Module Specification

CCT Masters Project

Version: 2024-25, v1.0, 08 May 2024

Contents

Part 1: Information

Module title: CCT Masters Project

Module code: UFCE9T-60-M

Level: Level 7

For implementation from: 2024-25

UWE credit rating: 60

ECTS credit rating: 30

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: The CCT Masters Project emphasises practical technical work but 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 thesis reporting.

Features: We encourage the development or enhancement of open-source, open-access artefacts that may have a usefulness beyond the immediate requirements of the project.

The project may be undertaken in the workplace, providing it meets the requirements to the satisfaction of the assigned academic tutor. In the case of a work-based project, students should nominate an industrial assistant supervisor.

Educational aims: To provide an opportunity for students to :

Apply technical, practical and analytical skills and knowledge acquired across the programme as a whole and through their own personal learning.

Develop self-direction and autonomous planning, evaluation and decision making skills.

Develop creative, innovative solutions to complex domain challenges.

Gain deep knowledge of a specialist area, including key theoretical models and state-of-the-art tools, techniques and approaches.

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 thesis and supporting artefact documentation.

Part 3: Teaching and learning methods

Teaching and learning methods: This module, presented via our online virtual learning environment, consists of a clearly signposted, easy-to-navigate student journey through carefully chosen learning materials which are designed to engage and challenge students as they work towards key learning objectives. Content may be in a range of formats, including clear well-written text, diagrams, animations, video and interactive video, activities, quizzes, discussions and other collaborative approaches.

Students will be provided with as many opportunities as possible to 'perform their understanding' rather than just reading or watching video to passively acquire knowledge. This may be in the form of simple tasks, activities or quizzes that students can engage with in the online environment, or larger pieces of work that may require additional thought. Whatever their nature, such tasks will be authentic (connected to the real world) and directly relevant to the programme learning outcomes.

The online environment also provides important opportunities to encourage students to work with, and learn from, their peers. The careful use of structured online discussion forums helps to foster an active learning community and enable students to share their responses to key questions, and to discuss, and even challenge, each other's ideas.

All learning materials are produced and presented in a way that ensures that they are appropriate for as diverse an audience as possible. We follow W3C accessibility standards and ensure that all content can be used with all popular screen-readers,

offering alternative formats where possible. In general, we aim to avoid using language, idioms, images or other devices which root the content in any particular culture or creed that instead adequately reflect the diversity of the student audience.

In general, modules are designed with a number of key learning principles in mind that align closely with those of the university.

Research orientation and research methods training will be provided from the beginning of the course 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 basis about project ideas.

Outside of these structured sessions, emphasis will be on students working autonomously, with regular 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 Design and implement a technology solution or practical/analytical investigation to a high standard, with aspects of novelty and personal innovation.

MO4 Select and apply appropriate and contemporary best-of-breed tools, techniques and theoretical models.

MO5 Critically and reflexively evaluate the outcome and personal performance to standards of research quality (validity, reliability) and professional competence.

MO6 Embody an ethical approach to research conduct in a specialist area in computer science.

MO7 Communicate research outcomes and learning effectively to specialist and non-specialist audiences.

Hours to be allocated: 600

Contact hours:

Independent study/self-guided study = 590 hours

E-learning/online learning = 10 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/modules/ufcf9y-60-m.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 dissertation 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:

Written Assignment (First Sit)

Description: Proposal (pass/fail)

Weighting: 0 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1

Presentation (First Sit)

Description: Oral examination (30 mins)

Weighting: 60 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO4, MO5, MO6, MO7

Dissertation (First Sit)

Description: Written thesis with links to accompanying online demonstrations and code repositories (5000-6000 words)

Weighting: 40 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4, MO5, MO6, MO7

Written Assignment (Resit)

Description: Proposal (pass/fail)

Weighting: 0 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1

Presentation (Resit)

Description: Oral examination (30 mins)

Weighting: 60 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO4, MO5, MO6, MO7

Dissertation (Resit)

Description: Written thesis with links to accompanying online demonstrations and code repositories (5000-6000 words)

Weighting: 40 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4, MO5, MO6, MO7

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Data Science [UWE Online] MSc 2023-24