



## **Module Specification**

### **Development in .Net Environment [TSI]**

Version: 2023-24, v3.0, 17 Mar 2023

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## Part 1: Information

**Module title:** Development in .Net Environment [TSI]

**Module code:** UFCFGX-6-3

**Level:** Level 6

**For implementation from:** 2023-24

**UWE credit rating:** 6

**ECTS credit rating:** 3

**Faculty:** Faculty of Environment & Technology

**Department:** FET Dept of Computer Sci & Creative Tech

**Partner institutions:** Transport and Telecommunication Institute

**Delivery locations:** Not in use for Modules

**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:** Not applicable

**Features:** Not applicable

**Educational aims:** Mastering the principles and methods of object-oriented and component-oriented software development within .Net Framework technology

**Outline syllabus:** Introduction to the philosophy of .NET

Namespaces and Assemblies

Common Type System CTS

Common Intermediate Language (CIL)

Output and input from/to files and serialization

Structured exception handling

Memory management

Processes, AppDomains and Object Contexts

Multithreaded, Parallel and Async Programming

### **Part 3: Teaching and learning methods**

**Teaching and learning methods:** Learning and teaching will be provided to students in two forms: lectures and labs. During lectures, theoretical aspects of the course will be provided to students by the teaching staff. Lectures will be supported by presentation published and available to the students on e.tsi.lv under the module section. Also, additional materials, like code examples, text books, publications on the internet, videos etc will be presented in e.tsi.lv.

During labs, each student receives an individual task to perform. Each practical task should be completed and uploaded to e.tsi.lv (under specific practical task element), it will be checked by the teaching staff and feedback will be provided. If positive feedback takes place students should defend practical assignment. The defence is happening orally and consists of discussion on theoretical issues which fits current practical assignment and assignment report. After the defence, a teaching staff puts the grade.

Integrated development environment (IDE) from Microsoft for .Net framework such as Visual Studio will be used for labs. In addition to learning activities during taught sessions, students are expected to spend time outside of class on independent learning activities. These might include completing assignment tasks, independent reading, practising new skills on personal projects and watching informative videos, completing self-assessment test etc.

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

**MO1** Describe the principles and architecture of .Net Framework

**MO2** Apply the concepts of CLR (Common Language Runtime)

**MO3** Acquire the concepts of .Net Framework CIL (Common Intermediate Language) and metadata

**MO4** Design and develop object-oriented programs in .Net Framework

**MO5** Design and develop programs with different .Net Framework languages

**MO6** Formulate .Net Framework problems as steps so as to be solved systematically

**MO7** Integrate robustness

**Hours to be allocated:** 60

**Contact hours:**

Face-to-face learning = hours

Total = 0

**Reading list:** The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://rl.talis.com/3/uwe/lists/DC81D784-6762-E565-86FA-7F55EDEB0041.html?lang=en-gb&login=1) via the following link <https://rl.talis.com/3/uwe/lists/DC81D784-6762-E565-86FA-7F55EDEB0041.html?lang=en-gb&login=1>

## Part 4: Assessment

**Assessment strategy:** Examination - Examination is carried out as multi-choice test.

Portfolio:

A series of practical tasks, exploring different aspects of system development using the .NET framework. The assessment includes demonstration of the output plus an evaluative report.

**Assessment components:**

**Examination (First Sit)**

Description: MCQ Examination

Weighting: 50 %

Final assessment: Yes

Group work: No

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

**Practical Skills Assessment (First Sit)**

Description: A Series of practical assignments, which should be completed. Each task should be written up and a copy of the application submitted.

Weighting: 50 %

Final assessment: No

Group work: No

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

**Examination (Resit)**

Description: MCQ Examination

Weighting: 50 %

Final assessment: No

Group work: No

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

**Practical Skills Assessment (Resit)**

Description: A Series of practical assignments, which should be completed. Each task should be written up and a copy of the application submitted.

Weighting: 50 %

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:

Computer Science and Software Development {Double Degree} [Oct][FT][TSI][4yrs]  
BSc (Hons) 2020-21

Computer Science and Software Development {Double Degree} [Feb][FT][TSI][4yrs]  
BSc (Hons) 2020-21