

WM9RO-15 Artificial Intelligence in Project Management

26/27

Department

WMG

Level

Taught Postgraduate Level

Module leader

Dennis Chapman

Credit value

15

Module duration

4 weeks

Assessment

100% coursework

Study location

University of Warwick main campus, Coventry

Description

Introductory description

This module introduces students to the strategic and practical integration of Artificial Intelligence (AI) within programme and project management, focusing on the use of AI-supported and data-informed methods to enhance decision-making across scheduling, risk management, cost control, workflow automation and predictive forecasting within Agile and hybrid delivery contexts. It emphasises the application of algorithmic reasoning and data analytics to improve project performance, governance and lifecycle control, while critically examining organisational and digital transformation challenges and ethical considerations, including regulatory compliance, algorithmic bias and accountability. The module foregrounds responsible, transparent and effective approaches to AI-enabled decision-making and digital transformation, and is delivered through a blended learning model to support flexible participation across overseas and part-time centres.

Module aims

To develop students' ability to critically evaluate and apply AI-supported and algorithmic approaches within programme and project management contexts; to integrate data-informed methods with established project and organisational frameworks in order to enhance planning, scheduling, risk management and decision-making; and to align technical applications with

organisational, governance and ethical considerations, ensuring responsible, transparent and effective practice.

Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

Students progress from applying AI-supported methods within Agile project environments to improve planning, governance and lifecycle decision-making, to designing adaptive project and programme strategies that integrate traditional and emerging frameworks with AI-enabled approaches in support of accountability and informed stakeholder decision-making. They then critically assess the ethical, strategic and regulatory implications of AI in project and organisational contexts, with particular attention to digital trust, transparency and responsible innovation, before interpreting, applying and communicating data-analytic insights to support project decision-making, optimisation and AI-enabled improvement.

Learning outcomes

By the end of the module, students should be able to:

- Apply and critically evaluate AI-supported methods within Agile project environments to enhance planning, governance and lifecycle decision-making.
- Design adaptive strategies that integrate traditional and emerging programme and project frameworks with AI-enabled approaches to support accountability and stakeholder decision-making.
- Critically assess the ethical, strategic and regulatory implications of AI in project and organisational settings, focusing on digital trust, transparency and responsible innovation.
- Interpret and apply data-analytic methods to visualise and communicate insights that support project decision-making and AI-enabled optimisation.

Indicative reading list

[Reading lists can be found in Talis](#)

[Specific reading list for the module](#)

Subject specific skills

Critical evaluation of AI-enabled approaches to project and programme management, applying analytical judgement rather than technical specialism.

Digital and data literacy in configuring, interpreting and communicating AI-supported insights for project decision-making.

Problem-solving and optimisation skills, using analytical tools and dashboards to improve planning, monitoring and delivery performance.

Governance-aware decision-making, aligning technical and analytical choices with organisational controls, regulatory requirements and stakeholder needs.

Ethical reasoning and professional judgement, applying principles of transparency, fairness, accountability and privacy in AI-supported project contexts.

Collaborative and adaptive working, using AI-supported tools within Agile and changing environments to support team-based delivery and continuous improvement.

Transferable skills

Critical thinking and problem-solving, enabling structured analysis and evidence-based judgement in complex and uncertain contexts.

Digital literacy, including confident and responsible use of data, analytics and AI-supported tools to support professional practice.

Leadership and collaboration, supporting effective teamwork, facilitation and shared decision-making across multidisciplinary project environments.

Strategic thinking, linking operational and analytical decisions to organisational objectives and long-term value creation.

Communication and stakeholder engagement, translating technical and analytical insights into clear, accessible and persuasive narratives.

Adaptability and resilience, responding effectively to change, uncertainty and evolving technological and organisational environments.

Continuous learning and reflective practice, supporting ongoing professional development in rapidly changing digital contexts.

Study

Study time

Type	Required
Lectures	15 sessions of 1 hour (10%)
Seminars	15 sessions of 1 hour (10%)
Online learning (independent)	25 sessions of 1 hour (17%)
Other activity	35 hours (23%)
Assessment	60 hours (40%)
Total	150 hours

Private study description

No private study requirements defined for this module.

Other activity description

A proportion of learning hours is allocated to online activities, including student-led simulation exercises that enable the application, testing and reflection of AI-supported project management approaches in a flexible learning environment.

Costs

No further costs have been identified for this module.

Assessment

You must pass all assessment components to pass the module.

Assessment group A

	Weighting	Study time	Eligible for self-certification
Assessment component			
Individual Assignment	70%	42 hours	Yes (extension)
An individual assessment requiring students to demonstrate critical understanding and applied analysis of core concepts and methods introduced in the module, drawing on appropriate research, frameworks and analytical tools.			

Reassessment component

Individual Assignment	No
An individual assessment requiring students to demonstrate critical understanding and applied analysis of core concepts and methods introduced in the module, drawing on appropriate research, frameworks and analytical tools.	

Assessment component

Group Presentation	30%	18 hours	No
A group-based applied assessment evaluating collaborative analysis, problem-solving and the communication of insights in relation to relevant module themes.			

Reassessment component

Individual Essay	No
Reassessment will be an individual written submission of 1,200 words, in accordance with the University assessment tariff.	

Feedback on assessment

Feedback will be provided through a combination of written comments on submissions, rubric-based marking, and cohort-level generic feedback. Verbal feedback will be given during seminars and group project activities to support formative development.

Availability

There is currently no information about the courses for which this module is core or optional.