

Module code	BAI702			Level	7
Module title	Human-AI Design Thinking				
Status	Core				
Teaching Period	Spring				
Courses on which the module is taught	MSc Artificial Intelligence for Business and Innovation				
Prerequisite modules	None				
Notional learning hours	200	Credit value	20	ECTS Credits	10
Field trips?	N/A				
Additional costs	N/A				
Content notes	N/A				

1. Module description

This module equips you with practical skills for implementing AI and machine learning (ML) solutions within organisational contexts, emphasising systematic problem decomposition and workflow analysis before technical implementation.

Drawing on agile principles, you will learn to decompose complex challenges into manageable components. The curriculum centres on ethnographic research methods, interviewing domain experts and stakeholders to understand workflows before deploying technology solutions.

Core to the module is systems thinking: analysing how data flows through organisations, identifying where ML approaches, large language models (LLM) or other probabilistic AI techniques genuinely add value versus where deterministic functions suffice, and recognising AI as a unique tool rather than default solution. You will practice mapping real-world processes, evaluating which workflow steps require probabilistic versus rule-based approaches, and designing context-aware, ethical and interpretable ML solutions that align with organisational needs and stakeholder expectations.

2. Learning Outcomes

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

Communication (MLO 05)

Communicate persuasively and receptively through ethnographic research to gather workflow requirements and justify technical proposals to stakeholders.

Discipline Knowledge (MLO 07)

Critique and synthesise theories and concepts of systems thinking to analyse organisational workflows and justify appropriate technological and AI architectural solutions.

Discipline Skills (MLO 08)

Combine and employ advanced discipline-specific knowledge, techniques and tools to solve workflow problems using various AI technologies and agile principles to deploy LLMs and other AI solutions.

Interdisciplinary Perspectives (MLO 09)

Integrate different disciplinary approaches to propose context-aware, ethical insights and interpretable ML solutions to organisational challenges.

3. Learning and teaching methods, and reasonable adjustments

This module uses an active, applied approach centred on systematic problem decomposition and ethnographic research, guided by agile principles and systems thinking. Learning occurs through case-based workshops and guided activities where you will map workflows, interview stakeholders, and evaluate the need for AI and/or ML versus deterministic solutions. Hands-on engagement with AI tools is used critically to assess their appropriate application. These methods, together with ongoing feedback and formative assessment, will support your preparation for the summative assessment, where you will justify where AI adds genuine value and propose ethical, context-aware interventions.

Learning hours			200
Directed learning			48
Workshops			
48			
Guided/Self-guided learning			152

Students seeking reasonable adjustments should consult the current Disability Policy:

<https://www.regents.ac.uk/policies>

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

Assessment component 1: Proposal, 50% TMM, 2500 words ($\pm 10\%$)

Individually, you will maintain a working record of your engagement with an authentic organisational workflow challenge, documenting your research, analysis, and decision-making process. This will culminate in a proposal that identifies and justifies potential intervention points for AI or other technological solutions. The assessment should demonstrate systematic problem decomposition, stakeholder analysis, and evidence-based reasoning about where and why specific approaches are appropriate.

Assessment component 2: Presentation, 50% TMM, 10 Minutes ($\pm 10\%$)

You will develop your proposed solution further by presenting your findings and recommendations. The presentation should build upon the initial proposal, demonstrating deeper analysis, refinement based on feedback or further research, and clear communication of technical decisions to relevant stakeholders.

Further details of the precise assessment components and allocation of marks will be specified in the module assignment brief.

Mapping of assessment tasks:

Assessment components	LO5	LO7	LO8	LO9
Proposal		x	x	x
Presentation	x	x		x

The above assessment components are summative. You will have the opportunity for formative assessment and feedback before each summative assessment.

5. Indicative resources

Core Reading:

Mollick, E. (2024) *Co-Intelligence: Living and Working with AI*, Penguin

Lakhani K.R. et al., (2026) *The Cybernetic Teammate: A Field Experiment on Generative AI Reshaping Teamwork and Expertise*, Harvard Business Review

Further readings:

Meadows, D.H. and Wright, D. (ed.) (2008) *Thinking in Systems: A Primer*. White River Junction, VT: Chelsea Green Publishing.

Portugal, S. (2023) *Interviewing Users: How to Uncover Compelling Insights*. 2nd edn. Brooklyn, NY: Rosenfeld Media.

Ryseff, J., De Bruhl, B. and Newberry, S.J. (2024) *The Root Causes of Failure for Artificial Intelligence Projects and How They Can Succeed: Avoiding the Anti-Patterns of AI*. Santa Monica, CA: RAND Corporation. Available at: https://www.rand.org/pubs/research_reports/RRA2680-1.html (Accessed: 19 January 2026).

Suchman, L.A. (2007) *Human-Machine Reconfigurations: Plans and Situated Actions*. 2nd edn. Cambridge: Cambridge University Press.

NB: This list of indicative resources is illustrative only and subject to change. A full list of resources will be provided on the module Blackboard site and updated from time to time.