

## Advanced Topics in AI

### Module Information

2022.01, Approved

#### Summary Information

Module Code	6523CSQR
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
Oryx Universal College WLL

#### Learning Methods

Learning Method Type	Hours
Lecture	22
Practical	11
Tutorial	11

#### 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.
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**After completing the module the student should be able to:**

### Learning Outcomes

Code	Number	Description
MLO1	1	Critically evaluate the broad concept of Artificial Intelligence and how to identify systems with Artificial Intelligence
MLO2	2	Identify and reason with ethical concerns around AI and the evolution of intelligent machines
MLO3	3	Deploy appropriate classical Artificial Intelligence techniques to computing problems
MLO4	4	Develop Artificial Intelligence techniques for problem solving

## Module Content

Outline Syllabus	Background, philosophy and history of AI Definition and pathways to producing AI behaviour AI Ethics Machine Learning Techniques for AI Developing AI systems Robotics and AI Biologically Inspired Models of AI Evolutionary 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
Report	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
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