



Module Specification

Fundamental Applications of Computed Tomography

Version: 2023-24, v4.0, 17 Jan 2024

Contents

Module Specification	1
Part 1: Information	2
Part 2: Description	2
Part 3: Teaching and learning methods	3
Part 4: Assessment.....	5
Part 5: Contributes towards	7

Part 1: Information

Module title: Fundamental Applications of Computed Tomography

Module code: UZYRMU-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: Not applicable

Features: Module Entry requirements: Radiography professional qualification or relevant clinical Computed Tomography (CT) experience

Educational aims: See Learning Outcomes

Outline syllabus: Clinical Protocols:

Rationale for the use, adaptation and development of CT acquisition protocols in

diagnostic CT units. Consideration for patient preparation including:

Head, neck, neurology and ear, nose and throat (ENT)

Cancer staging (neck, chest, abdomen and pelvis)

Angiography

Trauma

Respiratory

Cardiac imaging (fundamental knowledge)

CT Colonography (screening and symptomatic)

Management and Organisation:

Consideration for organisation and management of CT service provision

Ethical and legal issues relating to CT practice, to include Ionising Radiation (Medical Exposures) Regulations (2000) (IR(ME)R) and Ionising Radiation Regulations (IRR) (1999).

Patient Care:

Evaluate patient care, preparation and quality enhancement to service delivery

Contrast the scanning requirements of specialist patient groups including anaesthetised, sedated and paediatric patients

Appraise the use of contrast agents within CT relating to risk/ benefit issues and dealing with adverse reactions

Part 3: Teaching and learning methods

Teaching and learning methods: Scheduled Learning. Teaching and learning methods will include, 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. Formative feedback on allocated study tasks will be provided.

Independent Learning. Includes hours engaged with essential reading, case study preparation, assignment preparation and completion etc. These sessions constitute

an average time per level.

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

Contact Hours: Contact hours will be achieved via blended learning education. This will be equivalent to 30 hours

Some material will be videoed lectures made available on Black-Board for all learners. Learners will have the option to attend these recordings but this will not be compulsory.

Subject specific vodcasts with associated self-directed leaning tasks.

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 CT protocols for various anatomical regions

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

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

MO4 Critically evaluate the contribution that CT makes to diagnostic tests/procedures , in the context of differential diagnosis

MO5 Perform a comprehensive range of CT procedures skillfully, safely, and to a high standard, demonstrating an ability to adapt effectively to new or unusual situations

MO6 Justify the contribution and the role of CT 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](https://uwe.rl.talis.com/modules/uzyrmu-30-m.html) via the following link <https://uwe.rl.talis.com/modules/uzyrmu-30-m.html>

Part 4: Assessment

Assessment strategy: Assessment Task 1 - Practice Based Portfolio

This practice based assessment requires the production of a clinical portfolio of evidence.

This portfolio must contain the following:

Record of clinical experience

Clinical assessments of actual patient examinations

Further details are available in the module handbook.

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 demonstrate progression of competencies (where appropriate) and receive

formative feedback throughout practice.

Assessment Task 2 – maximum of 2500 word Written Assignment

2500-Critical Essay

Rationale: an opportunity for the student to demonstrate an appreciation of the role of a CT Advanced practitioner and operator as defined by IR(ME)R regulations 2000

Assessment tasks:

Portfolio (First Sit)

Description: Clinical portfolio of evidence (Pass/Fail)

Weighting:

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO3, MO5

Written Assignment (First Sit)

Description: Critical Essay (2500 words)

Weighting: 100 %

Final assessment: No

Group work: No

Learning outcomes tested: MO2, MO4, MO6

Portfolio (Resit)

Description: Clinical portfolio of evidence (Pass/Fail)

Weighting:

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO3, MO5

Written Assignment (Resit)

Description: Critical Essay (2500 words)

Weighting: 100 %

Final assessment: No

Group work: No

Learning outcomes tested: MO2, MO4, MO6

Part 5: Contributes towards

This module contributes towards the following programmes of study: