

**City University of Hong Kong  
Course Syllabus**

**offered by College/School/Department of Physics  
with effect from Semester A 2022/23**

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**Part I Course Overview**

**Course Title:**

Directed Study in Advanced Research Fields

**Course Code:**

PHY8002

**Course Duration:**

One semester

**Credit Units:**

1

**Level:**

R8

**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)*

AP8002 Directed Study in Advanced Research Fields

**Exclusive Courses:**

*(Course Code and Title)*

Nil

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## Part II Course Details

### 1. Abstract

The course is designed for the students enrolled in the research degree programmes to broaden their knowledge in areas related to their research fields.

### 2. Course Intended Learning Outcomes (CILOs)

No.	CILOs	Weighting* (if applicable)	Discovery-enriched curriculum related learning outcomes (please tick where appropriate)		
			A1	A2	A3
1.	Master the research activities in a specific area by conducting literature search			√	
2.	Deepen the understanding of the research background by critically reading selected literature			√	
3.	Identify the key issues for further developments in the subject area			√	
4.	Apply the achieved knowledge to formulate the research methodology for a research topic.			√	
5.	Participate in research group presentations and discussions			√	
		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)

TLA	Brief Description	CILO No.						Hours/week (if applicable)
		1	2	3	4	5		
1.	Lectures	√	√	√	√			2hrs/semester
2.	Independent Studies	√	√	√	√			13hrs/semester
3.	Presentations and Group Discussions					√		11hrs/semester

Scheduled activities: A two-hour lectures on the first four CILOs is given first. The students will need to participate in the respective group meetings for presentations and group discussions.

#### 4. Assessment Tasks/Activities (ATs)

Assessment Tasks/Activities	CILO No.						Weighting*	Remarks
	1	2	3	4	5			
Continuous Assessment: 100%								
Written reports	√	√	√	√			60	
Presentation					√		40	
Examination: __0__% (duration: , if applicable)								
							100%	

After the lecture conducted in Week 1, the students will be required to submit written report once per week on the above listed activities. The supervisors will be requested to confirm the presentations and discussions of the student in his/her group meeting by signing on a prepared Form sheet. The student will be required to submit his/her presentation file each time to the course leader for assessment.

## 5. Assessment Rubrics

Applicable to students admitted in Semester A 2022/23 and thereafter

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B)	Marginal (B-, C+, C)	Failure (F)
1. Written reports	ABILITY to REVIEW research literature	High	Significant	Basic	Not reaching marginal level
2. Presentation	ABILITY to PRESENT research literature	High	Significant	Basic	Not reaching marginal level

Applicable to students admitted before Semester A 2022/23

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Fair (C+, C, C-)	Marginal (D)	Failure (F)
1. Written reports	ABILITY to REVIEW research literature	High	Significant	Moderate	Basic	Not even reaching marginal levels
2. Presentation	ABILITY to PRESENT research literature	High	Significant	Moderate	Basic	Not even reaching marginal levels

## Part III Other Information

### 1. Keyword Syllabus

- Literature search and critical reading
- Forming idea for discovery-based research
- Formulating research methodology
- Participating in research group presentations and discussions

### 2. Reading List

#### 2.1 Compulsory Readings

N.A.

#### 2.2 Additional Readings

1.	<a href="http://www.monash.edu.au/lis/lonline/writing/science/lit-review/index.xml">http://www.monash.edu.au/lis/lonline/writing/science/lit-review/index.xml</a>
2.	<a href="http://open.lib.umn.edu/psychologyresearchmethods/chapter/2-3-reviewing-the-research-literature/">http://open.lib.umn.edu/psychologyresearchmethods/chapter/2-3-reviewing-the-research-literature/</a>
3.	<a href="http://guides.lib.umich.edu/c.php?g=283300&amp;p=2915110">http://guides.lib.umich.edu/c.php?g=283300&amp;p=2915110</a>
4.	<a href="http://writingcenter.unc.edu/tips-and-tools/literature-reviews/">http://writingcenter.unc.edu/tips-and-tools/literature-reviews/</a>
5.	<a href="https://www.researchgate.net/topic/Literature-Review">https://www.researchgate.net/topic/Literature-Review</a>