



## **Module Specification**

### **Mobile Networks**

Version: 2023-24, v2.0, 17 Mar 2023

#### **Contents**

<b>Module Specification .....</b>	<b>1</b>
<b>Part 1: Information .....</b>	<b>2</b>
<b>Part 2: Description .....</b>	<b>2</b>
<b>Part 3: Teaching and learning methods .....</b>	<b>3</b>
<b>Part 4: Assessment.....</b>	<b>4</b>
<b>Part 5: Contributes towards .....</b>	<b>5</b>

## Part 1: Information

**Module title:** Mobile Networks

**Module code:** UFCFJC-15-3

**Level:** Level 6

**For implementation from:** 2023-24

**UWE credit rating:** 15

**ECTS credit rating:** 7.5

**Faculty:** Faculty of Environment & Technology

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

**Partner institutions:** None

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

**Field:** Computer Science and Creative Technologies

**Module type:** Module

**Pre-requisites:** Computer Networks and Operating Systems 2023-24

**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:** See Learning Outcomes

**Outline syllabus:** Telecommunication systems (e.g., GSM, DECT, TETRA, UMTS)

Wireless LANs

Mobile IP

Routing in mobile networks

Communication algorithms

Ad hoc Networks

Wireless Mesh Networks

QoS constraints

Advances topics in mobile communications

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

**Teaching and learning methods:** Contact time: 36 hours

Assimilation and development of knowledge: 69 hours

Exam preparation: 30 hours

Coursework preparation: 15 hours

Total study time: 150 hours

A mixture of readings, lectures and case studies will be used. There will be a significant practical element to the module and students will be expected to analyse, design and implement examples of web-based information systems using a variety of technologies.

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

**MO1** Research the problems associated with mobile networks using appropriate techniques currently deployed by different technologies

**MO2** Analyse and evaluate the deployment of advanced features in the design of mobile networks

**MO3** Specify the necessary requirements for providing quality of service in mobile networks

**MO4** Investigate and evaluate the communication applications of different mobile technologies, considering the QoS constraints

**MO5** Research the problems associated with efficient group communication patterns in mobile networks

**Hours to be allocated:** 150

**Contact hours:**

Independent study/self-guided study = 114 hours

Face-to-face learning = 36 hours

Total = 150

**Reading list:** The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://uwe.rl.talis.com/index.html) via the following link <https://uwe.rl.talis.com/index.html>

## **Part 4: Assessment**

**Assessment strategy:** The module is assessed by a 3 hour examination at the end of the teaching and also by coursework. The exam assesses the students' understanding of the theoretical aspects of the module. The coursework allows the student to demonstrate practical application of methodologies, tools and techniques.

**Assessment components:**

**Examination** (First Sit)

Description: Exam (3 hours)

Weighting: 50 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO2, MO3, MO4

**Set Exercise (First Sit)**

Description: Individual research based assignment

Weighting: 50 %

Final assessment: No

Group work: No

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

**Examination (Resit)**

Description: Exam (3 hours)

Weighting: 50 %

Final assessment: Yes

Group work: No

Learning outcomes tested:

**Set Exercise (Resit)**

Description: Individual research based assignment

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested:

**Part 5: Contributes towards**

This module contributes towards the following programmes of study:

Information Technology {Top-Up} [Frenchay] BSc (Hons) 2023-24

Information Technology {Top-Up} [SHAPE] BSc (Hons) 2023-24

Information Technology {Top-Up} [SHAPE] BSc (Hons) 2023-24

Information Technology {Top-Up} [Phenikaa] BSc (Hons) 2023-24

Information Technology {Top-Up} [Frenchay] BSc (Hons) 2022-23

Information Technology {Top-Up} [SHAPE] BSc (Hons) 2022-23

Information Technology {Dual}[Mar][FT][Taylors][3yrs] BSc (Hons) 2021-22