

PhD IN ENGINEERING

1. PROGRAMME / MQR NO

PhD IN ENGINEERING - MQA/FA6579

2. STUDENT ADMISSION

Academic

Candidates should possess a relevant Bachelor degree with a very good academic record or its equivalent from any institution of higher learning recognized by the IIUM Senate and a Master's degree from the IIUM or any other accredited institution of higher learning; or

Any other certificate that is recognized as equivalent to a Bachelor's and Master's degree or other relevant professional qualifications and experiences that are recognized by the Senate of the University.

Language

Candidates of Master programme at Kulliyah of Engineering, must present (as shown in Table 1) a score of 500 in the Test of English as a Foreign Language (TOEFL) or 5.0 points in the test administered by the International English Language Testing Service (IELTS). Alternatively, applicants may sit for the IIUM-administered English Placement Test (EPT) and obtain a minimum of 5.0 points to fulfil the English language requirement. Applicants who are unable to submit satisfactory results in any of the above test may take up language proficiency courses at the University to fulfil the admission requirements. The language requirements presented here are based on Postgraduate Regulations (Revised 2020). This language requirement is subjected to the University policy and may be updated in the future.

Table 1: General English Language Entry Requirements

Programmes	Minimum TOEFL Score (Academic)	Minimum IELTS Score (Academic)	Minimum Score (EPT)
MSc	Paper based :500 Computer based :173 Internet based :60	5 .0 Overall band score	5 .0 Overall band score

3. BRIEF INTRODUCTION

The Kulliyah of Engineering, International Islamic University Malaysia was established in March 1994. Beginning February 1997, the Kulliyah started its postgraduate programmes at the Doctor of Philosophy level (P_ENG).

Kulliyah of Engineering envisioned to be “A Global Centre of Innovative Engineering Education and Research with Values and Professional Ethics” while the mission is “To be a Referral Hub for Engineering Education and Sustainable Solutions Based on Islamic Principles for a Better World”. The Kulliyah strives to provide quality engineering education, which encompasses fundamental and specialized knowledge; and practice in engineering as well as a broad base knowledge in management, ethics, and humanities. Through this **INTERDISCIPLINARY** approach, the graduates are nurtured towards being well-rounded individuals who are professionally qualified and competent as well as having sound moral, spiritual, intellectual, and ethical characteristics; ready to serve the current and emerging needs of the society.

Kulliyah of Engineering also forges close partnership with the industry and government, as well as reaches out and contributes to both the IIUM community and the public at large with its services. The Kulliyah also focuses its efforts to foster research in various fields of engineering towards the development of the nation and *ummah*. The Kulliyah offers the following postgraduate programmes:

- Doctor of Philosophy (Engineering)

The Kulliyah also encourages interdisciplinary research for the P_ENG programme that promotes collaboration between different departments. Four (4) new specializations are added namely; Chemical Engineering, Biochemical Engineering, Engineering Science and Engineering Mathematics. The aim of the diversification process in the programmes is to produce better P_ENG graduates, who are knowledgeable in advanced topics in Engineering including other engineering specializations, particularly in those related to other departments at the Kulliyah of Engineering.

4. PROGRAMME LEARNING OUTCOME (PO)

At the end of the programme, students are expected to be able to:

1. Demonstrate advanced knowledge and in depth understanding in a traditional or emerging area of knowledge in a specialized area of mechanical engineering. (Core Knowledge)
2. Identify, formulate, and solve complex mechanical engineering problems critically, autonomously and creatively by selecting and applying appropriate tools and techniques. (Independent Research)
3. Design and conduct appropriate experimentation and/or simulation to meet a need, analyze and interpret the resulting data, and use engineering judgment to draw conclusions. (Research Methods and Analysis)
4. Communicate effectively with logical, clear, and organized thinking, to a broad range of audiences. (Communication)
5. Function effectively both as an individual and in a group as well as being an effective team leader. (Teamwork and Leadership)
6. Pursue lifelong learning through seeking new knowledge and skills in professional and personal aspects of life as well as analyzing and identifying business opportunities. (Lifelong Learning)
7. Perform research on mechanical engineering problems professionally, ethically and responsibly. (Professionalism and Ethics)

5. PROGRAMME STRUCTURE

The curriculum has been designed keeping in view the future needs of Malaysia, in particular, and other countries in the world. The programme has been developed to meet the needs of those employed in various Engineering fields related professions wishing to expand their expertise in various sub-disciplines. The research component of the curriculum allows students to plan the greater part of the taught element of the programme to suit their individual background and future career development.

No.	Course code	Course	Course Credit
1	GENE 8000/RKGS 8000	Islamization of Engineering Studies	0
2	CHEN/CIVE/EECE/MECH//MC TA/MTRE/MFGA/SCIE 8951	Research Methodology and Seminar	0
3	CHEN/CIVE/EECE/MECH//MC TA/MTRE/MFGA/SCIE 8994	Research Proposal	0
4	CHEN/CIVE/EECE/MECH//MC TA/MTRE/MFGA/SCIE 8995	Comprehensive Exam	0
5	CHEN/CIVE/EECE/MECH//MC TA/MTRE/MFGA/SCIE 8999	Thesis	0
Total			0

6. DURATION OF STUDY

Programme	Type	Duration of Study		
		Minimum	Normal	Maximum
Doctor of Philosophy (Engineering)	Full Time	2 Years (4 Semesters)	3 Years (6 semesters)	6 Years (12 semesters)
	Part Time	3 Years (6 semesters)	6 Years (12 semesters)	8 Years (16 semesters)

KOE website: <https://www.iium.edu.my/kulliyah/koe/programmes>