



**FACULTY OF APPLIED SCIENCES**  
**DOCTOR OF PHILOSOPHY IN COMPUTER APPLIED TECHNOLOGY**  
**LEARNING MODULE OUTLINE**

Academic Year	2024/2025	Semester	1
Module Code	COMP8299		
Learning Module	Thesis		
Pre-requisite(s)	Nil		
Medium of Instruction	English		
Credits	21	Contact Hours	--
Instructor	* See Supervisor List	Email	* See Supervisor List
Office	* See Supervisor List	Office Phone	* See Supervisor List

**MODULE DESCRIPTION**

The doctoral thesis aims to allow students, by tackling advanced research problems over diverse settings, to significantly contribute to the expansion of knowledge in the field of Computing, especially in applied technology and produce a coherent body of work that is of scholarly value and worthy of publication. The work must be original and be the student's own. There must be evidence that the field has been thoroughly surveyed by the student with critical exposition of relevant works, clearly demonstrating the mastery of a body of knowledge in the field and strong analytical skills. Students are responsible for ensuring that the thesis is presented in a clear, accessible and consistent format. Good project management practices and effective writing and oral presentation skills are essential to the successful completion of the thesis.

**MODULE INTENDED LEARNING OUTCOMES (ILOS)**

On completion of this learning module, students will be able to:

M1.	Create new knowledge or originality in the application of knowledge in Computer Applied Technology in widely divergent fields of study. (AHEP4-M1, AHEP4-M2, AHEP4-M3)
M2.	Research on an advanced and contemporary IT-related topic, including artificial intelligence, systems and networks, data analysis. (AHEP4-M1, AHEP4-M2, AHEP4-M3, AHEP4-M5, AHEP4-M16)
M3.	Critically assess and analyse an advanced technical issue, upon which the mastery of a body of knowledge for a defined scholarly field is demonstrated. (AHEP4-M1, AHEP4-M2, AHEP4-M3, AHEP4-M4, AHEP4-M7, AHEP4-M16)
M4.	Write research proposal which captures the relevant issues and identifies research problems. (AHEP4-M1, AHEP4-M2, AHEP4-M3, AHEP4-M4, AHEP4-M5)
M5.	Plan, execute, and report scholarly research project. (AHEP4-M16, AHEP4-M17)
M6.	Publish and present orally research papers. (AHEP4-M4, AHEP4-M16, AHEP4-M17)



These ILOs aims to enable students to attain the following Programme Intended Learning Outcomes (PILOs):

PILOs	M1	M2	M3	M4	M5	M6
<b>Knowledge and Understanding</b>						
P1. Critically evaluate scientific methodologies and mathematical models in Computing.	✓		✓			
P2. Demonstrate the mastery of a body of knowledge spanning a wide range of Computing-related topics.		✓	✓	✓	✓	
P3. Identify, assess, analyse complex problems and relevant issues in information-related phenomena.	✓	✓	✓	✓	✓	✓
P4. Utilize and synthesize a host of Computing-related methodologies to produce innovative solutions over diverse range of settings.	✓	✓	✓	✓	✓	✓
<b>Skills and Attributes</b>						
P5. Create new knowledge or original research in Computing, both individually and collaboratively in a team.	✓	✓	✓		✓	
P6. Plan, design, execute and manage a scholarly research project with professional integrity and risk awareness.				✓	✓	✓
P7. Communicate research findings, both orally to diverse audiences and in writing through publishing research papers of scholarly values.					✓	✓
P8. Gather and disseminate knowledge at the postgraduate level and beyond.	✓	✓	✓	✓	✓	✓
P9. Demonstrate advanced knowledge, research capability and enthusiasm in high-quality research and development.	✓	✓	✓	✓	✓	✓
P10. Develop a global vision on knowledge advancement and dissemination.	✓	✓		✓		✓
P11. Advocate of professionalism in workplaces and the society at-large.	✓	✓	✓			
P12. Communicate technically and effectively both in oral and written form.					✓	✓

## MODULE SCHEDULE, COVERAGE AND STUDY LOAD

### TEACHING AND LEARNING ACTIVITIES

In this learning module, students will work towards attaining the ILOs through the following teaching and learning activities:

Teaching and Learning Activities	M1	M2	M3	M4	M5	M6
T1. Supervision	✓	✓	✓	✓	✓	✓



## ATTENDANCE

Attendance requirements are governed by the Academic Regulations Governing Doctoral Degree Programmes of the Macao Polytechnic University. Students who do not meet the attendance requirements for the learning module shall be awarded an 'F' grade.

## STUDENT FEEDBACK

At the end of every semester, students are invited to provide feedback on the learning module and the teaching arrangement through questionnaires. Your feedback is valuable for instructors to enhance the module and its delivery for future students. The instructor and programme coordinators will consider all feedback and respond with actions formally in the annual programme review.

## ACADEMIC INTEGRITY

The Macao Polytechnic University requires students to have full commitment to academic integrity when engaging in research and academic activities. Violations of academic integrity, which include but are not limited to plagiarism, collusion, fabrication or falsification, repeated use of assignments and cheating in examinations, are considered as serious academic offenses and may lead to disciplinary actions. Students should read the relevant regulations and guidelines in the Student Handbook which is distributed upon the admission into the University, a copy of which can also be found at [www.mpu.edu.mo/student\\_handbook/](http://www.mpu.edu.mo/student_handbook/).

## SUPERVISOR LIST

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