LIVERPOOL JOHN MOORES UNIVERSITY

Module Proforma

Approved, 2022.02

Summary Information

Module Code	6519CSWUC
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

Module Contacts

Module Leader

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

Module Team Member

Contact Name	Applies to all offerings	Offerings
Paul Fergus	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings

Teaching Responsibility

LJMU Schools involved in Delivery
LJMU Partner Taught

Partner Teaching Institution

Institution Name
Westford University College

Learning Methods

Learning Method Type	Hours
Lecture	22
Practical	11
Tutorial	11

Module Offering(s)

Offering Code	Location	Start Month	Duration
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.

Learning Outcomes

After completing the module the student should be able to:

Code	Description
MLO1	Critically evaluate the broad concept of Artificial Intelligence and how to identify systems with Artificial Intelligence
MLO2	Identify and reason with ethical concerns around AI and the evolution of intelligent machines
MLO3	Deploy appropriate classical Artificial Intelligence techniques to computing problems
MLO4	Develop 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)	Learning Outcome Mapping
Report	Report	50	0	MLO2, MLO1
Technology	Technology	50	0	MLO3, MLO4