

**City University of Hong Kong
Course Syllabus**

**offered by School of Energy and Environment
with effect from Semester A 2022/23**

Part I Course Overview

Course Title:	Skills for Scientists
Course Code:	SEE8003
Course Duration:	One semester
Credit Units:	2
Level:	R8
Medium of Instruction:	English
Medium of Assessment:	English
Prerequisites:	Nil
Precursors:	
Equivalent Courses:	Nil
Exclusive Courses:	Nil

Part II Course Details

1. Abstract

The course aims to equip entry-level postgraduate students with the essential skills in conducting high-level research and developing their long term professional career. This includes the shaping of curiosity-driven research aptitude, the ability to perform critical thinking and analyses, as well thinking-outside-the-box. It will also consider a range of important transferable skills that are required for careers in industry, government or academia.

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.	Recognise, in a systematic manner various fundamental and curiosity-driven research skills: critical thinking, research methodology, computing, data collection, literature analysis key to developing academic research	30%	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2.	Develop transferable skills in time management, leadership etc of relevance to scientists and future careers in industry, government or academia.	40%		<input checked="" type="checkbox"/>	
3.	Reflect on other research and career issues in a self-confident manner.	30%	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
		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	
Lecture	Explain some of the key issues relevant to academic skills	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		1.5 hour/week
In-class tasks	Small exercises to complete and present	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		0.25 hour/week
Reflect on skills	Write as a short paragraph			<input checked="" type="checkbox"/>	1 hour/week

4. Assessment Tasks/Activities (ATs)

Assessment Tasks/Activities	CILO No.			Weighting*	Remarks
	1	2	3		
Continuous Assessment: 100%					
Reflection		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N/A	Pass/Fail- no weighting
In class participation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		N/A	Pass/Fail- no weighting
Examination: 0%					

5. Assessment Rubrics

Assessment Task*	Criterion	Pass	Fail
1. Short reflective reports on all classes	Student is able to reflect on the relevance of communication in their own specialist discipline	Adequate reflection	Inadequate reflection
2. In-class participation	Student is able to confidently present research topic and findings in a rational manner, and is able to provide constructive comments to others	Achieves the criterion – requires attendance at >80% of classes	Fails to attend >80% of classes

*As this is a pass-fail course students must pass both assessment tasks

Part III Other Information

1. Keyword Syllabus

Nil

2. Reading List

2.1 Compulsory Readings

1.	A range of on-line materials
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2.2 Additional Readings

Lecture notes and the references included in the lecture notes