

POSTGRADUATE PROSPECTUS | 2021

At a Glance




Kuala Lumpur – The Capital City of Malaysia

Geographically, Malaysia is as diverse as its culture. Malaysia is divided into 13 states and 3 Federal Territories, separated by the South China Sea with 11 states and 2 federal territories (Kuala Lumpur and Putrajaya) in Peninsular Malaysia and two states and 1 federal territory (Labuan) in East Malaysia.

Pahang, which covers an area of 35,960 sq.km, is the largest state in Peninsular Malaysia. Pahang has so much to offer the visitor that tourists, both locals and foreign, come back again and again.

Pahang has cool green mountains, rain forests, hill resorts, tranquil fishing villages, long stretches of sandy beaches, mysterious caves and unspoilt lakes.

With a population of 1 million, the state, which lies on the East Coast, overs the finest in beaches such as the famous Cherating Beach, Teluk Chempedak and Beserah Beach. There are the renowned hill resorts of Cameron Highlands, Genting Highlands and Fraser's Hill. If you are looking for adventure, why not visit parks such as Kenong Rimba, Endau-Rompin and Taman Negara (National Park).



Pahang has cool green mountains, rain forests, hill resorts, tranquil fishing villages, long stretches of sandy beaches, mysterious caves and unspoilt lakes.

Kuantan

The Capital City of Pahang

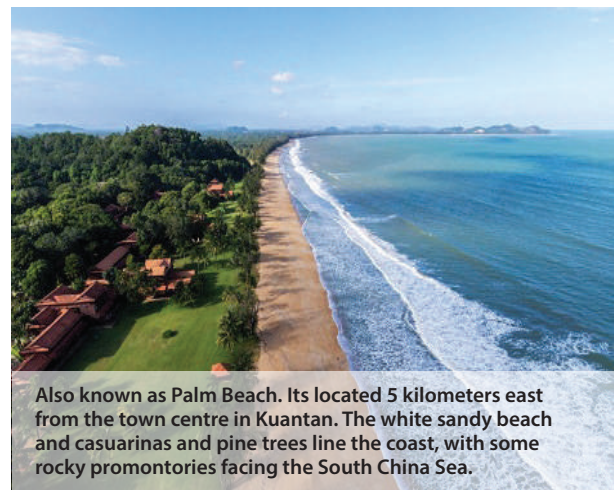


Kuantan, the capital of the State of Pahang is the gateway to an adventurous, thrilling and exhilarating tropical holiday. The town located on the east coast of the state facing the blue South China Sea is fast developing into a modern commercial center while still retaining its unique age-old charm and heritage. Modern high-rise structures cohabit harmoniously with pre-war shop houses and colonial buildings. The State Mosque, with its distinctive dome and minarets in a pastel shade of sky blue and mint green stands regal in the middle of the town as a prominent landmark to newcomers to the town.

Places of interests are aplenty in and on the outskirts of Kuantan. A visit to Kuantan is not complete without visiting some of these places, which never fail to arouse the curiosity of the visitors.

The Kuantan river cruise takes visitors through the picturesque landscape of a 500-year mangrove forest reserve that spreads along the Kuantan River. The swamp which covers an area of 340 hectares, is home to a fascinating varieties of estuarine plants, birds and fish species.

A perfect place for a quiet holiday with wide gently sloping sandy beaches. A walk on the beach will offer opportunity to collect beautiful seashells and occasionally you may find tiny crabs struggling to find their way out of the sea.



Also known as Palm Beach. Its located 5 kilometers east from the town centre in Kuantan. The white sandy beach and casuarinas and pine trees line the coast, with some rocky promontories facing the South China Sea.



UMP Welcomes You



Universiti Malaysia Pahang (UMP) was established by the Government of Malaysia on February 16, 2002. UMP was established as a public technical university by the Malaysian Government on 16 February 2002, incorporated under the Universities and University Colleges Act 1971. The university was formerly known as Kolej Universiti Kejuruteraan & Teknologi Malaysia (KUKTEM). On 8 October 2006, the Malaysian Government uplifted the status of the college to university level and renamed KUKTEM to Universiti Malaysia Pahang. UMP was set up as a competency-based technical university which specializes in the fields of engineering and technology.

Universiti Malaysia Pahang (UMP) offers a wide range of practical-based higher education programmes in engineering and technology to produce competent engineers. The application-oriented curriculum which integrates theory and practice in the concept of a teaching factory emphasizes experiential and action learning that is task-oriented and concentrated on problem-solving.



UMP was set up as a competency-based technical university which specializes in the fields of engineering and technology.



UMP focuses on applied research and industrial projects to enrich the teaching and learning processes while promoting the commercialization of the research products, thus exposing our students to the latest research and development activities in the industries.

UMP's laboratories have latest equipment resembling those in industries. A 24-hour internet connection serves students through wired & wireless networks throughout the campus, making in a conducive teaching & learning environment. Our campus is fully-equipped with the latest ICT systems, including a wireless broadband internet connection to facilitate the university's electronic-based e-Learning and e-Management activities. UMP is committed to be development of human capital and technology to fulfil the needs of industries and contribute of national agenda.

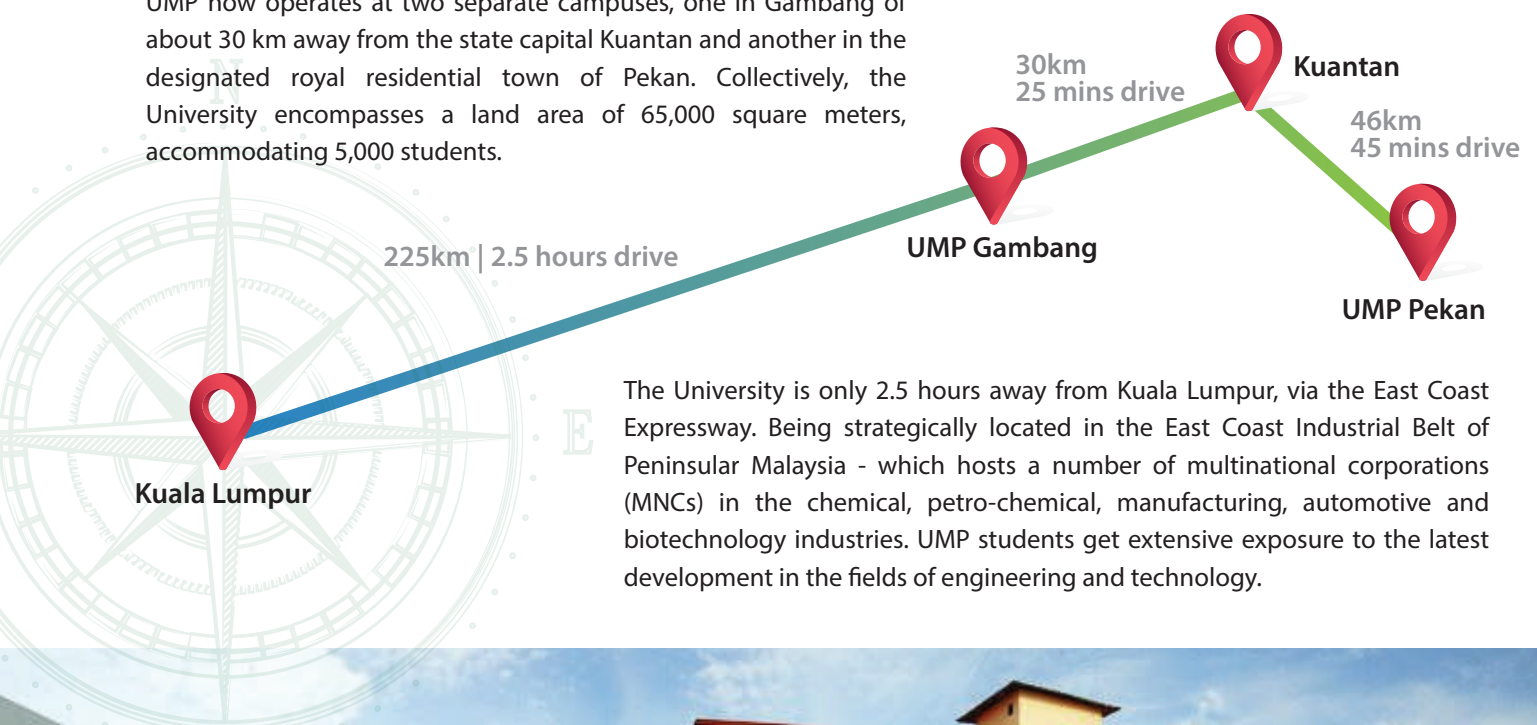
UMP

Gambang Campus



Galeri UMP, Gambang Campus

UMP now operates at two separate campuses, one in Gambang of about 30 km away from the state capital Kuantan and another in the designated royal residential town of Pekan. Collectively, the University encompasses a land area of 65,000 square meters, accommodating 5,000 students.



The University is only 2.5 hours away from Kuala Lumpur, via the East Coast Expressway. Being strategically located in the East Coast Industrial Belt of Peninsular Malaysia - which hosts a number of multinational corporations (MNCs) in the chemical, petro-chemical, manufacturing, automotive and biotechnology industries. UMP students get extensive exposure to the latest development in the fields of engineering and technology.



UMP

Pekan Campus

The Campus by the Sea

UMP's main campus of 642 acres in Pekan began its operation in July 2009. At present, the campus harbours four faculties, namely the Electrical and Electronic Engineering Technology, Manufacturing and Mechatronic Engineering Technology, Mechanical and Automotive Engineering Technology, Faculty of Computing and 2 centres; Centre for Modern Language and Centre for Human Sciences. When construction is fully completed, the Pekan campus can accommodate up to a total of 10,000 students and 2,000 staff.

The UMP Pekan Campus is close proximity to the sea. Within a five to ten minutes travelling by car, or bicycle, you may visit the Tanjung Gosong shoreline and Lagenda Beach or also known as Air Leleh Beach. It is a peaceful and beautiful place to release stress, relaxed and chill or have a picnic with a beautiful, clean and fresh evening breeze. It has a beautiful long and wide sandy beach, is a popular spot for family outings, picnic and sunrise location for photography. There are numerous water sports activities. The facilities include bathrooms, toilet, surau and food stall. Visitors can walk along the soft and beautiful white sandy beach, spend an hours admiring the beauty of the beach.

...the campus harbours four faculties, namely the Electrical and Electronic Engineering Technology, Manufacturing and Mechatronic Engineering Technology, Mechanical and Automotive Engineering Technology, Faculty of Computing and 2 centres; Centre for Modern Language and Centre for Human Sciences.



From the VC

Established in 2002 as Malaysia's sixteenth public university, UMP currently offers graduate studies by research at Master's and Doctoral levels. Candidates for studies at the doctoral level would be admitted into the Doctor of Philosophy (PhD) programme. These programmes are offered through the respective academic faculties and centres in UMP.

The general areas of specialisation are as follows: Chemical Engineering Bioprocess, Biotechnology, Industrial Chemistry, Mechanical Engineering, Automotive Engineering, Production Engineering, Electrical Engineering, Electronic Engineering, Instrumentation, Civil Engineering, Construction Engineering, Computer Science, Software Engineering, Technology Management, Industrial Safety and Health, Human Capital Resources, Project Management and Operations Management. Potential candidates are strongly encouraged to enquire with the respective faculties on the availability of supervisor to supervise research work in specific sub-specialisation of the areas listed above.

Tailoring our graduates with the needs of present job market, our curriculums are designed to meet the standards set by Ministry of Education. The curriculums focus on enhancing the capabilities of our students to become highly competent professionals and future global players.

Operating from its campuses in Gambang and Pekan. UMP provides campus-wide broadband coverage to facilitate students to utilise web-based e-learning applications, library-on-server and others to the maximum, creating a fun and enjoyable learning environment for our students.

Our engineering and science laboratories are equipped with state-of-art facilities and equipment resembling those available in the industries, enabling our students to experience a conducive post-graduate and research environment.

Welcome on board!

Professor Ir. Dr. Wan Azhar bin Wan Yusoff

Vice-Chancellor

Universiti Malaysia Pahang

"The curriculums focus on enhancing the capabilities of our students to become highly competent professionals and future global players."



From the Dean

Bismillahirrahmanirrahim

Assalamualaikum Warahmatullahi Wabarakatuh and Good Day,

Welcome to Universiti Malaysia Pahang!

The main functions of the Institute of Postgraduate Studies (IPS) are (1) to implement and monitor postgraduate research direction and policies, (2) to plan, manage and monitor academic management matters of postgraduate students, and (3) to develop work procedures and guidelines related to the graduate programmes. At the Universiti Malaysia Pahang (UMP), we offer Doctor of Philosophy, Master by Research, Master by Course, and Master by Mixed Mode.

We also offer value-added programmes to students as our mission is to provide quality academic services and management through a conducive learning environment for postgraduate students. With the upcoming Industrial Revolution 4.0, UMP has creatively designed a non-conventional course to be delivered namely Masters and PhD (Industry Mode), PhD (by publication), Global Classroom, MOOCS, Competency courses and online courses.

Thank you for choosing UMP as your destination of study. To all the new students of UMP, congratulations. Enjoy your knowledge-gaining experience, give the best for your personal success, and do contribute to university excellence.

Best wishes,

Prof. Datin Ts Dr. Mimi Sakinah Binti Abdul Munaim

Dean

Institute of Postgraduate Studies

“With the upcoming Industrial Revolution 4.0, UMP has creatively designed a non-conventional course to be delivered namely Masters and PhD (Industry Mode), PhD (by publication), Global Classroom, MOOCS, Competency courses and online courses.”



Contents

• At a Glance	1
• UMP Welcomes You	3
• UMP Gambang and Pekan	4
• From the VC	6
• From the Dean of IPS	7
• Faculties and Centres	9
• Campus Facilities	10
• About IPS	15
• Our Stories	17
• Fields Of Research	19
• Programmes Offered	20
• Master by Coursework and Mixed Mode	22
• How to Apply?	41
• Why Choose UMP?	42
• <i>Start Your Journey With UMP!</i>	43



Faculties and Centres



COLLEGE OF ENGINEERING

COLLEGE OF ENGINEERING TECHNOLOGY

- Faculty of Chemical and Process Engineering Technology
- Faculty of Electrical and Electronic Engineering Technology
- Faculty of Mechanical and Automotive Engineering Technology
- Faculty of Civil Engineering Technology
- Faculty of Manufacturing and Mechatronic Engineering Technology

COLLEGE OF COMPUTING AND APPLIED SCIENCES

- Centre for Mathematical Sciences
- Faculty of Industrial Sciences and Technology
- Faculty of Computing

COLLEGE OF MANAGEMENT AND HUMANITIES

- Centre for Human Sciences
- Centre for Modern Languages
- Faculty of Industrial Management

CENTRE OF EXCELLENCE

- Centre for Automotive Engineering - Automotive Centre
- Centre for Research in Advanced Tropical Bioscience - Biotropic Centre
- Centre for Sustainability of Ecosystem and Earth Resources - Earth Centre
- Centre for Bioaromatic Research - Bioaromatic Centre
- Centre for Research in Advanced Fluid & Processes - Fluid Centre
- Centre for Software Development & Integrated Computing - Software Centre
- Centre for Design & Innovation of Technology - PRInt

Campus Facilities





Engineering Technology Infrastructure Management (ETIM)



UMP Advanced Education



Laboratories



Centre for Research in Advanced Tropical Bioscience - Biotropic Centre



UMP Chancellery, Pekan Campus



Bio Aromatic Research Centre of Excellence



Hostel



University Health Centre



Tennis Court



Mosque



University Sports Complex



Stadium



Library



Bursary



24 Hr Convenience Store



Self-service Laundry

VISION

A Distinguished Technological University.

MISSION

We provide high quality education, research and services in engineering and technology in a culture of creativity and innovation.

OBJECTIVES

To produce outstanding graduates by providing competitive engineering and technological programmes.

To spearhead cutting edge industry-relevant research initiatives.

To be a leading service provider to industries and community based on our niche and areas of expertise.

To be recognized as an institution for excellent management and work culture.

PHILOSOPHY

Knowledge, a trust bestowed by Allah to man vicegerent on earth, is to be fully utilized.

Emphasis is an applied knowledge guided by Islamic values to develop human capital towards universal harmony and prosperity.

CORE VALUES

Strong bond with the creator.

Steadfast in upholding shared principles.

Creative in making wise decisions.

Resolute in facing challenges.

Proactive in taking actions.



Vision

To become a referral center for postgraduate academic management

Mission

We provide quality academic services and management through a conducive learning environment for postgraduate students

Institute Of Postgraduate Studies | IPS, UMP

Institute of Postgraduate Studies (IPS) supervises and promotes the graduate programmes of UMP. This includes administering the admission, appointment of supervisors, candidature reviews, provision of financial assistance and assessment. The centre is headed by a dean who is assisted by administrative officers and administrative assistants.

Graduate Programmes

UMP currently offers two modes of study at the graduate level. The graduate studies by coursework at the Masters level and graduate studies by research are at Master's and Doctoral levels. These programmes are offered through the respective academic faculties of UMP.

Potential candidates for the research mode programmes are strongly encouraged to enquire with the respective faculties on the availability of a supervisor to supervise research work in specific specialisation.

UMP currently offers two modes of study at the graduate level. The graduate studies by coursework at the Masters level and graduate studies by research are at Master's and Doctoral levels.



UNIVERSITY EDUCATIONAL OBJECTIVES (UEO)

- To produce graduates with engineering and technological knowledge through outstanding academic programs.
- To produce competent graduates with adaptability in using cutting edge technology.
- To produce graduates with professionalism and high ethical values.

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

- Graduate professionally utilises fundamental knowledge, analytical and problem-solving skills to articulate and make decisions critically and creatively based on research evidences and experiences in professional practice.
- Graduate competently provides solutions for the advancement of knowledge through the application of appropriate tools and techniques.
- Graduate continues to acquire advanced knowledge in pursuing lifelong learning and display commitment to the community and profession through effective communication with peers by adhering to legal, ethical, and professional codes of practice.



PROGRAM LEARNING OUTCOMES (PLO)

- PLO1 Demonstrate mastery of knowledge in science and technology;
- PLO2 Apply practical skills in science and technology;
- PLO3 Relate ideas to societal issues in science and technology;
- PLO4 Conduct research with minimal supervision and adhere to legal, ethical and professional code of practice;
- PLO5 Demonstrate leadership qualities through communicating and working effectively with peers and stakeholders;
- PLO6 Generate solutions to problems using scientific and critical thinking skills;
- PLO7 Manage information for lifelong learning

PGA INTERACTION DAY

Connect. Share. Support



Our Stories



MUHAMMAD ZAKI BIN RAMLI

DOCTOR OF PHILOSOPHY - Industrial Biotechnology
FACULTY OF INDUSTRIAL SCIENCES AND TECHNOLOGY

“I made the right decision when I chose UMP as a university to continue my study in the PhD stage. As a married person who lives in Kuantan, the location is near my house. So, it is easy to commute and meet my supervisor as frequently as I want. Therefore, I recommend the locals living around Kuantan, Gambang and Pekan to choose this public university to continue their higher levels of study.

Besides that, speaking of supervisors, UMP offers a great range of competent and professional supervisors that can help you meet your study requirements and graduate as soon as you can, provided you put all possible efforts to work hand in hand with the supervisors. They are equipped with laboratories that are important to allow you to perform research with convenience.”

MOHD. AMIRUL HILMI BIN MOHD HANOIN

MASTER OF SCIENCE - Renewable Energy and Environmental Engineering
FACULTY OF CIVIL ENGINEERING TECHNOLOGY

“In my opinion, UMP is one of the best technical universities in Malaysia, as I have a high interest in the field of engineering. Also, UMP offers majors in science, technology, and engineering. This opportunity is very meaningful for Polytechnic graduates.

During my six years at UMP, the university offered theoretical and practical learning to prepare students for the industrial world. Most of the lecturers and laboratory officers have a strong experience and background in their respective fields. This can help students to master the field they are interested in.”





Our Stories



ABDULMAJEED ALI MOHAMMED NASSER AL-HOKABI
 MASTER OF SCIENCE - Geotechnical and Infrastructures
 COLLEGE OF ENGINEERING

“Why did I choose UMP? As an international student, I really found UMP as my second home. I finished my bachelor's degree here. With my supervisor's encouragement and support, I chose to pursue my master's degree here. I really adapted to the UMP environment and did not want to change it. Sometimes when I go somewhere outside the campus, I feel nostalgic and longing for UMP.”

UMP also has a good environment, especially for postgraduate students. Residential college 2 (KK2) is a good place for their families and kids. Moreover, UMP's ranking is increasing fast even though it is young compared to other universities. For these reasons, I preferred to pursue my master's degree here and maybe will do the same for my PhD.”

ALIA AQILAH BINTI GHAZALI
 MASTER OF SCIENCE - Chemical Engineering
 COLLEGE OF ENGINEERING

“Hi! I am Alia, a postgraduate student from the College of Engineering. Currently, I am doing my master's study in chemical engineering, specifically in the membrane technology field. 'Why do you choose UMP?'; this is one of the most frequent questions asked. Well, I chose UMP because it is one of the excellent and top-ranked universities that offers a wide range of programmes in engineering and technology. Analysing the two years of my study, I would say the three things that I love about UMP are (1) amazing supervisors/lecturers, (2) great facilities and laboratories, and (3) friendly and conducive environment.”

UMP is home. As a student here, I have countless 'mothers' who are willing to help, advise and guide me throughout the journey. UMP has lots of great and highly knowledgeable lecturers who are very passionate about their students' success. They will do anything to provide us with exactly what we need to do our best. Besides, UMP is well-equipped with tutorial rooms, computer labs, and research and development (R&D) labs, complete with internet access and advanced facilities which helped me a lot in completing my research.”



Field of Research

Doctor of Philosophy Master of Science (By Research)

FIELD OF RESEARCH

- Automotive Engineering
- Advanced Fluids
- Renewable Energy and Environmental Engineering
- Energy Sustainability
- Structures and Materials
- Geotechnical and Infrastructures
- Project Management and Construction
- Water Resources and Environmental
- GIS and Remote Sensing
- Sustainable Energy & Power Electronics
- Instrumentation and Control Engineering
- Advanced Structural Integrity and Vibration Research
- Chemical Engineering
- Bio-Process Engineering
- Gas Engineering
- Structural Materials & Degradation
- Applied Electronics & Computer Engineering
- Innovative Materials
- Sustainable Infrastructure and Construction
- Energy
- Mechatronic
- Resource Recovery & Solid Waste Minimization
- Mining & Mineral Processing
- Automotive Advanced Materials
- Automotive Advanced Manufacturing
- Automotive Networking, Software & Multimedia
- Automotive Electronics & Control
- Electronic Nose Sensor
- Chemical Process Engineering
- Energy Security
- Materials Engineering
- Environmental Engineering
- Thermal Engineering
- Manufacturing
- Advanced Materials
- Industrial Chemistry
- Food Processing
- Pharmaceutical Technology
- Industrial Chemistry - Extraction and Analysis
- Supply Chain & Logistics Management
- Project Management
- Finance, Accounting & Economics
- Entrepreneur
- Business Management
- Strategy Leadership & Governance
- Computing & Modelling
- Operation Management
- Information System
- Multimedia Computing and Computer Vision
- Software Engineering
- Soft Computing and Intelligent System
- System Network and Security
- Embedded System
- Physics
- Chemistry
- Industrial Biotechnology
- Biotechnology - Fermentation
- Occupational Health and Safety
- Environmental Technology
- Language Studies
- Islamic Studies
- Historical Studies
- Linguistics / Applied Linguistics
- Human Sciences
- Mathematics
- Statistics



Programmes Offered

RESEARCH MODE

- Doctor of Philosophy
- Master of Science

COURSEWORK MODE

- Master of Mechanical Engineering
- Master of Industrial Engineering
- Master of Electrical Engineering
- Master of Chemical Engineering with Entrepreneurship
- Master of Automotive Engineering (UMP-HSKA Germany Dwi Program)
- Master of Science (Information & Communication Technology)
- Master of Science (Computer Networking)
- Master of Science (Software Engineering)
- Master of Science (Process Plant Operation)
- Master of Science in Mining With Mineral Technology
- Master of Science in Technology-integrated Language Studies
- Master of Science Occupational Safety and Health
- Master of Business Administration (MBA)
- Master of Project Management

MIXED MODE

- Master of Science (Industrial Mathematics)

ADMISSION REQUIREMENTS (BY RESEARCH MODE)

DOCTOR OF PHILOSOPHY

A student must have a Master's degree by research, OR;

Master's degree by coursework with a CPA of at least 3.00/4.00.

For student who does not meet the CPA requirement, can apply with the following requirement:

CPA 2.75-2.99 - Working experience – five (5) years in related field, OR

- Obtain grade B+ for any course related to the programme approved by the University Senate, OR
- Grade B+ in Dissertation/Project

CPA 2.5-2.74 - Working experience – five (5) years in related field, OR

- Working experience – two (2) years in related field AND
 - Two (2) academic publications (journals in related field), OR
 - Obtain grade A- for major/elective course, OR
 - Obtain grade A for coursework mode, OR
 - Pass the mixed-mode in Dissertation/Project

MASTER'S DEGREE BY RESEARCH

A student must possess a Bachelor's Degree (Honours) with a CPA of at least 2.75/4.00.

For student who does not meet the CPA requirement, can apply with the following requirement:

CPA 2.50-2.74 - Working experience – One (1) year in related field, OR

- Obtain grade B for any course related to the programme approved by the University Senate, OR
- Grade B+ for final year project

CPA 2.00-2.49 - Working experience – five (5) years in related field, OR

- Working experience – one (1) year in related field AND
 - Two (2) academic publications (journals in related field), OR
 - Obtain grade B+ for major/elective course, OR
 - Obtain grade A- for final year project

ENGLISH REQUIREMENT (BY RESEARCH MODE)

International students must have at least one of the following requirements:

- IELTS Band 5.0, OR
- TOEFL Internet Based Test (IBT) 60
- MUET Band 3

Except for international students from Industrial Management, Language and Computer, the English requirements are as follows:

- IELTS Band 6.0, OR
- TOEFL Internet Based Test (IBT) 80
- MUET Band 4

The certification should not be more than two (2) years from the date of test taken and registration of candidature. TOEFL ITP, PBT and CBT are not accepted.

ENGLISH REQUIREMENT (BY COURSEWORK MODE)

International student are required to have a minimum score of any one of the following:

- MUET Band 3.0, OR
- IELTS Band 5.0, OR
- TOEFL score 500/TOEFL IBT 42, OR
- Any test aligned to CEFR B1

Exceptions • International students with Bachelor's and Master's degrees from Malaysian universities, English requirement is not needed • For more details, kindly refer to <https://ips.ump.edu.my/index.php/en/admission/admission-requirements>

Master by Coursework & Mixed Mode

Coursework Programme

MASTER OF ELECTRICAL ENGINEERING (SUSTAINABLE ENERGY)

Credit hours | 40

Master of Electrical Engineering (Sustainable Energy) is an ideal program for graduates from engineering or other relevant backgrounds who have an interest in pursuing a successful career in research, technological change and the commercialisation of renewable energy systems. Students will have the opportunity to advance their engineering proficiency and develop new skills and knowledge. Through the exploration of current and emerging technologies and applications for renewable energy, students will be prepared to make significant contributions to their professions, the economy and society. Students will be taught by academics who are experts in their fields and have access to a range of exceptional facilities and resources.

Entry Requirement

A Bachelor degree with honours (minimum CPA 2.50/4.00) in the relevant area from recognised or equivalent professional qualifications that are recognised by the University;

OR

A Bachelor degree or equivalent not meeting CPA 2.50/4.00 can be accepted subject to a minimum of five (5) years working experience in the relevant fields.

English Requirement

- International Student: IELTS Band 5.0 or TOEFL Paper Based-500points, TOEFL Internet Based-Test (IBT) 60 OR TOEFL Computer Based-Test (CBT) 173.

**The certification SHOULD NOT be more than 2 years.*

- Students from countries of US, UK, Canada, Australia and New Zealand, in which English is their native language or the candidate graduated from an Institution of Higher Learning in which the medium of instruction is English. However, must submit evidence of support as proof.
- International students with Bachelor and Masters' degrees from Malaysian universities, English requirement not needed.

Programme Modules/Subject Semester 1

- Occupational Safety and Health & 6 Sigma
- Numerical Method
- Research Methodology
- Power Electronics Design
- Photovoltaic System Design
- Engineering Electives I

Semester II

- Energy Storage
- Wind Energy System
- Engineering Electives II
- Engineering Electives III
- Master Engineering Project I

Semester III

- Energy Management and Efficiency
- Master Engineering Project II

Electives Course (Choose any THREE (3) electives)

- High Voltage & Electrical Insulation
- Artificial Intelligence Applications in Power System
- Power Quality Grid Integration
- Vehicular Power Electronics
- Advanced Power System Analysis and Design
- Lightning Protection & Grounding System

Coursework Programme

MASTER OF INDUSTRIAL ENGINEERING

Credit hours | 40

The Master of Industrial Engineering Program is design as a non-thesis master program (one and half year or three-semester program) for professionals in many areas of industry, either in manufacturing or service systems.

This program are ideal for professionals who wish to further develop their mastery over engineering practices and concepts and gain a foundation in manufacturing business practices, such as quality management, financial modeling and supply chain management.

The program aims to enhance knowledge and skills of graduated engineers to understand the application of different methods in design, development, management and operation of manufacturing and service system for industries and equips professionals with the skills they need to lead manufacturing and production control.

The students of this program shall fulfill a minimum 40 credit hours consisted of 30 credit hours of coursework's (compulsory, core, and elective) and an equivalent of 10 credit hours of a Project or Case Study.

Entry Requirement

A student must possess a Bachelor's Degree (Honors) with CPA of at least 2.50/4.00,

OR

Recognized degree with minimum of five (5) years working experience

English Requirement

International Student must have

- IELTS - Band 5
- TOEFL Internet Based Test (IBT) - 60
- MUET 4 (for local students only)

Students from countries of US, UK, Canada, Australia and New Zealand, in which English is their native language or the candidate graduated from an Institution of Higher Learning in which the medium of instruction is English. However, must submit evidence of support as a proof.

International students with Bachelor and Masters' degrees from Malaysian universities, English requirement not needed.

Programme Modules/Subject

Semester I

- Research Methodology
- Advanced Operation Research
- Manufacturing System
- Facility Planning and Design

Semester II

- Advanced Engineering Economy
- Industrial Ergonomics
- Simulation of Industrial System
- Industrial Safety, Health, and Environment Management
- Project I

Semester III

- Advanced Production Planning and Control
- Project II

Elective

Choose any ONE (1) course:

- Sustainable Manufacturing
- Reliability and Maintainability Engineering
- Lean Manufacturing



Coursework Programme

MASTER OF MECHANICAL ENGINEERING

Mode: Full time (3 Sem) / Part time (4 Sem)

Learning Centres : UMP, KKTM Kuantan, KTYS Kota Kinabalu, TATIUC Kemaman

Credit hours | 40

Master of Mechanical Engineering (MME) focuses on providing students advanced knowledge and training in Mechanical Engineering. MME degree can also be a stepping-stone to the Ph.D. degree. MME degree can be obtained in three semester full time or four semesters on a part-time basis. For those who pursuing for Professional Engineer qualification from Board of Engineers Malaysia but graduated with Bachelor of Engineering Technology or unrecognized engineering degree, MME degree will enable you to become The Institution of Engineers, Malaysia (IEM) Graduate Member which qualifies you to latter stages in Professional Engineers' assessments. Those who has APEL certificate from Malaysian Qualifications Agency is eligible to apply for MME program. Final year undergraduate student is allowed to enroll into core courses which will enable you to shorten the study duration and save money.

The MME program has 40 credits and students are required to submit project dissertation thesis (10 credits) before completion of their study. The programme requirements are designed to provide students with both depth and breadth of knowledge in Mechanical Engineering while being flexible enough to allow students the opportunity to explore emerging areas and technology in which Mechanical Engineering plays a central role.

Entry Requirement

A student must possess a Bachelor's Degree (Honors) with CPA of at least 2.50/4.00

OR

Recognised degree with minimum of five (5) years working experience.

English Requirement

International Student must have

- IELTS - Band 5
- TOEFL Internet Based Test (IBT) - 60
- MUET 4 (for local students only)

Students from countries of US, UK, Canada, Australia and New Zealand, in which English is their native language or the candidate graduated from an Institution of Higher Learning in which the medium of instruction is English. However, must submit evidence of support as a proof.

International students with Bachelor and Masters' degrees from Malaysian universities, English requirement not needed.

Programme Modules/Subject

FULL TIME

SEMESTER	CODE	COURSE	CrH
1	MME6113	Research Methodology	3
	MME6123	Efficient Energy Utilisation	3
	MME6133	Numerical Method	3
	MME6143	Mechanical Engineering Design	3
	MME6153	Environmental & Regulatory Issues	3
2	MME6213	Industrial Management System	3
	MMEXXXX	Elective 1	4
	MMEXXXX	Elective 2	4
	MME6004	Project Dissertation 1	4
3	MMEXXXX	Elective 3	4
	MME6006	Project Dissertation 2	6
TOTAL CrH			40

Coursework Programme

MASTER OF MECHANICAL ENGINEERING - *continued*

Programme Modules/Subject

PART TIME

SEMESTER	CODE	COURSE	CrH
1	MME6113	Research Methodology	3
	MME6123	Efficient Energy Utilisation	3
	MME6133	Numerical Method	3
2	MME6143	Mechanical Engineering Design	3
	MME6153	Environmental & Regulatory Issues	3
	MME6004	Project Dissertation 1	4
3	MME6213	Industrial Management System	3
	MMEXXX	Elective 1	4
	MMEXXX	Elective 2	4
4	MMEXXX	Elective 3	4
	MME6006	Project Dissertation 2	6
TOTAL CrH			40

Programme Modules/Subject

ELECTIVE COURSES

SEMESTER	CODE	COURSE	CrH
1 / 2 / 3 / 4	MME6114	Instrumentation & Control System	4
	MME6124	Corrosion and Degradation	
	MME6134	Advanced Manufacturing	
	MME6144	Advanced Material	
	MME6154	Advanced Thermodynamics	
	MME6164	Computational Fluid Dynamics	
	MME6174	Design for Manufacture and Assembly	
	MME6184	Optimization Techniques	



Coursework Programme

MASTER OF AUTOMOTIVE ENGINEERING (DUAL-DEGREE PROGRAMME WITH HSKA GERMANY)

Mode: Full time (3 Sem) / Part time (4 Sem)

Learning Centres : UMP & Offshore

Credit hours | 43

This master's degree programme offers courses on topics like electrification of drivetrains, artificial intelligence (AI), processes in automation, battery system for modern drives, BUS systems and diagnosis protocol and many other latest topics related to latest technology in automotive engineering. Students will be taught by renowned professors from Germany and Malaysia. They will also get the chance to conduct their final projects under supervision of German professors in Malaysia or Germany. Upon completion of their study, students will be awarded with two master degrees; one from UMP and another one from HsKA. This dual master degree programme aims to provide skills and knowledge to enable students to develop specialisation and expertise in innovation of e-mobility, advanced driver assistance system (ADAS), vehicle-to-vehicle communication, automotive electronics and energy management.

The MHA programme has 43 credits and students are required to submit project dissertation thesis (10 credits) before completion of their study. The programme requirements are designed to provide students with both depth and breadth of knowledge in Advanced Automotive Engineering while being flexible enough to allow students the opportunity to explore emerging areas and technology fields.

Entry Requirement

A student must possess a Bachelor's Degree (Honors) with CPA of at least 3.00/4.00.

English Requirement

International Student must have

- IELTS - Band 5
- TOEFL Internet Based Test (IBT) - 60
- MUET 4 (for local students only)

Students from countries of US, UK, Canada, Australia and New Zealand, in which English is their native language or the candidate graduated from an Institution of Higher Learning in which the medium of instruction is English. However, must submit evidence of support as a proof.

International students with Bachelor and Masters' degrees from Malaysian universities, English requirement not needed.

Programme Modules/Subject

FULL TIME

SEMESTER	CODE	COURSE*	CrH
1	MHA6114	Research Methodology	4
	MHA6113	Research & Development Project	3
	MHA6123	Engineering Mathematics	3
	MHA6133	Computer Engineering	3
	MHA6143	Thermal Management of Electromechanical System	3
2	MHA6213	Automotive Sensors and Actuators	3
	MHA6223	Engineering & Business Management	3
	MHA6233	Electrical & Electronic System	3
	MHA6XX3	Elective 1	3
3	MHA6XX3	Elective 2	3
	MHA6010	Master Thesis	10
	MHA6002	Examination Viva	2
TOTAL CrH			43

* Subject to changes

Coursework Programme

MASTER OF AUTOMOTIVE ENGINEERING (DUAL-DEGREE PROGRAMME WITH HSKA GERMANY) - continued



Programme Modules/Subject

PART TIME

SEMESTER	CODE	COURSE*	CrH
1	MHA6114	Research Methodology	4
	MHA6143	Thermal Management of Electromechanical System	3
	MHA6133	Computer Engineering	3
2	MHA6223	Engineering and Business Management	3
	MHA6213	Automotive Sensors and Actuators	3
	MHA6XX3	Elective I	3
3	MHA6123	Engineering Mathematics	3
	MHA6233	Electrical & Electronic System	3
	MHA6XX3	Elective II	3
4	MHA6113	Research & Development Project	3
	MHA6010	Master Thesis	10
	MHA6002	Examination Viva	2
TOTAL CrH			43

* Subject to changes

Programme Modules/Subject

ELECTIVE COURSES

SEMESTER	CODE	COURSE	CrH
2 / 3	MHA6313	Energy Efficient and Smart Mobility	3
	MHA6323	Automotive Embedded System	
	MHA6333	Advanced Combustion System	
	MHA6343	Advanced Vehicle Motion	
	MHA6353	Automotive Manufacturing Processes	
	MHA6363	Vehicle Structure and Crash Worthiness	
	MHA6373	Vehicle Communication and Security	
	MHA6383	Vehicle Ergonomics and Comfort	
	MHA6393	Vehicle Propulsion and Drivetrain System	

Coursework Programme

MASTER IN CHEMICAL ENGINEERING WITH ENTREPRENEURSHIP

Credit hours | 43

1. The first chemical engineering programme with entrepreneurship in Malaysia
2. Our master programme is at the forefront of business in technology ranging from the complex gas and petrochemicals, renewable energy, recycling technology, bio-ingredients, process control and product development
3. Weekend classes or night classes are available for busy professionals

Entry Requirement

A student must possess a Bachelor's Degree (Honors) with CPA of at least 2.50/4.00

OR

Recognised degree with minimum of five (5) years working experience

English Requirement

International Student must have

- IELTS - band 5
- TOEFL Internet Based Test (IBT) - 60
- MUET 4 (for local students only)

Students from countries of US, UK, Canada, Australia and New Zealand, in which English is their native language or the candidate graduated from an Institution of Higher Learning in which the medium of instruction is English. However, must submit evidence of support as a proof.

International students with Bachelor and Masters' degrees from Malaysian universities, English requirement not needed.

Programme Modules/Subject

Semester I

- MKK1143** Transport Phenomena
MKK1163 Catalytic Reaction Engineering
MKK1313 Chemical Product Design and Management
MKK1112 Research Methodology
MKK1183 Managing Business Intelligence
MKK1173 Finance for Entrepreneurship Decision

Semester II

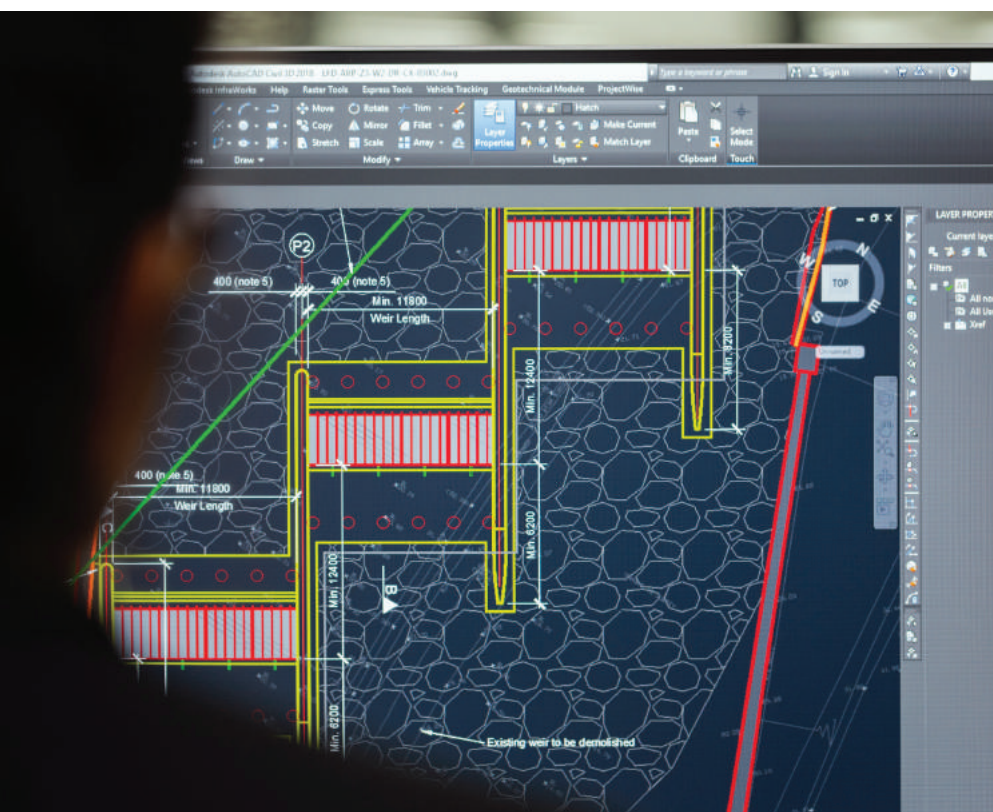
- MKK1253** Separation Process Engineering
MKK1263 Process Modelling and Control
MKK1132 Marketing Intelligence
MKK1122 Entrepreneurship Business Plan
MKK2424 Thesis/Master Project I
MKK15*3 Elective Chemical Engineering

Semester III

- MKK2466** Thesis/Master Project II
MKK15*3 Elective Chemical Engineering

Elective Subjects

- MKK1513** Biocatalyst & Bioenergy
MKK1523 Oil & Gas Processing Technology
MKK1533 Environmental Technology
MKK1543 Bioprocess Technology
MKK1563 Polymer Technology
MKK1573 Corrosion Engineering
MKK1583 Business Management
MKK1593 Bioprocess Technology Entrepreneur
MKK1613 Scale-up of Chemical Process
MKK1623 Industrial Sustainability and Decision Making
MKK2513 Process Monitoring



Coursework Programme

MASTER OF SCIENCE OCCUPATIONAL SAFETY AND HEALTH

Credit hours | 40

This program is customized to serve working professionals that decided to propel their professional careers to produce knowledgeable practitioners and leaders in occupational safety and health (OSH). OSH professional practitioners are in demand because of the increasing focus on management in OSH in accordance with the law and regulatory requirements.

This program opens to technical and non-technical background. It has flexible and various delivery modes including problem-based learning, hands-on activity and industrial case studies.

Entry Requirement

- i. A bachelor degree or equivalent with minimum CGPA of 2.50 in related field, as accepted by the HEP Senate; or
- ii. A bachelor degree or equivalent in related field with CGPA of less than 2.50 and a minimum of 5 years working experience in the related field; or
- iii. APEL Admission
More than 30 years of age on 1 January in the year of application; AND STPM/Recognized Diploma /A-Levels /Equivalent; AND

Relevant work experience/prior experiential learning; AND
Pass the APEL Assessment (T-7)

***APEL Assessment Centre for OSH field of study: OUM/UUM/UTM/UITM*

English Requirement

International Student must have
- IELTS - band 5
- TOEFL Internet Based Test (IBT) - 60

Students from countries of US, UK, Canada, Australia and New Zealand, in which English is their native language or the candidate graduated from an Institution of Higher Learning in which the medium of instruction is English. However, must submit evidence of support as a proof.

International students with Bachelor and Masters' degrees from Malaysian universities, English requirement not needed.

Programme Modules/Subject

Semester I

CODE	SUBJECT	CREDIT HOURS
MPS1113	Hazard Analysis and Risk Management	3
MPS1123	Occupational Safety, Health and Environment Management System	3
MPS1133	Occupational Safety, Health and Environment Acts and Regulations	3
MPS1143	Behavioural Aspect in Occupational Safety and Health	3
MPS1254	Ergonomics and Human Factor Assessment Methods	4
MPS1162	Research Methodology for Occupational Safety and Health	2
TOTAL		18

Semester II

CODE	SUBJECT	CREDIT HOURS
MPS2113	Fire Safety Technology	3
MPS2123	Crisis, Emergency and Disaster Management	3
MPS2613	Process Safety Management	3
MPS2623	Marine and Offshore Safety	3
MPS2234	Occupational Health and Hygiene Assessment Methods	4
MPS2142	Master's Dissertation 1	2
TOTAL		18

Semester III

CODE	SUBJECT	CREDIT HOURS
MPS3114	Master's Dissertation 2	4
TOTAL		4

Coursework Programme

MASTER OF PROJECT MANAGEMENT



Credit hours | 42

This program aims to nurture project management professionals who have the knowledge, skills and enduring aspirations for embracing challenges to deliver efficient and desired project outcomes. The program curriculum adds value by embedding global standardized approaches of Project Management and suitable for professionals having a basic degree in engineering, management, administration, business, information technology and education.

Entry Requirement

A Bachelor's degree with minimum CGPA of 2.50 or its equivalent qualifications as accepted by the University Senate;

OR

A Bachelor's degree with CGPA below 2.50 or its equivalent qualifications can be accepted, subject to a minimum of 5 years of working experience in relevant fields.

English Requirement

International Student must have

- IELTS - band 6
- TOEFL Internet Based Test (IBT) - 60
- MUET 4 (for local students only)

Students from countries of US, UK, Canada, Australia and New Zealand, in which English is their native language or the candidate graduated from an Institution of Higher Learning in which the medium of instruction is English. However, must submit evidence of support as a proof.

International students with Bachelor and Masters' degrees from Malaysian universities, English requirement not needed.

Programme Modules/Subject

Semester I

- KPM1103** Research Methodology
- KPM1113** Project Management Principles & Practices
- KPM1123** Cost Management & Control
- KPM1133** Law and Ethics in Project Management

Semester II

- KPM2103** Project – I
- KPM2113** Project Management Information System
- KPM2123** Quality Management & Control
- KPM2133** Strategic Management Elective 1

Semester III

- KPM3103** Project – II
- KPM3113** Risk Management & Control
- KPM3123** Contract Management
- KPM3133** Leadership & Organizational Behavior Elective-2

Elective Subjects

- KPM2213** Business Analysis of Projects
- KPM2223** Lean Manufacturing
- KPM2233** IT Project Governance
- KPM3213** Occupational, Safety & Health
- KPM3223** Supply Chain in Projects
- KPM3233** Managing Construction Projects using BIM

Coursework Programme

MASTER OF BUSINESS ADMINISTRATION (MBA)

Credit hours | 45

The Master of Business Administration (MBA) program of University Malaysia Pahang (UMP) has been fully accredited by the Malaysian Qualifications Agency (MQA) since 2015. The objective of the program is to develop competitive management professionals and leaders in the field of Business Engineering, Technology Management and Bio-economy. By fulfilling the above objective, it intended to bridge the skill requirement gap in the era of Industrial Revolution 4.0, Internet of Things and Artificial Intelligence.

Our MBA program is one among the few programs in Malaysia to be accredited by ABEST 21 (Alliance on Business Education and Scholarship for Tomorrow) and the curriculum includes business analytical elements, business and engineering combination, ethics, governance and real life problem solving.

The program is offered in two modes of study, full-time and part-time. With these two modes of study, working students have the flexibility to continuing their study on part-time basis.

Uniqueness of the Program

Our MBA program offers 10 core courses; two research project courses that provide an opportunity to solve industrial case study or conduct academic research. In addition, students are required to choose three elective courses either in Technology Management, Engineering Management, Business Engineering or Bio-economics.

Teaching & Learning

In this program, students will be exposed to technology in teaching such as Global Classroom where students will have an opportunity to gain knowledge from lecturers of our partner universities in other countries. In addition, students are also exposed to pedagogical assistance through the Knowledge & Learning Management System (KALAM), UMP Academic Tagyard and MOOC (Massive Open Online Course).

University Collaboration Partners

To enhance students' knowledge and competency, our global academic partners can provide different exposure through case studies from other countries. The partners of our MBA program are: Andalas University (Indonesia), Binus University (Indonesia), Telkom University (Indonesia), Amasya University (Turkey), Hochschule Reutlingen University (Germany) and GRG School of Management Studies (India).

Entry Requirement

A student must possess a Bachelor's Degree (Honors) with CPA of at least 2.50/4.00
OR
Recognised degree with minimum of five (5) years working experience.

English Requirement

International Student must have
- IELTS - Band 6
- TOEFL Internet Based Test (IBT) - 80

Students from countries of US, UK, Canada, Australia and New Zealand, in which English is their native language or the candidate graduated from an Institution of Higher Learning in which the medium of instruction is English. However, must submit evidence of support as a proof.

International students with Bachelor and Masters' degrees from Malaysian universities, English requirement not needed.

Programme Modules/Subject

Semester I

KPC1103 Research Methodology
KPC1113 Managerial Economics
KPC1123 Corporate Governance
KPC1133 Strategic Marketing
KPC1143 Managerial Accounting

Semester II

KPC1153 Operation Management
KPC1163 Leadership and Organizational Behaviour
KPC1173 Entrepreneurship
KPC1183 Financial Management
KPP1313 Project I

Semester III

KPC1193 Strategic Management
KPP1323 Project II
Elektif 1
Elektif 2
Elektif 3

Coursework Programme

MASTER OF BUSINESS ADMINISTRATION (MBA) - continued

Specialization

ENGINEERING MANAGEMENT

CODE	CURRICULUM	CR
KPE1933	Lean Management	3
KPE1953	Occupational, Safety and Health	3
KPT1953	Sustainable Management	3
KPE1913	Total Quality Management	3
KPE1453	Business Analytics for Decision Making	3

TECHNOLOGY MANAGEMENT

CODE	CURRICULUM	CR
KPT1933	Knowledge Management	3
KPT1963	Project Management	3
KPB1933	Product Management	3
KPT1923	Innovation Management	3
KPE1453	Business Analytics for Decision Making	3

BUSINESS ENGINEERING

CODE	CURRICULUM	CR
KPB1943	Service Management	3
KPB1923	Supply Chain Management	3
KPE1453	Business Analytics for Decision Making	3
KPE1243	Logistic Management	3
KPE1253	Risk Management	3

BIOECONOMY

CODE	CURRICULUM	CR
KPD1933	Product Development and Commercialization	3
KPD1943	Project Management in Biobusiness	3
KPD1953	Contemporary Issues in Bioeconomy	3
KPD1923	Supply Chain in Biobusiness	3
KPD1913	Global Biobusiness Innovation	3
KPE1453	Business Analytics for Decision Making	3



Coursework Programme

MASTER OF SCIENCE IN TECHNOLOGY-INTEGRATED LANGUAGE STUDIES

Credit hours | 40

Master of Science in Technology-Integrated Language Studies (MSc.TILS) is a 40-credit programmed designed to provide academic courses at graduate level so that potential students are able to gain knowledge through this platform for their career development.

Graduates of this programme will be able to produce technology and media related content for the facilitation and enhancement in the fields of teaching and learning, applied linguistics and communication relevant to the context of language studies.

Entry Requirement

- i. A bachelor's degree (KKM Level 6) in the field of Teaching English as a Second Language (TESL)/ Linguistics/ Language Studies, or in other related fields with minimum Cumulative Grade Point Average (CGPA) of 2.50 as recognized by the University Senate; or
- ii. A bachelor's degree (KKM Level 6) in the field of Teaching English as a Second Language (TESL)/ Linguistics/ Language Studies, or in other related fields, but not achieving Cumulative Grade Point Average (CGPA) of 2.50 is subject to a minimum of 5 years working experience in related field; or
- iii. Any other qualifications recognized by the Government of Malaysia.

For admission of students not in the field

- i. A bachelor's degree (KKM Level 6) with minimum Cumulative Grade Point Average (CGPA) of 2.50 or equivalent as recognized by the University Senate; or
- ii. A bachelor's degree (KKM Level 6 or equivalent, but not achieving Cumulative Grade Point Average (CGPA) of 2.50 is subject to a minimum of 5 years working experience in related field; or
- iii. Any other qualifications recognized by the Government of Malaysia AND
- iv. Achieve a minimum of Band 6 in English Language Testing System (IELTS) or a score of 550 in the Test of English as a Foreign Language (TOEFL).

Programme Modules/Subject

Semester I

CORE COURSES

MLT 6113 Technology in Language Studies

MLT 6123 Language Awareness

MLT 6134 Research Methodology

ELECTIVES (Choose 2)

MLT 6413 Corpus Linguistics

MLT 6433 Cross-Cultural Pragmatics

MLT 6443 English as an International Language

MLT 6513 Language for Specific Purposes

MLT 6523 Language Assessment

MLT 6533 Language Learning Processes

Semester II

CORE COURSES

MLT 6243 Web-based Tools in Language Studies

MLT 6253 Instructional Design

MLT 6263 Language Planning and Policy

ELECTIVES (Choose 2)

MLT 6423 Critical Discourse Analysis

MLT 6453 Qualitative Research in Language Studies

MLT 6463 Quantitative Research in Language Studies

MLT 6543 Learner Autonomy

MLT 6553 Learner Diversity

MLT 6563 Technology-enhanced Language Learning Task

Semester III

CORE COURSE

MLT 6079 Final Project

Coursework Programme

MASTER OF SCIENCE (COMPUTER NETWORKING)

Credit hours | 41

Designed for graduates of computing disciplines, this course is designed to address a specific need in the computer networking industry which blends the technical and management aspects of computer networking to offer student a unique educational opportunity. It is intended for students who wish to specialize in the security aspects of the computer networking field.

Entry Requirement

A student must possess a Bachelor's Degree (Honors) with CPA of at least 2.75/4.00

OR

Recognised degree with minimum of five (5) years working experience

English Requirement

International Student must have

- IELTS - Band 6
- TOEFL Internet Based Test (IBT) - 60
- MUET 4 (for local students only)

Students from countries of US, UK, Canada, Australia and New Zealand, in which English is their native language or the candidate graduated from an Institution of Higher Learning in which the medium of instruction is English. However, must submit evidence of support as a proof.

International students with Bachelor and Masters' degrees from Malaysian universities, English requirement not needed.

Programme Modules/Subject

Semester I

CODE	COURSE	CREDIT HOURS
MCN1034	Network Security	4
MCN1054	Network Design & Performance Analysis	4
MCN1064	Wireless & Mobile Communication	4
MCN1094	Parallel & Distributed Computing	4

Semester II

CODE	COURSE	CREDIT HOURS
MCC1044	Research Methodology	4
MCN1104	Advanced Routing & Switching	4
	Elective I	4
	Elective II	4

Semester III

CODE	COURSE	CREDIT HOURS
MCC2029	Master Project	9



Coursework Programme

MASTER OF SCIENCE (INFORMATION AND COMMUNICATION TECHNOLOGY)

Credit hours | 41

Designed for graduates of computing disciplines, this conversion course is designed to develop the technical, analytical and professional skills required for computing role. It may be taken to integrate professional computing skills into your current discipline or to start a new and rewarding career within computing/IT.

Entry Requirement

A student must possess a Bachelor's Degree (Honors) with CPA of at least 2.75/4.00

OR

Recognised degree with minimum of five (5) years working experience

English Requirement

International Student must have

- IELTS - Band 6
- TOEFL Internet Based Test (IBT) - 60
- MUET 4 (for local students only)

Students from countries of US, UK, Canada, Australia and New Zealand, in which English is their native language or the candidate graduated from an Institution of Higher Learning in which the medium of instruction is English. However, must submit evidence of support as a proof.

International students with Bachelor and Masters' degrees from Malaysian universities, English requirement not needed.

Programme Modules/Subject

Semester I

CODE	COURSE	CREDIT HOURS
MCT1013	Problem Solving in ICT	3
MCT1063	Strategic Data Management	3
MCN1133	Data Communication and Network	3
MCN1143	Information Security	3

Semester II

CODE	COURSE	CREDIT HOURS
MCC1044	Research Methodology	4
MCT1044	Web Technologies	4
MCT1074	Business Intelligence & Analytics	4
	Elective I	4

Semester III

CODE	COURSE	CREDIT HOURS
MCC2029	Master Project	9
	Elective II	4



Coursework Programme

MASTER OF SCIENCE (SOFTWARE ENGINEERING)

Credit hours | 41

Designed for graduates of computing disciplines, this course includes a process-oriented approach to the subject and features study of advanced technological developments and several other issues related to the software industry. It helps the students to build a strong foundation of theory and best-practice knowledge, which they can apply in a variety of technical and business environments.

Entry Requirement

A student must possess a Bachelor's Degree (Honors) with CPA of at least 2.75/4.00

OR

Recognised degree with minimum of five (5) years working experience

English Requirement

International Student must have

- IELTS - Band 6
- TOEFL Internet Based Test (IBT) - 60
- MUET 4 (for local students only)

Students from countries of US, UK, Canada, Australia and New Zealand, in which English is their native language or the candidate graduated from an Institution of Higher Learning in which the medium of instruction is English. However, must submit evidence of support as a proof.

International students with Bachelor and Masters' degrees from Malaysian universities, English requirement not needed.

Programme Modules/Subject

Semester I

CODE	COURSE	CREDIT HOURS
MCS1054	Advanced Requirement Engineering	4
MCS1064	Software Engineering Practices	4
MCS1074	Professional Project Management	4
	Elective I	4

Semester II

CODE	COURSE	CREDIT HOURS
MCC1044	Research Methodology	4
MCS1034	Architectures of Software Systems	4
MCS1084	Advanced Software Testing	4
	Elective II	4

Semester III

CODE	COURSE	CREDIT HOURS
MCC2029	Master Project	9



Coursework Programme

MASTER OF SCIENCE IN MINING WITH MINERAL TECHNOLOGY

Credit hours | 40

1. Subject taught by well experience industrial practitioners, senior academicians and senior officers from the relevant government agencies
2. The ONLY mining with mineral technology master by coursework programme in Malaysia. A course that bridge to PhD programme.
3. An industry-centric curriculum designed by senior academicians and officers from the relevant government agencies considering the stakeholders' input.
4. Flexible and avrious delivery modes not limited to class room but include field work, case study, real problem-based learning and etc.
5. One year programme with three semesters (minimum) giving in-depth knowledge of mining and mineral topics. Weekends and flexible classes are available for busy professionals.

Entry Requirement

A student must possess a Bachelor's Degree (Honors) with CPA of at least 2.50/4.00

OR

Recognised degree with minimum of five (5) years working experience

English Requirement

International Student must have

- IELTS - Band 5
- TOEFL Internet Based Test (IBT) - 60
- MUET 4 (for local students only)

Students from countries of US, UK, Canada, Australia and New Zealand, in which English is their native language or the candidate graduated from an Institution of Higher Learning in which the medium of instruction is English. However, must submit evidence of support as a proof.

International students with Bachelor and Masters' degrees from Malaysian universities, English requirement not needed.

Programme Modules/Subject

Semester I

- MMT1113** Mineral Deposition
- MMT1123** Mining Engineering I (Mining Methods and Processes)
- MMT1133** Excavation and Geomechanics
- MMT1142** Techniques for Mineral Analysis
- MMT1152** Mineral Processing
- MMT1162** Research Methodology

Semester II

- MMT1213** Mining Engineering II
- MMT1223** Environmental Impact Assessment
- MMT1232** Material Handling, Reclamation and Rehabilitation
- MMT1242** Minerals Economic and Markets
- MMT1252** Mineral Processing - Design and Simulation
- MMT1264** Thesis/Master Project I

Semester III

- MMT1313** Ethics, Safety and Regulation in Mining
- MMT1326** Thesis/Master Project II



Coursework Programme

MASTER OF SCIENCE IN PROCESS PLANT OPERATION



Credit hours | 40

1. ONE year programme with three semesters (minimum).
2. A "bridge to PhD" programme.
3. Courses are designed and delivered by senior academicians and industrial experts.
4. Flexible and various delivery modes including on-site activities, industrial case studies, industrial-based problem-learning and etc.
5. Weekends or evening classes are available for busy professionals at UMP Gambang Campus, INSTEP, and other potential locations*.
6. Hands-on experience in an upstream/downstream plant environment at INSTEP Upstream Downstream Training Plant.

* Gebeng industrial area (Pahang), Kerteh industrial area (Terengganu) or RAPI PETRONAS Pengerang (Johor) depending on the demand.

Entry Requirement

A student must possess a Bachelor's Degree (Honors) with CPA of at least 2.50/4.00

OR

Recognised degree with minimum of five (5) years working experience

English Requirement

International Student must have

- IELTS - Band 5
- TOEFL Internet Based Test (IBT) - 60
- MUET 4 (for local students only)

Students from countries of US, UK, Canada, Australia and New Zealand, in which English is their native language or the candidate graduated from an Institution of Higher Learning in which the medium of instruction is English. However, must submit evidence of support as a proof.

International students with Bachelor and Masters' degrees from Malaysian universities, English requirement not needed.

Programme Modules/Subject

Semester I

- MMT1113** Project Management
- MPP1123** Financial Analysis
- MPP1133** Research Methodology
- MPP1143** Logistics and Operation Management
- MPP15*3** Elective Subject

Semester II

- MPP1213** Process Safety Management*
- MPP1223** Plant Integrity, Maintenance and Troubleshooting*
- MPP1233** Chemical Process Design and Equipment*
- MPP1243** Process & Production Control*
- MPP1254** Master Project I

Semester III

- MPP1316** Master Project II
- MPP15*3** Elective Subject

Elective Subjects -

- MPP1513** Energy Management
- MPP1523** Plant Utilities*
- MPP1533** Environmental Management and Sustainability Development
- MPP1543** Strategic Marketing, Planning and Implementation
- MPP1553** Quality Control and Assurance

(*Part of this subjects will be taught at INSTEP)

Mixed Mode Programme

MASTER OF SCIENCE (INDUSTRIAL MATHEMATICS)

Credit hours | 42

Master of Science (Industrial Mathematics) is designed to provide in-depth coverage topics of the industrial and applied mathematics in two sub-specialisations, namely (i) Data Computing, and (ii) Computational Mathematics. The programme caters two pillars of **Industrial Revolution 4.0 (IR 4.0)** including **simulation and big data computing**. The program emphasizes embedded case study in all courses that enables students to **integrate theory and application** as well as using mathematical software such as Python, R Language, VBA, EXCEL, Matlab, TORA, Minitab and KNIME as the vital **computational tools**. The program also requires every student to complete a project dissertation based on a chosen applied and industrial problems. The programme caters to fresh graduates and professionals, especially the non-mathematics degrees holders, who aspire to enhance their knowledge and competency in one of the sub-specialisations being offered. Applicants who possess a first degree in any of the following specializations; Statistics, Mathematics, Finance, Economy, Computing, Engineering and Sciences as well as good mastery in undergraduate mathematics courses are welcomed to apply.

Entry Requirement

University Requirements

1. A bachelor's degree with minimum **CPA of 2.75 or equivalent**, as accepted by the University Senate or
2. A bachelor's degree or equivalent in related fields with **$2.50 \leq \text{CPA} < 2.75$** can be accepted subject to comprehensive internal assessment of **1 year working experience in the relevant fields**.
3. A bachelor's degree or equivalent in related fields with **$2.00 \leq \text{CPA} < 2.50$** can be accepted subject to comprehensive internal assessment as below:
 - a) Working experience in related field – 5 years; or
 - b) Working experience in related field – 1 year; and
 - i. Portfolio endorsed by faculty expert; or
 - ii. Obtain a minimum of three (3) Grade B+ for major / elective courses

Programme Requirement

*Applicant without a bachelor's degree in mathematics can be accepted subject to they have sufficient mathematics background as indicated by a minimum average grade B for the Mathematics courses.

*Applicant without a bachelor's degree in mathematics who does not meet the programme requirement is required to attend two bridging courses with the consent of faculty.

English Requirement

International Student must have

- IELTS - Band 5
- TOEFL Internet Based Test (IBT) - 60
- MUET 4 (for local students only)

Students from countries of US, UK, Canada, Australia and New Zealand, in which English is their native language or the candidate graduated from an Institution of Higher Learning in which the medium of instruction is English. However, must submit evidence of support as a proof.

International students with Bachelor and Masters' degrees from Malaysian universities, English requirement not needed.



Mixed Mode Programme

MASTER OF SCIENCE (INDUSTRIAL MATHEMATICS) - continued

Programme Modules/Subject

Mode of Study	Sem I 19/20			Sem II 19/20			Sem III 20/21			Sem IV 20/21		
	Course Code	Course Name	CH	Course Code	Course Name	CH	Course Code	Course Name	CH	Course Code	Course Name	CH
Full Time	MSU4113	Research Methodology	3	MSM4**4	Elective I	4	MSM5920	Dissertation II	13			
	MSM4213	Industrial Statistics	3	MSM4**4	Elective II	4						
	MSM4413	Computational Methods in Industry	3	MSM4910	Dissertation I	8						
	MSM4424	Programming & Simulation	4									
	Total Credit Hours		13	Total Credit Hours		16						
Part Time	MSU4113	Research Methodology	3	MSM4424/MSM4**4	Programming & Simulation/ Elective I	4	MSM4424/MSM4**4	Programming & Simulation/ Elective II	4	MSM5920	Dissertation II	13
	MSM4213	Industrial Statistics	3	MSM4**4	Elective I/ Elective II	4	MSM4910	Dissertation I	8			
	MSM4413	Computational Methods in Industry	3									
	Total Credit Hours		9	Total Credit Hours		8	Total Credit Hours		12	Total Credit Hours		13

List of Elective Courses

Specialisation	Course Code	Course	CH
1. Data Computing	MSM4224	Statistical Quality Control	4
	MSM4234	Data Design Analysis	4
	MSM4244	Data Mining	4
	MSM4254	Statistical Modelling	4
	MSM4264	Time Series Analysis & Forecasting	4
	MSM4274	Multivariate Data Analysis	4
	MSM4284	Applied Machine Learning	4
2. Computational Mathematics	MSM4434	Mathematical Modelling	4
	MSM4444	Operational Research	4
	MSM4454	Partial Differential Equations	4
	MSM4464	Computational Fluid Dynamics	4
	MSM4474	Advanced Numerical Methods	4
	MSM4484	Mathematical Image Processing	4

How to Apply?

APPLICATIONS

1. Log in to portal **ips.ump.edu.my**
2. Find suitable supervisor from expert directory.
3. Click **online application** and signup user name.
4. Fill in **online application** and click **submit** button.
5. Application will be processed within ONE month.



Throughout the year

Processing Fees

- Local Candidate – RM50.00
- International Candidate – USD30.00

Processing Fees via Maybank2u

Online Banking

1. Bill Payment
2. Make One of Payment
3. Education & Educational Loans
4. UMP – Student
5. Amount – RM50.00 / USD30.00
6. Matric No. / IC No. / Passport No.
7. Type of Payment
8. Tuition Fees / Processing Fees



General Brochure



Online Applications



IPS Web Portal

Why choose UMP?

Join us at UMP, and give yourself an opportunity in progressive learning environment. With us, you will experience your personal and academic growth, and graduate with core values qualities to get ahead in your career path in life.

Historic

The Government of Malaysia established Universiti Malaysia Pahang on February 16 2002. UMP was set up as a competency-based technical University, which specializes in the engineering and technology.

Modern

Committed to the development of human capital and technology of fulfill the needs of industries as well as to contribute to the country's overall development.

Study in UMP

The UMP offers a wide range of practical-based technology. Its application-oriented curriculum integrates theory and practice in the concept of a teaching factory, emphasizing experimental and action learning, task oriented and problem solving.

Research in UMP

UMP focuses on applied research and industrial projects to enrich the teaching and learning process as well as to promote the commercialization of research products.

Academic Facilities & Resources

UMP's laboratories have the latest equipment resembling those practically used in the industries. A 24-hour internet connection serves students through the wired and wireless network through the campus, making it a conducive atmosphere.

Vibrant campus life

Students from various countries come together to make a vibrant and colorful campus life.



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