

# DOCTOR OF PHILOSOPHY

## FIELD OF RESEARCH: MECHANICAL ENGINEERING

### PROGRAMME SPECIFICATION

The Doctor of Philosophy Field of Research: Mechanical Engineering (PKMM) is offered on a full-time basis. The duration of study is in between a minimum of three (3) years to a maximum of eight (8) years. The PhD candidate must be supervised by a Graduate Faculty. In terms of supervision panel, co-supervisor(s) may come from other higher learning institutions or the industry. The academic progress of a candidate is assessed through a research progress report submitted at the end of each semester as well as on the research proposal presented during proposal defense (mini-viva). The degree is awarded based on an examination of the thesis (including viva- voce) submitted by the candidate upon completion of the study.

#### General Information

1. Awarding Institution	Universiti Teknologi Malaysia		
2. Teaching Institution	Universiti Teknologi Malaysia		
3. Programme Name	Doctor of Philosophy		
4. Final Award	Doctor of Philosophy Field of research: Mechanical Engineering		
5. Programme Code	PKMM3		
6. Professional or Statutory Body of Accreditation	MQA		
7. Language(s) of Instruction	English		
8. Mode of Study	Research		
9. Mode of operation (Franchise, self-governs, etc.)	Self-governing		
10. Study Scheme	Full Time		
11. Study Duration	Minimum : 3 years Maximum : 8 years		
Type of Semester	No. of Semesters		No of Weeks per Semester
	Min	Max	
Normal	6	16	14
Short	-		-

## Course Classification

No	Classification	Credit Hours
i.	University Elective (1 course)	3
ii.	Research Methodology	HW
iii.	Research (Minimum 6 semesters)	0
iv	Thesis	0
	<b>Total</b>	<b>3</b>

## Programme Educational Objectives (PEO)

PEO1: Graduates are able to incorporate in-depth relevant knowledge in engineering practices with capabilities to research, develop and integrate.

PEO2: Graduates are able to apply a wide range of relevant knowledge to critically analyze and solve problems related to engineering in various situations and contexts effectively and innovatively.

PEO3: Graduates are able to advocate and communicate ideas and/or solutions to mechanical engineering problems intellectually, ethically and professionally

PEO4: Graduates able to adopt the latest relevant niche knowledge and technologies through life-long learning process

## Programme Learning Outcomes (PLO)

PLO1: Demonstrate advanced knowledge and capabilities to further develop or use these for new situations in mechanical engineering.

PLO2: Demonstrate research skills in appraising available information and research evidence, and applying them in mechanical engineering contexts

PLO3: Apply critical thinking and problem-solving skills in addressing mechanical engineering problems utilizing relevant tools and techniques.

PLO4: Perform research on mechanical engineering problems professionally, ethically and responsibly.

PLO5: Communicate technical knowledge and ideas effectively in written and oral forms.

PLO6: Adopt the latest relevant knowledge and technologies through life-long learning.

## GRADUATION CHECKLIST

Students must pass all the stated courses and assessment in this checklist to graduate. It is the responsibility of the students to ensure that all courses and assessment are taken and passed. Students who do not complete any of the assessments are not allowed to graduate.

NO.	CODE	COURSE	CREDIT EARNED (JKD)	CREDIT COUNTED (JKK)	TICK (√) IF PASSED
<b>SCHOOL OF MECHANICAL ENGINEERING COURSES</b>					
1	UXXX XXX3	University Elective (1 course)			
2	UKMP 0010	Research Methodology			
3	PKMM XX00	Research (Minimum 2 semesters)			
4		Thesis			
5		Publication minimum one (1) refereed article or two (2) indexed conference proceedings accepted as published in SCOPUS/ ERA/ WOS)			