BME6022: PROJECT DEVELOPMENT STUDY

Effective Term
Semester B 2024/25

Part I Course Overview

Course Title
Project Development Study

Subject Code
BME - Biomedical Engineering
Course Number
6022

Academic Unit
Biomedical Engineering (BME)

College/School
College of Biomedicine (BD)

Course Duration
One Semester

Credit Units
3

Level
P5, P6 - Postgraduate Degree

Medium of Instruction
English

Medium of Assessment
English

Prerequisites
Nil

Precursors
Nil

Equivalent Courses
MBE6022 Project Development Study

Exclusive Courses
Nil

Part II Course Details

Abstract
The aim of the course is to develop the student's ability to carry out project development study in chosen subject area related to advanced technology systems / mechanical engineering / bio-medical engineering. It will enable students to:

- develop skills of formulating a project work including strategy plan, team work and project management;
- establish a Research & Development (R & D) proposal for meeting defined requirements.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Understand the scope and nature of a research and development work, and the process of investigation.		x	x	x
2	Establish a research and development proposal based on the selected engineering topic.		x	x	x

A1: Attitude
Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: Ability
Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.

A3: Accomplishments
Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

Learning and Teaching Activities (LTAs)

	LTAs	Brief Description	CILO No.	Hours/week (if applicable)
1	Lecture	Large class activities mainly include lectures, and small group activities comprise of case studies in groups.	1, 2	1 hr/week
2	Tutorial	The activities will be taken place in an integrated manner in the tutorials.	1, 2	2 hrs/week

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Mini-Projects	1, 2	100	

Continuous Assessment (%)

100

Assessment Rubrics (AR)

Assessment Task

Mini-projects (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

1. Ability to establish research & development proposal

2. Capability to apply the theory of knowledge and demonstrate appropriate judgment in the planning, design and technical functions of the project deliverables

Excellent

(A+, A, A-) High

Good

(B+, B, B-) Significant

Fair

(C+, C, C-) Moderate

Marginal

(D) Basic

Failure

(F) Not even reaching marginal levels

Assessment Task

Mini-projects (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

1. Ability to establish research & development proposal
2. Capability to apply the theory of knowledge and demonstrate appropriate judgment in the planning, design and technical functions of the project deliverables

Excellent

(A+, A, A-) High

Good

(B+, B) Significant

Marginal

(B-, C+, C) Basic

Failure

(F) Not even reaching marginal levels

Part III Other Information

Keyword Syllabus

Project development, professional skill, strategy, team work, project management, seminars and technical talks, cooperative and action learning, proposal development, and oral presentation

Reading List

Compulsory Readings

	Title
1	N. A.

Additional Readings

	Title
1	N. A. Online Resources: The students need to read technical papers and/or books based on respective project study. Remarks: If student takes both BME6022 Project Development Study and BME6008 Dissertation, the student may further pursue the case topic explored in the former course by substantially enhancing the study with new and advanced research work towards achieving the project objectives.