Advanced Topics in AI

Module Information

2022.01, Approved

Summary Information

Module Code	6519COMECA
Formal Module Title	Advanced Topics in AI
Owning School	Computer Science and Mathematics
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 6
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
LJMU Partner Taught

Partner Teaching Institution

Institution Name
Education Centre of Australia Pty Ltd

Learning Methods

Learning Method Type	Hours
Online	44

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
JAN-PAR	PAR	January	12 Weeks

Aims and Outcomes

Aims	To equip the student with the tools to tackle complex real-world problems using Artificial Intelligence (AI).To investigate both the application of rigorous mathematical techniques for production as well as an evaluation and use of intellectual tools and ethical foundations to use, produce and appraise intelligent machines.

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Critically evaluate what constitutes Artificial Intelligence and how to identify systems with Artificial Intelligence.
MLO2	2	Identify and evaluate ethical concerns around AI and the evolution of intelligent machines.
MLO3	3	Use classical Artificial Intelligence techniques.
MLO4	4	Apply Artificial Intelligence techniques for problem solving.

Module Content

Outline Syllabus	Background, philosophy and history of AIDefinition and pathways to producing AI behaviourAI EthicsMachine LearningTechniques for AIDeveloping AI systemsRobotics and AIBiologically Inspired Models of AIEvolutionary Computing
Module Overview	
Additional Information	This module will introduce the latest concepts, tools and techniques in Artificial Intelligence and Machine Learning.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Practice	Report	50	0	MLO1, MLO2
Technology	Technology	50	0	MLO3, MLO4

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Martin Randles	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings