EXPECT
EXCELLENCE
AT GOVERNMENT-LINKED
UNIVERSITIES (GLU)

MASSIVE OPEN ONLINE COURSES (MOOCS), OPEN ELECTIVES, AND GLUMINOR

UTP
UNIVERSITI TEKNOLOGI PETRONAS

MMU
MULTIMEDIA UNIVERSITY

UNIVERSITI TENAGA NASIONAL
The Energy University

UniKL
UNIVERSITI KUALA LUMPUR

ABOUT
GOVERNMENT-LINKED UNIVERSITIES (GLU)

Government Linked Universities comprising of Universiti Teknologi PETRONAS (UTP), Universiti Kuala Lumpur (UniKL), Multimedia University (MMU) and Universiti Tenaga Nasional (UNITEN).

Established in 2016, the alliance aims to synergise their strength for nation building, quality, sustainability and branding.

Referring to GLU's logo, the capital letter 'A' is an abbreviation from the initial letter of Alliance. It signifies 'quality' in result oriented initiatives in improving higher education through industrial input. The 'A' is also designed to illustrate the numeric '4' at a second glance, referring to the four initial members in the alliance; namely Universiti Teknologi PETRONAS, Universiti Kuala Lumpur, Multimedia University and Universiti Tenaga Nasional.

The outer circle emphasises or brings immediate attention to the letter 'A' or 'Alliance'. It connotes a sense of 'consensus' and 'completeness' in the world of tertiary education. The logotype is also designed in the fusion of 3 colors; a reflection of the 'house color' of participating Universities. Blue reflects stability, confidence and intelligence of the alliance. Red symbolises pragmatism, strength and determination. Lastly, grey provides the effect of balance and composure to the overall logo design.

MASSIVE OPEN ONLINE COURSES (MOOCS)

The Malaysian Qualifications Agency (MQA) defines MOOCs within the following four terms :

1. Generally, massive is associated with the capacity of the course offered to serve a large number of learners. While the majority of MOOC has had only a few hundred participants, the number of registered participants in some courses have surpassed 150,000 people.
2. In the MOOC context, open refers to offering learning experience to a large number of participants globally regardless of their age, location, income, level of education, and ideology without any pre-requisite, or course entrance fees in order to have access to high quality education.
3. The term online is associated with the accessibility of MOOC from each location of the world through Internet connection to provide synchronous and/or asynchronous interactions between the participants (instructors and learners) and content of the course.
4. In higher education, the term course is referred to as a unit of teaching. In the context of MOOC, it refers to a structured curriculum which normally consists of the following:

- **Course Learning Outcomes (CLOs)**
- **Course Description/Synopsis**
- **Course Contents**
- **Learning Activities**
- **Course Duration**
- **Course Assessment**

A MOOC is facilitated by at least one instructor whether it is offered as an in session or a self-paced mode. The course instructor is normally affiliated to an academic institution or organisation.

The MOOCs offered by GLUs are for a duration of a semester. Students may register for MOOCs offered by member universities and follow the classes at any internet accessible location. This offering gives students a wider selection of courses to be taken.

OPEN ELECTIVE COURSES BY GLUS

The general understanding of the curriculum within the university is that the core components in the degree give students a thorough understanding of subjects of their interest. It gives students the knowledge and skills in the primary discipline which is important.

Elective components, meanwhile allow students to broaden their knowledge further. GLUs are offering open elective courses designed not only to give knowledge, but to create a certain view of the world and to provide additional competencies required for the very competitive future work environment.

GLUMINOR
COURSES BY GLUS

GLUMinor courses are additional courses taken outside of the prescribed programme structure to enhance students' knowledge in a certain field of studies as offered by GLU partner universities. GLU member universities have undertaken to offer minor packages within their niche area as follows :

GLU Member University	Niche	GLUMinor Package Offered
MMU	ICT and Creative Multimedia	1. Multimedia Production 2. Experiential Design 3. Creative Technologies in Art & Design
UTP	Oil and Gas	1. Oil and Gas Industry
UNITEN	Energy	1. Energy Economics 2. Energy Utilisation
UniKL	Aviation	1. Aviation Engineering 2. Aviation Management 3. Aviation Engineering Management

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UTPOfficial

UNIVERSITY'S NICHE

Universiti Teknologi PETRONAS (UTP) is a wholly owned subsidiary of Petroliam Nasional Berhad (PETRONAS), the national oil and gas company of Malaysia. UTP offers a wide range of industry-relevant engineering, science and technology programmes and focuses on the niche area of oil and gas. Despite having a niche in oil and gas, the programmes are still broad-based which enables graduates to explore other industries and have diversified outcomes where career prospects are concerned. The university also offers state-of-the-art research facilities that enables students to experience the industry environment on campus. Students have the opportunity to advance to higher level education and experience industry-driven research activities. Extensive research activities are conducted in collaboration with PETRONAS and other institutions and industries, locally and abroad. Through these collaborative activities, UTP prides itself for having close academia-industry linkages in enhancing industry-ready graduates.

MOOCs

Name of course **PEB1012**	**Introduction to Oil and Gas Industry and Sustainable Development**

The course introduces the various aspects of the oil and gas industry and sustainability throughout the life cycle of the industry. The topics covered are oil and gas search and discovery, production, and processing. For downstream, oil and gas refining into petroleum and petrochemical products and feedstock's are introduced. Finally, the course also focuses on the principles of sustainable development and the aspects of renewable energy for a sustainable future.

Name of course **CEB1032**	**Health, Safety and Environment**

This course covers aspects of HSE relating to the workplace environment. The roles of management and nonmanagement personnel in the development and implementation of a successful health and safety programme are addressed. The course also covers the recognition of industrial hazards, the OSHAct, and other various Malaysian regulations relating to the man-machine interface in the workplace. The course focuses on the principles of occupational HSE, specifically the following major components: management, hazard impact and identification, control and prevention.

* Assessment Weightage & mode of delivery are based on the normal T&L

Scan the QR Code for more information

MINOR

Name of course
PEB1012

Introduction to Oil and Gas Industry and Sustainable Development

The course introduces the various aspects of the oil and gas industry and sustainability throughout the life cycle of the industry. The topics covered are oil and gas search and discovery, production, processing. For downstream, oil and gas refining into petroleum and petrochemical products and feedstock's are introduced. Finally, the course also focuses on principles of sustainable development and the aspects of renewable energy for a sustainable future.

Name of course
CEB1032

Health, Safety and Environment

This course covers aspects of HSE relating to the workplace environment. The roles of management and nonmanagement personnel in the development and implementation of a successful health and safety programme are addressed. The course also covers the recognition of industrial hazards, the OSHAct, and other various Malaysian regulations relating to the man-machine interface in the workplace. The course focuses on the principles of occupational HSE, specifically the following major components: management, hazard impact and identification, control and prevention.

Name of course
PEB4032

Petroleum Economics

This course begins with a review on the fundamentals of general economic principles. The course also includes topics relating to upstream petroleum economics and introduces students to exploration and production (E&P) projects. Students will also be exposed to an overview of E&P project economic evaluation, risks & uncertainty, reservoir management and various economic representations.

Name of course
PEB1033

Fundamental of Petroleum Exploration Engineering

The course covers the basics of applied physical geology; earth rock types, geological structure, stratigraphy and petroleum system. The course will cover types of oil traps, reservoir pore spaces, origin of oil and migration and accumulation of hydrocarbon. The course covers different methods of oil and gas exploration and integrated geological and geophysical approaches to characterise reservoirs and estimate reserve and also be exposed to several Malaysian case studies on various aspects of geoscience. Part of this course covers the practical approach of subsurface mapping techniques to prepare different types of subsurface maps, describe geological structures, and estimate hydrocarbons.

Name of course
MEB4323

Asset Integrity & Risk Management

This course covers topics on basic elements of asset integrity management and explores the latest industry methodologies, techniques and tools. Emphasising the mandatory compliance with the requirement of HSE. Familiarising the precipitant with proactive integrity management of the equipment used in downstream and upstream Oil and Gas industry based on fitness for purpose assessment and risk based inspection (RBI). Principles, the benefits and limitations of risk-based inspection employed in Oil and Gas industry asset management. Strategic inspection practices to manage the risks for safe and reliable operation of the asset.

Name of course
CEB4413

Gas Process Engineering

This course teaches the introduction to reservoir engineering, and the importance of natural gas, Natural Gas (NG) properties, pre-treatment of natural gas, separation techniques, liquefaction of NG, NG fractionation, NG transportation and storage, Gas to Liquid technologies and Gas to Solid Technologies are also part of the syllabus.

PERSON IN CHARGE

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mmumalaysia

UNIVERSITY'S NICHE

One of the leading universities in Malaysia with a niche in Multimedia and Information Technology (IT) , Mutimedia University (MMU) is proud to have produced high calibre graduates spearheading the nation's IT and the Creative industries. Nizam Abdul Razak (Director of Boboiboy), Muhammad Usamah Zaid Yasin (Director of Ejen Ali) and Mohd Ghazzali Abu Bakar (a Malaysian film maker) are among the few MMU graduates who are currently key creative industry players in Malaysia.

Established in 1996 when Telekom Malaysia was given the enormous task of establishing a university in Cyberjaya that would supply the Multimedia Super Corridor (MSC) with superior quality knowledge workers, MMU stays committed to this course and has since produced more than 60,000 graduates. Of recent years, MMU was awarded the Premier Digital Tech Institution (PDTI) status by the Malaysia Digital Economy Corporation (MDEC), an acknowledgement of MMU's capability to produce quality graduates for digital tech-based high value jobs.

Enrolling in some of MMU's elective subjects will allow you to be part of the educational experience that enriches and broadens your multimedia knowledge.

MOOCs

Name of course
MPU3323

Introduction to Multicultural Studies in Malaysia

This course introduces Multiculturalism in Malaysia. Multiculturalism in Malaysia highlights the issues of race, gender and social class within the country. It nourishes tolerance, respect and harmony in various daily situation.

Name of course
MPU3353

Introduction to Malaysian Economy

The course :
- Provides an exposure to the students on the Malaysian economy
- Introduces the past and current economic policies with the development of major economic sectors.
- Discusses some social economic challenges and the talent development issues faced in Malaysia
- Discusses the global economic interaction between Malaysia and the various countries in the world

Both the above courses are categorised under MPU3.

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OPEN ELECTIVES

Name of course
MMA1013

Digital Imaging Art

Introduction to various concepts of digital image acquisitions, production and its application in multimedia products.

Name of course
MVR2023

Experiential Studies

Introduction to experiential elements and design such as content, context, space and form, emotion and interaction.

Name of course
MPD1013

Video Production

An introductory course where students learn the rudiments and fundamentals of producing a video project within a multimedia environment.

Name of course
MIS1013

Interaction Studies

An introductory course into the fundamentals of interaction design.

Name of course
MAD1043

Web Design

Introduction to the industry standard skills and software for web design.

Scan the QR Code for more information

MULTIMEDIA PRODUCTION

This minor is designed to introduce students to the field of multimedia production studies through several general foundation courses, it provides basic training and experience in the media production areas of graphic, multimedia design, digital photography, audio and video.

The minor is intended to complement and add value to students' major field of study.

Basic Photography

This course is designed to equip the students with basic understanding on camera controls and creative photographic composition which are required in the field of creative multimedia.

Digital Sound Production

This is an introductory course into the basics of audio production for multimedia.

Computer Graphic 1

This course will familiarise the students with the fundamental understanding and knowledge of digital media, vector graphics, desktop publishing, web publishing and the internet.

Computer Graphic 2

The course will provide the students the fundamental understanding of digital imaging techniques for preparations creative work through the skills of image editing, basic layout, design composition, and typography.

Computer Graphic 3

This course provides basic understanding of time-based media applications such as digital video and vector-based animation.

EXPERIENTIAL DESIGN

The Experiential Design minor is designed to provide students with understanding and applicable skills that focus on a media product's overall customer experience, usability and feedback. These courses cover principles, strategies, industry standards and professional ethics in regards to user experience design. The students will learn about the role of ambient media, the environment and contexts to use them.

New Media Technology

This course will expose students to the cutting edge new media technology and its applications in media experience

Experiential Studies

Introduction to experiential elements and design such as content, context, space and form, emotion and interaction.

Interaction Design

This subject is designed to introduce fundamental guidelines in interaction design and apply them in individual design project.

Reality Virtuality

An introductory to the reality–virtuality continuum encompassing all possible variations and compositions of real and virtual media artefacts.

Integrated Marketing Communication

Students will be exposed to the theoretical and practical knowledge in art and copy in advertising and will be given the comprehension in writing the creative strategy and concept for the different media and communication tools available.

MMU
MULTIMEDIA UNIVERSITY

CREATIVE TECHNOLOGIES IN ART & DESIGN

The Creative Technologies in Art & Design minor is designed to provide students with comprehension of the process of idea development in art and design through the use of new technologies. It introduces new media art and design practices that can lead to the production or development of digital images, digital arts, immersive installation and interactive media artefacts. The students will learn the techniques of materialising digital art/design through the computation design software and understand the contexts of using them.

Digital Imaging Art

Introduction to various concepts of digital image acquisitions, production and its application in multimedia products.

Real-time Expression

The subject enables a critical awareness of how to expand our definition of performance and foster an appreciation for a live performance that engages an audience through the use of new media and technology.

Creative Photography 1

This course is designed to equip the students with basic understanding on camera controls and creative photographic composition which are required in the field of creative multimedia

Reality Virtuality

An introduction to the reality–virtuality continuum encompassing all possible variations and compositions of real and virtual media artefacts.

Creative Presentation Technique

A project based subject focusing on creative presentation skills using digital software : Adobe Photoshop and WACOM drawing tablet to create high quality digital rendering.

PERSON IN CHARGE

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uniten

UNIVERSITY'S NICHE

Universiti Tenaga Nasional (UNITEN) was established in 1997 to meet the surging demand for tertiary education, which was then mainly served by the limited number of public universities. Since then, it has become the university of choice with more than 4,000 students at any one time and more than 30,000 graduates produced hitherto. UNITEN contributes to the nation building through its Engineering, Computing and Business Management programmes that were carefully crafted to meet the industry demand. In Engineering particularly, UNITEN was ranked by the US News and World Report's Best Global University as the top private university in Malaysia and #243 in the world in 2021.

After more than 20 years of experience, UNITEN has found its niche areas as an energy focused university. With the vision to be a leading global energy university that shapes a sustainable future, the university offers state-of-the-art facilities to ensure the best possible teaching, learning and research experience in energy for our students and staff alike. For example, our students have benefited immensely from the various projects under the Smart UniverCity initiative with TNB that promotes efficient energy consumption through, amongst others, the use of intelligent on-campus transportation.

With the upcoming multidisciplinary lab, which is nearing its completion, we aim to further strengthen both our research capabilities and our students' learning experience in the established niche areas. This will be achieved through the many energy related programmes planned under the establishment of the professorial chairs in energy, namely Chair in Energy Economics, AAIBE Chair of Renewable Energy and Tan Sri Leo Moggie Distinguished Chair in Energy Informatics, which will help to bring UNITEN to greater heights.

UNITEN has also proven its ability to generate professionals, intellectuals, entrepreneurs and competent workforce that meet the industry standards, which is demonstrated through our consistently high employability rate of more than 90% for many years. Our graduates are making impacts working with multinational companies such as Honda, Celcom, KPMG, PayPal, SEEK Asia and many more. With such an excellent track record, we are determined to expand our services beyond our university students and to include students from other GLUs so that they will also get to enjoy the expertise that UNITEN has to offer. This can be achieved by means of our energy-related electives, which are our niche courses that are not commonly found in other local universities.

The Energy University

OPEN ELECTIVES

Name of course
EPPB4073

Energy Efficiency and Management

This course provides students with basic knowledge on energy consumption and energy efficiency, especially for building systems. Energy scenarios, policies, legislation and standards will be introduced. This course also covers energy pricing, energy audit, energy management programme and energy conservation potentials and regulation. Operating principles of electric motors, compressed air system, heating, ventilation and air-conditioning (HVAC) etc. will be taught in class. Advanced energy efficient systems and technologies will be described. Methods to reduce energy consumption, such as energy labelling scheme, energy management and audit will be introduced.

Name of course
MEHB4073

Energy and Sustainable Development

This course introduces the concept of sustainability and its evolving issues at the global and local level. Students will explore different conventional and alternative methods that can be applied towards meeting different energy system needs and critically examine these methods in the context of sustainability. It further provides students with an insight into the strategies and practices adopted by the government, corporations and institutions towards achieving sustainable development.

Name of course
MENB4013

Introduction to Nuclear Engineering

This course provides the initial exposure to nuclear engineering for selected undergraduates who opt to pursue Bachelor of Mechanical Engineering with technical electives in nuclear engineering. Its primary objective is to pique students' interest in the field, while at the same time preparing them as future engineers with specialisation in nuclear engineering. This course shall cover a broad range of subjects, from basics of nuclear physics to nuclear power plants, from fuel cycle to waste management, and relevant special issues in nuclear. Students will also be exposed to the operation of nuclear research reactor at the Malaysian Nuclear Agency (MNA), Bangi, Selangor.

Name of course
MENB4023

Nuclear Policy, Security & Safeguards

This course reviews the development of national policy and of international institutions intended to control and harness nuclear energy. In addition, This course will seek to understand the role of international institutions in channeling nuclear energy for peaceful purposes, in preventing proliferation of nuclear weapons, and in harmonising national regulations to address the growing international trade in nuclear technology and materials. Next, this course is designed to review the principle features of nuclear security as currently practiced. The evolution of contemporary policy and relevant determining circumstances are discussed and evaluated. This course also examines current issues in law, politics, military strategy, and technology in regard to weapons of mass destruction and related topics in international security, and review legal regulations and political relationships that determine the state of nuclear security at the moment. Analysis of nuclear security events and threats will also be included. This course will introduce all aspects of the nuclear safeguards in Malaysia and abroad and will build basic knowledge and understanding of nuclear non-proliferation, nuclear forensics and nuclear safeguards. In addition, this course will also discuss tools used to combat nuclear proliferation such as treaties, institutions, multilateral arrangements, and technology controls.

Name of course
CGMB4113
Information Visualisation

This course explores the concepts and techniques of presenting information in a visual and meaningful way so that users can better understand it. In this course, students will learn how to analyse, identify suitable visualisation technique and transform information into meaningful graphical presentation. This course focuses more on the cognitive and psychological aspects of designing graphical presentation of information.

Name of course
CCSB2113
Cyber Security Essentials

This course develops the foundational understanding of cybersecurity and introduces students to the characteristics of cybercrime, security principles and technologies. It covers understanding of cybersecurity's basic principles, foundational knowledge, and core skills of cybersecurity needed for monitoring, detecting and responding to security events, thus protecting systems and organisations from cybersecurity risks, threats and vulnerabilities.

Name of course
CGEB4112
Energy and Computing

This course provides student with an avenue to be introduced to the real industry and organisations in Malaysia, namely the energy industry.

Name of course
EVLB113
E-Business

This course provides entrepreneurs with a vast, evolving medium for engaging in all phases of business activities. New Business opportunities are literally evolving with the introduction of new technological developments. As pioneers in this exciting new dimension of business, students will study trends that have evolved, learn existing methods and standards, learn how to analyse existing business web activity, and develop web business strategies for launching and maintaining business activities on the net.

Name of course
EMIB313
Energy Economics

This course aims to provides students with a basic and broader understanding of the economics of energy resources like oil, natural gas, coal, and electricity etc. It covers various economic theories and concepts related to energy production and consumption, energy demand and supply, energy pricing, sustainability and conservation, energy policy and the development of new and renewable energy sources. Also, it provides students with the knowledge of the impact of their energy use, and how their energy use affects the energy sustainability, environment, and their lives now and in the future, whether they are using energy efficiently or inefficiently (or unnecessarily).

Name of course
EEMB313
Energy Management

This course emphasises on the understanding of the fundamental concepts and practical aspects of energy management towards sustainable energy management. Areas included are the fundamental knowledge of the basic principles and policies used in energy management and auditing. Proper application of these tools will improve facilities performance and operation, reduce operating costs and environmental impacts, and create a more sustainable business model. This course covers the ways to develop and implement energy management programmes and conduct energy audits with specific case studies. This course provides analytical skills to evaluate energy management investment. This course also surveys the current state of global and local energy management policy. Developed as an opportunity to offset skill shortages in the energy industry, this programme prepares students for successful careers in the energy sector and related government and service sectors through courses in energy management.

Name of course
ENSB233
Energy and Society

This course is designed to explore students' understanding on the nexus between energy systems and society.. It covers major fuel types used in human civilisation. There will be a broad-ranging analysis of energy resource, combustion or conversion processes, application, waste, economic, social, political, cultural, and environmental impacts and options associated with the changing mix of fuels used within and across societies.

ENERGY ECONOMICS

Name of course
EMIB313

Energy Economics

This course provides students with a basic and broader understanding of the economics of energy resources like oil, natural gas, coal, and electricity etc. It covers various economic theories and concepts related to energy production and consumption, energy demand and supply, energy pricing, sustainability and conservation, energy policy and the development of new and renewable energy sources. It also provides students with the knowledge of the impact of their energy use, and how their energy use affects the energy sustainability, environment, and their lives now and in the future, whether they are using energy efficiently or inefficiently (or unnecessarily).

Name of course
EEMB313

Energy Management

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Name of course
ERPB223

Energy Regulations and Policies

This course provides an understanding of energy regulation and policies specifically in Malaysia. It also considers some of the international impacts of Malaysia energy policy. This course examines each significant form of energy (oil, natural gas, nuclear power, electricity, coal and renewables) in terms of the manner in which each form is regulated by various government ministries and institutions/commissions. Each topic of this course will introduce students to the current policies related to energy and environment. The syllabus for this course is designed to give full knowledge of overall realities, issue, solution, cases, current policies and regulations and the expected challenges that our government/institution/commission will face in the upcoming years. Thus, also proposed provisions that need to be implemented in the upcoming decades.

Name of course
ENSB233

Energy and Society

This course is designed to explore students' understanding on the nexus between energy systems and society. It covers major fuel types used in human civilisation. There will be a broad-ranged analysis of energy resource, combustion or conversion processes, application, waste, economic, social, political, cultural, and environmental impacts and options associated with the changing mix of fuels used within and across societies.

Name of course
EOGB313

Economics of International Oil and Gas

This course provides an understanding of the development of oil and gas markets that is the key to the progress made by most nations. It also gives an insight of how oil and gas industry is affected by geopolitical landscape and the current energy policy. Students are also exposed to the energy security and fuel diversification policy.

ENERGY UTILISATION

Name of course
EPPB4143

Power Distribution Engineering

This course covers the engineering design principles of modern utility's distribution network, especially the medium voltage (MV) network, with special emphasis on reliable and economic operation of the network. This course also covers primary equipment of the distribution network, distribution protection, capacitor placement and discussions on distributed generations.

Name of course
EPPB4073

Energy Efficiency and Management

This course provides students with basic knowledge on energy consumption and energy efficiency, especially for building systems. Energy scenarios, policies, legislation and standards will be introduced. This course also covers energy pricing, energy audit, energy management programme and energy conservation potentials and regulation. Operating principles of electric motors, compressed air system, heating, ventilation and air-conditioning (HVAC) etc. will be taught in class. Advanced energy efficient systems and technologies will be described. Methods to reduce energy consumption, such as energy labelling scheme, energy management and audit will be introduced.

Name of course
MEHB4073

Energy and Sustainable Development

This course introduces the concept of sustainability and its evolving issues at the global and local level. Students will explore different conventional and alternative methods that can be applied towards meeting different energy system needs and critically examine these methods in the context of sustainability. It further provides students with an insight into the strategies and practices adopted by the government, corporations and institutions towards achieving sustainable development.

Name of course
MEHB4023
Heating, Ventilating & Air Conditioning

This course covers the analysis and design practice for heating, ventilation and air conditioning (HVAC) systems. The scope of study includes psychrometrics, air quality, heating and cooling and moisture control in buildings. The applications of HVAC system and selection of HVAC components are to be studied.

Name of course
MEHB4013
Power Generation

In this course, students will be introduced to the overall power generation plants and systems, regulatory framework, management of operation and maintenance of power plant. The focus will be on steam power plants, gas turbine power plants and hydro power plants. Students will also be exposed to the economics, current issues and advances in technologies for the power generation industry.

Name of course
MENB4013
Introduction to Nuclear Engineering

This course provides the initial exposure to nuclear engineering for selected undergraduates who opt to pursue Bachelor of Mechanical Engineering with technical electives in nuclear engineering. Its primary objective is to pique students' interest in the field, while at the same time preparing them as future engineers with a specialisation in nuclear engineering. This course shall cover a broad range of subjects, from basics of nuclear physics to nuclear power plants, from fuel cycle to waste management, and relevant special issues in nuclear. Students will also be exposed to the operation of nuclear research reactor at the Malaysian Nuclear Agency (MNA), Bangi, Selangor.

Scan the QR Code for more information

The Energy University

MOOCs

Name of course
MOC04
Engineers in Society

This course provides an overview of the social dimension of the engineering profession. The course introduces the professional bodies and code of conduct of the engineer. The need for sustainable development, occupational safety and health, legal and ethical issues in engineering practice and intellectual property rights will be discussed. The common societal and cultural issues that crop up in engineering practice will also be covered.

Name of course
MOC03
Energy and Computing

This course provides students with an avenue to be introduced to a real industry and organisation in Malaysia, namely the energy industry.

Name of course
MOC02
E-Business

This course provides entrepreneurs with a vast, evolving medium for engaging in all phases of business activities. New Business opportunities are literally evolving with the introduction of new technological developments. As pioneers in this exciting new dimension of business, students will study trends that have evolved, learn existing methods and standards, learn how to analyse existing business web activities, and develop web business strategies for launching and maintaining business activities on the net.

Name of course
MOC08

Principles of Management

This is an introductory course in management theory and practice. In this course, management is presented as a discipline and a process. This course introduces the modern management concepts with emphasis on the major functions and activities performed by a manager. The four major functions of management – planning, organising, leading and controlling – will be well explained in this course beside discussing the behaviour of individuals and groups in organisational settings. This course also incorporates the historical theories, decision-making processes, interpersonal concepts and current management issues in the business environment.

Name of course
MOC06

Japanese Language I

This course introduces the rudiments of spoken Japanese to beginners. The essence of this course is to enable students to communicate in the language. It focuses on the mastery of the two language skills – listening and speaking – which leads to basic interactions. Rudimentary Japanese characters – Hiragana and simple Kanji –are introduced and basic grammar elements are taught. The course demands for a natural way of teaching and learning the language – through conversations, imitation and habit formation. Students learn through set social expressions – listening to them being spoken, explaining contextually and illustrating the finer points of the language through incidental grammar.

Name of course
MOC01

Creative Thinking

This course introduces the fundamental theories, concept and application of creative thinking. The objective of this course is to help students become creative thinkers by applying various thinking tools and idea generation techniques to solve problems creatively.

Name of course
MOC07
Pengajian Malaysia 3

This course consists of fundamental topics aiming to create awareness, understanding and sense of pride in the uniqueness and achievements of Malaysia in the past and present. Topics covered in this course include History and Politics, The Malaysian Constitution, The Malaysian Government System, Multiracial Society and National Unity, National Development as well as Thoughts and Beliefs.

Name of course
MOC05
Hubungan Etnik

This course discusses the basic concepts, backgrounds and current social realities of ethnic relations in Malaysia from the perspective of social cohesion. The purpose of this course is to provide awareness and appreciation in managing diversity towards strengthening of the nation state. Teaching and learning will be implemented in the form of experiential learning through individual, team activities and the spirit of volunteerism. At the end of this course, students are expected to practice noble values, have a national identity, and accept the ethnic socio-cultural diversity in Malaysia.

Name of course
UNIM513
Research Methodology

This course will equip students with the knowledge and skills necessary to undertake research in systematic, scientific and logical manner. Students will be exposed to research concepts, literature review, research design, qualitative and quantitative data analysis, information literacy skills and proposal development. They will also be exposed to relevant materials related to research activities.

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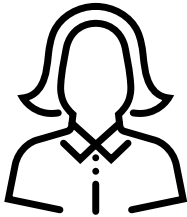
PERSON IN CHARGE
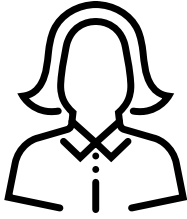
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UniKL
UNIVERSITI
KUALA LUMPUR

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uniklpage

UNIVERSITY'S NICHE

Universiti Kuala Lumpur (UniKL) is the leading entrepreneurial technical university focusing on engineering technology programmes established on 20 August 2002. Wholly owned by Majlis Amanah Rakyat (MARA), an agency under the Ministry of Rural Development, the university is given the mandate to upgrade the status of technical education in Malaysia by the government. With 12 institutes/campuses located strategically throughout Peninsular Malaysia, UniKL offers various Higher Technical and Vocational Education Technology (HTVET) programmes at foundation, undergraduate and postgraduate levels.

UniKL not only focuses on engineering technology but also provides programmes in the fields of medicine, allied health, pharmaceutical, entrepreneurial, finance, and management. The management programmes typically compliment the technical and technology specialisations of each institute/campus. The common denominators are in the methods of delivery of these programmes, which are done via hands-on, work experience and industrial involvement. Amongst other private universities, UniKL is at the forefront in contributing highly competent graduates to the entrepreneurial and career demands, covering the land, sea and sky where mankind occupies and strives.

With the concept of 'One Institute, One Specialisation', UniKL contributes not only to tertiary education but also research and development for commercialisation purposes.

GLU Academic Package

The GLU Academic Package allows us to share the wide array of courses that are currently taught to our students and now shared with students of GLU, who may pursue them out of academic requirements or personal interest.

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Name of course
IDB30303

IT Project Management

This course will expose undergraduate students to the importance and benefits of learning and applying project management theories and concepts within the IT environment. In general, this course will help the students develop essential skills required as a basis in managing IT projects. Students should be able to understand the list of processes, methods and soft skills through experience learning and ultimately will contribute either as a team player or as an outstanding project leader when performing the project management activities.

Name of course
WFD10101

French 1

This course introduces students to the basic use of the French language in daily conversations.

Students will be taught the basic grammatical structures in order for them to acquire the basic oral and written communication skills

Name of course
WFD10201

French 2

This course introduces students to the basic use of the French language for daily activities.

Students will be taught the basic grammatical structures in order for them to acquire the basic oral and written communication skills

Name of course

BKB10203

Circuit Theory 1

This course is aimed at providing students with extensive circuit theories which built most of the electrical engineering branches. Branches of electrical engineering such as power, electric machines, control, electronics, communications, and instrumentations are based on these theories. Students will be exposed to principles of analysing DC and AC electrical circuits and networks given using relevant circuit theory concepts

Scan the QR Code for more information

OPEN ELECTIVES

Name of course
EFB1O1O3

Introduction to Tourism Planning

This course provides the concept, process and roles in tourism product and destination. It particularly covers the whole process of tourism planning and addresses the management issues in relation to urban and rural tourism development.

Name of course
EBB30403

Shariah Audit

This subject deals with the
- General principles of audit and Shariah compliance in Islamic banking and finance;
- The standardisation of Syariah compliance regulations for Islamic Finance (BNM, AAOIFI, IFSB, SAC, SSB);
- Improvement to the governance and Shariah compliance assurance for IFIs;
- Shariah compliance rating of IFIs and products;
- The governance standard by AAOIFI;
- The auditing standards by AAOIFI; and
- Issues faced by IFIs auditors.

Name of course
EFB10403

Business of Tourism

This course provides understanding into the fundamental of business in tourism sector and its ecosystems. This subject covers:
- The nature of tourism business and its evolution.
- Its role in post-industrial economies
- The business interrelationships between destinations, modes of travel, hotels and visitor attractions
- The crucial role of marketing and management in successful tourism businesses.

Name of course
SFB35103
Manufacturing Technology

This subject focuses on the various types of manufacturing processes and equipment utilised in manufacturing production for metal and plastic such as sand casting, investment casting and die casting.

Students will also be introduced to rolling process, forging, extrusion, drawing, sheet metal forming and metal spinning

Name of course
SFB47703
Quality Engineering

This course covers the identification and interpretation of concept on two main areas in quality, which are quality management and quality control.

It includes the quality management areas such as quality standards (ISO9000, ISO14000, ISO/TS16949), and costs of quality.

This subject also covers the application of crucial elements of quality control such as Six Sigma and process capability study.

Other than that, it also emphasises on Lean Processes, additional quality techniques (TQM, QFD, TPM, Acceptance Sampling, Reliability, and TRIZ), and the core tools used in automotive industry.

Name of course
SCB23603
Thermal Science

This course introduces students to, the general concepts of properties of the working fluids in relation to heat and work, the 1st and 2nd law of thermodynamics, the use of thermodynamic table, thermodynamic cycles, heat pumps, Otto cycle, Diesel cycle and introduction to heat transfer.

Name of course
BMB43503

Telemedicine Technology

The aim of this course is to develop an understanding of the principle involved in telemedicine technology. It also covers the implementation of telecommunication system in telemedicine technology in hospital using networking and wireless technology.

Name of course
BPB44603

High Voltage Technology

This course provides students with an introduction to high voltage engineering and technology. The course covers power generation, measurement techniques of transient and protection devices. Emphasis will also be given to practical measurement skills, safety practice and correct use of HV apparatus. The topics covered in the course are generation aspects of HV system, measurement techniques of high voltage & high current, overvoltage in HV system, dielectrics properties of electrical insulator, and testing of high voltage equipment.

Name of course
BEB41103

Artificial Intelligence

This course covers the fundamentals of Fuzzy Logic and Artificial Neural Networks. This includes fuzzy set theory, many valued logic, rule-based approaches in artificial intelligence, approximate reasoning, possibility theory, the basic concepts of fuzzy control, modelling of fuzzy systems, an introduction to the basic models of neural computing, perceptron, multilayer perceptron and back propagation algorithm.

In short, the course focuses on the area of computational intelligence or soft computing. The delivery will include lectures, group discussions, assignments and case studies.

Name of course
LMB11103

Introduction to Marine Engineering System

This module covers the Introduction to Marine Engineering and Main/Auxiliary machineries and System onboard ship; i.e. Main Diesel Engine & Propulsion System, Generator Diesel Engine, Boiler & Steam Turbine, and Auxiliary Machineries & Systems: i.e. Purifier, Pump, Steering Gear, Heat Exchanger, Auxiliary Boiler, OWS, Sewage Plant and piping system. It covers the STCW 7.04 2014
Model Course : 7.04
Competence : 1.4.1.1, 1.4.3.1, 1.4.3.2, 1.4.1.7, 1.4.1.6

This course is commonly offered to students in the first semester and considered as a fundamental course for Marine Engineering and suitable for students with basic science background.

Name of course
LEB31403

Navigation Equipment and System

This course covers the principle of modern navigation systems and introduces the types of navigation equipment, operating procedures, & types of maintenance. Emphasis is placed on hardware functional descriptions and the navigation system will be broken into its different sub-system and components. It covers the STCW 7.08 2014

Competence :
2.3.1 : Maintenance and Repair of Bridge Navigation Equipment.
2.3.2 : Maintenance & Repair of Ship Communication Systems
This is a standalone course and students can register without prior knowledge in Marine electrical.

The course is appropriate for students in senior semesters.

Name of course
LOB10303

Fundamental of Maritime Operations

This course introduces students to the fundamental aspects in maritime operations such as shipping operations, seaport and terminals.

Students are not required to have any basic knowledge in maritime operations to enrol into this course.

Name of course
LGB40703

Shipyard and Engineering Project Management

This module covers the area of shipyard management in occupational, safety and health; materials storage and handling; shipyard layout and ship repair facilities. The second part focuses on understanding the application of CPM techniques and tools in project planning, which includes forecasting, resource planning and basic risk analysis.

Students should have at least basic knowledge in Shipbuilding Technology, Quality Management, Occupational Safety & Health and Ship & Engineering Drawing.

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AVIATION ENGINEERING

This minor is designed to introduce students to the field of aircraft structure, maintenance practices, avionics systems and aircraft turbine engine. The courses will introduce students to basic structural design and components, aircraft electrical system as well as understanding the constructions of aircraft turbine engines. The courses include theories, practical and practical demonstrations of each module with related aircraft engineering and operations especially in the Maintenance, Repair and Overhaul activities (MRO). The modules are developed from European Union Aviation Safety Agency (EASA) and Civil Aviation Authority of Malaysia (CAAM) input. Prior knowledge in basic electrical engineering, materials engineering and introduction to turbine powerplant systems are an advantage in order to have better understanding of the subjects.

Name of course
AAB20503 — **Aircraft Structures**

Aircraft structures is a subject that covers all aspects of the aircraft construction features and components, analysis of structures, designing methods, classifications, assembling techniques, defect identification and inspection methods, repair methods and procedures in order to ensure structural integrity and hence maintain the airworthiness of the aircraft.

Name of course
AAB31003 — **Aircraft Structure Repairs**

Aircraft Structure Repair is the core knowledge in the aviation industry, which relates to the scope of work of structural engineers. The knowledge is essential for the graduates to perform normal tasks, for example, aircraft structure design concept i.e. structural and loading deformation, damage characterisation and inspection requirement and design of repair.

Name of course
AAB30903 — **Aircraft Composite Repairs**

This is an introductory course aimed at providing students with the fundamental concepts of aircraft composite repair. These concepts are essential since the students will encounter composite components damages in the aviation industries later.

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Name of course
AAB30403

Aircraft Electrical System

The aim of this course is to provide students with the understanding of aircraft electrical system for a detailed operation inclusive of the function of aircraft electrical components. This is an essential requirement for aircraft engineers to comprehend in aircraft electrical system.

Name of course
AJB30503

Turbine Engine and Indication System

Turbine Engine and Indicating System is one of the major systems which is the requirement in the manufacturing of aircraft, hence the knowledge and understanding about this system is very important to the engineer in order to maintain the aircraft engine and its system in satisfactory condition which affects the aircraft airworthiness.

Name of course
AAB30503

Gas Turbine Engine 1

This is an introductory course aimed at providing students with the fundamental construction of turbine engine and its related components which forms the foundation for their later lessons in turbine engine 2 (systems)

Name of course
AAB40503

Gas Turbine Engine 2

This course is aimed at providing students with the various systems of turbine engine and their related components

AVIATION MANAGEMENT

This minor is designed to introduce to students the expanse of air transport matters The courses cover in major air transportation issues and sustainable air transport policy, airport operation system, airport management system, air cargo operations and freight logistics. The modules will expose the students with knowledge on airport system, the fundamental aviation financial performance and measurement. The modules are developed from International Air Transport Association (IATA) and International Civil Aviation Organization (ICAO) input.

Name of course
ABB20103   **Air Transport Policy**

This course is to provide students with the understanding of major air transportation issues and also the concept of a sustainable air transport policy in terms of Energy, Economy, and Environment as well as the various funding mechanisms for Air Transportation

Name of course
ABB40503   **Aircraft Maintenance Management**

This course will prepare students / graduates going to an aircraft maintenance and repair organization (MRO) for OJT / practical / an appointment as a management trainee.

Name of course
ABB40403   **Airport Management**

This course is to provide students with the understanding of the operational system in the airport according to ICAO rules and regulation.

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Name of course
ABB40703

Air Cargo Operations Management

This course prepares graduates with knowledge, critical skills and exposure to various topics in aviation, commercial and airfreight industry. An industry driven programme linking current practice with theoretical models.

Name of course
ABB20503

Aviation Finance

Students will be exposed to airline and airport financials, both cost and revenue. They will also be exposed to all financial planning and statements significantly for the airline & airport operations.

AVIATION ENGINEERING MANAGEMENT

Take any 5 courses from the combination of Aviation Engineering and Aviation Management

Scan the QR Code for more information

PERSON IN CHARGE

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