Module Specification

Data Science and AI Individual Project

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Part 1: Information

Module title: Data Science and AI Individual Project

Module code: UFCEKP-30-3

Level: Level 6

For implementation from: 2025-26

UWE credit rating: 30

ECTS credit rating: 15

College: College of Arts, Technology and Environment

School: CATE School of Computing and Creative Technologies

Partner institutions: None

Field: Computer Science and Creative Technologies

Module type: Module

Pre-requisites: None

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: This module emphasises practical technical work within a research-informed framework that also takes account of human factors, ethical practice and professional values. The project will normally result in an artefact resulting from a process of software development, data analysis, predictive model, simulation, audit or feasibility study, which will be submitted as part of the report.

Features: Not applicable

Educational aims: This module provides an opportunity for students to apply the technical, practical and analytical skills and knowledge acquired across the programme as a whole and through their own personal learning. Students will be able to develop self-direction and autonomous planning, evaluation and decision-making skills, while implementing creative, innovative solutions to complex domain challenges.

Outline syllabus: Project topics may be proposed by students, members of the programme team or external partners. Based on the intended topic area, an academic supervisor will be assigned.

Students will proceed to scope a project idea in collaboration with their assigned academic supervisor and must have a well worked proposal approved by the supervisor - this must be passed for students to progress.

Backed by library training and support, students should take full advantage of library resources and specialist software to conduct a review of contemporary research in their topic area and to gain sufficient familiarity with the appropriate technical tools.

It is critical that at an early stage, students select a project management paradigm and appropriate development approach, keeping accurate records of learning, supervisor input, artefact evolution and experimental results.

Students will ensure that they can provide a full and transparent account of the work and learning undertaken, through the written report and supporting artefact documentation.

Part 3: Teaching and learning methods

Teaching and learning methods: Group supervision sessions will be scheduled from the beginning of the final year of study to support idea generation, project planning and suggest implementation and evaluation methodologies. At key stages in the project lifecycle, project surgeries will be available so that students can talk to

tutors on a one to one bases about project ideas.

Outside of these structured sessions, emphasis will be on students working autonomously, with regular individual supervision meetings for checking progress and giving direction. Students will be responsible for taking maximum advantage of supervision opportunities and any other technical input as appropriate.

Module Learning outcomes: On successful completion of this module students will achieve the following learning outcomes.

MO1 Identify a research problem and scope research to suitably investigate it

MO2 Synthesise and critically evaluate recent research having a direct bearing on the problem space

MO3 Select and apply appropriate tools, techniques and theoretical models to design and implement a technology solution or practical/analytical investigation, working in an ethical manner

MO4 Critically and reflectively evaluate, and communicate research outcomes and learning to specialist and non-specialist audiences

Hours to be allocated: 300

Contact hours:

Independent study/self-guided study = 276 hours

Face-to-face learning = 24 hours

Reading list: The reading list for this module can be accessed at readinglists.uwe.ac.uk via the following link https://uwe.rl.talis.com/lists/09689B5C-DE0F-F76A-8F53-ADDD882E0628.html

Part 4: Assessment

Assessment strategy: At both first sit and resit, the project assessments are designed to evaluate the extent of technical learning as well as the approach to scoping the project and designing the solution. The extent of integration of related research and application of relevant tools, models and techniques will be important

criteria.

A key additional assessment goal is to evaluate the student's written and verbal communication skills, including organisation skills, ability to use logical and narrative structure and to present key results and actionable conclusions effectively.

In addition to the written report, students will be expected to fully document their artefact to allow for proper assessment.

The post-submission viva will be used to assess the project through verbal questions and answers and particularly to address the depth of students' understanding of the technical approaches and code used.

Assessment tasks:

Report (First Sit)
Description: Written report with links to accompanying online demonstrations and code repositories (3000-5000 words)
Weighting: 40 %
Final assessment: No
Group work: No
Learning outcomes tested: MO1, MO2, MO3, MO4

Presentation (First Sit)
Description: Oral examination (20 minutes)
Weighting: 60 %
Final assessment: Yes
Group work: No
Learning outcomes tested: MO1, MO2, MO3, MO4

Report (Resit)
Description: Written report with links to accompanying online demonstrations and code repositories (3000-5000 words)
Weighting: 40 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4

Presentation (Resit)

Description: Oral examination (20 minutes)

Weighting: 60 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Data Science and Artificial Intelligence {Top-Up} [Frenchay] BSc (Hons) 2025-26