



Module Specification

Innovative Technology in Healthcare

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Part 1: Information

Module title: Innovative Technology in Healthcare

Module code: USSJLF-30-M

Level: Level 7

For implementation from: 2023-24

UWE credit rating: 30

ECTS credit rating: 15

Faculty: Faculty of Health & Applied Sciences

Department: HAS Dept of Applied Sciences

Partner institutions: None

Field: Applied Sciences

Module type: Module

Pre-requisites: None

Excluded combinations: None

Co-requisites: None

Continuing professional development: Yes

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: This module will provide the platform to introduce the Healthcare landscape and care pathways underpinned by the regulatory bodies and frameworks. The module will enable the student to understand the boundaries that guide the development on new Healthcare Technologies such as digital diagnostic and monitoring systems, and assistive and medical robots. It will also introduce the role of small-medium enterprise (SMEs) and multinationals in realising innovation in Healthcare. This module will be delivered over two semesters through a series of

lectures, tutorials and practical classes. By the end of the module the students will be able to have a detailed knowledge of the Healthcare landscape, regulatory frameworks and how new innovative technology has to be designed in a manner that considers human factors (engineering and psychological).

Features: Not applicable

Educational aims: This module aims to provide the platform to introduce the Healthcare landscape and care pathways underpinned by the regulatory bodies and frameworks.

Outline syllabus: •The Healthcare landscape and care pathways

- The role of multinationals and SMEs in Healthcare innovation
- Innovative Technologies for Healthcare
- Design, prototyping and adoption
- Communicating Technology
- Robotics in Healthcare

Part 3: Teaching and learning methods

Teaching and learning methods: Lectures: This module will be delivered in integrated topic sections, where each section will provide the core knowledge that describes current regulatory frameworks.

Tutorials: These lectures will be followed by a series of tutorials that support collaborative, interactive discussion, which will help inform and prepare for assessment. They are open to covering support material from research-based material to case studies. This approach ensures an applied delivery and opportunity to build as individuals.

Practical classes: Several classes will be included that are linked to the lecture series offering the students an applied understanding of each topic section.

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

MO1 Evaluate how the regulatory frameworks govern the Healthcare landscape and apply these regulations to the development of new technologies

MO2 Critically evaluate the role of regulatory frameworks with respect to the development of new and innovative technologies

MO3 Critically evaluate how business and technology are integrated

MO4 Write informed reports with a focus on the critical analysis of current and future regulatory frameworks

MO5 Articulate key scientific concepts in a concise format

Hours to be allocated: 300

Contact hours:

Independent study/self-guided study = 228 hours

Face-to-face learning = 72 hours

Total = 300

Reading list: The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://rl.talis.com/3/uwe/lists/7E01082F-6B34-56A7-AD77-6FC73A5CF651.html) via the following link <https://rl.talis.com/3/uwe/lists/7E01082F-6B34-56A7-AD77-6FC73A5CF651.html>

Part 4: Assessment

Assessment strategy: Assessment 1: Case study 1 (1500 words) will assess core knowledge of the regulatory frameworks that govern existing technologies related to the Healthcare landscape.

Assessment 2: For case study 2 (1500 words), students will build on the knowledge obtained from the first case study and demonstrate how regulatory frameworks can be applied to new and innovative technologies.

Assessment 3: The final piece of assessment will test the students understanding of how regulatory frameworks are important to the design, development and adoption of new technology. Here, using a media clip assessment (10 minutes) they will need

to communicate how a product operates and articulate the regulatory frameworks that were required to design such a product. The media clip was chosen to develop student confidence when presenting and also develop their ability to scientifically converse.

Formative feedback is provided through tutorial classes, where students will benefit from peer-peer learning.

Assessment tasks:**Case Study** (First Sit)

Description: Case study 1 (1500 words)

Weighting: 30 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1

Case Study (First Sit)

Description: Case study 2 (1500 words)

Weighting: 30 %

Final assessment: No

Group work: No

Learning outcomes tested: MO2, MO3, MO4

Presentation (First Sit)

Description: Presentation of Media Clip (10 minutes)

Weighting: 40 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO5

Case Study (Resit)

Description: Case study 1 (1500 words)

Weighting: 30 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1

Case Study (Resit)

Description: Case study 2 (1500 words)

Weighting: 30 %

Final assessment: No

Group work: No

Learning outcomes tested: MO2, MO3, MO4

Presentation (Resit)

Description: Presentation of Media Clip (10 minutes)

Weighting: 40 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO5

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Health Technology [Frenchay] MSc 2023-24

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