City University of Hong Kong
Course Syllabus

offered by Department of Physics
with effect from Semester B 2017/18

Part I Course Overview

Course Title:	**Dissertation**
Course Code:	**AP6306**
Course Duration:	**Two semesters**
Credit Units:	**6**
Level:	**P6**
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)*	**AP6309 Advanced Research**

Part II Course Details

1. Abstract

The project presents the students with an opportunity to carry out independent research in materials engineering and nanotechnology, and to develop expertise in selected materials topics provided by the program.

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.	Carry out a literature survey or search of a selected subject, plan the entire project and integrate the materials principles into the project selected.		✓		
2.	Carry out independent experimental work, analyze and interpret data professionally.		✓	✓	✓
3.	Demonstrate initiative, innovative abilities, and critical thinking. Be able to write a good dissertation		✓	✓	✓
		100%			

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				
Consultation	Research meeting	✓	✓	✓				0.5
Laboratory	Experiments, computer simulations, etc.		✓	✓				3.5
Outside lab activity	Literature review, data and theoretical analysis	✓	✓	✓				2.5

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%								
Project report	✓	✓	✓				70%	
Oral presentation	✓	✓	✓				15%	
Oral examination	✓	✓	✓				15%	
							100%	

The dissertation should be carried out on an individual basis. The topics will be provided by the programme. In some cases, a topic can be selected from a specialised technical problem in the company in which the student is working, provided it is approved by the Dissertation committee to be of sufficient merit. The progress of the dissertation will be closely monitored through regular meetings between the dissertation supervisor and the student.

The oral presentation is assessed by a team of assessors, appointed by the dissertation 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 the assessor 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).

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

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. Dissertation	ABILITY to write a comprehensive research report	High	Significant	Moderate	Basic	Not even reaching marginal levels
2. Oral presentation	ABILITY to EXPLAIN orally the technical details of the research project	High	Significant	Moderate	Basic	Not even reaching marginal levels
3. Oral examination	ABILITY to EXPLAIN and respond to questions in DETAIL orally	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

N/A

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