Module Specification

Professionalism for Engineers

Version: 2023-24, v3.0, 27 Apr 2023

Contents

Part 1: Information

Module title: Professionalism for Engineers

Module code: UFMFNQ-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 Engineering Design & Mathematics

Partner institutions: None

Field: Engineering, Design and Mathematics

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: This module develops the concept of the "Professional Engineer", its meaning for you and how this impacts your career. You will study current literature on the role of the engineer in creating a sustainable future for business and society. You will understand the skills required to operate within a modern engineering environment and understand where future opportunities lie as you think about your future career.

For your personal development you will be able to identify personal goals, review what evidence you have so far to demonstrate your professionalism and how this can be used to develop an initial career plan. Your output will be a portfolio designed for you to keep and update throughout your career.

Your portfolio will record your professional development, enabling you to demonstrate, discuss and reflect upon your strengths and areas for improvement. It will demonstrate how your learning relates to the Engineering Council's UK-SPEC for Engineers, and you will develop a Gap Analysis, with related actions to close these gaps.

Features: Not applicable

Educational aims: The aim of this module is develop a sound basis for understanding the role of the engineer, the professional engineering working environment and to be able to use this knowledge to prepare for the transition from University to professional life as a graduate engineer.

Outline syllabus: Outline syllabus:

The professional engineering environment

Human factors, ethics and behaviours

Quality assurance and improvement

Safety management

Personal skills analysis and reflective practice

Equality and diversity, the inclusive workplace

Career planning and Continuing Professional Development

Emerging issues for engineering and sustainability

Part 3: Teaching and learning methods

Teaching and learning methods: The module involves a significant amount of self directed, self managed learning as each student researches and identifies issues relevant to their future professional development.

This learning will be facilitated with a series of lectures and tutorials including workshops to enable group engagement, discussion and reflection.

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

MO1 Critically examine industry requirements via UK-SPEC for Engineers, to develop a plan for your own professional development.

MO2 Demonstrate ethical and safe professional behaviour in practice

MO3 Show a detailed knowledge and understanding of the importance of effective management in an operational environment, including tools and techniques used to plan and improve processes

MO4 Reflect upon the importance of people and behaviours in the engineering process and the related impact of sustainable engineering in society in the context of your own development

MO5 Discuss and critically appraise relevant literature about the impact of engineering in society, in terms of the UN Sustainable Development Goals.

Hours to be allocated: 150

Contact hours:

Independent study/self-guided study = 115 hours

Face-to-face learning = 35 hours

Total = 150

Reading list: The reading list for this module can be accessed at readinglists.uwe.ac.uk via the following link

https://rl.talis.com/3/uwe/lists/42httphttps://rl.talis.com/3/uwe/lists/D0A63131-DAFF-AA27-E5E5-1E35CC29D3CA.html?lang=en-GB&login=1s://rl.talis.com/3/uwe/lists/D0A63131-DAFF-AA27-E5E5-1E35CC29D3CA.html?embed=1&lti_relink_url=https:%2F%2Fuwe.rl.talis.com%2Flti%2Flaunch.html%3Fcontext_title%3DUFMFNQ-15-3%2B-%2BProfessionalism%2Bfor%2Bengineers%2B21sep_1%26custom_node_code_regex%3D%252F%255E%2528.%257B11%257D%2529.%252A%252F%26roles%3DInstructor%26resource_link_id%3DUFMFNQ-15-

Part 4: Assessment

Assessment strategy: The assessment is designed to help you understand your current expertise and potential, and also the step change you will face as a graduate engineer. You will discuss and reflect upon what it means to be an Professional Engineer (this needs to be underpinned by current thinking and literature), using the concepts proved in the module to help you.

The portfolio you develop will enable you to develop a structure to your career planning.   The module provides you with an opportunity to demonstrate and so provide evidence for your engineering competency, and requires your personal reflection on what you have learned. The assessment is in two parts, both of which need to be completed:

Assessment 1:
Initial development of the UK-SPEC for Engineers Chartered Engineer (CEng) Skills and Competency Matrix, to demonstrate current learning and experience, plus identifying potential actions for future development - this is the Gap Analysis you require to work out how to develop your career. (Pass/Fail)

Assessment 2:
A reflective portfolio (3000 words) critically evaluating your module activity in terms of the core requirements of the module, how this was achieved, and what you have learned from the process. (100%)

The resit assessment strategy is the same as the first sit

Assessment tasks:

Set Exercise (First Sit)

Description: Gap analysis and skills matrix (pass/fail)

Weighting:

Final assessment: No

Group work: No

Learning outcomes tested: MO1

Portfolio (First Sit)

Description: Final report (3000 words) and career plan

Weighting: 100 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO2, MO3, MO4, MO5

Set Exercise (Resit)

Description: Gap analysis and skills matrix (pass/fail)

Weighting:

Final assessment: No

Group work: No

Learning outcomes tested: MO1

Portfolio (Resit)

Description: Final report (3000 words) and career plan

Weighting: 100 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO2, MO3, MO4, MO5

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Electronic and Computer Engineering [Aug][FT][SHAPE][1yr] BEng (Hons) 2023-24

Electronic and Computer Engineering [Aug][PT][SHAPE][2yrs] BEng (Hons) 2023-24

Mechanical Engineering (Nuclear) {Apprenticeship-UCW} {Top-Up} [Sep][FT][MOD][2yrs] BEng (Hons) 2023-24

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

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

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

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

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

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

Electronic Engineering (Nuclear) {Apprenticeship-UCW} {Top-Up} [MOD] BEng (Hons) 2023-24

Electronic Engineering {Apprenticeship-UCW} {Top-Up} [Frenchay] BEng (Hons) 2023-24

Aerospace Engineering {Apprenticeship-UWE} [Sep][FT][UCW][4yrs] BEng (Hons) 2021-22

Mechanical Engineering [Sep][FT][Frenchay][3yrs] BEng (Hons) 2021-22

Aerospace Engineering {Apprenticeship-UCW} [Sep][FT][UCW][4yrs] BEng (Hons) 2021-22

Aerospace Engineering [Sep][FT][Frenchay][3yrs] BEng (Hons) 2021-22

Aerospace Engineering [Sep][FT][Frenchay][4yrs] MEng 2021-22

Aerospace Engineering with Pilot Studies [Sep][FT][Frenchay][4yrs] MEng 2021-22

Aerospace Engineering with Pilot Studies [Sep][FT][Frenchay][3yrs] BEng (Hons) 2021-22

Automotive Engineering [Sep][FT][Frenchay][3yrs] BEng (Hons) 2021-22

Automotive Engineering [Sep][FT][Frenchay][4yrs] MEng 2021-22

Electronic Engineering [Sep][FT][Frenchay][3yrs] BEng (Hons) 2021-22

Electronic and Computer Engineering [Sep][FT][Frenchay][3yrs] BEng (Hons) 2021-22

Mechanical Engineering [Sep][FT][Frenchay][4yrs] MEng 2021-22

Robotics [Sep][FT][Frenchay][3yrs] BEng (Hons) 2021-22

Mechanical Engineering with Manufacturing {Apprenticeship-UWE} [Sep][FT][UCW][4yrs] BEng (Hons) 2021-22

Mechanical Engineering with Manufacturing {Apprenticeship-UWE} [Sep][FT][COBC][4yrs] BEng (Hons) 2021-22

Aerospace Engineering {Foundation} [Sep][FT][Frenchay][4yrs] BEng (Hons) 2020-21

Aerospace Engineering with Pilot Studies {Foundation} [Sep][FT][Frenchay][4yrs] BEng (Hons) 2020-21

Electronic and Computer Engineering {Apprenticeship-GLOSCOLL} [Sep][FT][GlosColl][5yrs] BEng (Hons) 2020-21

Electronic Engineering {Foundation} [Sep][FT][Frenchay][4yrs] BEng (Hons) 2020-21

Robotics {Foundation}[Sep][FT][Frenchay][4yrs] BEng (Hons) 2020-21

Electronic Engineering {Apprenticeship-GLOSCOLL} [Sep][FT][GlosColl][5yrs] - Withdrawn BEng (Hons) 2020-21

Mechanical Engineering {Foundation}[Sep][FT][Frenchay][4yrs] BEng (Hons) 2020-21

Automotive Engineering {Foundation}[Sep][FT][Frenchay][4yrs] BEng (Hons) 2020-21

Electronic and Computer Engineering [Sep][PT][GlosColl][5yrs] BEng (Hons) 2020-21

Aerospace Engineering {Apprenticeship-UCW} [Sep][FT][UCW][5yrs] BEng (Hons) 2020-21

Electronic and Computer Engineering {Apprenticeship-GLOSCOLL} [Sep][FT][GlosColl][5yrs] BEng (Hons) 2019-20

Electronic and Computer Engineering [Sep][PT][GlosColl][5yrs] BEng (Hons) 2019-20

Mechanical Engineering {Apprenticeship-UCS} {Top-Up} [Frenchay] BEng (Hons) 2023-24

Mechanical Engineering {Apprenticeship-UCW} {Top-Up} [Frenchay] BEng (Hons) 2023-24

Mechanical Engineering {Apprenticeship-GlosColl} {Top-Up} [Frenchay] BEng (Hons) 2023-24