



**UMS**  
UNIVERSITI MALAYSIA SABAH



**Faculty of  
Computing  
& Informatics**

# **Master of Computer Science (Computational Intelligence) by Coursework**

The Master of Computer Science by coursework is designed to prepare graduates with state-of-the-art knowledge and skills required to compete in the rapidly growing field of computer technology related to the adoption of Industrial Revolution (IR 4.0). Research also highlights that data scientist, data analyst and software engineers in the area of AI and IoT to be among the fastest growing occupations now through 2022. The main objective of the programme is to produce more skilled human resources in Computer Science with specialization in Computational Intelligence such as Artificial Intelligence and Robotics, Information Retrieval and Machine Learning, in order to support the adoption of IR 4.0 at national and international level.

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# Master of Computer Science (Computational Intelligence) by Coursework

MQA/FA8111

ADMISSION REQUIREMENTS

- 1.A bachelor's degree or equivalent in computing with a minimum CGPA of 2.75; OR

2.A bachelor's degree or equivalent in computing with a minimum CGPA of 2.50 may be accepted subject to rigorous internal assessment by the faculty; OR

3.A bachelor's degree or equivalent in computing with a CGPA of 2.00 - 2.49 may be accepted subject to a minimum of five (5) years working experience in the relevant fields; OR

4.A Bachelor of Science degree or its equivalent in any field other than computing with a minimum CGPA of 3.00 may be accepted provided that the applicant has taken at least one prerequisite module in computing; AND

5.Fulfil other requirements as 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).

English Language Proficiency

Fulfil the general language requirement outlined by the university.

COURSE PLAN FOR MASTERS OF COMPUTER SCIENCE  
(COURSE WORK)

Computational Intelligence – MQA/FA8111					
Courses		Credits	S1	S2	S3
	Compulsory modules				
KI50203	Research Methods In Computer Science	3	✓		
KI50303	Advanced Database Management	3	✓		
KI50503	Advanced Computer And Communication Networks	3	✓		
KI50703	Artificial Intelligence Techniques	3	✓		
KI50103	Algorithm And Analysis	3		✓	
KI50403	Evolutionary Computing	3		✓	
KI50603	Advanced Data Mining	3		✓	
	Specialization/Elective Module*				
KI70103	Artificial Intelligence And Robotics	3			
KI70203	Data Analysis And Visualization	3			
KI70303	Information Retrieval	3			
KI70403	Machine Learning	3	1 Elective will be chosen for S1		
KI70503	Multi-agents System	3			
KI70603	Advanced Topics In Computational Intelligence	3			
	Computer Science Project Module		2 Electives will be chosen for S2		✓
KI60112	Computer Science Project	12			

\* Students are required to register 3 courses only for the Elective Module.

DURATION OF STUDY

Full time 1.5 Years

PROGRAMME STRUCTURE

The Masters of Computer Science Programme (Computational Intelligence) by coursework shall have a total of forty-two (42) credits.

Candidate Requirements

No	Requirements
1	Fulfil the minimum duration of 1.5 years 3 Semesters (Fulltime)
2	Fulfill the University Language Requirement
3	Presented a Computer Science Project

FEE STRUCTURE

FULL TIME

SEMESTER	FEE	SEMESTER FEE	INSURANCE	FEE CREDIT HOURS		TOTAL
				CREDIT HOUR	FEE	
1	780.00	1,275.00	25.00	15CH	5,250.00	7,330.00
2	-	1,275.00	-	15CH	3,150.00	6,525.00
3	-	1,275.00	25.00	12CH	4,200.00	5,500.00
				42CH		19,355.00