a mark of 35% or above in the ES component, and 35% or above in the CA component.
c. Grade "Ia" and "Ie" are incomplete grades given for failing to reach 35% in the ES and CA components respectively.
d. Grade "Ib" is a fail grade given for failing to reach 35% for both ES and CA components.
e. "ne" is indicative of "not eligible" and is recorded when the eligibility criteria to sit for the ES examination have not been satisfied.
f. "ab" is recorded for being absent at an ES examination. The CA mark will be carried over to a subsequent sitting as a repeat candidate.
g. "Ex" is recorded for being absent for the ES examination for a valid excuse accepted by the Faculty Board. The CA mark will be carried over to a subsequent sitting as a first attempt candidate at the next scheduled ES examination.
h. The highest grade obtainable at a repeat attempt, including to upgrade a result, is the grade "C", other than for NGPA Course Units

2.10.2. Grade Point Average (GPA)

The GPA is the credit weighted average of the grade points of value of all Course Units except NGPA Course Units taken in the degree programme.

GPA is calculated for each semester (SGPA), for each year (YGPA) and for the entire degree programme (FGPA), as follows:

$$GPA = \sum \frac{XiYi}{Yi}$$

where Xi= Grade Point Value of the ith Course Unit

Yi= Number of credits in the ith Course Unit

Semester Grade Point Average (SGPA)

The Semester Grade Point Average (SGPA) is the Cumulative GPA for a semester and ascertains the performance of a student in the particular semester. It is calculated on a weighted basis as follows:

$$SGPA = \frac{\sum [\text{Grade Point scored for Course Unit} \times \text{Credit value of Course Unit}]}{\text{Cumulative credit value of all GPA Course Units of the Semester}}$$

Year Grade Point Average (YGPA)

The Year Grade Point Average (YGPA) is the Cumulative GPA for a year, and ascertains the performance of a student and whether the student can proceed to the following year. It is calculated on a weighted basis as follows:

$$YGPA = \frac{\sum [\text{Grade Point scored for Course Unit} \times \text{Credit value of Course Unit}]}{\text{Cumulative credit value of all GPA Course Units of the Year}}$$

Final Grade Point Average (FGPA)

The Final Grade Point Average (FGPA) is the Cumulative GPA for the entire period of a degree programme and ascertains the overall performance of a student in the degree programme. It is used in the award of a Class or a Pass in the degree. It is calculated to the second decimal place on the completion of all requirements for such programme as follows:

$$FGPA = \frac{\sum [\text{Grade Point scored for Course Unit} \times \text{Credit value of Course Unit}]}{\text{Cumulative credit value of all GPA Course Units of the Degree Programme}}$$

Non-GPA credit Course Units (NGPA Course Units) shall not be considered for determining the Semester Grade Point Average (SGPA), Year Grade Point Average (YGPA) or Final Grade Point Average (FGPA).

2.11. Assessment criteria

Students in the Faculty of Technology will be evaluated in order to assess their knowledge, understanding, and skills. To ensure that students achieve the intended learning outcomes, the faculty has a robust student assessment strategy in place. Formative and summative assessment methods are used in student evaluation.

Formative Assessment – Each module will have at least three evaluation components, as specified in the module descriptor. The detailed curriculum and module descriptors indicate the weightage for each assessment component for a given module. Some examples of formative assessment; Quizzes, Tutorials, Assignments, Practical Sessions, On-site Trainings, Field Visits, Mid-semester Examination

Summative Assessment – The goal is to evaluate student learning at the end of the semester in order to assess whether the intended learning outcomes have been met. Some examples of summative assessment; End-Semester Examinations, Final presentation for Industrial training and Final report, Research Project Thesis

In keeping with the requirement for a Technology graduate, more significant weightage is given for CAS examinations in most modules. However, the performance is evaluated by giving more considerable weightage for the ES in theory-based modules offered in the first three semesters.

Different assessment methods

1. Quiz (CAS)

Importance and Way of Conducting: Conducted by the lecturers after completing a specific part of a module. These will either pre informed or conducted as pop-up examinations without a prior notice. This will be used to assess the level of understanding of a given topic or section of the module by the students.

Evaluation: Evaluation done by the lectures of respective modules. Some percentage of total marks allocated for CAS component will be given (varying with modules offered).

2. Tutorials (CAS)

Importance and Way of Conducting: Conducted by the lecturers after completing a specific part of a module as an individual or group tutorials. The deadline of the submission of tutorials will be informed. Following correction of the coursework, a discussion with the students will be conducted. This will give students an opportunity to assess their level of understanding.

Evaluation: Evaluation done by the lectures of respective modules. Some percentage of total marks allocated for CAS component will be given (varying with modules offered) and marks will be allocated to the whole group or to individual personnel (depending on the type of tutorial).

3. Assignments (CAS)

Importance and Way of Conducting: Conducted by the lecturers after completing a specific part of a module as an individual or group assignment. The deadline of the submission of assignments will be informed. Following correction of the coursework, a discussion with the students will be conducted. This will give students an opportunity to understand their strengths and weaknesses.

Evaluation: Evaluation done by the lectures of respective modules. Some percentage of total marks allocated for CAS component will be given (varying with modules offered) and marks will be allocated to the whole group or to individual personnel (depending on the type of assignment).

4.Practical Sessions (CAS)

Importance and Way of Conducting: Conducted by the lecturers after completing a specific part of a module. The date/time and the area covered by the practical sessions will be pre informed. A practical sheet will be issued to students detailing the activity. A course work will also be give to be completed by students following the practical.

The practical will be performed either individually or as a group.
This is important to develop practical skills of students.

Evaluation: Evaluation done by the lectures of respective modules or the instructors on their behalf. Some percentage of total marks allocated for CAS component will be given (varying with modules offered) and marks will be allocated to individual personnel.

5. On-site Trainings (CAS)

Importance and Way of Conducting: Students will be placed to the industries (after completing a specific module) to obtain hands-on experiences for what they learnt during the lectures. These are conducted/supervised by the heads of sections under the supervision of the Engineers at the sites. The allocated tasks could be either a group work or individual task. This is important to provide students with real world experience to apply what they learn in the class room.

Evaluation: Evaluation done by the respective lecturer of the module with the assistance of the Engineers at the sites. Some percentage of total marks allocated for CAS component will be given (varying with modules offered). Those will be given by considering the achievement level in completing the tasks given during the on-site training in the industry. Marks will be allocated to the whole group or to individual personnel (depending on the type of task)

6. Field Visits (CAS)

Importance and Way of Conducting: Students will be given opportunity to visit industries to observe and experience what they learnt during the lectures. Academics of the respective module will lead these visits. The students will be asked to conduct a presentation or submit a report (individual or group work) following the visit adhering to the guideline and deadlines provided by the lecturer. This is also important to expose students to real world scenarios.

Evaluation: Evaluation done by the lectures of respective modules. Some percentage of total marks allocated for CAS component will be given (varying with modules

offered) and marks will be allocated to the whole group or to individual personnel (depending on the type of task).

7. Mid-semester Examination (CAS)

Importance and Way of Conducting: Conducted by the lecturers after completing or near completion of at least 50% of course content of a given module. This test will provide students with an opportunity to assess their level of understanding of concepts related to the module. This will also help the teachers to assess the level of understanding by the students and alter the teaching strategy accordingly.

Evaluation: Evaluation done by the lectures of respective modules. Some percentage of total marks allocated for CAS component will be given (varying with modules offered).

8. End-Semester Examinations (ES)

Importance and Way of Conducting: Conducted by the examination department of KDU at the end of the semester. Examination papers will be prepared by the respective lecturers and will be moderated. Question papers could be either MCQ, semi-structured, structured, essay or combination of two or more of the above.

Evaluation: Evaluation done by the lecturers of respective modules. Marked answer scripts will be given back to students for their perusal. Students will also be given an opportunity to request re correction. The total marks allocated for ES component will be given, however the allocated marks will vary in different modules.

9. Industrial Training (CAS/ES)

Importance and Way of Conducting: Students will be placed to the industries in the 3rd year, semester II (for industrial training) During these period, students will be given opportunity to obtain hands-on experiences, to solve problems exists in the industry, to come up with solutions to identified industrial issues, product development etc. These are supervised by qualified engineers of respective department/ industries. This will provide students an opportunity to engage with the industry and develop their skills.

Evaluation: Evaluation done by the Industrial training unit of the Faculty of Technology. Student will be requested to submit a report on what they have learned during the training and their daily diary filled during the industrial training. The evaluation of daily diaries will be done by the Industrial Training Engineer, heads of respective departments/ sections in liaison with the representative from the NAITA. Students will be asked to do a presentation and a mini-viva voce will also be conducted. Marks will be allocated individually.

10. Thesis submission and *viva voce* (ES)

Importance and Way of Conducting: Following the completion of their one-year long research project, students are requested to submit a detailed thesis. Following the evaluation of the thesis, students are requested to do a presentation followed by a Viva voce.

Evaluation: Thesis will be evaluated by two examiners nominated by the HOD of the department in liaison with respective internal supervisors, final viva voce will be taken by a panel appointed by the HOD, comprising of at least two staff members of the department and an external examiner.

2.12. Vice Chancellor's list and Dean's list

Any student who achieves an YGPA of 3.80 or above in the order of merit shall be eligible to be in the Vice Chancellor's List. Any student who achieves a YGPA of between 3.60 and 3.79 in the order of merit, shall be eligible to be in the Dean's List. For inclusion in the VC's List or in the Dean's List, a student shall have not been subjected to punishment on disciplinary grounds or have not been found guilty of violation of the code of conduct. Those who have been selected to VC's and Dean's list are eligible for 50% and 25% reduction in their course fee respectively for the given year.

3. Departments of the Faculty

3.1. Department of Engineering Technology

3.1.1. Introduction

Department focuses on producing graduate technologists who can apply knowledge in Engineering Technology to solve real life problems.

Department of Engineering Technology offers three-degree programs:

- Bachelor of Engineering Technology Honours in Construction Technology
- Bachelor of Engineering Technology Honours in Building Services Technology.
- Bachelor of Engineering Technology Honours in Biomedical Instrumentation Technology.

3.1.2. BET (Hons) in Construction Technology

Objectives of the Degree Programme

The objective of this degree program is to produce graduates with the necessary knowledge, technical skills, and competencies, as well as the communication, managerial, lifelong learning, and entrepreneurial skills to work in the construction industry as a member of a team to ensure the highest standards and best practices in the construction of buildings, bridges, highways, and their maintenance and operations.

Graduate profile

At graduation, Construction Technology degree holders of the General Sir John Kotelawala Defence University will possess following knowledge, skills, attitudes and mind-set:

Knowledge

PO1: Subject Knowledge: Possess a breadth and depth of knowledge in Basic Sciences and Fundamentals of Engineering Technology.

PO2: Practical Knowledge and Application: Create, select and apply appropriate techniques, resources, and modern technology and IT tools, including prediction and modelling, to broadly defined activities, with an understanding of the limitations.

Skills and Competencies

PO3: Communication: Communicate effectively on well-defined Technological activities with the professional community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO4: Team work and Leadership: Function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings.

PO5: Creativity and Problem Solving: Suggest solutions for well-defined technical problems and design systems, components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.

PO6: Managerial and Entrepreneurship: Graduates will be able to apply Technical and management principles in their own work and as a member and leader in a multidisciplinary team to manage projects. They will also be able to use their skills to think out of the box and generate new business ideas and to take risk in order to achieve success.

PO7: Information Usage and Management: Select and use information appropriately with modern Technologies and IT tools, including prediction and modelling, to well-

defined activities, with an understanding of the limitations.

PO8: Networking and Social Skills: Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional Technological practices.

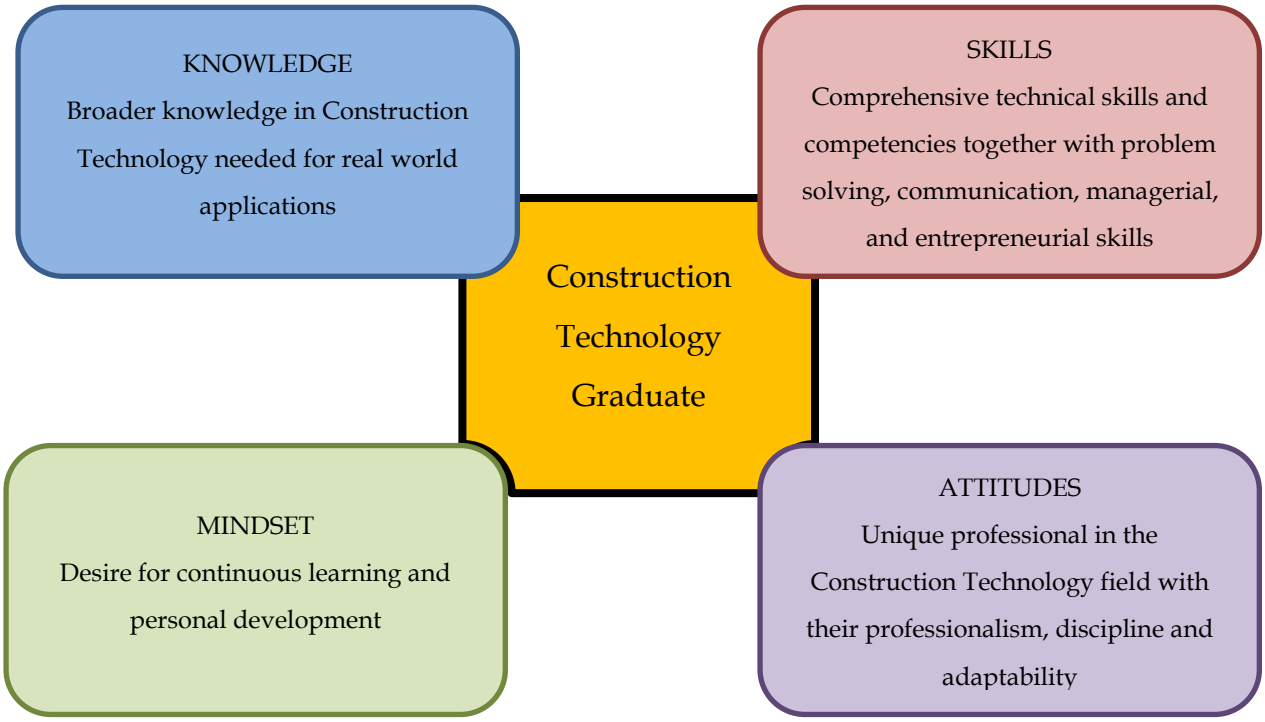
PO9: Adaptability and Flexibility: Demonstrate that the Technologist can adapt to changing circumstances and environments and take on board new ideas and concepts.

Attitudes and Mindset

PO10: Attitudes, Values and Professionalism: Apply professional ethical principles and commit to professional ethics and responsibilities and norms of Technological practice. They will be able to demonstrate leadership and the ability to positively influence others.

PO11: Vision for Life: Motivated, conscientious and self-sufficient individuals and demonstrate congruence between the values of the individual as a Technologist and their actions.

PO12: Updating Self / Lifelong Learning: Recognize the need and prepare and engage in independent and lifelong learning in the context of technological changes



Detailed Curriculum for the Degree Bachelor of Engineering Technology Honours in Construction Technology

SEMESTER 1

MODULE NAME
Engineering Drawing
Fundamentals of Civil Engineering
Workshop Technology
Introductory Physics
Mathematics
Programming Fundamentals
Thermodynamics
English I

SEMESTER 2

MODULE NAME
Applied Mechanics
Soil Mechanics and Geology
Technical drawings and CAD
Engineering Measurement
Fluid Mechanics
Calculus I
Object Oriented Programming
English II
Communication Skills I

SEMESTER 3

MODULE NAME
Strength of Material
Concrete Technology
Construction Technology
Machinery Technology I
Soil Mechanics
Surveying I
Calculus II
English III
Communication Skills II

SEMESTER 4

MODULE NAME
Construction Regulations and Ethics
Estimating and Tendering in Construction
Building Construction and Materials
Construction Management
Surveying II
Structural Mechanics
Machinery Technology II
English IV
Communication Skills III
Tamil Basics for Beginners
Sinhala Basics for Beginners

SEMESTER 5

MODULE NAME
Foundation Technology
Reinforced Concrete Technology
Construction Camp
Construction Safety and Health Management
Mini Project (Group Project)
English V
Communication Skills IV
Dancing
Photography

SEMESTER 6

MODULE NAME
Industrial Training

SEMESTER 7

MODULE NAME
Steel Structure Technology
Solid and Hazardous Waste Management
Numerical Methods in Engineering Technology
Building Services Technology
Hydrology and Hydraulic Structures
Highway Construction and Maintenance Technology
Advanced Techniques in Construction processes
Statistics and Research methodology

SEMESTER 8

MODULE NAME
Research project
Sustainable Construction
Computer Aided Structural Design
Bridge Construction
Artificial Intelligence in Construction Technology
Disaster Resilient Construction
Commercial and Industrial Law
Business economics and Financial Accounting
Entrepreneurship and Small business
International Relations
Art and Tradition

3.1.3. BET (Hons) in Building Services Technology

Objectives of the Degree Programme

The aim of this degree programme is to produce Building Services Technology graduates who have knowledge, technical skills and competencies together with communication, managerial, attitude for lifelong learning and entrepreneurial skills necessary to work in Building Services Engineering industry as part of a team to ensure the highest standards and best practices in Building services industry.

Graduate profile

At graduation, Building Services Technology degree holders of the General Sir John Kotelawala Defence University will possess following knowledge, skills, attitudes and mind-set:

Knowledge

PO1: Subject Knowledge: Possess a breadth and depth of knowledge in Basic Sciences and Fundamentals of Engineering Technology related to Building Services Technology.

PO2: Practical Knowledge and Application: Create, select and apply appropriate techniques, resources, and modern technology and IT tools, including prediction and modelling, to broadly defined activities, with an understanding of the limitations.

Skills and Competencies

PO3: Communication: Communicate effectively on well-defined Technological activities with the professional community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO4: Team work and Leadership: Function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings.

PO5: Creativity and Problem Solving: Suggest solutions for well-defined technical problems and design systems, components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and

environmental considerations.

PO6: Managerial and Entrepreneurship: Graduates will be able to apply Technical and management principles in their own work and as a member and leader in a multidisciplinary team to manage projects. They will also be able to use their skills to think out of the box and generate new business ideas and to take risk in order to achieve success.

PO7: Information Usage and Management: Select and use information appropriately with modern Technologies and IT tools, including prediction and modelling, to well-defined activities, with an understanding of the limitations.

PO8: Networking and Social Skills: Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional Technological practices.

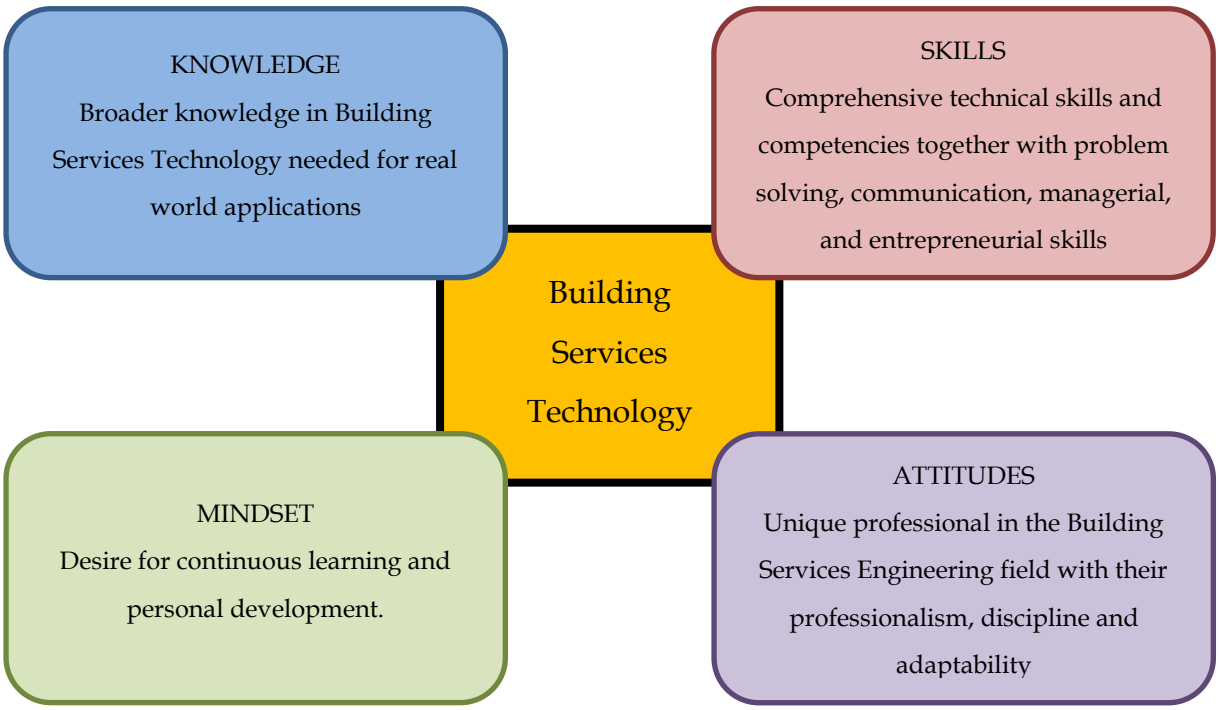
PO9: Adaptability and Flexibility: Demonstrate that the Technologist can adapt to changing circumstances and environments and take on board new ideas and concepts.

Attitudes and Mindset

PO10: Attitudes, Values and Professionalism: Apply professional ethical principles and commit to professional ethics and responsibilities and norms of Technological practice. They will be able to demonstrate leadership and the ability to positively influence others.

PO11: Vision for Life: Motivated, conscientious and self-sufficient individuals and demonstrate congruence between the values of the individual as a Technologist and their actions.

PO12: Updating Self / Lifelong Learning: Recognize the need for and have the preparation and ability to engage in independent and lifelong learning in the context of technological changes.


KNOWLEDGE
Broader knowledge in Building Services Technology needed for real world applications
SKILLS
Comprehensive technical skills and competencies together with problem solving, communication, managerial, and entrepreneurial skills
Building Services Technology
MINDSET
Desire for continuous learning and personal development.
ATTITUDES
Unique professional in the Building Services Engineering field with their professionalism, discipline and adaptability

Detailed Curriculum for the Degree Bachelor of Engineering Technology Honours in Building Services Technology

SEMESTER 1

MODULE NAME
Introductory Physics
Engineering Drawing
Fundamentals of Civil Engineering
Workshop Technology
Mathematics
Programming Fundamentals
Thermodynamics
English I

SEMESTER 2

MODULE NAME
Fluid Mechanics
Thermofluids
Applied Mechanics
Technical Drawing and CAD
Fundamentals of Electrical and Electronic Engineering
Calculus I
English II
Communication Skills I

SEMESTER 3

MODULE NAME
Fundamentals of Electrical Systems
Water Management
Ancillary Systems
Industrial Health and Safety
Strength of Materials
Computer Studies, Networking and Telecommunication
Calculus II
English III
Communication Skills II

SEMESTER 4

MODULE NAME
Heating, Ventilation, Air Conditioning and Refrigeration (HVACR) Systems
Hydraulic and Pneumatic Systems
Electrical Installation Technology
Fire Protection, Fire Detection and Extinguish Systems
Plumbing and Drainage Systems
Building Compliance, Regulations & Codes
English IV
Communication Skills III
Tamil Basics for Beginners
Sinhala Basics for Beginners

SEMESTER 5

MODULE NAME
HVACR Systems Installation, Testing, Commissioning and Maintenance
Design, Installation and Maintenance of Vertical Transportation Systems
Steam Generation, Distribution and Hot Water Systems
LP Gas and Medical Gas Systems
Human Resource Management
Mini Research Project
English V
Communication Skills IV
Dancing
Photography

SEMESTER 6

MODULE NAME
Industrial Training

SEMESTER 7

MODULE NAME
Building Automation Systems
Building Assessment and Improvement
Building Acoustics
Intelligent Buildings
Maintenance Management
Professional Ethics
Statistics and Research Methodology

SEMESTER 8

MODULE NAME
Group Design Project (Final Year Project)
Commercial and Industrial Law
Facility Management
Building Lighting Systems
Building Integrated Renewable Energy Systems
Business Economics and Financial Accounting
Entrepreneurship and Small Business
Sustainable Construction
International Relations

3.1.4. BET (Hons) in Biomedical Instrumentation Technology

Objectives of the Degree Programme

This degree program is designed to provide graduates with the technical skills necessary to work in a hospital setting as a member of a healthcare team to ensure the highest standards and best practices in medical device safety, security, interoperability, and functionality.

Graduate Profile

At graduation, Biomedical Instrumentation Technology degree holders of the General Sir John Kotelawala Defence University will possess the following knowledge, skills, attitudes and mindset:

Knowledge

PO1: Possess a breadth and depth of knowledge in Basic Sciences and Fundamentals of Engineering Technology.

PO2: Create, select and apply appropriate techniques, resources, and modern technology and IT tools, including prediction and modelling, to broadly defined activities, with an understanding of the limitations.

Skills and Competencies

PO3: Communicate effectively on well-defined Technological activities with the professional community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO4: Function effectively as an individual and as a member or leader in diverse teams and multidisciplinary settings.

PO5: Suggest solutions for well-defined technical problems and design systems, components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.

PO6: Graduates will be able to apply Technical and management principles in their

work and as members and leaders in a multidisciplinary team to manage projects. They will also be able to use their skills to think out of the box, generate new business ideas and take risks to achieve success.

PO7: Select and use information appropriately with modern Technologies and IT tools, including prediction and modelling, to well-defined activities, with an understanding of the limitations.

PO8: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to Technological professional practices.

PO9: Adaptability and Flexibility: Demonstrate that the Technologist can adapt to changing circumstances and environments and take on board new ideas and concepts.

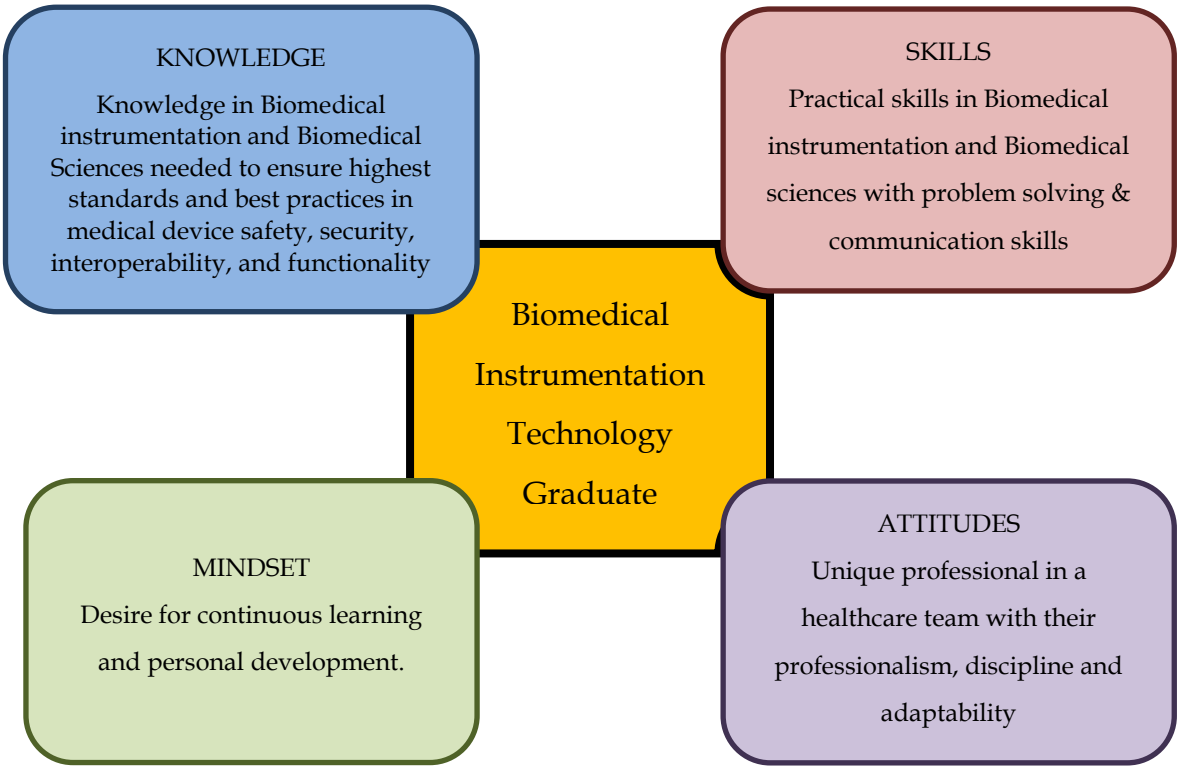
Attitudes and Mindset

PO10: Apply professional, ethical principles and commit to professional ethics and responsibilities and norms of Technological practice. They will be able to demonstrate leadership and positively influence others.

PO11: Motivated, conscientious and self-sufficient individuals and demonstrate congruence between the values of the individual as a Technologist and their actions.

PO12: Recognize the need for and prepare and engage in independent and lifelong learning in the context of technological changes.

Graduate Profile



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Detailed Curricular for the Degree Bachelor of Engineering Technology Honours in Biomedical Instrumentation Technology

SEMESTER 1

MODULE NAME
Introductory Physics
Thermofluidics
Introductory Biology
Introductory Chemistry
Mathematics
Programming Fundamentals
Thermodynamics
English I

SEMESTER 2

MODULE NAME
Medical Physics
Fundamentals of Electrical & Electronics Engineering
Human Anatomy & Physiology I
Biochemistry
Biomedical Ethics
Calculus I
Object-Oriented Programming
English II
Communication Skills I

SEMESTER 3

MODULE NAME
Electrical Machines and Drives
Embedded Systems
Medical Electronic Devices
Signals and Systems
Computer Studies, Networking and Telecommunicatio n
Human Anatomy & Physiology II
General Microbiology
Calculus II
English III
Communication Skills II

SEMESTER 4

MODULE NAME
Occupational Health & Safety
Digital signal processing
Biomedical Control Systems I
Medical Instrumentation I
Biomedical Sensors and Actuators
Medical Image Processing
Principals of Business Management
Immunology
English IV
Communication Skills III
Tamil basics for beginners
Sinhala basics for beginners

SEMESTER 5

MODULE NAME
Medical Instrumentation II
Biomedical Control Systems II
Biomedical Signal Processing
Medical Imaging Systems
Mini Project (group project)
Healthcare Waste Mgt. Systems
English V
Communication Skills IV
Dancing
Photography

SEMESTER 6

MODULE NAME
Industrial Training

SEMESTER 7

MODULE NAME
Advanced Diagnostics and Surgical Equipment
Installation of Medical Equipment
Codes Regulations and Patient Safety
Hospital Info. Management Systems
Biomedical Laser Instrumentation
Marketing
Statistics and Research Methodology

SEMESTER 8

MODULE NAME
Research Project
Radiopharmacy and Radiotherapy Equipment
Medical Robotics
Wearable Systems and Mobile Healthcare
Artificial Intelligence in Healthcare
Healthcare Entrepreneurship
Project Management
IoT and Telehealth Technology
Bioinformatics
Healthcare Device System Security
International Relations
Art and Tradition

3.2. Department of Biosystems Technology

3.2.1. Introduction

The department focuses on producing Technologists with the knowledge and technical expertise in Information and Communication Technology and applied biotechnology.

Department of Bio-systems Technology offers a Two-degree program:

- Bachelor of Engineering Technology Honours in Information and Communication Technology
- Bachelor of Biosystems Technology Honours in Applied Biotechnology

3.2.2. BT (Hons) in Information and Communication Technology

Objectives of the Degree Programme

The aim of this degree programme is to produce a graduate with sound knowledge in Information and Communication Technology, and in technical concepts to develop abilities which are a combination of those observed in an analytical technologist and an ICT Specialist.

Graduate profile

At graduation, Information and Communication Technology degree holders of the General Sir John Kotelawala Defence University will possess following knowledge, skills, attitudes and mind-set:

Knowledge

PO1: Subject Knowledge: Possess a breadth and depth of knowledge in Basic Sciences and Fundamentals of ICT.

PO2: Practical Knowledge and Application: Create, select and apply appropriate techniques, resources, and modern technology and IT tools, including prediction and modelling, to broadly defined activities, with an understanding of the limitations.

Skills and Competencies

PO3: Communication: Communicate effectively on well-defined Technological activities with the professional community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations and give and receive clear instructions.

PO4: Teamwork and Leadership: Function effectively as an individual, and as a member or leader in diverse teams and in multidisciplinary settings.

PO5: Creativity and Problem Solving: Suggest solutions for well-defined technical problems and design systems, components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.

PO6: Managerial and Entrepreneurship: Graduates will be able to apply Technical and management principles in their own work and as a member and leaders in a multidisciplinary team to manage projects. They will also be able to use their skills to think out of the box and generate new business ideas and take risk in order to achieve success.

PO7: Information Usage and Management: Select and use information appropriately with modern Technologies and IT tools, including prediction and modelling, to well-defined activities, with an understanding of the limitations.

PO8: Networking and Social Skills: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional Technological practices.

PO9: Adaptability and Flexibility: Demonstrate that the Technologist can adapt to changing circumstances and environments and take on board new ideas and concepts.

Attitudes and Mindset

PO10: Attitudes, Values and Professionalism: Apply professional ethical principles and commit to professional ethics and responsibilities and norms of Technological practice. They will be able to demonstrate leadership and the ability to positively influence others.

PO11: Vision for Life: Motivated, conscientious and self-sufficient individuals and demonstrate congruence between the values of the individual as a Technologist and their actions.

PO12: Updating Self / Lifelong Learning: Recognize the need and prepare and engage in independent and lifelong learning in the context of technological changes

KNOWLEDGE

Broader knowledge in ICT needed for real world applications

SKILLS

Intellectual and practical skills in ICT together with problem solving, communication, managerial, and entrepreneurial skills

Information & Communication Technology Graduate

MINDSET

Desire for continuous learning and personal development.

ATTITUDES

Unique professional in ICT with their professionalism, discipline and adaptability

Detailed Curriculum for the Degree Bachelor of Technology Honours in Information and Communication Technology

SEMESTER 1

MODULE NAME
Information Technology Concepts
Fundamentals of Programming
Fundamental of Visual Computing
Mathematics
Fundamental of Electrical Engineering
Programming Laboratory
English Study Skills for ICT

SEMESTER 2

MODULE NAME
Computer Architecture and Organization
Basics of Digital and Analog Electronics
Database Systems
Web Design and Development
Digital and Analog Laboratory
Presentation Skills for ICT
Calculus I
Principles of Management

SEMESTER 3

MODULE NAME
Software Engineering
Object Oriented Programming
Data Communication and Networking
Data Structures and Algorithms
Human Computer Interaction
Writing and Speaking Skills
Calculus II

SEMESTER 4

MODULE NAME
System Administration and Maintenance
Python Programming
Career Development Plan
Systems Analysis and Design
Graphic Designing and Animation
Open Source Development
Skill Development Project (Group)
Research Writing Skills

SEMESTER 5

MODULE NAME
Mobile Application Development
Information Security
Research Methodology & Statistics
Emerging Technologies in ICT
Group Project
Entrepreneurship & Small Business
Professional Ethics

SEMESTER 6

MODULE NAME
Industrial Training

SEMESTER 7

MODULE NAME
Internet of Things and Applications
Information Management Systems
ICT Project Management
Advanced Computer Networks
Game Development
Software Quality Engineering
Business & Industrial Law
Tamil basics for beginners
Sinhala basics for beginners

SEMESTER 8

MODULE NAME
Digital Marketing
Cloud Computing
Data Analytics
Cyber Security
Environment Creation for Virtual Reality
Advanced Software Skills
Individual Project
Embedded System Development
IT for Environmental Engineering
IT for Agriculture Technology
IT for Health
Industrial Technology
Military Technology

3.2.3 BBT (Hons) in Applied Biotechnology

Objectives of the Degree Programme

The objective of this degree programme is to produce Applied Biotechnology graduates who have the knowledge, technical skills, and competencies together with the communication, managerial, and entrepreneurial skills necessary to work and succeed in the modern biotechnology industry, which will grow alongside novel emerging technologies, as a team player committed to upholding the highest standards and best practices in biotechnology services and operations.

Graduate profile

Following graduation, Applied Biotechnology degree holders of the General Sir John Kotelawala Defence University will possess skill sets to accomplish the following:

Knowledge

PO1 - Possess a breadth and depth of knowledge in Basic Sciences and Biosystems Technology.

PO2 - Practical Knowledge and Application: Create, select, and apply appropriate techniques, resources, and modern technology and IT tools, including prediction and modelling, to broadly defined activities, with an understanding of the limitations.

Skills and Competencies

PO3 - Communication: Communicate effectively on well-defined Technological activities with the professional community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO4 - Teamwork and Leadership: Function effectively as an individual and as a member or leader in diverse teams and multidisciplinary settings.

PO5 - Creativity and Problem-Solving: Suggest solutions for well-defined technical

problems and design systems, components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.

PO6 - Managerial and Entrepreneurship: Graduates will be able to apply Technical and management principles in their work and as members and leaders in a multidisciplinary team to manage projects. They will also be able to use their skills to think out of the box, generate new business ideas and take risks to achieve success.

PO7 - Information Usage and Management: Select and use information appropriately with modern Technologies and IT tools, including prediction and modelling, for well-defined activities, with an understanding of the limitations.

PO8 - Networking and Social Skills: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to Technological professional practices.

PO9 - Adaptability and Flexibility: Demonstrate that the Technologist can adapt to changing circumstances and environments and take on board new ideas and concepts.

Attitudes and Mindset

PO10 - Attitudes, Values and Professionalism: Apply professional, ethical principles and commit to professional ethics and responsibilities and norms of Technological practice. They will be able to demonstrate leadership and positively influence others.

PO11 - Vision for Life: Motivated, conscientious and self-sufficient individuals and demonstrate congruence between the values of the individual as a Technologist and their actions.

PO12 - Updating Self / Lifelong Learning: Recognize the need for and prepare and engage in independent and lifelong learning in the context of technological changes.

KNOWLEDGE

Broader knowledge in Applied Biotechnology needed for real world applications

SKILLS

Comprehensive technical skills and competencies together with problem solving, communication and managerial skills

Applied Biotechnology Graduate

MINDSET

Desire for continuous learning and personal development.

ATTITUDES

Unique professional in the Biotechnology field with professionalism, discipline and adaptability

Detailed Curriculum for the Degree Bachelor of Biosystems Technology Honours in Applied Biotechnology

SEMESTER 1

MODULE NAME
Introductory Biology
Introductory Chemistry
Introduction to Database Technology
Biostatistics
Fundamental Mathematics
Programming Fundamentals
English I

SEMESTER 2

MODULE NAME
Basics of Cell Biology
Genetics
Python Programming
Mathematics
Biochemistry
English II
Communication Skills I

SEMESTER 3

MODULE NAME
Molecular Biology I
Immunology & Immunotechnology
Microbial Biotechnology
Big Data Analytics
Bioprocess Technology
English III
Communication Skills II

SEMESTER 4

MODULE NAME
Intelligent Systems
Molecular Biology II
Image Processing & Computer Vision
Proteomics
Plant Tissue Culture
Principals of Business Management
English IV
Communication Skills III
Tamil basics for beginners
Sinhala basics for beginners

SEMESTER 5

MODULE NAME
Occupational Health & Safety
Bioinformatics
Instrumental Methods in Biotechnology
Advanced Intelligent Systems
Mini Project (group project)
Regulatory Affairs and Ethics in Biotechnology
English V
Communication Skills IV
Dancing
Photography

SEMESTER 6

MODULE NAME
Industrial Training

SEMESTER 7

MODULE NAME
Biomanufacturing Technology
Biotechnology Entrepreneurship
Biosecurity
Plant Biotechnology
Molecular pathogenesis & Toxicology
Enzyme Technology
Herbal Product Processing Technology
Nanobiotechnology & Biosensors
Machine Learning in Biotechnology
Agent Based System
AI tools for Biotechnology

SEMESTER 8

MODULE NAME
Final Year Project
Emerging Technologies in Biotechnology
Food Biotechnology
Cell and Tissue Engineering
Animal Biotechnology
Fermentation Technologies
Bioenergy
Solid and Hazardous waste management
Deep Learning
Internet of Things and its Applications
Neural Networks in Biotechnology
International Relations
Art and Tradition

3.3. Industrial Education and Training Centre (IETC)

3.3.1. Overview of the IETC

Practical training is the focus of undergraduate education at the faculty of technology. To produce technologists with extensive practical experience, it is critical to expose them to real-life work environments throughout their program of study. This dedicated administrative unit handles both short-term and long-term industrial placement of students, which can also assist the faculty in maintaining cordial relationships with industry partners.

4. Learning and Other Resources Available for Students

4.1. Language Laboratories

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

4.2. Library

KDU's library is an integral part of all of its users' professional development, and it supports the university's vision and mission. The primary role of the library is to provide a suitable environment and to facilitate a variety of resources in multiple formats that enhance the university's teaching, learning, and research activities. The library serves over 5000 readers, including both students and university staff. The library has a seating capacity of approximately 170 people. It provides quality services and information to library clients in a learning environment that ensures equitable

access to library services for all clients. The main library has a collection that covers a wide range of topics in Engineering, Physics, Chemistry, Economics, Management, Law, Geography, and History. At the moment, the library's collection includes over 23700 books from various subject disciplines. Furthermore, the library provides electronic access to full-text databases to support the university's research activities.

4.3. Information and Communication Technology Centre

The ICT Centre offers resources and services in computing and information technology. It offers IT training programs for students, staff, and outside professionals to help them improve their demanding IT skills. It is dedicated to promoting on-campus information literacy and providing a suitable information technology environment in order to support academic activities. To ensure the smooth operation of educational and research activities, the centre also provides comprehensive services that make use of the most recent advances in information technology. These services include the operation of multiple services, the updating and maintenance of the KDU Website, the Learning Management System, and the maintenance of networks derived from the University's ICT infrastructure. The University has identified IT literacy as one of the fundamental skills that make graduates employable.

4.4. Enterprise Resource Planning (ERP) Software

ERP software connects faculty, administrative staff, and students on a single platform. This software will effectively manage all of the faculty of technology administrative and teaching responsibilities. Lecturers will update their profiles and educational resources in this system. All the students lectures, practicals, on-site training and field visits to the industry will be managed by this software. Students can access textbooks, lecture notes, assignment and other educational resources and know about their lecture hours, practicals, field visit and on-site training schedule, examination schedule from this system. Further this software will take care of scheduling and conducting examination of students online which is very viable during this pandemic

where there is possible obstruction of normal routine. Besides students' records, faculty records will be kept and can be checked and retrieved when required, helping both students and faculty to progress smoothly.

4.5. KDU-CARE

General Sir John Kotelawala Defence University (KDU) strives to strengthen the research landscape of the institution in particular and of the country in general. You are the next generation of inventors. We want to provide you with opportunities to be trained as future scientists. To facilitate the commercialization of research through public-private partnerships as well as collaborations with other state sector institutes, KDU has established its Institute for Combinatorial Advanced Research and Education (KDU-CARE). KDU-CARE aims to support the commercialization of its research findings by bridging the gap between the university and industry.

4.6. Career Guidance Unit

The University's Career Guidance Unit was established in September 2020 in accordance with the University Grants Commission of Sri Lanka's guidelines. The Career Guidance Unit's (CGU) objectives are as follows: to assist Officer Cadets and Day Scholars in developing soft skills, attitudes, and positive thinking that will enable them to meet the requirements of their employers; to enhance the leadership skills and patriotism of Officer Cadets, and to lead KDU down a path that will be highly recognized by the military and the corporate sector. KDU strives to meet international standards so that its students can thrive in the global marketplace. The Career Guidance Unit has organized different programs for each Faculty in collaboration with the Faculty's Career Guidance Advisors. This includes industry partnership programs, leadership development, entrepreneurship development, and personality development to ensure that students are well-recognized by the corporate sector.

4.7. Counselling Service

The Counselling Service is available to assist students in making the most of their time at university by providing confidential and non-judgmental support. A student's first point of contact for counselling may be his or her student mentor. Anxiety, bullying, lack of confidence, depression, relationship difficulties with friends or family, problems with their course, time management, homesickness, eating disorders, cultural issues, and many other issues may be addressed by the Faculty Student Counsellor. Any student who requires professional counselling is referred to the university counsellor, who is a trained professional counsellor who handles student issues. If the university counsellor believes that a student requires additional assistance or medical intervention, the student is referred to the university's psychiatrist.

4.8. International Relations Office

The International Relations Office of General Sir John Kotelawala Defence University (KDU-IRO) was established to foster and develop partnerships with globally renowned universities, educational centres, professional academic institutions and organizations for research collaborations, student/ staff mobility programmes, joint conferences and seminars. Best students in each degree programmes could potentially get selected for short term study abroad/ summer programmes made available through the IRO.

4.9. University Medical Centre

The primary goal of the KDU medical centre, which is conveniently located on University grounds, is to provide health care to resident students and the University community. To meet healthcare and emergency medical needs. It provides a 24-hour ambulance service as well as daily clinics. The University Medical Officer (UMO) and his supportive staff of nurses and attendants are committed to meeting the University community's healthcare needs. Aside from his primary responsibilities, UMO is the sole authority to issue medical certificates and validate external medical certificates.

4.10. University Hospital

The 814-bed university hospital of KDU comprises of ultra-modern facilities with cutting edge medical equipment. The paying section of the hospital includes 50 paying beds and 6 suites with 120 consultation rooms for private consultation facilities. It also comprises of a state-of-the-art auditorium equipped with all modern facilities, which is an ideal venue for national and international conferences and seminars. The hospital also provides ideal teaching facilities enabling live audio and video demonstrations of surgical and other clinical procedures for Medical Students.

4.11. Open Area – Thuru Sewana

Apart from traditional classroom lecture schedules, students are given the opportunity for non-formal learning while enjoying a natural environmental setting in a shady area known as Thuru Sewana, which means the shade of trees. It is a place for learning with peers, building up team interactions with colleagues and organizing small group events among officer cadets and day scholars.

4.12. Religious Facilities

Students will find several places of worship within the campus – a Temple, a Kovil, an Islamic prayer room and a multi-faith prayer room are located within the campus.

4.13. Cafeteria

The university cafeteria, located on the ground floor of the Medical Faculty building, serves the university's day scholars and civil staff. Furthermore, the student can purchase snacks and other shop items from the Honour Shop, which is located in front of the Cadet Mess building.

4.14. Bakery

The KDU Bakery supplies high quality, safe and hygienically prepared bakery

products using advanced machinery for KDU food requirements.

5. University Societies and Clubs

5.1. Sports and Recreation

The officer cadets and Day Scholars are expected to maintain their physical fitness and foster a comradeship in keeping with the service traditions by actively participating in sports. They are encouraged and required to play at least one team game during their stay at KDU. The university provides facilities and equipment for games such as soccer, cricket, rugby and many more. Trained civilian/service Instructors and Coaches provide training to individual and Teams. KDU teams play regular matches against other universities and sports clubs throughout the year.

Gymnasium

Football ground

Cricket ground

Squash court

Tennis court

Table tennis court

Indoor Basketball court

Badminton Court

Swimming pool

5.2. Club Activities

Club activities are also an integral part of KDU student life. The Clubs are proposed and run by the students themselves under the guidance and supervision of the Faculty of Defence and Strategic Studies.

These activities inculcate officer cadets and day scholars with the necessary sense of teamwork and brotherhood while engaging in activities they like. Clubs are also a path to enhance the varied talents among the student body of KDU and essential soft skills, with a view to developing their overall personality.

5.2.1. Arts and Culture Club

This Club is aimed at incorporating the rich culture and arts of the country into the student community of KDU. The students involved in this Club engage in varied

activities to enrich the club members and the student body as a whole.The Annual Book Fair of General Sir John Kotelawala Defence University is organized by the members of the Arts and Culture Club in collaboration with leading bookshops of Colombo. Vesak seela Wyaparaya is organized by the members of the Arts and Culture Club.

5.2.2. Photography Club

The Photography Club creates opportunities for the students to enhance their artistic skills by viewing the aspects of nature in a different angle. The club organizes photographic sessions and outings to generate interest among the members. One of the major events that the Photography club commended was the taking of photographs of sports club activities needed for the Intake 29 Parents day presentation.

5.2.3. Eco Club

Eco Club was inaugurated in 1999 as the Habitat Club with the aim of making the officer cadets aware of natural environment and conservation of rare plants. Through activities of this club, the officer cadets learn to keep their surroundings beautiful, cleaned and preserved. The ECO club has already effectuated many activities such as the Green House Project, Herbal Garden project, Ata Visi Bodi Ruksha Project and project of naming the plants in KDU's inhabitants and visitors. To achieve club goals the members conduct Various Workshops and programmes such as bird watching camps and weekly presentation programmes.

5.2.4. Music and Dancing Club

The Music and dancing club, known as "MUDA CLUB", was formed on 08th May 1999 to develop artistic talents of the students. The club is responsible for the smooth functioning of the "BEIGE" music group in which officer cadets play a prominent role as musicians. At present, this club functions as two sections: Music Club and Dancing Club. Every intake in KDU has its own music band named 'Beige' The Beige plays during events like intake Parents Day, KDU new year festival. KDU dancers gave a unique performance at the July Ball adding more colour to the event. Dancing couples of KDU take part in international dancing competitions

5.2.5. Chess club

It was a significant milestone to introduce a strategically important game like chess as another club activity at General Sir John Kotelawala Defence University. The game is recognized as extremely useful to improve the strategic skills of officer cadets who

will be members of the tri-services, as well as for civilian students to develop their logical thinking. This popular game, which spans some 1,500 years, is very useful specifically for psychological health. In fact, it is considered a form of recreational therapy as it keeps the mind healthy and creates a healthy physique.

5.2.6. Speech and Drama Club/ Toast Masters Club

Toast Masters Club was established to develop fluency and communication skills in the English Language. The club creates enough opportunities to develop the officer cadets' talents in speech and drama. KDU toastmasters club now form an official member of Toastmasters International, an international non-profit organization with a worldwide membership. Promoting the effective use of language and verbal communication skills. KDU joins the elite group of 4 state universities in the country with registered clubs

5.2.7. E-Club/ E-library

E- club is one of the most significant clubs in the university since it is responsible for maintaining and updating the university web site. Moreover, The Club presented an E-library to the KDU library consisting of software, e books, military videos and other learning CDs and DVDS.

5.2.8. Air Rifle Club

The Air Rifle Club was formed in 2012. In this short span of time the club has expanded its membership and activities exponentially, as the student body of KDU comprises of military students, part of whose training includes handling several types of weapons. It is also drawing in the civilian students who wish to take advantageof the unique opportunity provided by being a part of the student body of the only defence university in the country. The Club aims to promote interest in and respect

towards the art of Air Rifle shooting, and develop the marksmanship of KDU Officer Cadets.

5.2.9. The Bridge Club

The Bridge Club at KDU was inaugurated on 30th May 2012 under the patronage of Hon. Wasantha Senanayake, Member of Parliament, with a view to exposing the cadets to a world famous mind stimulating game. Contract Bridge or simply bridge is a risk-taking game using a standard deck of 52 playing cards. It is played by four players grouped into two competing teams with partners facing each other around a table.

This game is considered to be the most mindstimulating card game ever conceived. At the same time it takes a longer period to learn it and even longer to master it. The keys to success are good straight-forward lessons and a lot of practice. The enthusiasts of this club have shown great dedication to learning the intricacies of the game.

5.2.10. Rowing Club

Rowing club is responsible for developing water sport skills of officer cadets. In its short history, the university rowers have already achieved much. The team was able to become the overall champion in indoor rowing meets in 2010 and 2011. In addition, it has won many medals in both outdoor and indoor rowing meets.

5.2.11. Rotaract Club

The Rotaract club at KDU was inaugurated on 7th August 2013. It is one of the newest additions to the list of active Clubs of KDU. Rotaract is an international organisation, under Rotary international, for young adults between the ages of 18-30. Being under the youth services arm of Rotary, Rotaract too is mainly a community service-oriented organisation. The avenue of community service and international understanding are recognised as the pillars of Rotaract. More-over Rotaract also carriers out projects under the avenues of professional development, club service and finance. In this inaugural year, Rotaract club of KDU is planning to give priority to conduct service projects which benefits the immediate surrounding community of our university and the university itself; as per the vision of our Vice Chancellor, Major General M.P Peiris.

Visit Rotaract Club Website

5.2.12. Rover Scouts

August 27th 2020 was a special day for Sri Lankan Scout Association as well for General Sir John Kotelawala Defence University since the first National Rover Scout Crew of Sri Lanka was formed with the selected 100 Officer Cadets and Day Scholars of KDU including 24 President Scouts to commemorate the centenary year of the Sri Lanka Rover Scouting at the Inauguration Ceremony of National Rovers held at KDU. Rover scouting is a programme intended for adult men and women to guide them to become better citizens. The history of Sri Lanka Rover Scouting dates back to 1920, and this year Rover Scouting of Sri Lanka celebrates its centenary. Rovering as the direct continuation of Scouting finds first and foremost its application to the personal development and character growth of youngsters. Further, it is vital for them to be interconnected with the world to lead a home life with real value and virtues as good citizens. Rovering provides great opportunities for adventure, exploration and service with full of satisfaction, and there are many opportunities to get socialized and meet new people. This endeavour will give the opportunity for KDU undergraduates to

take part in national and international Scouts Moots, youth forums and World Jamborees as international representatives and develop their social and leadership skills.

5.2.13. Technoviz club

The TechnoWiz Club, as the main student body of the Faculty of Technology, General Sir John Kotelawala Defence University, is aimed at implementing the knowledge of Technology, via academic conduct and establish and strengthen effective relationship with stakeholders.

The objective is to encourage students to involve in various co-curricular activities in addition to their academic programme. Engaging in such activities allows students to gain hands-on-experience which would help them find success in careers. Equipping students with leadership competencies and attributes are also expected through the activities. Involve with industries to expand the network and promote the faculty among the industrial community is also an important objective of the club. In addition, had the students given an opportunity to involve themselves in social work, it would be a promising strategy towards making the technology undergraduates more versatile personalities.

It is through participation in such co-curricular activities that the students become highly resourceful personnel. The TechnoWiz Club intends to achieve its goals via organizing workshops, field visits, exhibitions, awareness programs, laboratory works, and inter-batch and inter-personnel competitions.

6. University Administration

6.1. Administrative Officers of the University

Faculty of Technology	
Dean,Faculty of Technology	Prof. KMGP Premadasa

	BSc (Hons) (Pera.), MSc(UK), PhD(UK), MBiol (SL), MRSB Tel: 0112622995
Assistant Registrar	Ms. KH Malwenna Mobile: 0710219477

Chancellor	General SHS Kottegoda (Retd) WWV RWP RSP VSV USP ndc
Vice Chancellor	Rear Admiral HGU Dammika Kumara VSV, USP, psc, MMaritimePol, BSc (DS) Tel: 0112634274 Fax: 0112622603
Rector (Southern Campus)	Major General LCR Jayasuriya RSP ndc psc Tel: 0473624895 Mobile: 0710219221 Fax: 0473620811
Deputy Vice-Chancellor (Defence and Administration)	Brigadier DCA Wickramasinghe USP USACGSC Tel: 0112632027 Mobile: 0710219222/0712347733 Fax: 0112632027

Deputy Vice-Chancellor (Academic)	Professor KAS Dhammika Tel: 0112638660 Fax: 0112638660
Dean, Faculty of Graduate Studies	Professor Charitha L Goonasekara BSc (Col), PhD (Can), Post-doc (Can)
Dean, Faculty of Defense and Strategic Studies	Colonel Pradeep Ratnayake RSP USP psc M Def S BA (Def Std) Tel: 0112–622503 Fax: 0112–635488 Mobile: 0710219225
Dean, Faculty of Engineering	Prof. Dr. -Ing. Thushara Weerawardane
Dean, Faculty of Law	Mr. WS Wijesinghe Mobile: 0773258195
Dean, Faculty of Management, Social Sciences and Humanities	Dr. Lakshika Liyanage
Dean, Faculty of Medicine	Prof. Aindralal Balasuriya MBBS (Colombo), MSc-Community Medicine (Colombo), MD-Community Medicine (Colombo), Pg Dip Buddhist Studies (Homagama), MA-Buddhist Studies (Kelaniya) Chair Professor of Public Health and Adjunct of Griffith University, Australia Consultant Community Physician
Dean, Faculty of Research and	Prof Charitha L. Goonasekara

Development	BSc (Col), PhD (Can), Post-doc (Can) Tel: 0112635268 Ext277
Dean, Faculty of Allied Health Sciences	Surgeon Captain N R P Perera
Dean, Faculty of Computing	Dr. Asela Gunasekara PhD(China), MPA (SL) , PgDip (SL), BSc(Hons) (UK), SMIEEE, MBCS
Dean, Faculty of Built Environment and Spatial Sciences	Dr. AH Lakmal PhD, MBA, MSc, BSc (Hons), MSISL, MSSSI, MSLAAS
Registrar's Office	
Registrar	Mr. VD Kithsiri E MBA (PIM - SJP), PGDM (SJP), BCom (Special) Hons, LICA & PICASL, Dip in English (Aquinas, SLIDA, ACAE Mobile: 0710219248
Deputy Registrar	Mrs. SDKC Sandanayaka Mobile: 0710219255

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Sewanagala

Kiribbanwewa

Sooriyawewa

Sri Lanka

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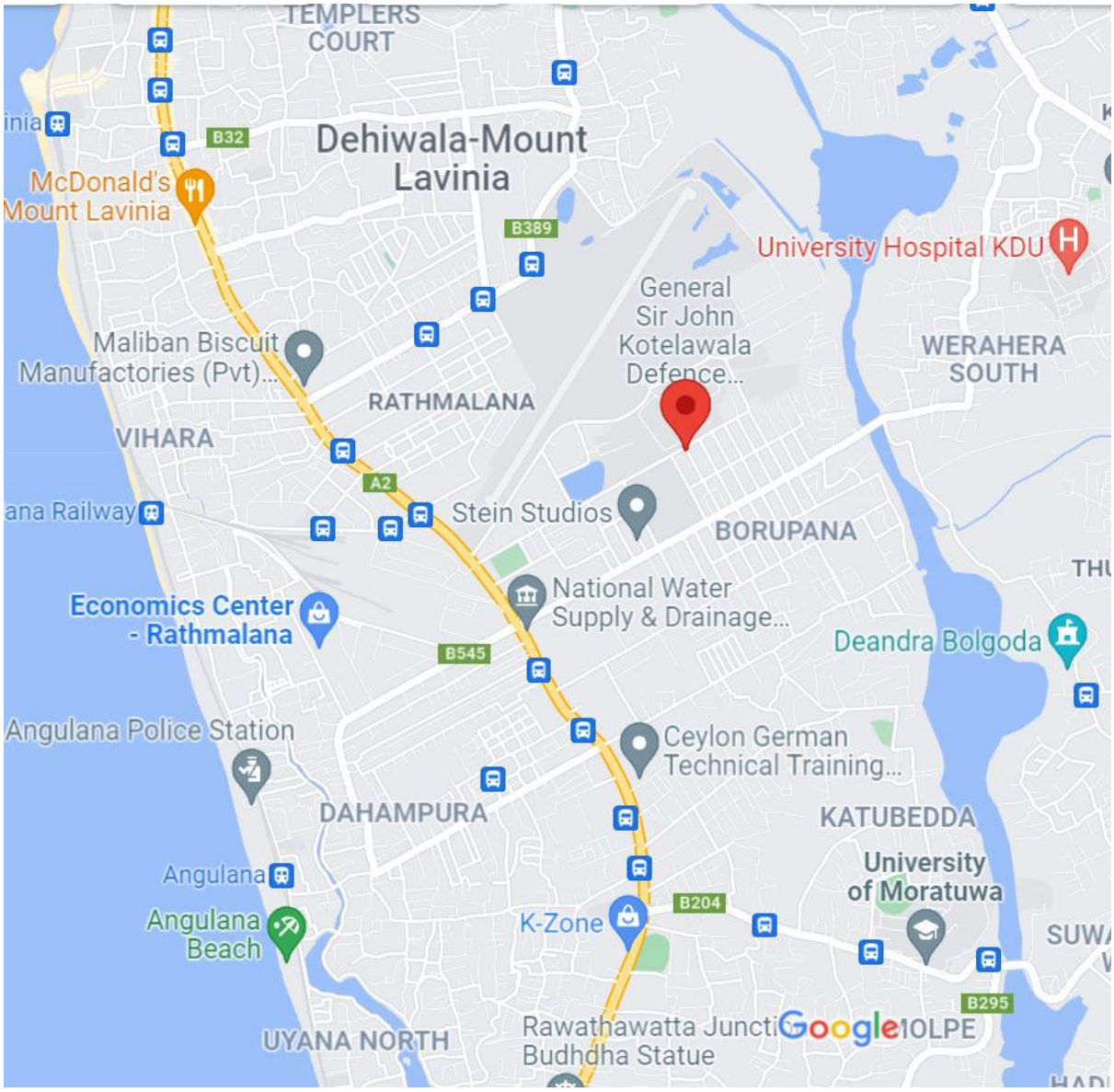
7. Getting to the University

Students can get to the University via public bus or train. The Colombo Central Bus Stand, which connects to all parts of Sri Lanka, is located near the General Sir John Kotelawala Defence University and is roughly a 60-minute ride away by local bus. Students can use the University's car parking opposite the Bank of Ceylon at the main campus gate after getting a car pass. The map below shows the location of the main campus, KDU hospital, and Southern campus.


TEMPLERS
COURT
Dehiwala-Mount
Lavinia
B32
McDonald's
Mount Lavinia
B389
University Hospital KDU
General
Sir John
Kotelawala
Defence...
WERAHERA
SOUTH
Maliban Biscuit
Manufactories (Pvt)...
RATHMALANA
VIHARA
A2
Stein Studios
BORUPANA
National Water
Supply & Drainage...
Economics Center
- Rathmalana
B545
Deandra Bolgoda
Angulana Police Station
Ceylon German
Technical Training...
DAHAMPURA
KATUBEDDA
University
of Moratuwa
Angulana
Angulana
Beach
K-Zone
B204
B295
UYANA NORTH
Rawathawatta Junct
Budhdha Statue
Google
10LPE