

**City University of Hong Kong
Course Syllabus**

**offered by
Department of Biomedical Engineering
with effect from Semester A 2020 / 2021**

Part I Course Overview

Course Title:	Capstone Project II
Course Code:	BME4116
Course Duration:	<p><u>Normal Track:</u> 2 semesters <u>Fast Track:</u> 1 semester Fast track is normally available to students who have completed all other courses of the degree study. It requires the approval of the supervisor, course leader of the Capstone Projects and Major Leader.</p> <p><u>Other Track:</u> 1 semester + 1 summer term or 1 summer term + 1 semester This is mainly for students who have participated in academic exchange programmes in the preceding semester. It requires the approval of the supervisor, course leader of the Capstone Projects and Major Leader.</p>
Credit Units:	9 credits (6 for students under 2012-13, 2013-14 and 2014-15 catalogue terms)
Level:	B4
Medium of Instruction:	English
Medium of Assessment:	English
Prerequisites: <i>(Course Code and Title)</i>	JC3116/MBE3116/BME3116/MNE3116 Capstone Project I with B+ grade or above
Precursors: <i>(Course Code and Title)</i>	Nil
Equivalent Courses: <i>(Course Code and Title)</i>	MBE4068/BME4068 Project (Individual)/ MBE4069 Group Project/ MBE4102/BME4102 Design Project / MBE4116 Capstone Project II
Exclusive Courses: <i>(Course Code and Title)</i>	MBE4118/MNE4118 Project (Individual)

Part II Course Details

1. Abstract

(A 150-word description about the course)

This course offers a challenging opportunity for a final year student to integrate, apply and extend the knowledge gained from the various courses of his/her major study and embark on a course of discovery and innovation through an individually guided capstone project. Specifically, this is the implementation stage of the capstone project proposed by the student in MBE3116 Capstone Project I and approved by the department.

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.	Develop the methodology and implementation plan to carry out the capstone project proposed in MBE3116.			✓	
2.	Apply and extend the theories and knowledge learned in the major study through the methodical implementation of the proposed capstone project.			✓	✓
3.	Communicate in writing and oral presentation, the project process, experience and results.			✓	✓
* If weighting is assigned to CILOs, they should add up to 100%.		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)

(TLAs designed to facilitate students' achievement of the CILOs.)

TLA	Brief Description	CILO No.			Hours/week (if applicable)
		1	2	3	
T1	Each student shall work closely with the supervisor to translate the methodology of the proposed capstone project into a realizable project action plan.	✓			
T2	Each student shall, with the guidance and advice of the supervisor, methodically carry out the project as planned, always challenging the norm and seeking for the breakthrough that would lead to discovery or innovation.		✓		
T3.1	Document the research process, experience and results in the capstone project report.			✓	
T3.2	Write a scholarly paper that meets the standard for possible publication in a journal or presentation in a conference.				
T3.3	Present the paper in the annual Capstone Projects Forum.				

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		
Continuous Assessment: 100%					
Continuous assessment by supervisor and capstone project report	✓	✓	✓	50%	
Publishable scholarly written paper			✓	30%	Assessed by course examiner
Oral presentation			✓	20%	Assessed by course examiner and supervisor
Examination: 0%					
* The weightings should add up to 100%.				100%	

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)
1. Continuous assessment by supervisor and capstone project report	Coverage of related literature, adoption or development of relevant methodologies to solve the problem, final outcomes, contribution to science and technology, and quality of written report.	High	Significant	Moderate	Basic	Not even reaching marginal levels
2. Publishable scholarly written paper	A written paper of acceptable/publishable quality in proceedings of a conference or journal based on the results of the work independently carried out through this project.	High	Significant	Moderate	Basic	Not even reaching marginal levels
3. Oral presentation	Oral presentation covering the related literature, relevant methodologies adopted to solve the problem, final outcomes, and contribution to science and technology.	High	Significant	Moderate	Basic	Not even reaching marginal levels

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.)

The course is flexible, and has no specific syllabus.

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.)

There are no specific compulsory readings. However, the student will have to explore and utilize some books and journal/conference/magazine publications depending on the selected topic being investigated and the relevant methodologies that could be explored to carry out this capstone project II.

2.2 Additional Readings

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

Student initiative is compulsory to search the literature to gain knowledge on the techniques and methodologies associated with the project being undertaken through this course.