

MODULE DESCRIPTOR

Module Title

AI, Data And Society

Reference	CM1122	Version	1
Created	December 2023	SCQF Level	SCQF 7
Approved	April 2024	SCQF Points	15
Amended		ECTS Points	7.5

Aims of Module

To introduce students to the core concepts in artificial intelligence and data science, and to explore the legal, ethical, social and security issues inherent in the field.

Learning Outcomes for Module

On completion of this module, students are expected to be able to:

- 1 Employ fundamental terminology involved in Artificial Intelligence and Data Science
- 2 Describe the aims and achievements of the fields of Artificial Intelligence and Data Science.
- 3 Outline current and emerging impacts of Artificial Intelligence and Data Science on society.
- 4 Recognise the main legal and security issues that affect a given Artificial Intelligence or Data Science application.
- 5 Identify ethical and professional issues in the deployment of Artificial Intelligence and Data Science systems in the real world.

Indicative Module Content

Philosophy of Artificial Intelligence, the Turing test, the Chinese room argument, self awareness, Artificial General Intelligence, Impacts of automation, distribution of benefits and wealth, computer vision and the surveillance society, deepfakes and visual/audio manipulation, cyberstalking, lethal autonomous weapons. Data protection laws - GDPR, data protection act, the right to be forgotten. Data security - encryption, anonymisation, retention policies. Ethical issues - algorithmic bias, explainability

Module Delivery

Key concepts are introduced and illustrated through lectures and directed reading. In the practical sessions, students will explore, consider and discuss issues involved in AI and data Science, including through small group and whole class discussions.

Indicative Student Workload

	Full Time	Part Time
Contact Hours	40	N/A
Non-Contact Hours	110	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	N/A
<i>Actual Placement hours for professional, statutory or regulatory body</i>		

ASSESSMENT PLAN

If a major/minor model is used and box is ticked, % weightings below are indicative only.

Component 1

Type:	Coursework	Weighting:	100%	Outcomes Assessed:	1, 2, 3, 4, 5
Description:	A report investigating and analysing the legal, ethical, security and societal impacts of a current Artificial Intelligence or Data Science application.				

MODULE PERFORMANCE DESCRIPTOR**Explanatory Text**

The calculation of the overall grade for this module is based on 100% weighting of Component 1. An overall minimum grade D is required to pass the module.

Module Grade	Minimum Requirements to achieve Module Grade:
A	The student must achieve an A in C1.
B	The student must achieve a B in C1.
C	The student must achieve a C in C1.
D	The student must achieve a D in C1.
E	The student must achieve an E in C1.
F	The student must achieve an F in C1.
NS	Non-submission of work by published deadline or non-attendance for examination

Module Requirements

Prerequisites for Module	None.
Corequisites for module	None.
Precluded Modules	None.

INDICATIVE BIBLIOGRAPHY

- 1 INTRODUCTION TO RESPONSIBLE AI a guide to responsible practices in ai. MANURE, AVINASH. BENGANI, SHALEEN. S, SARAVANAN. 2024
- 2 AI ethics : a textbook. Boddington, Paula, 2023
- 3 AI ethics and governance : black mirror and order. Liu, Zhiyi, author.; Zheng, Yejie. 2022
- 4 Management of information security. Whitman, Michael E., 1964- author.; Mattord, Herbert J. 2017
- 5 Ethics in computing : a concise module. Kizza, Joseph Migga. 2016