

Module specification

When printed this becomes an uncontrolled document. Please access the **Module Directory** for the most up to date version by clicking on the following link: [Module directory](#)

Module Code	CONL726
Module Title	Ethics for Artificial Intelligence
Level	7
Credit value	15
Faculty	FACE
HECoS Code	1000793
Cost Code	GACP

Programmes in which module to be offered

Programme title	Is the module core or option for this programme
MSc Computer Science with Artificial Intelligence	Core

Pre-requisites

None

Breakdown of module hours

Learning and teaching hours	15 hrs
Placement tutor support	0 hrs
Supervised learning e.g. practical classes, workshops	0 hrs
Project supervision (level 6 projects and dissertation modules only)	0 hrs
Total active learning and teaching hours	15 hrs
Placement / work-based learning	0 hrs
Guided independent study	135 hrs
Module duration (total hours)	150 hrs

For office use only	
Initial approval date	17/06/21
With effect from date	28/06/21
Date and details of revision	27 th June 2024 Programme revalidation
Version number	2



Module aim

This module aims to provide students with a comprehensive understanding of the ethical challenges posed by artificial intelligence. By integrating philosophical perspectives, students will explore bias mitigation, privacy considerations, transparency, and the social impact of AI. The module encourages critical thinking, responsible development, and global awareness, fostering ethical decision-making in AI research and practice.

Module Learning Outcomes - at the end of this module, students will be able to:

1	Advanced awareness of ethical challenges specific to AI development and systematically demonstrate comprehension of complex ethical dilemmas in AI research and deployment.
2	Systematically identify and address bias in AI systems and critically evaluate bias in training data and algorithmic outputs.
3	Comprehend complex privacy risks associated with AI technologies and critically analyse the privacy implications of AI-driven applications.
4	Critical awareness of the global impact of AI and cultural variations in ethical norms and can systematically reflect on how cultural context shapes ethical considerations.

Assessment

This section outlines the type of assessment task the student will be expected to complete as part of the module. More details will be made available in the relevant academic year module handbook.

Indicative Assessment Tasks:

Assessment for this module comprises two components; the first assignment is a case study related to AI ethics, drawn from a real-world scenario (e.g. biased algorithmic decision-making, privacy violations, autonomous vehicles) where students will be required to critically analyse the ethical dilemmas presented by the case student and apply relevant ethical frameworks (e.g. utilitarianism, deontology) to evaluation the situation and propose recommendations for addressing the ethical challenges. The second assignment requires students to imagine they are an AI ethics consultant for a tech company who has been tasked with developing an AI ethics policy that addresses key ethical considerations (e.g., bias, transparency, privacy), taking into consideration the company's specific context, stakeholders and industry, and then justifying their policy decisions based on ethical principles and societal impact producing, as a deliverable, a policy document.

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)
1	1, 2, 3, 4	Coursework	35%
2	1, 2, 3, 4	Coursework	65%

Derogations

None



Learning and Teaching Strategies

The overall learning and teaching strategy is one of guided independent study requiring ongoing student engagement. Online material will provide the foundation of the learning resources, requiring the students to login and engage on a regular basis throughout the eight-week period of the module. There will be a mix of suggested readings, discussions and video content containing embedded digital content and self-checks for students to complete as they work through the material and undertake the assessment tasks. The use of a range of digital tools via the virtual learning environment together with additional sources of reading will also be utilised to accommodate learning styles. There is access to a helpline for additional support and chat facilities through Canvas for messaging and responding.

Indicative Syllabus Outline

- Introduction to AI Ethics and Philosophical Foundations
- Bias, Fairness, and Justice
- Privacy, Transparency, and Autonomy
- Accountability, Responsibility, and Agency
- AI and Social Impact: Philosophical Reflections
- Future Challenges and Global Perspectives
- Philosophical Reflections on AI Ethics

Indicative Bibliography:

Please note the essential reads and other indicative reading are subject to annual review and update.

Essential Reads

P. Boddington, AI Ethics: A Textbook, Berlin: Springer, 2023.

Other indicative reading

M. Kearns and A. Roth, The Ethical Algorithm: The Science of Socially Aware Algorithm Design, New York: Oxford University Press USA, 2020.

K. Crawford, Atlas of AI. Power, Politics, and the Planetary Costs of Artificial Intelligence, New Haven, CT: Yale University Press, 2022.