

City University of Hong Kong
Course Syllabus

offered by Department of Physics
with effect from Semester B 2022/23

Part I Course Overview

Course Title: **Dissertation**

Course Code: **PHY4217**

Course Duration: **Two semesters**

Credit Units: **6**

Level: **B4**

Proposed Area:
(for GE courses only)

- Arts and Humanities
 Study of Societies, Social and Business Organisations
 Science and Technology
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Medium of Instruction:

English

Medium of Assessment:

English

Prerequisites:
(Course Code and Title)

60% of credits completed (Students admitted via Advanced Standing II can seek for special approval from Final Year Project Committee, if appropriate.)

CGPA \geq 2.00 or prior approval by programme leader in case CGPA $<$ 2.00

More pre-requisites may be specified by the project supervisor, subject to the approval of the Final Year Project Committee.

Precursors:
(Course Code and Title)

Nil

Equivalent Courses:
(Course Code and Title)

AP4217 Dissertation

Exclusive Courses:
(Course Code and Title)

- (1) AP4216/PHY4216 Project**
(2) CSCI4001 Co-operative Education Scheme for Science Students or FS4001 Co-operative Education Scheme (CES)
(3) CSCI4003 Co-operative Education Placement Project for Science Students FS4003 CSE Placement Project
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Part II Course Details

1. Abstract

To present the student with an opportunity to conduct an investigation on an area of their own choice to substantial depth, in a way that encourages application and integration of the knowledge gained through the BScAP program.

To build self-confidence, demonstrate independence, and develop a professional approach to real-world problem-solving.

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.	Integrate knowledge gained through previous courses to design a component or a system, or to conduct an investigation related to physics or engineering				√
2.	Conduct experiments or theoretical studies, analyze and interpret data, demonstrate organizing and planning skill, communicate the project details professionally				√
3.	Demonstrate independence, develop a scientific approach to solve physics or engineering problems				√
4.	Demonstrate initiative, innovative abilities, and critical thinking				√
		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	
Meeting with supervisor	Provide guidance and orientation	√	√	√	√	18 hours/26 weeks
Laboratory/theoretical work	Practice advanced experimental / theoretical skills, interpret data sets, and demonstrate organization and planning skills	√	√	√	√	122 hours/26 weeks
Independent studies	Practice the ability to engage in long term self-directed learning, demonstrate and communicate the results of critical thinking, and team work.	√	√	√	√	90 hours/26 weeks

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%						
Midterm Report	√			√	20 %	
Dissertation Report	√	√	√	√	60 %	
Oral presentation	√	√	√	√	20%	
Examination: 0%						

* The weightings should add up to 100%.

100%

A Project Committee, which consists of no less than three members of academic staff members including the project co-ordinator, will take full responsibility for course assessment.

The oral presentation is assessed by a team of assessors, appointed by the Project Committee, according to style, structure and clarity, and response to questions. The assessment procedures are arranged to incorporate a uniformity of treatment across the student cohort.

Each dissertation report is assessed by two assessors appointed by the Project Committee to each particular dissertation. The report is assessed as to presentation (clarity, conciseness), technical knowledge and understanding, and accomplishment (technical competence, initiative creativity, effort). Guidelines on the form of project presentation and the assessment criteria and related weightings are given to the students at the start of the course.

The oral examination is used to validate the extent of the student's understanding of the dissertation and the degree of self-guidance achieved.

Quality assurance of the assessment process is approached through each assessor being involved in assessing 5 or more dissertations, as first or second assessor, and through careful monitoring by the Project Committee. The Project Committee shall have the power to determine the final marks of all projects for submission to the Assessment Panel.

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)
Project report	Capacity for self-directed learning and ability to explain key findings, theories, and concepts related to the subject of study.	High	Significant	Moderate	Basic	Not even reaching marginal levels
Oral examination	Ability to sustain an informed discussion on the subject of the project report, demonstrate critical thinking skills to argue and defending own ideas and position.	High	Significant	Moderate	Basic	Not even reaching marginal levels
Oral presentation	Ability to communicate effectively and concisely the main findings, results, pending issues and/or open questions involved in the subject of the project report.	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.)

Varies according to the topic selected for the project

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.	Varies as per recommendation of project supervisor
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2.2 Additional Readings

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

1.	Varies as per recommendation of project supervisor
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