

DOCTOR OF PHILOSOPHY

FIELD OF RESEARCH: BIOPROCESS ENGINEERING

PROGRAMME SPECIFICATIONS

The Doctor of Philosophy Field of Research: Bioprocess Engineering (PKKB) is offered on a full-time basis. The duration of study is in between minimum of three (3) years to a maximum of eight (8) years.

The assessment of the research program is based on the progress report, supervisor's evaluation, research proposal and viva.

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: Bioprocess Engineering		
5. Programme Code	PKKB		
6. Professional or Statutory Body of Accreditation	MQA		
7. Language(s) of Instruction	English		
8. Mode of Study (Conventional, distance learning, etc)	Research		
9. Mode of operation (Franchise, self-govern, etc)	Self-governing		
10. Study Scheme (Full Time/Part Time)	Full Time		
11. Study Duration	Minimum : 3 years Maximum : 8 years		
Type of Semester	No. of Semesters		No of Weeks/Semester
	Min	Max	
Normal	6	16	14
Short	-	-	-

Course Classification

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

Program Educational Outcomes (PEO)

- PEO 1: Graduates are able to in-depth knowledge in bioprocess engineering related areas.
- PEO 2: Graduates are able to formulate, solve and conduct problems through effective and critical thinking skills.
- PEO 3: Graduates are able to organize relevant knowledge and expertise through effective oral and written communications.
- PEO 4: Graduates able to develop relevant knowledge, promote professional and ethical responsibilities including contemporary issues and environmental awareness.

Program Learning Outcome (PLO)

- PLO 1: Incorporate continuing and advanced knowledge in bioprocess engineering related areas.
- PLO 2: Formulate hypothesis, design and reorganize experiments/research scientifically to solve and evaluate observed phenomena.
- PLO 3: Analyze and evaluate critically problems in related areas through effective thinking skills, particularly in situations with limited information and to provide solutions through the application of appropriate tools and techniques.
- PLO 4: Display ideas and technical findings in both written and oral forms effectively.
- PLO 5: Plan and perform research undertakings professionally, ethically and responsibly.
- PLO 6: Perform lifelong learning for the needs of continuing professional development.

GRADUATION CHECKLIST

To graduate, students must pass all the stated courses and assessment in this checklist. 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 assessment are not allowed to graduate.

NO.	CODE	COURSE	CREDIT EARNED (JKD)	CREDIT COUNTED (JKK)	TICK (✓) IF PASSED
SCHOOL OF CHEMICAL & ENERGY ENGINEERING COURSES					
1	UXXX XXX3	University Elective (1 course)			
2	UKKP 0010	Research Methodology			
3	PKKB 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)			