

APPROVED

Master of Science in Artificial Intelligence
Faculty of Engineering & Science

Award Class					
Awards					
MSc					
Programme Code	CR_KARIN_9	Mode of Delivery	Full Time, Part Time, ACCS, Fully Online	No. of Semesters	2
NFQ Level	9	Embedded Award	No	Programme Credits	60
Next Review Date					
Review Type				Date	
Programmatic Review				01/06/2026	
Department	COMPUTER SCIENCE				
Field of Study	4811 - Computer Science				

Programme Outcomes

Upon successful completion of this programme the graduate will be able to demonstrate... :

#	PO Domains	Programme Learning Outcome
PO1	Knowledge - Breadth	A mastery of the theoretical knowledge and applied skills necessary to analyse, critically evaluate and apply the principles and practices of machine learning, metaheuristic optimisation, big data processing, knowledge representation, deep learning, decision analytics and related technologies to artificial intelligence systems.
PO2	Knowledge - Kind	An awareness and critical understanding of developments in a number of specialist areas in artificial intelligence; discuss current challenges and research activities in these areas and apply accepted methodologies for tackling research problems.
PO3	Skill - Range	Select and apply research tools and techniques of inquiry; critically evaluate design and implementation issues in artificial intelligence systems; communicate to a range of audiences in both written and verbal media about new and emerging theories and technologies.
PO4	Skill - Selectivity	Independently acquire and assess knowledge in novel and emerging technologies, integrate this knowledge of various technologies to successfully plan and implement an artificial intelligence project.
PO5	Competence - Context	An ability to analyse and document measures to address risks and weaknesses in artificial intelligence systems; develop guidelines regarding professional and ethical practices in the exploitation of computer technology; design and implement a solution that requires significant preliminary research for novel and unfamiliar situations.
PO6	Competence - Role	Initiate, lead and manage projects of significant complexity involving multidisciplinary teams; formulate and document a system design and communicate this philosophy to developers, systems engineers, QA etc; work as a member of a strategic leadership team in an organisation; participate in peer collaborations, mentoring and evaluation exercises.
PO7	Competence - Learning to Learn	Devise programme to support his/her continuing professional development, independently learn, understand, evaluate and apply new knowledge.
PO8	Competence - Insight	Act in a manner consistent with the best interests of clients, colleagues and other stakeholders and the general public, maintain integrity and independence in professional judgement.

Semester Schedules

Year 1 / Semester 1

Year 1 Semester 1 Elective Regulation

Free Choice option must be at Expert Level.

Mandatory				
<i>Code</i>	<i>Title</i>	<i>Module Coordinator</i>	<i>Version</i>	<i>Credits</i>
COMP9062	Big Data Processing	Ted Scully	1	5
COMP9016	Knowledge Representation	Ted Scully	3	5
COMP9058	Metaheuristic Optimisation	Ted Scully	2	5
COMP9061	Practical Machine Learning	Ted Scully	2	5
COMP9011	Research Practice & Ethics	Ted Scully	5	5
Elective				
<i>Code</i>	<i>Title</i>	<i>Module Coordinator</i>	<i>Version</i>	<i>Credits</i>
COMP9064	AI for Sustainability	Ted Scully	1	5
COMP9063	Computer Simulation & Analysis	Ted Scully	1	5
COMP9072	Distributed Ledger Technology	Ted Scully	1	5
COMP9097	Embedded Systems & Edge AI	Ted Scully	1	5
FREE6001	Free Choice Module	PAUL GALLAGHER	3	5
SOFT9022	Programming Language Design	Ted Scully	1	5
COMP9065	Recommender Systems	Ted Scully	1	5
COMP9069	Robotics & Autonomous Systems	Ted Scully	2	5
COMP9055	Software Agility	Ted Scully	2	5

Year 1 / Semester 2

Year 1 Semester 2 Elective Regulation

Free Choice option must be at Expert Level.

Mandatory				
<i>Code</i>	<i>Title</i>	<i>Module Coordinator</i>	<i>Version</i>	<i>Credits</i>
COMP9068	AI Research Project	Ted Scully	1	15
COMP9057	Decision Analytics	Ted Scully	2	5
COMP9067	Deep Learning	Ted Scully	1	5
Elective				
<i>Code</i>	<i>Title</i>	<i>Module Coordinator</i>	<i>Version</i>	<i>Credits</i>
FREE6001	Free Choice Module	PAUL GALLAGHER	3	5

COMP9074	Machine Vision	Ted Scully	1	5
COMP9066	Natural Language Processing	Ted Scully	2	5
COMP9070	Planning & Scheduling	Ted Scully	1	5

