City University of Hong Kong
Course Syllabus

offered by
Department of Biomedical Engineering /
Department of Mechanical Engineering
with effect from Semester B 2018 / 19

Part I Course Overview

Course Title: Dissertation

Course Code: MBE6008

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 $\geq$ 3.5)

Maximum duration: 5 Semesters / Terms

Course Duration: 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: 9 credits

Level: P6

Medium of Instruction: English

Medium of Assessment: English

Prerequisites :
(Course Code and Title) Nil

Precursors:
(Course Code and Title) MBE6022 Project Development Study

Equivalent Courses:
(Course Code and Title) Nil

Exclusive Courses:
(Course Code and Title) Nil

Part II   Course Details

1.   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.

2.   Course Intended Learning Outcomes (CILOs)
(CILOs state what the student is expected to be able to do at the end of the course according to a given standard of performance.)

No.	CILOs	Weighting (if applicable)	Discovery-enriched curriculum related learning outcomes (please tick where appropriate)		
			A1	*A2*	*A3*
1.	**Define** the nature, aim, scope and importance of a selected topic clearly in the major area of the programme.		✓	✓	
2.	**Review** the body of knowledge from selected literature to deepen the understanding of the theory or practice relevant to the chosen dissertation.		✓	✓	
3.	**Apply** such theory or knowledge to formulate and implement the methodology for the chosen dissertation.			✓	✓
4.	**Communicate** effectively the dissertation process, results, experience and reflection coherently, logically and precisely, using written, oral and visual media.			✓	✓
		N. A.			

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 self-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.

3. Teaching and Learning Activities (TLAs)

(Indicative of likely activities and tasks designed to facilitate students' achievement of the CILOs. Final details will be provided to students in their first week of attendance in this course)

TLA	Brief Description	CILO No.				Hours/week (if applicable)
		1	2	3	4	
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.	✓				
T2	Each student shall research and review the appropriate body of knowledge and background information needed to achieve the defined dissertation objective(s).		✓			
T3.1	Each student shall appraise and select the knowledge, theory or practice from literature and develop the appropriate dissertation methodology.			✓		
T3.2	Implement the methodology to the chosen problem or project.					
T3.3	Analyze the results obtained, draw conclusion and critically appraise the work done.					
T4.1	Document the dissertation process, results, experience and reflection in the form of dissertation according to the given format.				✓	
T4.2	Give presentation and defend dissertation endeavour and outcome when required.					

4. Assessment Tasks/Activities (ATs)

(ATs are designed to assess how well the students achieve the CILOs.)

Assessment Tasks/Activities	CILO No.				Weighting	Remarks
	1	2	3	4		
Continuous Assessment: 100%						
Coursework	✓	✓	✓	✓	100%	
Examination: 0%						
					100%	

CILO	TLA	Assessment Outcome Template					Weight
		Fail 0-39%	**Pass** 40-54%	**Satisfactory** 55-69%	**Good** 70-84%	**Very Good** 85-100%	
C1	T1	Project significance unrecognizable, aim/objectives and scope ill-defined	Marginally sufficient evidence of project significance and definition of project aim/objectives and scope	Sufficiently clear evidence of project significance and definition of project aim/objectives and scope	Clear evidence of project significance and definition of project aim/objectives and scope	Very convincing evidence of project significance and very clear and coherent definition of project aim/objectives and scope	10%
C2*	T2	Hardly any evidence of literature enquiry	Moderate literature review and adequate understanding	Satisfactory literature review and understanding	Good literature review and evidence of good understanding of key literature	Very good literature review and evidence of very good understanding of key literature	20%
C3*	T3.1	Hardly any appraisal or use of literature in support of methodology development	Moderate literature support and basic methodology development	Satisfactory literature support in methodology development	Good literature support in methodology development	Very good literature support in methodology development	15%
	T3.2	Methodology unrecognizable	Marginally adequate methodology	Adequate methodology	Good methodology, well implemented	Exemplary methodology, very well implemented	15%
	T3.3	Poor, incoherent, unclear analysis; unable to draw sensible conclusion	Marginally adequate analysis, discussion of results and conclusion	Satisfactory analysis, discussion of results and meaningful appraisal and conclusion	Good logical analysis, clear discussion of results, convincing appraisal and conclusion	Very methodical analysis, very convincing discussion of results, appraisal and conclusion	15%
C4	T4.1	Poor documentation, incomplete or poorly structured	Adequate documentation, comprehensible	Satisfactory documentation, coherent and well structured	Good documentation, very well structured with few deficiencies	Exemplary documentation, complete, professional or scholarly	25%
	T4.2	Poor presentation, incoherent, unclear; unable to answer questions satisfactorily	Adequate presentation and answers to questions	Satisfactory presentation, evident of fair understanding in response to questions	Clear presentation, well delivered, evident of good understanding in response to questions	Impressive presentation, completely clear and very persuasive	**Pass / Fail**

Assessment Process:

The submitted written Dissertation is assessed by the Supervisor (and any Co-Supervisor) and another independent Assessor.   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 Co-Supervisor.

After the written Dissertation has been assessed as satisfactory, a student must submit one soft copy of his/her final Dissertation to the host department office.   The dissertation should follow the format set by the department.   In general, equal weighting would be given to the Supervisor's and the independent Assessor's assessments. The Dissertation Committee shall resolve any major discrepancies between the assessments made by Supervisors and Assessors.

5. Assessment Rubrics

(Grading of student achievements is based on student performance in assessment tasks/activities with the following rubrics.)

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Fair (C+, C, C-)	Marginal (D)	Failure (F)
Coursework	Aim, objectives and scope of the project. Literature review. Application of knowledge. Project implementation. Communication of work.	High	Significant	Moderate	Basic	Not even reaching marginal levels

Teaching Pattern:

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

Part III   Other Information (more details can be provided separately in the teaching plan)

1.   **Keyword Syllabus**
     (An indication of the key topics of the course.)

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

2.   **Reading List**
2.1   **Compulsory Readings**
     (Compulsory readings can include books, book chapters, or journal/magazine articles. There are also collections of e-books, e-journals available from the CityU Library.)

   N. A.

2.2   **Additional Readings**
     (Additional references for students to learn to expand their knowledge about the subject.)

   N. A.

Remarks:

If student takes both MBE6022 Project Development Study and MBE6008 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.