



## MODULE SPECIFICATION

Part 1: Information			
Module Title	Introduction to Radiotherapy and Oncology		
Module Code	UZYS1V-30-1	Level	Level 4
For implementation from	2020-21		
UWE Credit Rating	30	ECTS Credit Rating	15
Faculty	Faculty of Health & Applied Sciences	Field	Allied Health Professions
Department	HAS Dept of Allied Health Professions		
Module Type:	Standard		
Pre-requisites	None		
Excluded Combinations	None		
Co-requisites	None		
Module Entry Requirements	None		
PSRB Requirements	None		

Part 2: Description
<p><b>Educational Aims:</b> See learning outcomes.</p> <p><b>Outline Syllabus:</b> Study skills: How to retrieve information, using sources of evidence effectively</p> <p>Principles of Oncology: Epidemiology and aetiology of cancers. Characteristics of tumours, classification of malignant tumours, staging and grading. The biological basis of cancer formation, routes of spread.</p> <p>Pre-treatment work up: Role of clinical investigations in diagnosis. Basic imaging principles, the role of imaging (including cross sectional imaging) in diagnosis, radiotherapy planning and treatment monitoring. Introduction to radiotherapy treatment planning tools and protocols.</p> <p>Aim of cancer management tools: Radiotherapy modalities and overview of radiotherapy equipment, concept of radical, palliative, prophylactic and adjuvant treatments. Overview of the role of surgery, chemotherapy and</p>

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hormone therapy. Basic principles of pharmacology and the role of pharmaceuticals in managing radiotherapy side effects.

Radiotherapy procedures:

Oncological principles related to anatomical sites for common cancers. Treatment models for radical and palliative applications in cancer sites commonly treated with external beam radiotherapy.

Radiobiology:

Principles of radiobiology and fractionation, concept of tolerance doses.

External beam dosimetry:

Isodose charts, applied dose, mid-plane dose, multifield techniques, electrons, methods of beam modification, immobilisation devices.

**Teaching and Learning Methods:** Scheduled learning includes lectures and seminars, practical sessions on the VERT system and radiotherapy planning computers.

Independent learning includes hours engaged with essential reading, completion of workbooks and interactive online learning materials, assignment preparation, presentation preparation, revision.

Formative assessment presentations student led presentations which will be formatively assessed and linked to the component B assessment.

Students will engage in approximately 102 hours of contact time including key note lectures and practical sessions in small groups on the VERT system and radiotherapy planning computers (maximum 7-8 students per group). Students are timetabled 36 hours of self study for completion of tasks, workbooks and virtual patient simulation scenarios throughout the module, but are expected to do additional self study within their own time. In addition, email contact with staff is available throughout the module and during scheduled tutorial time.

### Part 3: Assessment

Component A – Online open book examination (24 hour submission window).

Rationale: To allow assessment of a broad syllabus to ensure that students have the underpinning knowledge necessary for clinical practice at level 1.

Component B – 2500 word written case study reflecting upon formative assessment of student led group presentations.

Rationale: To enable students to demonstrate in-depth knowledge of particular aspects of radiotherapy and oncology management strategies and analyse these in accordance with research literature. Reflecting on learning from their group presentations and developing their written skills, will help prepare students for assessments at level 2.

First Sit Components	Final Assessment	Element weighting	Description
Examination (Online) - Component A	✓	50 %	Online examination (24 hours)
Case Study - Component B		50 %	2500 word written case study

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Part 4: Teaching and Learning Methods																							
Learning Outcomes	<p>On successful completion of this module students will achieve the following learning outcomes:</p> <table border="1"> <thead> <tr> <th>Module Learning Outcomes</th> <th>Reference</th> </tr> </thead> <tbody> <tr> <td>Explain the molecular basis of cancer development and progression</td> <td>MO1</td> </tr> <tr> <td>Describe the fundamental principles of external beam radiotherapy, including the radiobiological principles that underpin radiotherapy prescriptions</td> <td>MO2</td> </tr> <tr> <td>Explain the main treatment modalities used to treat cancer</td> <td>MO3</td> </tr> <tr> <td>Describe the role of imaging modalities utilised in oncology</td> <td>MO4</td> </tr> <tr> <td>Describe the principles of oncology and cancer management strategies, for arrange of common anatomical sites</td> <td>MO5</td> </tr> <tr> <td>Demonstrate an understanding of the application of scientific, technical and toxicity management principles in common cancers treated with external beam radiotherapy</td> <td>MO6</td> </tr> </tbody> </table>	Module Learning Outcomes	Reference	Explain the molecular basis of cancer development and progression	MO1	Describe the fundamental principles of external beam radiotherapy, including the radiobiological principles that underpin radiotherapy prescriptions	MO2	Explain the main treatment modalities used to treat cancer	MO3	Describe the role of imaging modalities utilised in oncology	MO4	Describe the principles of oncology and cancer management strategies, for arrange of common anatomical sites	MO5	Demonstrate an understanding of the application of scientific, technical and toxicity management principles in common cancers treated with external beam radiotherapy	MO6								
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Reading List	<p><i>The reading list for this module can be accessed via the following link:</i></p> <p><a href="https://uwe.rl.talis.com/modules/uzys1v-30-1.html">https://uwe.rl.talis.com/modules/uzys1v-30-1.html</a></p>
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### **Part 5: Contributes Towards**

This module contributes towards the following programmes of study: