

BME6008: DISSERTATION

Effective Term

Semester A 2025/26

Part I Course Overview

Course Title

Dissertation

Subject Code

BME - Biomedical Engineering

Course Number

6008

Academic Unit

Biomedical Engineering (BME)

College/School

College of Biomedicine (BD)

Course Duration

Non-standard Duration

Other Course Duration

Normal duration: 2 Semesters + Summer Term (Part-time student), 1 Semester + Summer Term (Full-time student), 1 Semester (with prior approval by supervisor and programme leader for Full-time student with GPA ≥ 3.9). Maximum duration: 5 Semesters / Terms. This is a dissertation-type course. The duration of the course cannot be extended beyond the maximum duration. Dissertation-type courses cannot be repeated.

Credit Units

0-9

Level

P5, P6 - Postgraduate Degree

Medium of Instruction

English

Medium of Assessment

English

Prerequisites

Nil

Precursors

MBE6022/BME6022/MNE6022 Project Development Study

Equivalent Courses

MBE6008 Dissertation

Exclusive Courses

Nil

Part II Course Details

Abstract

The aim of the dissertation is to demonstrate the student's ability to carry out independent research and development work and to develop expertise in a focused area of the programme. In undertaking the dissertation, the student should demonstrate initiative and intellectual achievement, understanding of the chosen subject matter, and the principles being applied. He/She will also develop and demonstrate the ability to pursue a subject area of the course to substantial depth and present the dissertation in a precise and coherent manner.

Course Intended Learning Outcomes (CILOs)

CILOs		Weighting (if DEC-A1 DEC-A2 DEC-A3 app.)			
1	Define the nature, aim, scope and importance of a selected topic clearly in the major area of the programme.		x	x	
2	Review the body of knowledge from selected literature to deepen the understanding of the theory or practice relevant to the chosen dissertation.		x	x	
3	Apply such theory or knowledge to formulate and implement the methodology for the chosen dissertation.			x	x
4	Communicate effectively the dissertation process, results, experience and reflection coherently, logically and precisely, using written, oral and visual media.			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	T1	Each student shall define, under the supervision of a dissertation supervisor, the nature, aim, scope and importance of a project relevant to the major area of the programme.	1	

2	T2	Each student shall research and review the appropriate body of knowledge and background information needed to achieve the defined dissertation objective(s).	2	
3	T3.1	Each student shall appraise and select the knowledge, theory or practice from literature and develop the appropriate dissertation methodology.	3	
4	T3.2	Implement the methodology to the chosen problem or project.	3	
5	T3.3	Analyze the results obtained, draw conclusion and critically appraise the work done.	3	
6	T4.1	Document the dissertation process, results, experience and reflection in the form of dissertation according to the given format.	4	
7	T4.2	Give presentation and defend dissertation endeavour and outcome when required.	4	

Assessment Tasks / Activities (ATs)

ATs		CILO No.	Weighting (%)	Remarks ("- for nil entry)	Allow Use of GenAI?
1	Intermediate Report	1, 2, 3, 4	10	-	No
2	Final Dissertation	1, 2, 3, 4	90	-	No

Continuous Assessment (%)

100

Additional Information for ATs

Assessment Process: Students are required to submit an intermediate progress report highlighting the major areas covered at the end of one semester/term of registration. 10% of the overall assessment weighting will be based on the following considerations as decided by the project supervisor depending on the agreed plan of executing the project and milestones:

- Understanding of project significance, definition and scope
- Effort towards literature review and understanding
- Application or use of knowledge in methodology development
- Methodology implementation

- Analysis and appraisal of results

The submitted final written Dissertation is assessed by the Dissertation Committee with the attendance of Supervisor (and any Co-Supervisor). The Dissertation will take a weighting 90% of the overall assessment. A student may be asked to make an Oral Defence of the Dissertation work in the presence of a Dissertation Committee nominee, the Supervisor, the Assessor and any CoSupervisor.

After the written Dissertation has been assessed to be satisfactory, a student must submit two bound copies of his/her final Dissertation and a softcopy to the Dissertation Committee via his/her Supervisor.

Assessment Rubrics (AR)

Assessment Task

Intermediate Report (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

Evidence of understanding of project significance, definition and scope.
Effort towards literature review and application or use of knowledge in methodology development and implementation.
Analysis and appraisal of results depending on the progress made by that time.

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

Final Dissertation (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

Define the nature, aim, scope and importance of a selected problem or project related to specific subject area.
Evidence of searching the background information and make literature enquiry relevant to the project.
Evidence of developing an appropriate project methodology to achieve the defined project aim/objectives.
Evidence of implementing the methodology logically and purposefully to obtain the results and rationally discuss them before drawing conclusions.

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

Intermediate report (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

Evidence of understanding of project significance, definition and scope.
Effort towards literature review and application or use of knowledge in methodology development and implementation.
Analysis and appraisal of results depending on the progress made by that time.

Excellent

(A+, A, A-) High

Good

(B+, B) Significant

Marginal

(B-, C+, C) Basic

Failure

(F) Not even reaching marginal levels

Assessment Task

Final Dissertation (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

Define the nature, aim, scope and importance of a selected problem or project related to specific subject area.
Evidence of searching the background information and make literature enquiry relevant to the project.
Evidence of developing an appropriate project methodology to achieve the defined project aim/objectives.
Evidence of implementing the methodology logically and purposefully to obtain the results and rationally discuss them before drawing conclusions.

Excellent

(A+, A, A-) High

Good

(B+, B) Significant

Marginal

(B-, C+, C) Basic

Failure

(F) Not even reaching marginal levels

Additional Information for AR

Teaching Pattern:

There are no formal lectures for this course. Students are required to undertake individually supervised work.

Part III Other Information

Keyword Syllabus

Independent research. Individually chosen dissertation topic. Application and integration of theories, techniques and practices of a selected area of focus.

Reading List

Compulsory Readings

Title	
1	N. A.

Additional Readings

Title	
1	N. A. 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.