



**UMS**  
UNIVERSITI MALAYSIA SABAH



**Faculty of  
Computing  
& Informatics**

# **Master of Science (Computer Science) by Research**

## ADMISSION REQUIREMENTS

1. Possess a Bachelor's degree in Computing or its equivalent with a minimum CGPA of 3.00; **OR**
2. Possess a Bachelor's degree in Computing or its equivalent with a minimum CGPA of 2.75 may be accepted subject to a rigorous internal assessment by the faculty; **OR**
3. Possess a Bachelor's degree in Computing or its equivalent with a minimum CGPA of 2.50 may be accepted subjects to a minimum of five (5) years of working experience in the relevant fields and rigorous internal assessment by the faculty; **OR**
4. Possess a Bachelor of Science degree in any field other than Computing or its equivalent with a minimum CGPA of 3.00 may be accepted provided that the applicant has taken the prerequisite module in computing; **AND**
5. Fulfill other requirements set by the Senate: Degrees awarded by local/private institutions of higher learning, including those awarded under any collaborative/franchising schemes with local or foreign partners, must be accredited by the Malaysian Qualifications Agency (MQA).

Notes: The prerequisite module includes the following:

- Programming Principles
- Database
- Software Engineering
- Network Fundamentals

## English Language Proficiency Requirements

1. International applicants or non-English speaking countries applicants must have at least IELTS Band 6.0 or TOEFL score of 60 (Internet-based) / 500 (paper-based) or MUET Band 4.0; **OR**
2. Fulfill the general language requirement outlined by the university.

## DURATION OF STUDY

**Full Time 2 – 6 semesters | Part Time 4 – 8 semesters**

## PROGRAMME STRUCTURE

Study areas under the Master of Science (Computer Science) by Research programme are:

1. Nature-inspired Computational Intelligence
2. Evolutionary Robotics, Behaviour-Based Robotics
3. Artificial Neural Networks
4. Evolving Game AI
5. Multi-Objective Optimization and Metaheuristics
6. Agent Technology
7. Semantic Technology
8. Natural Language Processing
9. Image Processing
10. Sentiment Analysis
11. Augmented Reality
12. Neuroinformatics

FEES	LOCAL (MYR)		INTERNATIONAL (MYR)
	FULL TIME	PART TIME	FULL TIME
Registration	580.00	580.00	2,930.40
Semester 1	2,033.00	1,923.00	4,380.00
Semester 2	2,008.00	1,898.00	4,380.00
Semester 3	2,033.00	1,923.00	4,380.00
Semester 4	2,008.00	1,898.00	4,380.00
Viva Voce	1,000.00	1,000.00	1,000.00

## Requirements Before Submitting Notice of Dissertation Submission

No	Requirements
1	Fulfil the minimum candidature durations of 2 semesters (Full Time) and 4 semesters (Part Time)
2	Fulfil the English Language Proficiency Requirement*
3	Pass the Research Methodology Course
4	Pass the Proposal Defence
5	Present Progress Reports as required by the faculty
6	Pass the Pre Viva

## Criteria on Conferment of Degree

1. Produce at least one (1) article published / accepted in Scopus / WoS indexed journals before submitting the final dissertation.
2. Present research work at least once at any conference and publish in Scopus indexed proceedings.

## Graduate On Time Schedule

Semester	Activities	Milestone	Assessments
1	<ul style="list-style-type: none"> <li>Attend Research Methodology Course</li> <li>Write research proposal</li> <li>Learn to use reference manager software (Mendeley) and document preparation system (LaTeX)</li> </ul>	<ul style="list-style-type: none"> <li>Pass Research Methodology Course</li> <li>Pass Proposal Defence</li> <li>Pass Progress Report</li> </ul>	<ul style="list-style-type: none"> <li>Research Methodology Course</li> <li>Proposal Defence</li> <li>Progress Report</li> </ul>
2	<ul style="list-style-type: none"> <li>Write dissertation chapter 1, 2 and 3 (Introduction, Literature Review and Methodology)</li> <li>Attend Research Literacy Course</li> <li>Write review or survey paper</li> </ul>	<ul style="list-style-type: none"> <li>Submit review or survey paper to a Scopus / WoS indexed journal</li> <li>Pass Progress Report</li> </ul>	<ul style="list-style-type: none"> <li>Progress Presentation</li> <li>Progress Report</li> </ul>
3	<ul style="list-style-type: none"> <li>Conduct experiment or field work</li> <li>Write dissertation chapter 4 (Results and Findings)</li> <li>Attend Research Literacy Course</li> </ul>	<ul style="list-style-type: none"> <li>Present research work at a conference</li> <li>Pass Progress Report</li> </ul>	<ul style="list-style-type: none"> <li>Progress Presentation</li> <li>Progress Report</li> </ul>
4	<ul style="list-style-type: none"> <li>Write dissertation chapter 5 (Conclusion)</li> <li>Write journal article</li> <li>Prepare a complete dissertation</li> </ul>	<ul style="list-style-type: none"> <li>Submit article to a Scopus / WoS indexed journal</li> <li>Submit Dissertation</li> </ul>	<ul style="list-style-type: none"> <li>Pre-Viva</li> <li>Viva</li> <li>Dissertation</li> </ul>

\*Applicable to all International Candidates