



## **Module Specification**

### **Blockchain Technologies [TSI]**

Version: 2023-24, v2.0, 09 Aug 2023

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## Part 1: Information

**Module title:** Blockchain Technologies [TSI]

**Module code:** UFCE4K-12-1

**Level:** Level 4

**For implementation from:** 2023-24

**UWE credit rating:** 12

**ECTS credit rating:** 6

**College:** College of Arts, Technology and Environment

**School:** CATE School of Computing and Creative Technologies

**Partner institutions:** None

**Field:**

**Module type:**

**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:** Student studying this course will gain an understanding of blockchain development area and things you should know about the new global technology for the Internet age.

**Outline syllabus:** •Introduction to Blockchain

- Blockchain Consensus
- Hyperledger Fabric
- Bitcoin, Ethereum, and Decentralised Applications
- Cryptocurrency Management
- Decentralised Finance and Economics
- Privacy on a Public Blockchain
- Scalability in Blockchain
- Blockchain and its Future

**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 presentation published and available to the students on e.tsi.lv under the module section. Also, additional materials, like publications on the internet, videos etc will be presented in e.tsi.lv.

During practical classes, each student receives an individual task to perform.

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** Apply different Blockchain techniques to real-world scenarios and have an understanding of Blockchain construction and application.

**MO2** Recognise security, management and financial challenges in application areas and state them in a correct mathematical form

**Hours to be allocated:** 120

**Contact hours:**

Independent study/self-guided study = 96 hours

Face-to-face learning = 64 hours

Total = 160

**Reading list:** The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://rl.talis.com/3/uwe/lists/3773A354-CC26-B55C-92C3-1FCD228E9AAF.html?lang=en&login=1) via the following link <https://rl.talis.com/3/uwe/lists/3773A354-CC26-B55C-92C3-1FCD228E9AAF.html?lang=en&login=1>

## **Part 4: Assessment**

**Assessment strategy:** To access the learning outcomes the controlled and uncontrolled assignments are planned in the frame of the course. The uncontrolled assignments consist of a set of practical assignments which should be completed individually by each student. The specific task, deadline and grading scale (specific for each assignment) will be set up to explain to the students the assessment strategy. Students are required to upload the deliverables in electronic format to TSI LMS, before the deadline. The results of the marking will be provided by the teaching staff with feedback in the frame of the TSI LMS. Negative assessment results will lead students to resit, which includes performing one overall practical assignment, which is assessed using a grading scale.

The controlled element is 2h examination, performed by the students by the end of the course. The examination is targeted at examining theoretical knowledge gained in the frame of the course. The examination is a closed-book computer-based quiz, with various question types. Negative assessment results will lead students to resit the examination with a different set of questions.

**Assessment tasks:**

**Written Assignment (First Sit)**

Description: Written report (max 3000 words), which discusses different blockchain techniques application for same scenarios.

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1

**Examination (First Sit)**

Description: written (or computer-aided), closed book examination aimed to assess the theoretical knowledge gained in the frame of the course (2 hours).

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested: MO2

**Written Assignment (Resit)**

Description: Set of Individual practical assignments (3000 words) are conducted with the utilisation of blockchain technology, which aims at developing practical skills and competencies

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1

**Examination (Resit)**

Description: written (or computer-aided), closed book examination aimed to assess the theoretical knowledge gained in the frame of the course (2 hours)

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested: MO2

## **Part 5: Contributes towards**

This module contributes towards the following programmes of study:

Computer Science and Software Development {Double Degree} {Foundation} [TSI]

BSc (Hons) 2022-23