Module Specification

Fundamental Applications of Magnetic Resonance Imaging

Version: 2023-24, v3.0, 18 Dec 2023

Contents

Part 1: Information

Module title: Fundamental Applications of Magnetic Resonance Imaging

Module code: UZYY4P-30-M

Level: Level 7

For implementation from: 2023-24

UWE credit rating: 30

ECTS credit rating: 15

College: College of Health, Science & Society

School: CHSS School of Health and Social Wellbeing

Partner institutions: None

Field: Allied Health Professions

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 distance learning, practice-based module aims to provide students with the necessary knowledge to support and develop their clinical practice in Magnetic Resonance Imaging (MRI). This will enable students to apply this knowledge in a safe and appropriate manner that offers a quality service to patients.

Features: Module Entry requirements: Radiography professional qualification or relevant clinical Magnetic Resonance Imaging (MRI) experience.

Educational aims: To enable the student to critically evaluate the Magnetic Resonance (MR) protocols used in clinical practice with respect to the evidence base in order to inform service delivery and practice policy.

To develop the student's ability to evaluate MR images within a structured and monitored experiential learning environment

Outline syllabus:
The student will perform a wide range of MRI examinations in clinical practice thereby gaining a practical knowledge and understanding of:
Examination design considerations, rationale for the use, adaptation and development of MR acquisition protocols
Patient care and management.
Clinical applications of MRI and MRI Safety.
How the appearances of pathology and normal variants on MR images relate to the use of MRI in clinical practice.
Relevant Guidelines.
Clinical governance, service evaluation and audit.
Reflective practice.
Critical appraisal of published literature
Clinical Protocols
Appraise the use of contrast agents, both IV and oral, within MRI relating to risk/ benefit issues and dealing with adverse reactions.

Part 3: Teaching and learning methods

Teaching and learning methods: Contact hours will be achieved via blended learning education.

Scheduled Learning: This will be equivalent to 20 hours and will include:

Keynote lectures, but not be limited to, asynchronous delivery of lecture material through narrated presentations, notes and other guided reading, VLE discussion

board fora with specific objectives, workplace tasks, and other study tasks deemed appropriate to the development of student knowledge. Independent learning will include hours engaged with essential reading, case study preparation, assignment preparation and completion etc. These sessions constitute an average time per level.

Formative feedback on allocated study tasks will be provided:

Placement learning. Students on this module will be working in the field of MRI. There will be competency based tasks to complete locally as per the clinical portfolio component. This will be assessed with on-site Mentors

Work based appraisal completion.

Contact with the module leader for discussion of module related issues will be facilitated by e-mail, telephone conversations and discussion boards.

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

MO1 Critically evaluate MRI protocols for various anatomical regions

MO2 Demonstrate a critical knowledge of the legal, ethical and organisational aspects of current practice in MRI

MO3 Critically evaluate contemporary research concerning MR technology in order to inform practice, and implement new approaches where appropriate

MO4 Critically evaluate the contribution that MRI makes to diagnostic tests in the context of differential diagnosis

MO5 Safely perform a comprehensive range of MRI procedures, demonstrating an ability to adapt effectively to new or unusual situations

MO6 Justify the contribution and the role of MRI to the overall management of patients

Hours to be allocated: 300

Contact hours:

Independent study/self-guided study = 130 hours

Placement = 150 hours

Face-to-face learning = 20 hours

Total = 300

Reading list: The reading list for this module can be accessed at readinglists.uwe.ac.uk via the following link https://uwe.rl.talis.com/modules/uzyy4p-30-m.html

Part 4: Assessment

Assessment strategy: Assessment Task 1 - Clinical Portfolio of Evidence

This practice based assessment requires the production of a clinical portfolio of evidence. This portfolio will contain the following:

Record of clinical experience
Clinical assessments of patient examinations

Rationale: An opportunity for the student to demonstrate clinical competence. The portfolio is assessed in practice and marked as pass / fail as students need to meet a minimum requirement to practice safely at this level. The academic team will oversee and moderate the marking of the portfolio. There is opportunity for students to receive formative feedback on progression from mentors during clinical practice.

Assessment Task 2 – 2500 word Written Assignment

2500-Critical Essay

Rationale: an opportunity for the student to demonstrate a critical understanding and appreciation of the role of an MRI Advanced practitioner and operator. Students will have the opportunity for formative feedback.

Assessment tasks:

Portfolio (First Sit)
Description: Clinical portfolio of evidence

Pass/Fail
Weighting:
Final assessment: No
Group work: No
Learning outcomes tested: MO1, MO5, MO6

Written Assignment (First Sit)
Description: Critical Essay 2500 words
Weighting: 100 %
Final assessment: Yes
Group work: No
Learning outcomes tested: MO2, MO3, MO4, MO6

Portfolio (Resit)
Description: Clinical portfolio of evidence

Pass/Fail
Weighting:
Final assessment: No
Group work: No
Learning outcomes tested: MO1, MO5, MO6

Written Assignment (Resit)
Description: Critical Essay 2500 words
Weighting: 100 %
Final assessment: Yes
Group work: No
Learning outcomes tested: MO2, MO3, MO4, MO6

Part 5: Contributes towards

This module contributes towards the following programmes of study: