



The Energy University

POSTGRADUATE STUDENT HANDBOOK

COLLEGE OF GRADUATE STUDIES

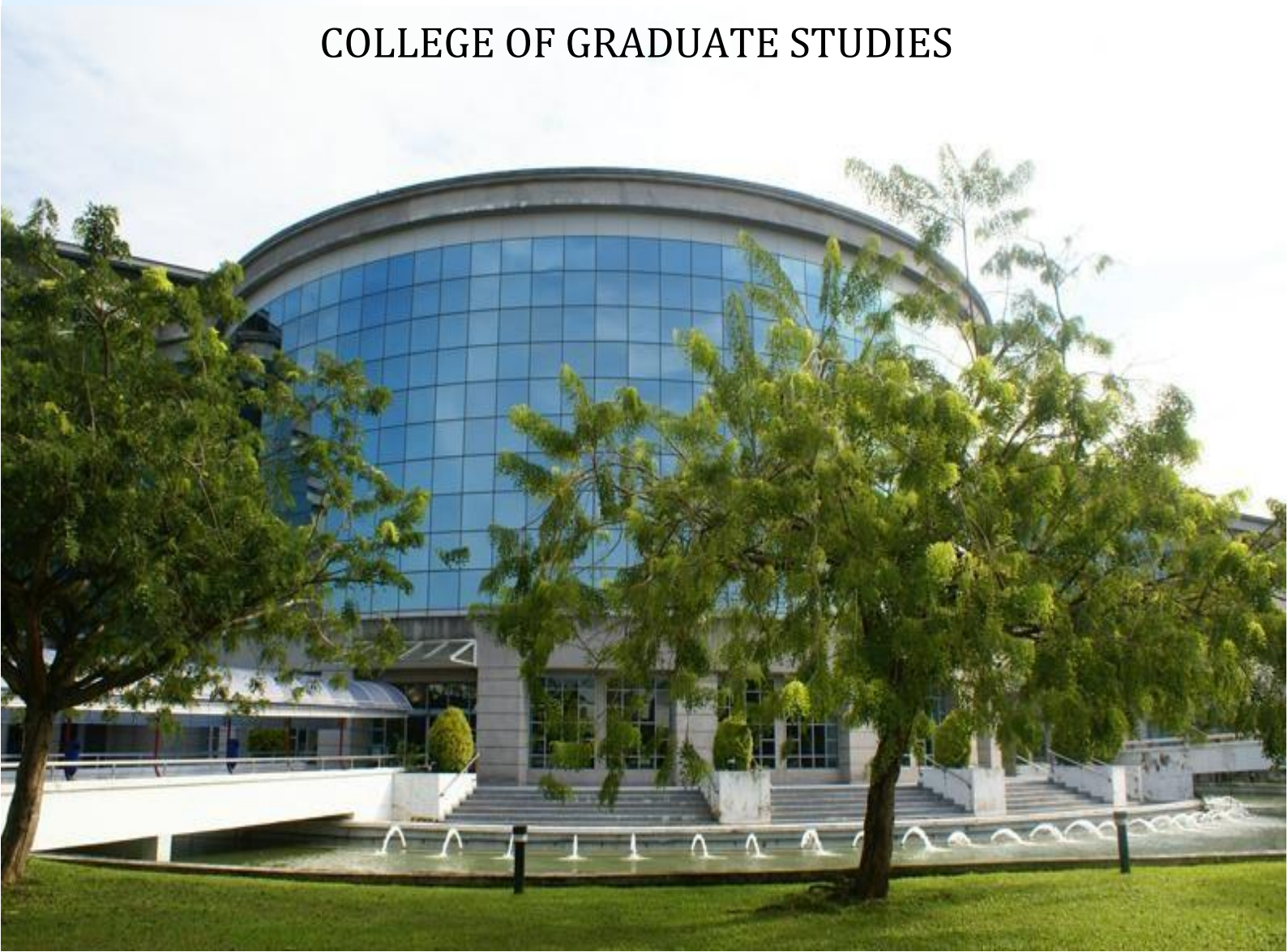


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MESSAGE FROM THE DEAN

Let me extend my warm welcome to College of Graduate Studies (COGS) UNITEN.

This college offers postgraduate studies in Engineering, Computer Science, Information Technology, Accounting, Finance and Business Management. All our sixteen programmes, which include mixed-mode, full-research, and coursework programmes are accredited by Malaysia Qualifications Agency and are approved programmes under the Ministry of Higher Education Malaysia.

We provide quality education through teaching and research excellence piloted by our high calibre and experienced academic staff from our three main colleges, i.e. College of Engineering (COE), College of Computing and Informatics (CCI) and UNITEN Business School (UBS). Our lecturers perform research and consultancy that are in keeping with the current needs of business and are in line with the vision and objectives of UNITEN. They are closely connected to both local and international industries as well as academic institutions.

You have a wide range of opportunities to select research projects provided by our well-established and recognized five research institutes: -

- Institute of Power Engineering (IPE)
- Institute of Sustainable Energy (ISE)
- Institute of Energy Infrastructure (IEI)
- Institute of Energy Policy and Research (IEPre)
- Institute of Informatics and Computing in Energy (IICE)
- Institute of Nuclear Energy (INE)

You can also propose your own individual research projects in consultation with the relevant college lecturers.

This handbook is produced to assist you in planning your studies at UNITEN. The handbook lists down the synopses of each programme and its structure. The assessment methods and the graduation requirements are also included in the handbook. It is good for you to familiarize yourself with the requirements in order for you to complete your studies successfully.

Each program has its own programme coordinator who will assist you throughout your journey at UNITEN. The college support staff info is also listed in the handbook and they will assist you in regards to administration of the programme.

We strongly encourage you to get involved with Graduate Activity Club. The club conducts presentations and industrial visits, promotes the 3 Minute Thesis competition and hosts Coffee Hour Sessions.

Through the UNITEN mobility programme, you can have the opportunity to learn about the research techniques (best practices) in other nations to widen your research horizons and strengthen your linkages.

Our goal is to produce graduates who will not only be knowledgeable but also skillful, autonomous, highly driven, and professional, making them valuable assets to any organisation. COGS will provide you with the tools you need to soar higher in your life. On behalf of COGS, I wish you all the very best.

Dean,

Prof. Ir. Ts. Dr. Tiong Sieh Kiong

UNIVERSITI TENAGA NASIONAL – THE BACKGROUND



Universiti Tenaga Nasional is a unique institution providing academic programmes and consultancy services on campus. Its programmes are focused on engineering, information technology, business management and other related areas. In addition, Universiti Tenaga Nasional prepares its graduates not just to become professionals but also hone them to become well-rounded individuals with a broad intellectual outlook. Universiti Tenaga Nasional is one of the first private universities to be set up in Malaysia and is wholly owned by Tenaga Nasional Berhad (TNB), one of the leading electric utility companies in South-East Asia.

Universiti Tenaga Nasional commenced operation in 1976 as Institute Latihan Sultan Ahmad Shah (ILSAS), which served for many years as the corporate training institute for Tenaga Nasional Berhad (TNB) and its predecessor, Lembaga Letrik Negara. In 1994, ILSAS was transformed into an institute of higher learning and renamed Institut Kejuruteraan Teknologi Tenaga Nasional (IKATAN). The institute offered academic programmes at undergraduate and graduate levels through twinning arrangements with universities – both local and overseas. In 1997, IKATAN became Universiti Tenaga Nasional to meet the national aspiration towards making Malaysia a centre for educational excellence.

Though relatively new as a university, Universiti Tenaga Nasional has been able to accelerate its infrastructure development to international standards as a result of firm support and commitment from TNB, its holding company. The number of academic programmes is being increased in line with its commitment to serve the needs of Malaysia and other countries that look to Malaysia to meet their requirements for tertiary education.

The Universiti Tenaga Nasional main campus is about 25 kilometres south of Kuala Lumpur and is easily accessible via a number of highways. Nestled on a 214 hectare site of gently sloping land amid lush greenery and yet not too far from the commercial and cultural activities of Kuala Lumpur, the modern campus provides an ideal setting for academic fulfilments and intellectual growth.

The campus is strategically located within the Multimedia Super Corridor (MSC). It is close to Cyberjaya, the hub of major MSC activities and is next to Putrajaya, the Malaysian Government's new administrative centre.

Vision

“To be a leading higher education institution, for energy and emerging frontiers, preparing future talent for Malaysia and the global community”

Mission

“To nurture globally competent, future-ready and holistic graduates through quality education and cutting-edge research in energy and related fields, powering sustainability”

Aspiration

“To become a globally competitive, energy-focused university”

Tagline

“Creative, Innovative & Energetic”

PUTRAJAYA CAMPUS



The UNITEN Putrajaya campus, in effect, began to take shape in 1995 involving three stages of development and construction covering an area of 483 acres. Its close proximity to the Multimedia Super Corridor (MSC) and the federal administrative centre Putrajaya simply added to UNITEN's air of auspiciousness.

According to Dr. Tajul Arus bin Noh, the first Rector of UNITEN, "The university's primary mission is to provide quality education and training in engineering, information technology, business and related fields for Malaysians and other nationals." By 1999, student enrolment in this state-of-the-art teaching and learning environment had reached an impressive 5,000.

About a year later, on 29 June 2000, the Malaysia Prime Minister, Tun Dr. Mahathir Mohamad officially opened the UNITEN Putrajaya campus. This further spurred the university to reach greater heights which saw it move from strength to strength consolidating its stature as a university of choice. That same year also saw the first intake of students in UNITEN's very own bachelor's degree programme.

College Of Graduate Studies

At COGS, we manage Postgraduate Programmes for our students in collaboration with our partner colleges including College of Engineering (COE), College of Computing & Informatics (CCI), UNITEN Business School (UBS).

Why Postgraduate at UNITEN?

- Top class lecturers with international recognition
- Students exposed to corporate and industrial specialist
- Strong research collaborations with other higher learning institutions and industries.

Vision

To be the leading graduate college that offers energy & sustainability related programmes in the fields of engineering, IT and business

Mission

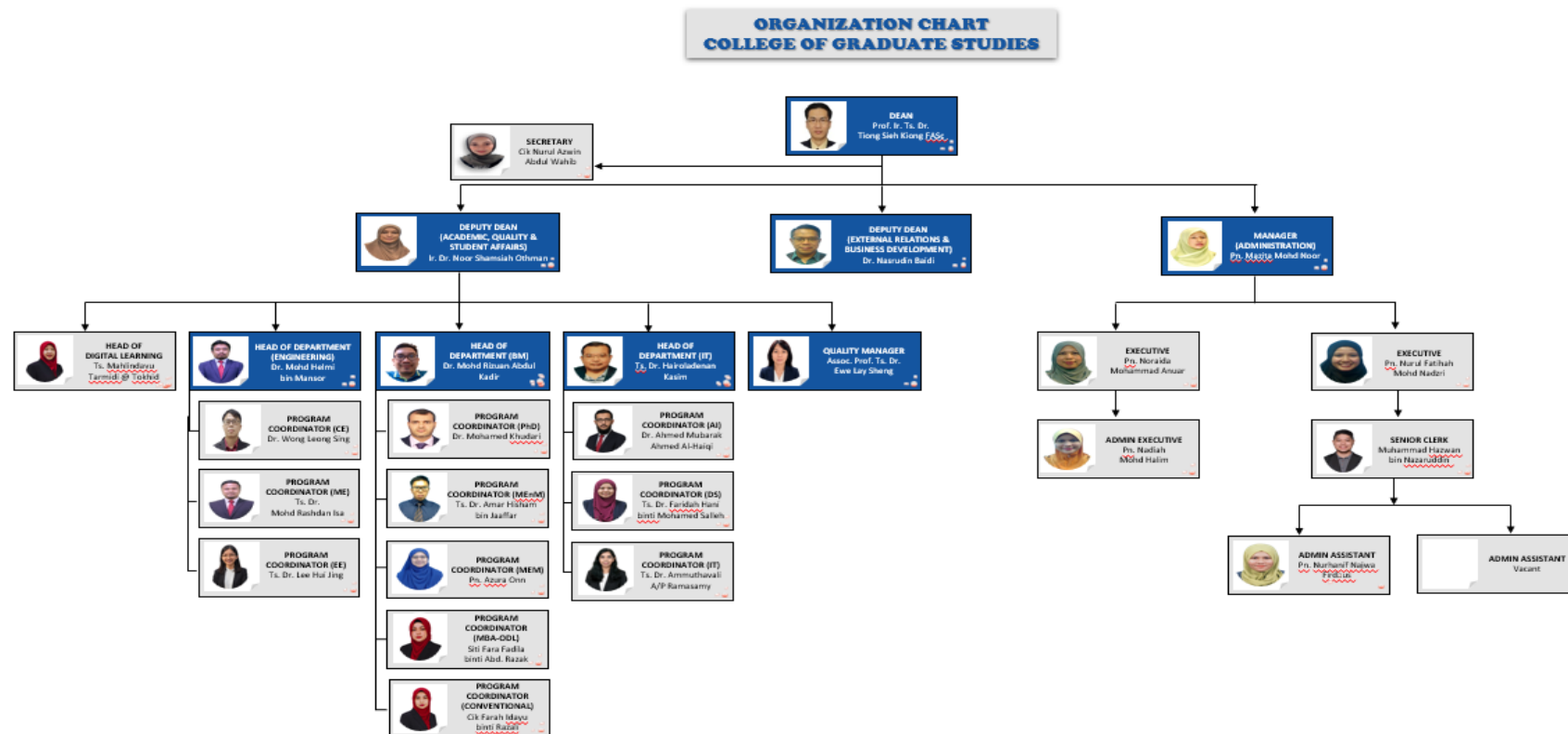
We strive to provide the highest standards of academic excellence in graduate studies through research innovation and industrial collaboration

Our People

NO.	DESIGNATION	NAME
1.	Dean	Prof. Ir. Ts. Dr. Tiong Sieh Kiong
2.	Deputy Dean (Academic, Quality & Student Affairs)	Ir. Dr. Noor Shamsiah Othman
3.	Deputy Dean (External Relations & Business Development)	Dr. Nasrudin Bin Baidi
4.	Head of Department (Engineering & Interdisciplinary Programs) Program Coordinator - PhD Engineering	Dr. Mohd Helmi Bin Mansor
5.	Head of Department (Information Technology) Program Coordinator - PhD ICT - Master of Science in Information Technology	Ts. Dr. Hairoladenan Kasim
6.	Program Coordinator - Master in Information Technology	Ts. Dr. Ammuthavali A/P Ramasamy
7.	Program Coordinator - Master in Artificial Intelligence	Dr. Ahmed Mubarak Ahmed Al-Haiqi
8.	Program Coordinator - Master in Data Science	Ts. Dr. Faridah Hani Bte Mohamed Salleh
9.	Head of Department (Business & Management)	Dr. Mohd Rizuan Abdul Kadir
10.	Program Coordinator - Master of Science in Mechanical Engineering	Ir. Dr. Mohd Rashdan Bin Isa
11.	Programme Coordinator - PhD Industrial Science - Master Industrial Science - Master of Science in Civil Engineering - Master in Structural Engineering	Dr. Wong Leong Sing
12.	Programme Coordinator - Master of Science in Electrical Engineering - Master in Electrical Engineering - Master of Communications System Engineering (C)	Ts. Dr. Lee Hui Jing
13.	Programme Coordinator - PhD Business Management	Dr. Mohammad Khudari

14.	Programme Coordinator - Master in Energy Management	Ir. Dr. Amar Hisham Bin Jaaffar,
15.	Programme Coordinator - Master of Business Administration (I) - Master of Business Administration (II)	Dr. Siti Fara Fadila Binti Abd. Razak Cik Farah Idayu Binti Razali
16.	Programme Coordinator - Master in Engineering Management	Puan Azura Onn
17.	Programme Coordinator - Master of Science in Accounting - Master of Science in Finance - Master of Science in Management	Dr. Azleen Binti Ilias Dr. Nor Hamisham Bte Harun Pn. Nurulhuda Binti Ahmad Razali
18.	Quality Manager	Assoc. Prof. Ts. Dr. Ewe Lay Sheng
19.	Head of Digital Learning	Ts. Mahlindayu Binti Tarmidi @ Tokhid,
20.	Deputy Registrar/ Manager	Puan Mazita Mohd Noor
21.	Executive (Viva voce)	Puan Noraida Mohammad Anuar
22.	Executive (Student Affairs and liaison)	Pn. Nurul Fatihah Mohd Nadzri
23.	Admin Executive	Puan Nadiyah Mohd Halim
24.	Admin Assistant	Encik Muhammad Hazwan Bin Nazaruddin Pn. Nurhanif Najwa Firdaus

ORGANISATIONAL STRUCTURE COLLEGE OF GRADUATE STUDIES



DEPARTMENT OF ENGINEERING & INTERDISCIPLINARY PROGRAMS

The Department of Engineering & Interdisciplinary Programs at the College of Graduate Studies offers opportunities for postgraduate studies in Civil Engineering, Electrical, Electronics & Communications Engineering and Mechanical Engineering disciplines. The postgraduate programs available at this department are listed below, and these programs have been accredited by the Malaysian Qualifications Agency (MQA).

Doctor of Philosophy (Engineering) – Full Research (Structure A).
 Master of Science in Civil Engineering – Full Research (Structure A).
 Master of Science in Electrical Engineering – Full Research (Structure A).
 Master of Science in Mechanical Engineering – Full Research (Structure A).
 Master in Electrical Engineering – Mixed-Mode (Structure B).
 Master in Structural Engineering – Coursework (Structure C).

These programs are supported by the faculty members of the College of Engineering, which also provide the required research and computational facilities. Drawing upon the diverse interest and experience of the faculty members, these programs are designed to enhance the knowledge and skills of engineers and scientists who will lead the way to technological improvements that will benefit the society at large. We hope you will find your postgraduate studies rewarding, and we wish you all the success in your professional and personal life.

Programme Synopses

Doctor of Philosophy (Engineering) (Structure A)

Doctor of Philosophy (Engineering) is a full research program where candidates are given unique opportunity to follow their interest in a specialized area of research (including major research areas of electrical, electronics, mechanical and civil engineering) for 3-7 years and make an important academic contribution to the knowledge of chosen research area. Prospective candidates are future researchers/ academicians in universities and/or research institutions, R&D Engineers, Engineering Specialists and Technopreneurs.

Duration

Duration for the Doctor of Philosophy (Engineering) programme is 3 years to 7 years for full-time and 4 years to 7 years for part-time.

Master of Science in Civil Engineering (Structure A)

Master of Science in Civil Engineering (Structure A) is a full research program where candidates are given unique opportunity to follow their interest in a specialized area of research of Civil Engineering for 2-4 years and make an important academic contribution to the knowledge of chosen research area. Prospective candidates are future researchers/ academicians in universities and/or research institutions, R&D Engineers, Engineering Specialists and Technopreneurs.

Duration

Duration for the Master of Science in Civil Engineering programme is 2 years to 3 years for full-time and 3 years to 4 years for part-time.

Master of Science in Electrical Engineering (Structure A)

Master of Science in Electrical Engineering (Structure A) is a full research program where candidates are given unique opportunity to follow their interest in a specialized area of research of Electrical/Electronic Engineering for 2-4 years (depending on the study mode either fulltime or part-time) and make an important academic contribution to the knowledge of chosen research area. Prospective candidates are future researchers/ academicians in universities and/or research institutions, R&D Engineers, Engineering Specialists and Technopreneurs.

Duration

Duration for the Master of Science in Electrical Engineering programme is 2 years to 3 years for full-time and 3 years to 4 years for part-time.

Master of Science in Mechanical Engineering (Structure A)

Master of Science in Mechanical Engineering (Structure A) is a full research program where the candidates are given a unique opportunity to pursue their interest in a specialized area of research in the Mechanical Engineering discipline for 2-4 years, and where the candidates can make an important academic contribution to the knowledge of the chosen research area. Prospective candidates are future researchers/ academicians in universities and/ or research institutions, R&D Engineers, Engineering Specialists and Technopreneurs..

Duration

Duration for the Master of Science in Mechanical Engineering programme is 2 years to 3 years for full-time and 3 years to 4 years for part-time.

Master in Electrical Engineering (Structure B)

Master in Electrical Engineering (Structure B) is a half research program where candidates are given unique opportunity to follow their interest in a specialized area of research of Electrical Engineering for / Communication Systems 1 – 2 years and make an important academic contribution to the knowledge of chosen research area. This research will be accomplished in the form of Dissertation which contributes to 20 credit hours.

Apart from that the student will be attending 7 post graduate classes in which 3 courses are core courses and 4 are elective courses amounting to 21 credit hours where the students will be learning advanced technical courses in the field of electrical power and communications systems.

Duration

Duration for the Master in Electrical Engineering programme is 1 year to 3 years for full-time and 2 years to 4 years for part-time.

Master in Structural Engineering (Structure C)

Master in Structural Engineering (Structure C) is a quarter research program of which candidates are given unique opportunity to follow their interest in a specialized area of research in Structural Engineering for 2 semesters worth 10 credit hours. Apart from that, the students will be attending 10 post graduate classes which comprise of 7 core courses and 3 elective courses with a total 30 credit hours whereby the students will be learning advanced technical courses in the field of structural engineering.

Duration

Duration for the Master in Structural Engineering programme is 1 year to 3 years for full-time and 2 years to 4 years for part-time.

Programme Structures

Table 1: Master in Electrical Engineering

Year	Semester	Code	Courses	Credit Hours	
1	Semester I	UNIM513	Research Methodology	3	
		EECM623	Advanced Artificial Intelligence	3	
		EEEM523	Project Management	3	
		***	Elective I	3	
			Total Credit Hours	12	
	Semester II	***	Elective II	3	
		***	Elective III	3	
		***	Elective IV	3	
			Total Credit Hours	9	
2	Semester III	EPRM520	Research Project- Dissertation	20	
			Total Credit Hours	20	
	Semester IV	EPRM520	Research Project- Dissertation		
			Total Credit Hours	0	
***	Elective I, II, III and IV (Choose the Electives I, II, III and IV based on the listed subjects for Communication Systems Engineering or Electrical Power Engineering)	CSEM513	Optical Fiber Communication	3	
		EECM523	Adv. Applied Telecommunication Systems	3	
		EECM633	Data Network Design and Analysis	3	
		EECM553	Antennas Technology for Wireless Communications	3	
		ESEM503	Advanced Digital Signal Processing	3	
		EEEM513	Engineering Diagnostics Tools	3	
		EEPM593	Power Conversion Systems	3	
		EEPM513	Power Systems Steady State Analysis	3	
		EEPM543	High Voltage Engineering	3	
		EEPM553	Power Systems Operation & Planning	3	
		EEPM563	Power Systems Protection	3	
		EEPM583	Renewable Energy Sources	3	
			Total	41	

Table 2: Master in Structural Engineering (Structure C)

Year	Semester	Course Code	Course Name	Credit Hour
Year 1	Semester 1	UNIM513	Research Methodology	3
		CESM663	Advanced Reinforced & Prestressed Concrete Design	3
		CESM653	Structural Assessment & Rehabilitation	3
		CESM573	Advanced Steel Design	3
	Total Credit			12
	Semester 2	CEGM573	Advanced Hydropower & Dam Engineering	3
		CESM513	Advanced Structural Analysis & Finite Element Method	3
		CESM563	Design of Tall Buildings	3
		***	Elective I	3
		CERP610	Project	2
	Total Credit			14
	Semester 3	***	Elective II	3
		***	Elective III	3
		CERP610	Project (Continued from Previous Semester)	8
	Total Credit			14
	Total			40

DEPARTMENT OF BUSINESS AND MANAGEMENT

At the Department of Business Management, our goal has always been to provide a high-quality education that enables students to reach their full potential in the workplace. The programme was designed to generate graduates who are skilled problem solvers in business and management, as well as professionals with strong ethical beliefs.

Our academics lead students in an active learning environment to boost their learning experience. They come from various backgrounds and are actively involved in research and consulting. The business courses place a strong focus on developing soft skills such as critical thinking, problem-solving, communication, and teamwork.

Programme Synopses

Doctor of Philosophy (Business Management) (Structure A)

Doctor of Philosophy (Business Management) programme gives the opportunities to the candidates to do scientific research and strengthen their academic portfolios and careers. Experts and high-rank academicians from various fields in Business, Finance, Economics and Accounting are available to guide the candidates towards research excellence.

Duration

Duration for the Doctor of Philosophy (Business Management) programme is 3 years to 7 years for full-time and 4 years to 7 years for part-time.

Master of Science in Management (Structure A)

Master of Science in Management programs provide training and experience in management research in order to familiarize the candidates with the methods, ideal and objectives of independent investigation. Candidates will be engaged in a significant research investigation of a specific inquiry resulting in the production of thesis.

Duration

Duration for the Master of Science in Management programme is 2 years to 3 years for full-time and 3 years to 4 years for part-time.

Master of Science in Accounting (Structure A)

Master of Science in Accounting is a programme designed for professional and academics seeking career advancement in accounting, finance, and other business-related areas. Students are required to produce an accounting related thesis that demonstrates students understanding on the theoretical foundations, ethical judgments, and critical and strategic thinking ability of emerging accounting issues.

Duration

Duration for the Master of Science in Accounting programme is 2 years to 3 years for full-time and 3 years to 4 years for part-time.

Master of Science in Finance (Structure A)

Master of Science in Finance programme is particularly relevant for those interested in pursuing a career in investment banking, financial research and financial trading. The programme is specifically designed for those who are interested to become researchers, academics and consultants in a variety of business and management disciplines. In exceptional circumstances graduates from other disciplines can be considered.

Duration

Duration for the Master of Science in Finance programme is 2 years to 3 years for full-time and 3 years to 4 years for part-time.

Master of Business Administration (Structure C)

The Master of Business Administration (MBA) programme is tailored to provide students with a seamless and enriching learning experience, equipping them with the skills to manage people and ideas effectively while building the confidence to drive organisational success. The curriculum is carefully crafted to address both the current and future needs of professionals, empowering them to excel in their business pursuits. Key features of this programme include guest lectures by industry experts, practical business problem-solving, engaging case studies, a leadership-focused project, blended learning approaches, and collaborations with industry partners, ensuring a holistic and career-focused education

Duration

The Master of Business Administration offers two study duration options. There is a 1-year programme structure and a 2-year programme structure for full-time students. The duration for part-time students ranges from 2 to 4 years.

Master in Engineering Management (Structure C)

The Master in Engineering Management (MEM) is a specialized degree that blends the technical depth of engineering with the broad principles of business management. This program is specifically designed for engineers who aspire to hold leadership roles or start their own ventures in technology-related businesses. MEM programme includes a final project which allows students to apply their knowledge to real-world problems or conduct research on a relevant topic.

Duration

The Master in Engineering Management offers two types of study durations. There is a 1-year programme structure and a 2-year programme structure for full-time students. The duration for part-time students ranges from 2 to 4 years.

Master in Energy Management (Structure C)

The Master of Energy Management (MENM) is a program designed to nurture students to appreciate the energy business environment together with the fundamental economic and technological concept in energy industries. Participants will gain the ability to develop and implement strategies to address major issues in energy industries including energy applications, regulations and policies, besides strengthening their ability to live and work in energy environment and immediate futures needs of professional who wish to achieve business and technological fundamentals and practical understanding of energy management.

Duration

Duration for the Master of Energy Management programme is 1 year to 3 years for full-time and 2 years to 4 years for part-time.

Programme Structures

Table 3: Master of Business Administration (1 year programme structure)

Semester	Code	Courses	Credit Hours
Semester I	MBAM613	Organizational Analysis and Behavior	3
	MBEM613	Contemporary Issues in Managerial Economics	3
	MFAM613	Accounting and Finance for Business Decision	3
	MBIM613	Managing Information Systems	3
	MBRM613	Business Research Method	3
		Total Credit Hours	15
Semester II	MBAM643	Strategic Management for Future Leaders	3
	MBAM623	Human Capital Management	3
	MBKM613	Marketing Management: The Digital Era	3
	MBAM633	Operations Management in Competitive Age	3
	MBRM623	Business Project 1	3
		Total Credit Hours	15
Semester III	MBIM623	Business Analytics	3
	MBRM624	Business Project 2	4
	***	Elective	3
		Total Credit Hours	10
		Total	40

Master of Business Administration (2 years programme structure)

Semester	Code	Courses	Credit Hours
Semester I	MBAM613	Organizational Analysis and Behavior	3
	MBIM613	Managing Information Systems	3
	MBRM613	Business Research Method	3
		Total Credit Hours	9
Semester II	MBAM643	Strategic Management for Future Leaders	3
	MBAM633	Operations Management in Competitive Age	3
	MBRM623	Business Project 1	3
		Total Credit Hours	9
Semester III	***	Elective	3
		Total Credit Hours	3
Semester IV	MBEM613	Contemporary Issues in Managerial Economics	3
	MFAM613	Accounting and Finance for Business Decision	3
		Total Credit Hours	6
Semester V	MBRM624	Business Project 2	4
	MBAM623	Human Capital Management	3
	MBKM613	Marketing Management: The Digital Era	3
		Total Credit Hours	10
Semester VI	MBIM623	Business Analytics	3
		Total Credit Hours	3
		Total	40

Master of Business Administration ODL (1 year programme structure)

Semester	Code	Courses	Credit Hours
Semester I	MIOM733	Business Analytics	3
	MBOM723	Human Capital Management	3
	MBOM733	Strategic Management for Future Leaders	3
	MR0M723	Business Research Method	3
	****	Elective	3
		Total Credit Hours	15
Semester II	MBOM713	Organizational Analysis and Behavior	3
	MFOM713	Accounting and Finance for Business Decision	3
	MPOM723	Business Project 1	3
	MIOM713	Managing Information Systems	3
	MEOM713	Contemporary Issues in Managerial Economics	3
		Total Credit Hours	15
SSemester III	MPOM734	Business Project 2	4
	MMOM713	Marketing Management: The Digital Era	3
	MOOM723	Operations Management in Competitive Age	3
		Total Credit Hours	10
		Total	40

Master of Business Administration ODL (2 year programme structure)

Semester	Code	Courses	Credit Hours
Semester I	MBOM723	Human Capital Management	3
	MBOM733	Strategic Management for Future Leaders	3
	MROM723	Business Research Method	3
		Total Credit Hours	9
Semester II	MPOM723	Business Project 1	3
	MIOM713	Managing Information Systems	3
	MEOM713	Contemporary Issues in Managerial Economics	3
		Total Credit Hours	9
Semester III	MOOM723	Operations Management in Competitive Age	3
		Total Credit Hours	3
Semester IV	MIOM733	Business Analytics	3
	MPOM734	Business Project 2	4
	****	Elective	3
		Total Credit Hours	10
Semester V	MFOM713	Accounting and Finance for Business Decision	3
	MBOM713	Organizational Analysis and Behavior	3
		Total Credit Hours	6
Semester VI	MMOM713	Marketing Management: The Digital Era	3
		Total Credit Hours	3
		Total	40

Table 4: Master in Engineering Management (1 year programme structure)

Semester	Code	Courses	Credit Hours
Semester I	MBEM613	Contemporary Issues in Managerial Economics	3
	MFAM613	Accounting and Finance for Business Decision	3
	MBIM613	Managing Information Systems	3
	MERM613	Engineering Research Methods	3
	MEPM613	Project Management	3
		Total Credit Hours	15
Semester II	MBAM643	Strategic Management for Future Leaders	3
	MBAM623	Human Capital Management	3
	MBKM613	Marketing Management: The Digital Era	3
	MBAM633	Operations Management in Competitive Age	3
	MERM623	Engineering Project 1	3
		Total Credit Hours	15
Semester III	MERM624	Engineering Project 2	4
	MEPM633	Energy Project and Risk Assessment	3
	***	Elective	3
		Total Credit Hours	10
		Total	40

Master in Engineering Management (2 years programme structure)

Semester	Code	Courses	Credit Hours
Semester I	MBIM611	Managing Information Systems	3
	MFAM613	Accounting and Finance for Business Decision	3
	MERM613	Engineering Research Methods	3
		Total Credit Hours	9
Semester II	MBAM623	Human Capital Management	3
	MBAM633	Operations Management in Competitive Age	3
	MERM623	Engineering Project 1	3
		Total Credit Hours	9
Semester III	MBEM612	Contemporary Issues in Managerial Economics	3
	MEPM613	Project Management	3
	MERM624	Engineering Project 2	4
	MEPM633	Energy Project and Risk Assessment	3
		Total Credit Hours	13
Semester IV	MBAM643	Strategic Management for Future Leaders	3
	MBKM613	Marketing Management: The Digital Era	3
	***	Elective	3
		Total Credit Hours	9
		Total	40

Table 5: Master in Energy Management

Semester	Course Code	Course Name	Credit
Semester 1	EMSM 613	Energy Management Application	3
	EMIM 613	Strategic Information Systems for Energy Organisation	3
	EMPM 613	Research Methods in Energy Management	3
	EMSM 643	Energy Efficiency and Risk Management	3
	EMKM 643	Seminar on Strategic Global Management and Ethical Leadership for the Energy Sector	3
	Total Credits		15
Semester 2	EMFM 613	Managerial Economics in Energy Sector	3
	EMKM 633	Energy Regulations and Corporate Sustainability	3
	EMKM 613	Sustainable Marketing and Consumer Strategy	3
	EMPM 606	Energy Management Research Project	6
	Total Credits		15
Semester 3	EMKM653	Project Management in Energy Industry	3
	Elective I	Choose One Elective Course	3
	EMFM 623	Accounting and Valuation for Energy Business	3
	EMKM 623	Sustainable Process and Energy Supply Chain Management	3
	Total Credits		12
	Total		42

DEPARTMENT OF INFORMATION TECHNOLOGY

Computing and IT is one of the fastest-growing industries in the world today, and it is also one among the most diverse fields, with the likelihood of finding work in a whole host of different industries, from game design and development to social media, government, and business. Software, technology, data, and computer networks are also present in most aspects of everyday life. A postgraduate degree in Computing and IT can offer you the chance to be creative, broaden your horizons, and create a skill set that is uniquely yours. The modern world is technology-based, and the demand for qualified professionals who know how to interpret, create, and manage these systems is constantly increasing.

This postgraduate program in Computing and IT will equip students with a broad range of skills that will enable them to flourish in a number of IT positions. The curriculum is developed to address current industry needs and is targeted at building academic knowledge and practical skills in IT fields, drawing on best practises from Malaysia and overseas. If you want to work in senior IT positions in Academia, Data and Cloud Computing, Cybersecurity, Data Communications and Networking, Knowledge Management, Human-Computer Interaction and Visualization, Software Engineering, Systems or in many other fields, you should absolutely consider our postgraduate program to vastly improve your opportunities within those fields.

The College of Graduate Studies has developed Computing and IT program to earn a Doctor of Philosophy in Information and Communication Technology as well as a Master of Science in Information Technology (Full Research) and Master in Information Technology (Coursework & Research). Our programmes are accredited by Malaysian Qualification Agency (MQA).

Programme Offered:

Programme name	Duration	Key Research Areas
Doctor of Philosophy in Information and Communication Technology	3 to 7 years (Full time) 3 to 7 years (Part time)	• Information Systems • Artificial Intelligence • Machine Learning • Human-Computer Interaction and Visualization • Knowledge Management • Cybersecurity • Data Communications and Networking • IT Governance • Advanced Project Management • Interactive Systems Design • Data Modeling • Software models • Software Quality
Master of Science in Information Technology (Full Research)	2 years – 3 years (Full time) 3 years – 4 years (Part time)	
Master in Information Technology (Coursework & Research)	1 years – 3 years (Full time) 2 years – 4 years (Part time)	

Programme Synopses

Doctor of Philosophy in Information and Communication Technology (Structure A)

The Doctor of Philosophy in Information and Communication Technology program is aimed at providing candidates with the ability to develop a new/novel knowledge, and expand existing knowledge and application of computing solutions in the organization, society, and worldwide. It exposes the practitioners/researchers to advanced study and training in research, culminating in the submission of a thesis. This program intends to develop research capability, creativity, and ability to collate the results of the research work and to present them in a clear manner, as well as demonstrating knowledge of the literature of the subject.

Duration

Duration for the Doctor of Philosophy in Information and Communication Technology programme is 3 years to 7 years for both full time and part time candidates.

Master of Science in Information Technology (Structure A)

The Master of Science in Information Technology programme aims at providing candidates with advanced knowledge and skills in dealing with an organization's computing requirements and needs. This program intends to cater for both Computer Science and Information Technology graduates.

Duration

Duration for the Master of Science in Information Technology programme is 2 years to 3 years for full-time and 3 years to 4 years for part-time.

Master in Information Technology (Structure B)

The Master in Information Technology programme aims at providing candidates with advanced knowledge and skills in dealing with an organization's computing requirements and needs. This program intends to cater for both Computer Science and Information Technology graduates.

Duration

Duration for the Master of Information Technology programme is 1 year to 3 years for full-time and 2 years to 4 years for part-time.

Programme Structures

Table 6: Master in Information Technology

Semester	Subject Code	Courses	Credit Hours
Semester I	MITM773	MIS & Competitive Intelligence	3
	MITM653	IT Governance	3
	UNIM 523	Research Methodology in IT	3
	MITM632	Interactive Systems Design	2
		Total Credit Hours	11
Semester II	MITM643	Strategic Information Systems Planning	3
	MITM723	Data Analytics	3
	MITM743	Advanced Project Management	3
		Total Credit Hours	9
Semester III	MPRM520	Project Dissertation	20
		Total Credit Hours	20
		TOTAL	40

Master in Artificial Intelligence (Structure C)

The Master in Artificial Intelligence at Universiti Tenaga Nasional (UNITEN) is designed to produce AI specialists equipped with advanced expertise, innovation, and leadership skills to drive the future of technology. Structured as a coursework-based programme (Structure C), MAI responds to the global surge in demand for AI professionals by combining theoretical depth with practical, industry-aligned learning experiences. Benchmarking against leading universities, the MAI programme ensures students receive a world-class education at a highly competitive cost.

Duration

Duration for the Master in Artificial Intelligence programme is 1 year to 3 years for full-time and 2 years to 4 years for part-time.

Programme Structures

Table 7 : Master in Artificial Intelligence (1 year programme structure)

YEAR	SEMESTER	CODE SUBJECT	COURSES	CREDITS HOURS	Lecture Class	Lab
1	1	MAIM613	Introduction to AI and AI Ethics	3	3	
		MAIM624	Advanced Machine Learning	4	3	1
		MAIM634	Algorithms and Programming in Python	4	3	1
		MAIxx3	Elective 1	3	3	
		UNIM523	Research Methodology	3	3	
		Total Credit Hours for Semester 1		17	15	2
	2	MAIM644	Advanced Computer Vision	4	3	1
		MAIM654	Advanced Artificial Intelligence	4	3	1
		MAIxx3	Elective 2	3	3	
		MAIxx3	Elective 3	3	3	
		MAIM509	Project	9	9	
		Total Credit Hours for Semester 2		23	21	2
	Special Semester	MAIM509	Project	Continue		
		Total Credit Hours for Special Semester		0	0	0
TOTAL CREDIT HOURS				40	36	4

Master in Artificial Intelligence (2 years programme structure)

YEAR	SEMESTER	CODE SUBJECT	COURSES	CREDITS HOURS	Lecture Class	Lab
1	1	MAIM613	Introduction to AI and AI Ethics	3	3	
		MAIM624	Advanced Machine Learning	4	3	1
		UNIM523	Research Methodology	3	3	
		Total Credit Hours for Semester 1		10	9	1
	2	MAIM634	Algorithms and Programming in Python	4	3	1
		MDSxx3	Elective 1	3	3	
		MDSxx3	Elective 2	3	3	
		Total Credit Hours for Semester 2		10	9	1
		Total Credit Hours For Year 1		21	18	3
	2	3	MAIM644	Advanced Computer Vision	4	3
MAIxx3			Elective 3	3	3	
Total Credit Hours for Semester 3			7	6	1	
4		MAIM654	Advanced Artificial Intelligence	4	3	1
		MAIM509	Project	9	9	
		Total Credit Hours for Semester 4		13	12	1
Special Semester 2		MAIM509	Project	Continue		
		Total Credit Hours for Special Semester 2		0	0	
		Total Credit Hours for Year 2		13	12	1
TOTAL CREDIT HOURS				40	36	4

Master in Data Science (Structure C)

The Master in Data Science (MDS) at Universiti Tenaga Nasional (UNITEN) prepares you to lead in one of today's most in-demand fields. Designed as a coursework-based programme (Structure C), MDS equips students with advanced knowledge and practical skills to turn complex data into meaningful insights that drive decision-making and innovation across industries. Blending strong theoretical foundations with hands-on, industry-driven experiences, the programme reflects global best practices, benchmarked against top universities in the world.

Duration

Duration for the Master in Artificial Intelligence programme is 1 year to 3 years for full-time and 2 years to 4 years for part-time.

Programme StructuresTable 8 : Master in Data Science **(1 year programme structure)**

YEAR	SEMESTER	CODE SUBJECT	COURSES	CREDITS HOURS	Lecture Class	Lab
1	1	MDSM613	Data Analytics	3	3	1
		MAIM624	Advanced Machine 8Learning	4	3	1
		MAIM634	Algorithms and programming in Python	4	3	1
		MDSxx3	Elective 1	3	3	
		UNIM523	Research Methodology	3	3	
		Total Credit Hours for Semester 1		17	15	3
	2	MDSM623	Advanced Data Visualisation	4	3	1
		MDSM634	Advanced Text Analytics	4	3	
		MDSxx3	Elective 2	3	3	
		MDSxx3	Elective 3	3	3	
		MDSM509	Project	9	9	
		Total Credit Hours for Semester 2		23	21	1
	Special Semester	MDSM509	Project	Continue		
		Total Credit Hours for Special Semester		0	0	0
TOTAL CREDIT HOURS				40	36	4

Master in Data Science (2 year programme structure)

YEAR	SEMESTER	CODE SUBJECT	COURSES	CREDITS HOURS	Lecture Class	Lab
1	1	MDSM613	Data Analytics	4	3	1
		MAIM624	Advanced Machine Learning	4	3	1
		UNIM523	Research Methodology	3	3	
		Total Credit Hours for Semester 1		11	9	2
	2	MAIM634	Algorithms and Programming in Python	4	3	1
		MDSxx3	Elective 1	3	3	
		MDSxx3	Elective 2	3	3	
		Total Credit Hours for Semester 2		10	9	1
		Total Credit Hours For Year 1		21	18	3
2	3	MDSM634	Advanced Text Analytics	3	3	
		MAIxx3	Elective 3	3	3	
		Total Credit Hours for Semester 3		6	6	
	4	MDSM624	Advanced Data Visualisation	4	3	1
		MDSM509	Project	9	9	
		Total Credit Hours for Semester 4		13	12	1
	Special Semester 2		Project	Continue		
		Total Credit Hours for Special Semester 2		0	0	
		Total Credit Hours for Year 2		13	12	1
TOTAL CREDIT HOURS				40	36	4

Academic Calendar

Table 9 : Academic Calendar Year 2026/2027 for Undergraduate & Postgraduate (Structure B & C) *



ACADEMIC CALENDAR YEAR 2026/2027 FOR UNDERGRADUATE & POSTGRADUATE (STRUCTURE B & C) *

Semester	Year 2026/2027	Duration
<u>Semester 1</u>		
Classes	24-Aug-26 - 9-Oct-26	7 weeks
Convocation	10-Oct-26 - 11-Oct-26	2 days
Break (no classes)	12-Oct-26 - 18-Oct-26	1 week
Classes	19-Oct-26 - 6-Dec-26	7 weeks
Final Examination	7-Dec-26 - 21-Dec-26	2 weeks
Break between semester	22-Dec-26 - 10-Jan-27	3 weeks
<u>Semester 2</u>		
Classes	11-Jan-27 - 7-Mar-27	8 weeks
Break (no classes)	8-Mar-27 - 14-Mar-27	1 week
Classes	15-Mar-27 - 25-Apr-27	6 weeks
Final Examination	26-Apr-27 - 10-May-27	2 weeks
Break between semester	11-May-27 - 30-May-27	3 weeks
<u>Special Semester</u>		
Classes	31-May-27 - 18-Jul-27	7 weeks
Final Examination	19-Jul-27 - 1-Aug-27	2 weeks
Break between semester	2-Aug-27 - 22-Aug-27	3 weeks

Notes: (*) All dates are subject to change
Approved by the Senate on 22 January 2026

Table 10: Academic Calendar Year 2026/2027 for Postgraduate (Structure A)

*



**ACADEMIC CALENDAR YEAR 2026/2027
FOR POSTGRADUATE (STRUCTURE A) ***

Semester	Dates	Duration
Semester 1		
Semester Re-registration	10 August 2026 – 21 August 2026	2 weeks
Semester Duration	24 August 2026 – 6 December 2026	15 weeks
Progress report submission	7 December 2026 – 21 December 2026	2 weeks
Semester 2		
Semester Re-registration	28 December 2026 – 8 January 2027	2 weeks
Semester Duration	11 January 2027 – 18 July 2027	25 weeks
Progress report submission	19 July 2027 – 1 August 2027	2 weeks

Notes:

(*) All dates are subject to change

Approved by the Senate on 05 February 2026

Assessment for Structure A Programme

- A candidate will be given one of the following two grades at all times:
 S – Satisfactory
 U – Unsatisfactory
- The following reasons will be given a grade U
 - A candidate fails the proposal defense
 - A candidate who fails to achieve a satisfactory evaluation for his/ her progress report due to the followings:
 - A candidate has not been in regular contact with supervisor
 - A candidate fails to meet the agreed targets set with the supervisory committee
- A candidate given a grade U for the proposal defense and failed to obtain a grade S after two additional attempts will be terminated from the programme.
- A candidate given a grade U for two consecutive semesters for the progress report will be terminated from the programme.

Assessment for Structures B & C Programmes

- All taught courses are evaluated via the following assessment components, with the percentage contribution being fixed based on each programme or course:
 - i. Coursework
 - ii. Examination
- The Coursework component for courses is given continuously throughout the semester via:
 - i. Tests, assignments, mini projects, term papers, case studies, presentations, etc.
 - ii. Usually not more than 70% is allocated for such continuous assessment (the actual percentage depends on the programme)
- Candidates are required to pass BOTH continuous and final assessments for every course:
 - i. For the programmes under the Department of Information Technology:
 - The passing mark for continuous assessment is 30% of the total marks for continuous assessment.
 - The passing mark for final assessment is 20% of the total marks for the final assessment.
 - ii. For the programmes under the Department of Business and Management:
 - The passing mark for continuous assessment is 30% of the total marks for continuous assessment.
 - The passing mark for final assessment is 15% of the total marks for the final assessment.
- Dissertations and projects may be graded via the following sub-components:
 - i. Proposals, interim reports, oral presentation etc; and/or
 - ii. *Viva-voce*.
- UNITEN adopts the CGPA (Cumulative Grade Point Average) System for assessment. Assessment for all taught courses are graded according to the scheme presented in Table 9.

Table 11: Assessment based on CGPA

Grade	Grade Point	Marks Range	Description
A+	4.00	90 – 100	Distinction
A	4.00	80 – 89.99	Distinction
A-	3.67	75 – 79.99	Very Good
B+	3.33	70 – 74.99	Good
B	3.00	65 – 69.99	Pass
B-	2.67	60 – 64.99	Marginal Pass
C+	2.33	55 – 59.99	Marginal Pass
C	2.00	50 – 54.99	Marginal Pass
C-	1.67	45 – 49.99	Fail
D+	1.33	43 – 44.99	Fail
D	1.00	40 – 42.99	Fail
E	0.00	Below 40	Fail

- The CGPA for a student at any particular time is calculated as follows:

$$\frac{\sum_i [Grade\ Point_i \times Credit_i]}{\sum_i Credit_i}$$

where *Grade Point_i* refers to the grade point obtained for a registered and examined *course_i*, and *Credit_i* refers to the credit hours for *course_i*, with *i* ranging from 1 to N = total number of courses taken so far; and $\sum_i$ refers to the sum from 1 to N.

Academic Status

The academic status for Structure A programme candidate is presented in Table 10:

Table 12: Academic Status Structure A Programme

Grade	Academic Status
S (Satisfactory)	<i>Good Standing</i>
U (Unsatisfactory) for the first semester	<i>Probation</i>
U (Unsatisfactory) for 2 consecutive semesters	<i>Terminated</i>

The academic status for Structures B and C programmes candidate is presented in Table 13:

Table 13: Academic Status Structure B and C Programmes

CGPA	Academic Status
3.00 and Above	<i>Good Standing</i>
Below 3.00	<i>Probation</i>
Below 2.33 in any semester or Below 3.00 for 2 consecutive semesters	<i>Terminated</i>

Course Status

On the whole and at any given time, all courses registered (including for projects/ dissertations) are given a status according to the scheme presented in Table 12:

Table 14: Course Status

Course Status	Description
LU (Pass)	Fulfilled all the requirements for a registered course.
GA (Failed)	Have not fulfilled all the course requirements successfully.
BS (Incomplete)	Incomplete assessment and requires candidate to re-sit the examination or to complete the course. If no other grade is given until the end of the following semester the status automatically changes to GA (Failed).
PK (Credit transfer)	Credit transfer course.
TD (Withdrawn)	Withdrawn <u>within the stipulated period</u> . No grade point given nor included in the calculation for the CGPA. The course is recorded in the transcript.

Examination Results

- The final grade for a course is released to the student after Senate's endorsement.
- An appeal can be made by a student to review the grade obtained in an examination for taught courses and project. This can be done by filling up the remarking form.
- Candidates are required to fill up the remarking form with a remarking fee within two weeks of the release of the results.

GRADUATION

General Requirements for Conferment of Degree

- The Senate shall award the degree upon the recommendation of the Dean of COGS once all requirements for conferment of degree as stated below have been met:
 - i. All the requirements under Post-Examination/ Pre-Graduation have been met.
 - ii. Has completed the minimum period of study and not exceeded the maximum period allowed, as well as satisfied all academic residential requirements.
- Apart from the academic requirements, all the following administrative requirements also need to be fulfilled:
 - i. Is currently registered (not withdrawn, defaulted, deferred or terminated).
 - ii. Has made full settlement of fees and is free of any financial commitments and debts to the University.
 - iii. Is free from any disciplinary action or any other pending disciplinary action.

Requirement for Structure A Programme

A candidate is deemed academically eligible to be conferred the degree if all the following are fulfilled:

- i. Passed viva-voce
- ii. Attended and passed Research Methodology course.
- iii. Passed proposal defense.
- iv. The candidate has completed the minimum period of study and not exceeded the maximum period allowed, as well as satisfied all academic residential requirements
- v. Publication requirements are presented in Table 13.

Table 15: Requirement for Structure A Programme

Program	* Requirements
PhD (Registered before 10 October 2015)	Published two (2) journal papers OR one (1) journal paper plus one (1) SCOPUS-indexed conference paper.
PhD (Registered between 10 October 2015 till 21 August 2022)	Published two (2) SCOPUS / ISI-indexed journal papers.
PhD (Registered on or after 22 August 2022)	- Published one (1) Web of Science-indexed journal paper AND one (1) SCOPUS-indexed journal paper for the following programmes: – Doctor of Philosophy (Engineering), – Doctor of Philosophy in Information and Communication Technology. - Published two (2) Web of Science-indexed journal papers OR two (2) SCOPUS-indexed journal papers for the following programme: – Doctor of Philosophy (Business Management).
Master (Registered before 22 August 2022)	Published one (1) journal paper OR one (1) SCOPUS-indexed conference paper.
Master (Registered on or after 22 August 2022)	Published one (1) Web of Science-indexed journal paper OR one (1) SCOPUS-indexed journal paper.

* Candidates should provide proof that publications have been uploaded to UNITEN Publication System

- The content of papers must be related to the research topic of the candidate.
- The candidate must be the 1st or 2nd author of the papers. In the case the candidate is the 2nd author, the 1st author must be one of the supervisors. Name of the main supervisor must be included in the list of authors.

Requirement for Structure B Programme

A candidate is deemed academically eligible to be conferred the degree if all the following are fulfilled:

- i. Achieved a CGPA of not less than 3.00 calculated based on all courses taken throughout the duration of study.
- ii. Passed the necessary number of elective courses.
- iii. Passed *viva-voce*.
- iv. An academic paper is ready (in any format) during submission of thesis for examination. It can be submitted to conference/journal for review and possible publication before or after graduation.
- v. Has completed the minimum period of study and not exceeded the maximum period allowed, as well as satisfied all academic residential requirements.

Requirement for Structure C Programme

A candidate is deemed academically eligible to be conferred the degree if all the following are fulfilled:

- i. Achieved a CGPA of not less than 3.00 calculated based on all courses taken throughout the duration of study.
- ii. Passed the necessary number of elective courses.
- iii. Passed the project paper.
- iv. Has completed the minimum period of study and not exceeded the maximum period allowed, as well as satisfied all academic residential requirements.

Deferment

- A candidate who has been certified unfit by a medical officer to proceed with his studies can apply for a deferment of candidature up to a maximum of two (2) semesters only. This deferment period will not be counted as part of the total period of study.
- A candidate may also apply for deferment of candidature based on reasons other than medical, for up to a maximum of two (2) semesters only. This application must be submitted and approved by COGS, and the deferment period will not be counted as part of the total period of study.
- Deferment of candidature may be granted at most twice only within a period of study. The two deferments must not be applied in consecutive semesters. All other situations will have to be taken on a case-by-case basis and subject to Senate approval.
- A deferred candidate covering a full semester will be exempted from fees for that semester if the deferment is approved within the add and drop period for the semester. No refund will be made for approved deferment after the add and drop period.

GRADUATE ACTIVITY CLUB UNITEN

COMMITTEE

- **President** - Hadi Rahmad Wira
- **Vice President** - Al Doori Mohammed Mundher Abdullah
- **Secretary I** - Abobakr Khaled Awadh Mahdi Awadh
- **Secretary II** - Xue Longlong
- **Treasurer** - Cheng Jing
- **Academic Bureau I** - Al Rawahi Isehaq Said Hamed
- **Academic Bureau II** - Al Husaini Ahlam Sulaiman Issa
- **Sport & Recreation Bureau** - Zulkaromi Muhammad
- **Ext. Relation & Welfare Bureau** - Yomna Ali Suliman Ali