

Title (Units): **COMP7970 MSc Research II (3,*,*)**

Course Aims: Students will learn how to carry out research under the supervision of academic staff. They will go through the final phase of the research process: i) obtaining new results of publishable quality, ii) evaluating the new results and comparing them with the existing ones, and iii) reporting the new results in research papers. In this research process, students will be guided to develop self-learning skills, fostering a foundation for lifelong learning.

Prerequisite: COMP7960 MSc Research I (with grade B+ or above)

Course Intended Learning Outcomes (CILOs):

Upon successful completion of this course, students should be able to:

No.	Course Intended Learning Outcomes (CILOs)
	Knowledge
1	Have a thorough understanding on the selected research topic
2	Demonstrate a thorough understanding on the selected research topic
	Professional Skill
3	Propose novel solutions to solve research problems
4	Conduct systematic performance evaluation on the proposed solutions
5	Produce research papers and effective oral presentations
	Transferable Skill
6	Demonstrate organizational and time-management skills

Calendar Description: Each student is required to work on an academic research project independently under the supervision of an academic staff. After completing the research projects, students will submit written research papers and present their research results. Each project will be assessed by the supervisor and one observer on four aspects: (i) project management and progress, (ii) methodologies and results, (iii) paper writing, and (iv) oral presentation. Through these research projects, students will practice how to carry out independent research, propose and evaluate new solutions, write and present research papers.

Teaching and Learning Activities (TLAs):

CILOs	Type of TLA
1-4	Students will work on their research projects independently under the supervision of our faculty members.
1,5,6	Students are required to write progress reports and conduct meetings with their supervisors regularly.
1,5,6	Each student will submit a research paper and give an oral presentation upon completion of the research project.

Assessment:

No.	Assessment Methods	Weighting	CILOs to be addressed	Description of Assessment Tasks
1	Project Management and Progress	10%	6	This category assesses the attitude of the students, the amount of effort the student has put into the project, self-discipline, and the general project management skills. The progress reports are assessed in this category. This category is assessed by the Supervisor only.
2	Novelty and Originality of Research problem	15%	1-4	This category assesses the understanding of the research problem and its novelty and originality.

3	Literature review	10%	1-4	This category assesses the depth and completeness of literature review, research methodologies, novelty, originality, and technical contribution.
4	Research methodologies and their technical contributions	35%	1-4	This category assesses the research methodologies and their technical contributions.
5	Paper Writing	20%	5	This category assesses the quality of the final research paper, including the organization, English writing, references, etc.
6	Oral Presentation	10%	5	This category includes oral presentation of the research work, and demonstration if applicable. Communication skills are emphasized.

Assessment Rubrics:

	Excellent (A)	Good (B)	Satisfactory (C)	Fail (F)
Project management and progress	<ul style="list-style-type: none"> Has a high degree of effectiveness in project management Always follows the schedule, and makes good progress in all phases 	<ul style="list-style-type: none"> Has a considerable degree of effectiveness in project management Always follows the schedule, and makes good progress in most phases 	<ul style="list-style-type: none"> Has some degree of effectiveness in project management Cannot strictly follow the schedule, but be able to make some progress 	<ul style="list-style-type: none"> Very poor in project management Cannot follow the schedule Cannot make reasonable progress in most phases
Methodologies and results	<ul style="list-style-type: none"> Uses appropriate methodology with a high degree of effectiveness Achieves original and significant results that are suitable for publication in internationally standing journals or conferences 	<ul style="list-style-type: none"> Uses appropriate methodology with a considerable degree of effectiveness Achieves original and important results that are suitable for publication in regionally standing journals or conferences 	<ul style="list-style-type: none"> Uses appropriate methodology with some degree of effectiveness Achieves some results that have the potential of academic publication 	<ul style="list-style-type: none"> Cannot use an appropriate methodology Achieves few results and does not reach the standard of academic publication
Paper writing	<ul style="list-style-type: none"> Demonstrates excellent organization, clarify, English grammar, spelling, format, and references 	<ul style="list-style-type: none"> Demonstrates good organization, clarify, English grammar, spelling, format, and references 	<ul style="list-style-type: none"> Demonstrates acceptable organization, clarify, English grammar, spelling, format, and references 	<ul style="list-style-type: none"> Demonstrates poor organization, clarify, English grammar, spelling, format, and references
Oral presentation	<ul style="list-style-type: none"> The whole presentation is very well organized All information is presented very clearly and fluently 	<ul style="list-style-type: none"> Most parts of the presentation are well organized Most information is presented clearly and fluently 	<ul style="list-style-type: none"> Some parts of the presentation are not well organized Most information is understandable Some of the questions are 	<ul style="list-style-type: none"> The whole presentation is poorly organized Most information is difficult to understand

	<ul style="list-style-type: none"> • All questions are appropriately answered • Visual aids are carefully prepared and can support the presentation effectively 	<ul style="list-style-type: none"> • Most of the questions are appropriately answered • Visual aids are carefully prepared and can support the presentation 	appropriately answered	<ul style="list-style-type: none"> • No questions are appropriately answered • Little knowledge of the topic is demonstrated
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Course Content and CILOs Mapping:

Content		CILO No.
I	Research Project	1-6

References:

- Selected articles from journals, magazines, conference proceedings, research monographs, etc.
- T. Hung, Avoiding Plagiarism, HKBU (http://ar.hkbu.edu.hk/curr/avoid_plagiarism/).
- Barbara Gastel and Robert A. Day, How to Write and Publish a Scientific Paper, 8th Edition, Greenwood, 2016.
- John Bowden, Writing A Report: How to Prepare, Write & Present Really Effective Reports, 9th Edition, How To Books, 2011.
- C. Lipson, Doing Honest Work in College: How to Prepare Citations, Avoid Plagiarism, and Achieve Real Academic Success, Third edition, Chicago Guides to Academic Life, 2019.

Course Content:

Topic

- I. Research Project
Students can select specific topics in consultation with their project supervisors.