| Module code | SEL704 | | Level | 7 |
|---|---|---|---|---|
| Module title | Exploring and Redefining Artificial Intelligence | | | |
| Status | Elective | | | |
| Teaching Period | Autumn/Spring | | | |
| Courses on which the module is taught | All Postgraduate Courses | | | |
| Prerequisite modules | No | | | |
| Notional learning hours | 100 | Credit value | 10 | ECTS Credits | 5 |
| Field trips? | *N/A* | | | |
| Additional costs | *No* | | | |
| Content notes | *N/A* | | | |

## 1.   Module description

Artificial Intelligence (AI) is becoming a driving force in reshaping industries and sectors, promising substantial innovations and transformations. In this module, you will understand the evolution and concepts of AI, from its inception to modern breakthroughs, and explore the current trends and applications of AI and its future trajectories. Central themes such as machine learning, neural networks, natural language processing, and computer vision will be explored in detail, with an emphasis on both theoretical underpinnings and practical implementation. You will also examine the economic, ethical, legal, and societal dimensions of AI, enabling you to rethink and redefine AI for the common good. Through real-world case studies, hands-on interactive sessions, debates and discussion, you will gain knowledge and practical experience in AI development, applications and governance. You do not require previous coding knowledge, as this module is open to all students interested in exploring various AI tools and applications as well as discussions on the impacts of AI on our present and future trajectories.

## 2.   Learning Outcomes

*Upon successful completion of this module, you will be able to:*

**Innovation (MLO 02)**

Create and implement new value business propositions leveraging the latest developments of artificial intelligence.

**Digital Data and Tools (MLO 06)**

Appraise and utilise AI tools and applications in economic, ethical, legal and societal dimensions.

**Interdisciplinary Perspectives (MLO 9)**

Integrate different disciplinary approaches in examining the socio-technical implications of AI across diverse domains.

## 3.    Learning and teaching methods, and reasonable adjustments

Varied learning and teaching methods are employed on this module through active and experiential learning, such as workshop sessions, interactive and experimental sessions, guided activities, self-directed exercises, debates, and group discussions. These different methods, along with feedback and formative assessment(s), will prepare you for the summative assessment, an opportunity to showcase your learning journey and how you have met the learning outcomes of the module.

| Learning hours | | | 100 |
|---|---|---|---|
| Directed learning | | | 36 |
| Workshops | | | |
| | | | |
| Guided/Self-guided learning | | | 64 |

## 4.    Assessments and weighting, reasonable adjustment, and feedback methods

**Project (Group Assessment), 100% TMM**
Maximum Presentation 10 minutes

You will develop either a conceptual design or prototype for an AI-driven application on one of the following sectors: Retail, Health, Automobile, Public Services, Education, Government. The AI-driven application will be accompanied by a 10-minute video presenting evidence of the feasibility study, design and development, as well as the evaluation of its objectives and functionalities. You should also critically assess the economic, ethical, legal and societal dimensions of your AI-driven application.

Allocation of marks for group work will be specified in the assignment brief.

Reasonable adjustments for the assessment will be confirmed with students that have a support plan in place.

Mapping of assessment tasks:

| Assessment components | LO2 | LO6 | LO9 | |
|---|---|---|---|---|
| Project | x | x | x | |

The above assessment component is summative.  Students will have the opportunity for formative assessment and feedback before each summative assessment.

## 5.    Indicative resources

Heilig, T. and Scheer, I. (2024). Decision Intelligence : Transform Your Team and Organization with AI-Driven Decision-Making (First edition). John Wiley & Sons.

Chan, L., Hogaboam, L. and Cao, R. (2022). Applied Artificial Intelligence in Business Concepts and Cases (First edition). Springer International Publishing.

Russell, S. and Norvig, P. (2022). Artificial Intelligence: A Modern Approach.

Dignum, V. (2019). Responsible artificial intelligence: how to develop and use AI in a responsible way. Cham Springer.