City University of Hong Kong
Course Syllabus

offered by Department of Systems Engineering
with effect from Semester A 2024 / 25

Part I   Course Overview

Course Title:	Advanced Research Topics
Course Code:	SYE8210
Course Duration:	Normally to be taken during Year 2-3 of full-time PhD candidature
Credit Units:	2 (for 2 semesters of PhD candidature)
Level:	R8
Medium of Instruction:	English
Medium of Assessment:	English
Prerequisites: *(Course Code and Title)*	SEEM8009 Research Methodology (offered until 2021/22)/ ADSE8009 Research Methodology (offered until 2023/24) / SYE8009 Research Methodology
Precursors: *(Course Code and Title)*	Nil
Equivalent Courses: *(Course Code and Title)*	SEEM8210 Advanced Research Topics (offered until 2021/22) ADSE8210 Advanced Research Topics (offered until 2023/24)
Exclusive Courses: *(Course Code and Title)*	Nil

Part II   Course Details

1.   Abstract

- further broaden their research knowledge and expertise; so as the skills on literature search

- learn about the recent advancement in advanced design and systems engineering related research and methodologies

- present their research findings and discuss their learning experiences with their peers and academic staff

- further strengthen their research mind set and scholarship and the research culture in the department.

These formal forums are in the form of regular Research Seminars which offer a cooperative learning environment in which PhD students from different cohorts and research themes can mix, interact, challenge and support each other during the very important formative years of their doctoral candidature.

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		
			A1	*A2*	*A3*
1.	Broaden their knowledge on literature search and expertise beyond their PhD research topic	20%	✓		
2.	Extend their understanding of the latest trends and important developments in advanced design and systems engineering related research and methodologies	30%		✓	
3.	Communicate with fellow peers regarding their own or others' research findings and experience scholarly and logically	50%		✓	✓
		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. Learning and Teaching Activities (LTAs)

LTA	Brief Description	CILO No.			Hours/week (if applicable)
		1	2	3	
Seminar	Seminar/presentation by fellow students and department visitors.	✓	✓		
Presentation	Students giving presentation with question answer session.	✓		✓	

Regular weekly research seminars will be organized by the SEEM Department during the semester.

Each full-time PhD student is required to attend at least 20 of these research or technical seminars during their year 2 and 3 of their PhD candidature i.e. for full-time PhD students, nominally 10-12 seminars per semester for 2 semesters. (Part-time PhD students may be permitted to take up to three years of PhD candidature to fulfill this requirement.)

Apart from the department research seminars, PhD students can also attend other officially sanctioned research or technical seminars held at CityU or other universities/professional institutions like HKIE, IISE, and IEEE. Participation in a relevant full-day technical workshop is equivalent to the attendance of 4 research seminars.

In addition, each PhD student has to present at least twice the research progress or results to peers and faculty in these formal research seminars to meet the course requirements.

Each student is required to submit a portfolio of brief write-ups and reflections of the research seminars attended and presented.

4. Assessment Tasks/Activities (ATs)

Assessment Tasks/Activities	CILO No.			Weighting	Remarks
	1	2	3		
Continuous Assessment: 100 %					
Coursework Each student is required to submit a portfolio with at least two pages as brief write-ups and reflections of the research seminars attended and presented.	✓	✓	✓	100%	
Examination: ___% (duration: , if applicable)					
				100%	

5. Assessment Rubrics

Applicable to students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter

Assessment Task	Criterion	Pass (P)/ Fail (F)
1. Coursework	The portfolio is a collection of critiques and reflections of the research seminars attended and presented. The assessment of the portfolio includes the student's qualifying panel's evaluation of the candidate's research seminar presentations.	Pass/ Fail

- 100% coursework. Pass or Fail.

Applicable to students admitted from Semester A 2022/23 to Summer Term 2024

Assessment Task	Criterion	Pass (P)/ Fail (F)
1. Coursework	The portfolio is a collection of critiques and reflections of the research seminars attended and presented. The assessment of the portfolio includes the student's qualifying panel's evaluation of the candidate's research seminar presentations.	Pass/ Fail

- 100% coursework. Pass or Fail.

Part III   Other Information

1.   Keyword Syllabus

Research design, research methodology, research progress, seminar attendance and presentation.

2.   Reading List
2.1   Compulsory Readings

1.	Paul Leedy and Jeanne Ormrod, Practical Research (12th edition), Merrill Prentice Hall, 2019
2.	Rowena Murray, How to Write a Thesis, 4th ed, Open U Press, 2017

2.2   Additional Readings

NIL