City University of Hong Kong
Course Syllabus

offered by College of Engineering
with effect from Summer Term 2021

Part I Course Overview

Course Title:	**Summer Research Internship**
Course Code:	**FS4006**
Course Duration:	**8-13 weeks (require no less than 240 hours of student direct participation)**
Credit Units:	**6**
Level:	**B4**
Proposed Area: *(for GE courses only)*	☐ Arts and Humanities ☐ Study of Societies, Social and Business Organisations ☐ Science and Technology
Medium of Instruction:	**English**
Medium of Assessment:	**English**
Prerequisites: *(Course Code and Title)*	**Nil**
Precursors: *(Course Code and Title)*	**Nil**
Equivalent Courses: *(Course Code and Title)*	**Nil**
Exclusive Courses: *(Course Code and Title)*	**Nil**

Part II Course Details

1. Abstract

(A 150-word description about the course)

This course aims to provide students with the opportunity to acquire research skills and experience the life of a full-time researcher in a research environment and/or real work in an industrial setting. Industrial/cultural visits will also enhance and enrich students' knowledge in science and engineering related industrial establishments. Each student taking this course will be required to undertake a research project as guided by the supervisor. The student will develop skills in problem-solving and in scientific communication in the form of written and verbal presentation of information.

Individual research project supervisors will determine the details of the TLAs and Assessment Tasks and provide guidance to the students, while the course leader will oversee and coordinate the activities and provide final assessment (individual supervisors will also be involved).

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.	Recognize and practise the soft skills as well as the roles of professionals that are required at the workplace / research environment	NA	√	√	
2.	Integrate the knowledge acquired in the classroom and apply it to workplace / research	NA	√	√	√
3.	Describe and analyse the scope, the significance and the state-of-the-art knowledge of the intended research project	NA			√
4.	Evaluate the implications of the proposed technical/ scientific knowledge and skills learned through oral presentation and written report	NA			√
		100%			

** If weighting is assigned to CILOs, they should add up to 100%.*

[#] Please specify the alignment of CILOs to the Gateway Education Programme Intended Learning outcomes (PILOs) in Section A of Annex.

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	4	
1	The teaching and learning activities include: independent study, field trip/ industrial visit, literature review, and participation in a guided research project	Y	Y	Y	Y	No less than 240 hours
2	Interaction and communication with staff in the College Office	Y				On need basis throughout internship period
3	Keeping a training log		Y	Y	Y	Throughout training period
4	Giving an oral presentation that summarizes the learning during conducting the research internship	Y	Y	Y	Y	20 minutes in total

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__ %						
Assessment of Log Book		Y	Y	Y	5	
Individual Performance in Research project and feedback from project supervisor	Y	Y	Y	Y	55	
Oral presentation and Written report	Y	Y	Y	Y	40	
Examination: NA (duration: , if applicable)						
** 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. Research project	Ability to conduct the research on his/her own and to record raw data including units in a way that is clear and appropriate, to be actively and diligently engaged in the research, to discuss the findings with the supervisor at regular frequencies.	High	Significant	Moderate	Basic	Not even reaching marginal levels
2. Written report	Ability to demonstrate thorough understanding of the project topic and excellent execution of a wide range of conventions relevant to science, to use reference to support the ideas, to present and analyse data in excellent ways, and to use scientific languages that skilfully communicate meaning to readers with clarity and fluency.	High	Significant	Moderate	Basic	Not even reaching marginal levels
3. Oral Presentation	Ability to clearly organize a presentation with cohesive content, to deliver a compelling presentation with confidence using different techniques (posture, gesture, eye contact, and vocal expressiveness), to understand the questions completely, and to answer the questions as precisely as they can be.	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.)

Scientific research; science and technology; critical thinking and problem solving skill

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.)

1.	
2.	
3.	
…	

2.2 Additional Readings

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

1.	
2.	
3.	
…	