

ENGINEERING PROGRAMMES

COURSE	ENTRY REQUIREMENTS	DURATION
Foundation	Passed Sijil Pelajaran Malaysia (SPM) examination with credits in Bahasa Malaysia, English Language and good credits in four (4) relevant subjects which are Mathematics, Additional Mathematics, Physics and Chemistry International Students: Passed 'O-Level' examination or equivalent with good grades in Mathematics, Physics, Chemistry and English*.	1 year
Bachelor of Electrical and Electronics Engineering (Hons)	Passed Foundation Programme/ STPM/A-Level/Matriculation/Diploma or equivalent qualification and have taken the Malaysian University English Test (MUET)	4 years
Bachelor of Electrical Power Engineering (Hons)		
Bachelor of Mechanical Engineering (Hons)		
Bachelor of Civil Engineering (Hons)	International Students: Passed 'A-Level' examination or equivalent with good grades in Mathematics, Physics and Chemistry. • Obtained minimum grade 'C' for English* at 'O-Level' examination.	

* Applicants with IELTS (5.5 – 6.0) or TOEFL (550 and above) can be admitted directly in foundation or degree programmes. However, those who did not meet the minimum requirement for English proficiency are required to pursue the Intensive English Programme in UNITEN.



MSC-Status

Putrajaya Campus

KM7 Jalan Kajang-Puchong, 43009 Kajang, Selangor, Malaysia.

Tel: 603-8921 2020 Fax: 603-8928 7166

Sultan Haji Ahmad Shah Campus

Wisma Sultan Ahmad Shah, 26700 Bandar Muadzam Shah, Pahang, Malaysia.

Tel: 609-455 2020 Fax: 609-455 2000

For further information, please contact us at

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PROGRAMME INFORMATION
COLLEGE OF ENGINEERING



**UNITEN GENERATES
PROFESSIONALS**

The College of Engineering offers comprehensive programmes designed to develop our students' mental capabilities to seek creative and innovative solutions to problems, both independently and in groups. It provides up-to-date skills that match the growing needs of the engineering industry. Programmes at this college also have the opportunity to tap the vast experience and resources of Tenaga Nasional Berhad, one of the largest utility companies in the region.

The College of Engineering endeavours to provide a broad-base multi-disciplinary education to prepare graduates for challenging and rewarding careers. The college has been keeping pace with scientific and technological changes and advancements to meet its target. Student enrolled in the college will be given a strong foundation on the fundamental principles of engineering to enable them to adapt to new technological developments as well as to analyse and solve problems.

BACHELOR OF CIVIL ENGINEERING (HONS) KPT/JPS (KR 7012) 2/11

Career Prospects: Graduates are able to pursue a wide range of careers such as project engineers, construction engineers, structural engineers, research/test engineers, maintenance engineers, consulting engineers, design engineers, geotechnical engineers, highway and transportation engineers or academicians.

Course Content

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| <ul style="list-style-type: none"> • Differential Equations • Linear Algebra • Statistics for Engineers • Mechanics: Statics • Mechanics: Dynamic • Structural Analysis • Auditing • Structural Steel Design • Geology • Soil Mechanics • Foundation Engineering • Transportation Engineering • Highway Engineering • Mechanics of Fluids • Hydraulic Engineering • Water Treatment & Supply Engineering • Water & Wastewater Engineering • Mechanics of Materials • Civil Engineering Materials • Project Management & Construction | <ul style="list-style-type: none"> • Surveying for Engineers • Engineering Graphics • CAD & CAE • Industrial Training • Principles of Programming for Engineers • Electrical Engineering for Civil Engineers • Engineers in Society • Technical Communication • Islamic/Moral Studies • Malaysian Studies • Malay Language • Technical Electives • Mechanics I: Statics • Advance Calculus & Analytical Geometry • Civil Engineering Drafting Technology • Hydrology Engineering • Reinforced Concrete Design • Numerical Methods for | <ul style="list-style-type: none"> • Civil Engineers • Introduction to Environmental Engineering • Integrated Civil Engineering Design Project • GIS for Civil Engineers • Rock Mechanics • Repair, Assessment and Rehabilitation • Highway Design and Traffic Engineering • Analysis and Design of Civil Engineering Structures • Geotechnical Engineering • Water Resources Engineering • Fire Safety Engineering • Malay Language I |
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BACHELOR OF ELECTRICAL AND ELECTRONICS ENGINEERING (HONS) KP/JPS (KR 5660) 10/09

Career Prospects: Graduates are able to pursue a wide range of careers such as maintenance/operation engineers, design engineers, project engineers, consulting engineers, instrumentation and control engineers, electrical/electronic system engineers, manufacturing engineers, communication engineers, research/test engineers or academicians.

Course Content

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| <ul style="list-style-type: none"> • Advance Calculus & Analytical Geometry • Circuit Analysis • Principles of Programming • Electrical/Electronic Measurement • Mechanics-Static • Electronic Analysis & Design • Digital Logic Design • Differential Equation • Thermodynamics • Signal and System • Electromagnetic • Control System • Electromechanical Devices • Digital Signal Processing | <ul style="list-style-type: none"> • Data Communication & Network • Power Electronics • Communication System • Principles of Management • Linear Algebra • Image Processing • General Studies Electives • Industrial Training • Islamic/Moral Studies • Malaysian Studies • Malay Language • Engineers in Society • Technical Communication • Artificial Intelligence and Neural-fuzzy Systems • Advanced Microprocessor | <ul style="list-style-type: none"> • Computer Architecture • Applied Telecommunication Systems • Data Network Architecture & Electronics • Optoelectronics and Fibre Optics • Radio Frequency / Microwave Engineering • Introduction to Robotics • VLSI Design • Analog IC • Process Control & Instrumentation • Embedded Systems • Engineering Electromagnetics |
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BACHELOR OF ELECTRICAL POWER ENGINEERING (HONS) KP/JPS (KR 5659) 10/09

Career Prospects: Graduates are able to pursue a wide range of careers such as electrical distribution engineers, power system engineers, power station engineers, maintenance/operation engineers, project engineers, consulting engineers, research/test engineers or academicians.

Course Content

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| <ul style="list-style-type: none"> • Advance Calculus & Analytical Geometry • Circuit Analysis • Principles of Programming • Electrical/Electronic Measurement • Mechanics-Static • Electronic Analysis & Design • Digital Logic Design • Differential Equation • Thermodynamics • Signal and System • Electromagnetic • Microprocessor System • Linear-Algebra | <ul style="list-style-type: none"> • Electrical Power System • Electromechanical Devices • Digital Signal Processing • Numerical Methods for Engineers • Power Electronics • Control System • Control & Drives • Principles of Management • Laboratory Work • Project • Industrial Training • General Studies Electives • Islamic/Moral Studies • Malaysian Studies • Malay Language | <ul style="list-style-type: none"> • Engineers in Society • Technical Communication • Electromagnet Fields & Waves • Electrical Machines & Drives • High Voltage Technology • Electrical Installations • Electrical Safety and Hazards • Power System Protection • High Voltage Direct Current (HVDC), and FACTS Devices |
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BACHELOR OF MECHANICAL ENGINEERING (HONS) KP/JPS (KR 5661) 10/09

Career Prospects: Graduates are able to pursue a wide range of careers such as project engineers, design engineers, maintenance /operation engineers, automotive engineers, power/chemical/processing plant engineers, manufacturing engineers, research/test engineers, consulting engineers or academicians.

Course Content

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| <ul style="list-style-type: none"> • Advance Calculus & Analytical Geometry • Linear Algebra • Engineering Graphics & Computer-Aided Engineering • Engineering Materials • Engineering Measurement • Thermodynamics • Manufacturing Processes • Mechanics Statics / Dynamics • Circuit Analysis • Fluid Mechanics • Mechanics of Materials • Numerical Methods for Engineers • Control System | <ul style="list-style-type: none"> • Modeling & Analysis of Dynamics System • Heat Transfer • Engineering Design & Projects • Electro-Mechanical Systems • Mechanical Design & Computer-Aided Design • Principles of Programming • Principles of Management • Industrial Training • General Studies Electives • Malaysian Studies • Islamic/Moral Studies • Malay Language • Engineers in Society • Technical Communication | <ul style="list-style-type: none"> • Machine Design • Mechanical Design Process • Theory of Machines • Engineering Economics • Technical Electives • Production Planning and Controls • Robotics and Automation • Computational Fluid Dynamics • Power Generation • Internal Combustion Engine • Failure Analysis • Finite Element Method |
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All programmes offered are designed to satisfy the academic requirements of the Malaysian Qualifications Agency (MQA) or formerly known as National Accreditation Board, and relevant professional bodies such as Board of Engineers Malaysia and Institution of Engineers Malaysia (IEM), Institution of Mechanical Engineers (IMechE) and Institution of Civil Engineers (ICE) from United Kingdom.

