

MNE8001: COMPREHENSIVE STUDIES

Effective Term

Semester A 2025/26

Part I Course Overview

Course Title

Comprehensive Studies

Subject Code

MNE - Mechanical Engineering

Course Number

8001

Academic Unit

Mechanical Engineering (MNE)

College/School

College of Engineering (EG)

Course Duration

One Semester

Credit Units

3

Level

R8 - Research Degree

Medium of Instruction

English

Medium of Assessment

English

Prerequisites

Nil

Precursors

Nil

Equivalent Courses

MNE8001M Comprehensive Studies

Exclusive Courses

MNE8007 Research and Development Case Study or
MNE8007M Research and Development Case Study

Part II Course Details

Abstract

The aim of the course is to broaden and deepen the student's knowledge and understanding of a specified subject area or topic considered to be relevant to the MPhil/PhD student's area of research.

The course objectives are:

- to provide a framework for an MPhil/PhD postgraduate student to undertake and to a prescribed programme of studies of a specified subject area or topic;
- to develop and further a postgraduate student's knowledge and understanding of that subject area or topic which is regarded to be essential to his/her research;
- to cater for the student's coursework needs which cannot be met by available courses.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if DEC-A1 DEC-A2 DEC-A3 app.)		
1	Identify and define the issues of significance and scope of the given subject area or topic in explicit terms.		x	
2	Review and critique the body of knowledge from literature of the given subject area or topic.		x	
3	Apply such theory or knowledge to lay the foundation or formulate the research methodology for the main research undertaken.		x	x
4	Participate in the regular meetings with supervisor to report progress and findings. Communicate the results and achievements of this directed studies scholarly and logically, 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	Independent Studies	Student is expected to carry out independent research and literature studies on the given subject area or topic.	1, 2, 3	

2	Group Discussion* (*may be adjusted suitably when the students need to pursue very diverse topics)	Group Discussion sections are provided to students to help them identify suitable topics and methodologies for the project. These sections may provide a peer-learning platform for students to share their learning experience and discuss their questions. Students are required to give a presentation in the end of the course to present their findings and recommendations.	3, 4	
3	Supervised learning	Each student has regular meetings with his/her supervisor. In the meeting, the supervisor discusses with the student on his/her progress, issues and findings, and offer advice to him/her.	1, 2, 3, 4	

Additional Information for LTAs

*may be adjusted suitably when the students need to pursue very diverse topics

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks ("- for nil entry)	Allow Use of GenAI?
1	Proposal	1	10	-	Yes
2	Report	2, 3, 4	70	-	Yes
3	Poster/Presentation	2, 4	20	-	Yes

Continuous Assessment (%)

100

Examination (%)

0

Minimum Continuous Assessment Passing Requirement (%)

0

Minimum Examination Passing Requirement (%)

0

Additional Information for ATs

The assessment method(s) shall be designed and proposed by the student's Supervisor and the Qualifying Panel.

The following assessment method(s) may be adopted:

- coursework and written test(s); or
- coursework and oral presentation / test(s); or
- combination of all of the above.

Assessment Rubrics (AR)

Assessment Task

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

Criterion

Develop a project proposal in consultation with an assigned supervisor, which includes the definition of the problem and main outcomes to be accomplished.

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

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

Criterion

Evidence of good literature review to develop a methodology to accomplish the project objectives, project execution and the results obtained, analysing the results and drawing relevant conclusions along with related discussion.

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

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

Criterion

Summarize the critical aspects of the project undertaken, methodology adopted to accomplish the stated objective, and conclusions drawn showing key results in a concise manner in the form of a poster or through a presentation.

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

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

Criterion

Develop a project proposal in consultation with an assigned supervisor, which includes the definition of the problem and main outcomes to be accomplished.

Excellent

(A+, A, A-) High

Good

(B+, B) Significant

Marginal

(B-, C+, C) Moderate

Failure

(F) Not even reaching marginal levels

Assessment Task

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

Criterion

Evidence of good literature review to develop a methodology to accomplish the project objectives, project execution and the results obtained, analysing the results and drawing relevant conclusions along with related discussion.

Excellent

(A+, A, A-) High

Good

(B+, B) Significant

Marginal

(B-, C+, C) Moderate

Failure

(F) Not even reaching marginal levels

Assessment Task

Poster/Presentation (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

Summarize the critical aspects of the project undertaken, methodology adopted to accomplish the stated objective, and conclusions drawn showing key results in a concise manner in the form of a poster or through a presentation.

Excellent

(A+, A, A-) High

Good

(B+, B) Significant

Marginal

(B-, C+, C) Moderate

Failure

(F) Not even reaching marginal levels

Part III Other Information**Keyword Syllabus**

The specific syllabus or content requirement for this course is to be designed by the postgraduate students' supervisor(s). The assignments and directed readings will be mainly but not exclusively based on his/her area of research.

Typically, student will be expected under the guidance of supervisor, conduct in depth review of relevant literature; critique the existing body of knowledge and lay the necessary foundation for the proposed research; conduct preliminary data gathering and analysis or case studies; preparation and presentation of the report; and dissemination of the findings and application in the context concerned.

Supervisor is expected to provide a written outline of the content requirement and assessment methods when prescribing this course.

Reading List**Compulsory Readings**

Title	
1	N.A.

Additional Readings

Title	
1	N.A.