Module Specification

Approaches to Research [TSI]

Version: 2021-22, v1.0, 26 Oct 2021

Contents

Part 1: Information

Module title: Approaches to Research [TSI]

Module code: UFCE71-18-M

Level: Level 7

For implementation from: 2021-22

UWE credit rating: 18

ECTS credit rating: 9

Faculty: Faculty of Environment & Technology

Department: FET Dept of Computer Sci & Creative Tech

Partner institutions: Transport and Telecommunication Institute

Delivery locations: Transport and Telecommunication Institute Latvia

Field: Computer Science and Creative Technologies

Module type: Standard

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 aims to develop a systematic approach to research through the use of information gathering and planning techniques. The module is an essential part of the preparation for the Masters Thesis.

Features: Not applicable

Educational aims: This module aims to give students the skills necessary to carry out scientific work that underlies the production of a Master's thesis. It will help the student to select a suitable research topic, conduct a literature review of scientific publications and apply principles of analysis and evaluation in their research. The student will also learn how to structure a Master's thesis and present their ideas and findings using a suitable academic style

Outline syllabus: Introduction. Planning of content and development stages of the Master thesis

Working with literature and international scientific citation systems; citation indexes; classification of scientific publications

Typical structure of articles and abstracts to scientific reports

Ethics of Scientific Research (authorship, plagiarism, conflict of interest, fraud in the experiments, etc.)

Methods of research

Presentation and defence of scientific ideas. Key sections of oral presentation of the results of scientific research (content)

Formalisation of the problem and formulation of the problem of scientific research

Scientific discussion on selected topics of research. Proving the relevance of the problem

Research in the chosen field of scientific and practical activities

Part 3: Teaching and learning methods

Teaching and learning methods: Learning and teaching will be provided to students in two forms: lectures and practical classes. During lectures, theoretical aspects of the course will be provided to students by the teaching staff. Lectures will be supported by presentations published and available to the students on e.tsi.lv under the module section. Also, additional materials, like publications on the internet, videos, case-studies etc will be presented in e.tsi.lv.

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

MO1 Analyse and critically appraise current theory, policy or practice to identify the main trends and problems in a particular area of science or technology

MO2 Plan the content, development stages and defence of a master thesis based on a sound understanding of research methods and academic writing practices

MO3 Select and critically analyse appropriate academic and professional sources to prepare a literature review and annotated bibliography on a particular topic in science and technology

MO4 Deliver presentations and prepare abstracts or publications that demonstrate the ability to construct and defend an academic argument based on knowledge of current literature

MO5 Identify gaps in knowledge, and formulate and justify research questions based on a state-of-art analysis of a chosen field of study

MO6 Understand and apply appropriate techniques to issues of risk assessment, ethics, validity and reliability in a research study

Hours to be allocated: 180

Contact hours:

Independent study/self-guided study = 168 hours

Face-to-face learning = 72 hours

Total = 240

Reading list: The reading list for this module can be accessed at readinglists.uwe.ac.uk via the following link https://rl.talis.com/3/uwe/lists/1C142C0B-CA6B-A7E9-97B2-1AE5ABE70F59.html?lang=en-gb&login=1

Part 4: Assessment

Assessment strategy: The assessment for this module is split into two components marking three parts.

Component A
CC1 - Students will develop and present their Masters thesis proposal

Component B
CW1 - Students will produce a literature review for a selected topic.
CW2 - Students will build a portfolio from a series of practical exercises.

The resit model will be similar to the tasks of the main sit.

Assessment components:

Written Assignment - Component A (First Sit)
Description: Master thesis proposal and presentation (up to 6 pages)
Weighting: 30 %
Final assessment: Yes
Group work: No
Learning outcomes tested: MO2, MO4

Report - Component B (First Sit)
Description: Review of the state-of-the-art for a selected topic
Weighting: 40 %
Final assessment: No
Group work: No
Learning outcomes tested: MO1, MO3, MO4, MO5

Portfolio - Component B (First Sit)

Description: Portfolio of practical exercises

Weighting: 30 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO5, MO6

Written Assignment - Component A (Resit)

Description: Master thesis proposal and presentation

Weighting: 30 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO2, MO4

Written Assignment - Component B (Resit)

Description: Review of the state-of-the-art for a selected topic

Weighting: 40 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO3, MO4, MO5

Portfolio - Component B (Resit)

Description: Portfolio of practical exercises

Weighting: 30 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO5, MO6

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Computer Science (Data Analytics and Artificial Intelligence) {Double Degree} [Feb][FT][TSI][2yrs] MSc 2021-22