



## **Module Specification**

### **Cloud Services Integration [TSI]**

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

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## Part 1: Information

**Module title:** Cloud Services Integration [TSI]

**Module code:** UFCE5F-6-3

**Level:** Level 6

**For implementation from:** 2023-24

**UWE credit rating:** 6

**ECTS credit rating:** 3

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

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

**Partner institutions:** None

**Field:**

**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:** To provide theoretical insight and practical experience in building an application network using an API-led connectivity approach.

**Outline syllabus:** •API introduction

•HTTP fundamentals: headers, methods, responses

- RAML Restful API Modelling Language design API, debug, testing, deploy, publish.
- API Security methods (authentication, SLA policies etc.).
- RDB (Amazon), SQL basics commands, SQL developer.
- Working with files local and remote.
- Working with FTP.
- Salesforce and SAP fundamentals.
- Application design principles and file's structure.
- Log event data, debug, variables, flows, events, errors handling.
- Data transformation language.
- Consume Web services: RESTful, SOAP.
- Processing collections of records with loops (for each), Batch jobs (filtering, aggregations)

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

**Teaching and learning methods:** Learning and teaching will be provided to students in two forms: lectures, practical classes 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.

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

**MO1** Evaluate and compare different types of application network architecture approaches (ie SOA, Microservices) and the API development lifecycle.

**MO2** Independently design, develop and test a new API (Application Programming Interface) or improve an existing API, using appropriate tools.

**Hours to be allocated:** 60

**Contact hours:**

Independent study/self-guided study = 48 hours

Face-to-face learning = 32 hours

Total = 80

**Reading list:** The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://rl.talis.com/3/uwe/lists/B9253F7A-F10D-A437-386C-4513090EB7FE.html?lang=en&login=1) via the following link <https://rl.talis.com/3/uwe/lists/B9253F7A-F10D-A437-386C-4513090EB7FE.html?lang=en&login=1>

## Part 4: Assessment

**Assessment strategy:** To assess the learning outcomes of this course, several types of activities are provided, which include:

- 1) Lab work - students are required to design, implement and test a suitable API for a given case study
- 2) Presentation - students are required to research, evaluate and present findings on the different suitable technologies which could be applied to a given case study.

Resits will be like for like, with different case studies.

### Assessment tasks:

#### Laboratory Report (First Sit)

Description: Design, implement, test and document the development of a suitable API. (3000 words)

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested: MO2

#### Presentation (First Sit)

Description: 15 minute presentation - discussion on suitable technologies.

Weighting: 50 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1

**Laboratory Report (Resit)**

Description: Design, implement, test and document the development of a suitable API. (3000 words)

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested: MO2

**Presentation (Resit)**

Description: 15 minute presentation - discussion on suitable technologies.

Weighting: 50 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1

**Part 5: Contributes towards**

This module contributes towards the following programmes of study:

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

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

Computer Science and Software Development {Double Degree} [Oct][PT][TSI][5yrs]  
BSc (Hons) 2020-21

Computer Science and Software Development {Double Degree} [Feb][PT][TSI][5yrs]  
BSc (Hons) 2020-21