City University of Hong Kong
Course Syllabus

offered by Department of Physics
with effect from Semester B 2017 / 2018

Part I Course Overview

Course Title:	Survival Skills for Research Scientists
Course Code:	AP8001
Course Duration:	One semester
Credit Units:	2
Level:	R8
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

The course is designed for students enrolled in the MPhil and PhD programmes to train them in acquiring the necessary skills of practicing research scientists.

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.	Prepare and deliver good seminar/conference presentations.				✓
2.	Write good abstracts for conferences.				✓
3.	Present scientific data.				✓
4.	Search the scientific literature and manage bibliographies and references.			✓	
5.	Write good articles (in terms of both content and presentation) for publication in reputable journals.		✓		
6.	Prepare good research proposals aiming at discovery and innovation.		✓	✓	
7.	Research ethics in Science.			✓	
** If weighting is assigned to CILOs, they should add up to 100%.*		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)

TLA	Brief Description	CILO No.							Hours/week (if applicable)
		1	2	3	4	5	6	7	
1.	Lectures	✓	✓	✓	✓	✓	✓	✓	10/semester
2.	Tutorials	✓	✓	✓	✓	✓	✓		8/semester
3.	Presentations	✓							8/semester

Scheduled activities: Lectures on each CILO are given first. Tutorials are to discuss the assignments and provide the students with practical examples. Presentations are for students to deliver their own seminar presentations.

4. Assessment Tasks/Activities (ATs)

The assessment of the course is based entirely on coursework.

Assessment Tasks/Activities	CILO No.							Weighting*	Remarks
	1	2	3	4	5	6	7		
Continuous Assessment: 100%									
1. Assignment		✓				✓		60%	
2. Presentation	✓							40%	
Examination: 0%									
** The weightings should add up to 100%.*								100%	

5. Assessment Rubrics

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Fair (C+, C, C-)	Marginal (D)	Failure (F)
1. Assignment	Writing of original research proposals and abstracts	High	Significant	Moderate	Basic	Not reaching marginal level
2. Presentation	Skillful presentation of research work. This includes preparation of slides and effective presentation techniques	High	Significant	Moderate	Basic	Not reaching marginal level

Part III Other Information (more details can be provided separately in the teaching plan)

1. Keyword Syllabus

- ☐ Preparing and delivering a seminar presentation
- ☐ Writing an abstract for a conference
- ☐ Preparing scientific graphs
- ☐ Searching and managing bibliographic databases
- ☐ Writing a research paper for a reputable journal
- ☐ Preparing a research grant proposal
- ☐ Understanding research ethics in science

2. Reading List

2.1 Compulsory Readings

1.	Goodlad, S, 1996: Speaking Technically. Imperial College Press, 112pp.
2.	Holtom, D and E Fisher, 1999: Enjoy Writing Your Science Thesis or Dissertation!
3.	Imperial College Press, 278pp.
4.	Yang, J T, 1995: An Outline of Scientific Writing. World Scientific, 160pp.

2.2 Additional Readings

N/A