



CORPORATE AND ACADEMIC SERVICES

MODULE SPECIFICATION

Part 1: Basic Data					
Module Title	Radiotherapy Technology and Oncology Practice				
Module Code	UZYSGL-40-M	Level	M	Version	2
Owning Faculty	Faculty of Health and Applied Sciences	Field	Allied Health Professions		
Contributes towards	MSc (Pre reg) Radiotherapy and Oncology				
UWE Credit Rating	40	ECTS Credit Rating	20	Module Type	Professional Practice
Pre-requisites	None		Co- requisites	None	
Excluded Combinations	None		Module Entry requirements	None	
Valid From	September 2013		Valid to	September 2018	
CAP Approval Date	23 January 2013				

Part 2: Learning and Teaching	
Learning Outcomes	<p>On successful completion of this module students will be able to:</p> <p>Knowledge and understanding</p> <ul style="list-style-type: none"> Critically apply knowledge of radiobiological principles that underpin radiotherapy prescriptions, the consequential side effects and their management (Component A) Evaluate factors to be taken into account at the installation of new radiotherapy equipment (Component B) Appraise the principles and applications of brachytherapy (Component B) Demonstrate a systematic understanding of radiographic imaging principles and evaluate imaging techniques performed in radiotherapy for localisation, planning and verification (Component A and Component B) Discuss and compare methods of conforming to the target volume (Component A) Demonstrate an understanding of multi-modality treatment strategies for a range of malignancies in the management of the patient with cancer (Component A) <p>Intellectual skills</p> <ul style="list-style-type: none"> Apply oncological principles to tumours requiring more complex management strategies (Component A and Component B) Evaluate and defend the radiographers role in the context of the healthcare team and the management of radiotherapy patients (Component B) Evaluate the radiographers role in health promotion and education demonstrating an understanding of the patient pathway for a range of conditions (Component B) Explore the role of specialist cancer services in patient management

	<p>(Component B)</p> <p>Subject, Professional and Practice skills</p> <ul style="list-style-type: none"> • Understand and evaluate the impact of the mechanisms of errors and error reduction strategies employed in practice (Component B) • Demonstrate an in-depth understanding of and apply current radiation protection regulations, codes of professional conduct & ethics, protocols regarding cross-infection, manual handling, general health and safety and basic life support (Component A) • Perform absorbed dose calculations for a range of treatment techniques in accordance with department protocols (Component A) <p>Transferable skills</p> <ul style="list-style-type: none"> • Demonstrate a critical understanding of related theory to clinical practice (Component A) • Continue to develop a personal and professional portfolio (Component A) • Demonstrate appropriate communication skills regarding diversity of patients and carers needs within the interprofessional healthcare environment (Component A)
Syllabus Outline	<p>Treatment Management</p> <ul style="list-style-type: none"> • Oncological management of tumours that may require complex treatment strategies (e.g. malignancies of the myeloproliferative systems, head and neck, central nervous system, gynaecological system.) • Application of radiobiological principles in the administration of radiotherapy for standard and non-standard treatment strategies, including brachytherapy. Application of fractionation schedules and tolerance doses • Pharmacology, cytotoxic chemotherapy and hormone therapy, applications in practice and current regimes. • Role of clinical investigations in cancer diagnosis, staging and treatment strategies. Interpretation of results relevant to practice. • Potential side effects of treatment and strategies for patient care, including the role of specialist cancer services. • Diversity of users of cancer services <p>Radiotherapy Technique</p> <ul style="list-style-type: none"> • Equipment design, function and role in localisation and verification techniques • Role of imaging modalities; computer planning; methods of conformation to the target volume • Multifield isocentric techniques and dosimetry of specific malignancies • Principles, techniques, clinical applications and dosimetry of brachytherapy • Superficial (including electron and photon) techniques and dosimetry <p>Quality control principles</p> <ul style="list-style-type: none"> • Treatment room design and radiation protection • Patient immobilisation and consideration of tumour mobility • Error management and quality assurance systems in radiotherapy. • The role of the radiographer within the healthcare team. Interprofessional relationships, communication and team working, extended roles. Professional boundaries and accountability, patient perspectives. <p>Patient pathway protocols and government public health initiatives</p> <ol style="list-style-type: none"> 1. Health promotion and screening:

	<ol style="list-style-type: none"> 2. Psychosocial issues to be considered at key points highlighted along the trajectory of the patient pathway 3. Sources of evidence available to patients and health care professionals, user involvement. 4. Management of patients with cancer through the care pathway from the pre-treatment stage to megavoltage treatment delivery; understanding and implementing appropriate professional and ethical behaviour; application of current radiation regulations, health and safety policies and guidelines for practice.
Contact Hours/Scheduled Hours	Module contains a professional practice component and so 20 credits are allocated to academic contact hours = 48 hours.
Teaching and Learning Methods	A variety of methods will be used which may include lectures; tutorials; seminars; group discussion; VERT practical sessions; directed study; observations and demonstrations; objective led competencies
Reading Strategy	<p>Access and Skills All students will be encouraged to make full use of the print and electronic resources available to them through membership of the University. These include a range of electronic journals and a wide variety of resources available through web sites and information gateways. The University Library's web pages provide access to subject relevant resources and services, and to the library catalogue. Many resources can be accessed remotely. Students will be presented with opportunities within the curriculum to develop their information retrieval and evaluation skills in order to identify such resources effectively. Additional support is available through the iSkillZone available via the Library web pages. This includes interactive tutorials on search skills and on the use of specific electronic library resources. Sign up workshops are also offered by the Library.</p> <p>Essential Reading Any essential reading will be indicated clearly, along with the method for accessing it, e.g. students may be expected to purchase a set text, be given a print study pack or be referred to texts that are available electronically.</p> <p>Further Reading Further reading will be required to supplement the set textbook and other printed readings. The purpose of this further reading is to ensure students are familiar with current research, classic works and material specific to their interests from the academic literature.</p> <p>Blackboard This module is supported by Blackboard where students will be able to find all necessary module information. Direct links to information sources will also be provided from within Blackboard</p>
Part 3: Assessment	
Assessment Strategy	This is a year 2 compulsory module on the MSc (Pre reg) Radiotherapy and Oncology degree programme. The module covers a wide range of learning outcomes aimed at developing the students knowledge and understanding of looking after and treating a wide range of patients diagnosed with cancer. The module explores radiation physics and planning, oncological principles of certain tumour types, the patient pathway, interprofessional working as well as the different cancer treatment strategies utilised in current practice. As part of the module students will undertake a WIKI that will allow them to build a case study for a given diagnosis, exploring the different learning outcomes, thus fulfilling the faculty's TEL strategy.

Identify final assessment component and element	Component A element 1	
% weighting between components A and B (Standard modules only)	A:	B:
First Sit		
Component A (controlled conditions) Description of each element	Element weighting (as % of component)	
1. Clinical portfolio to include clinical appraisals	Pass/fail	
Component B Description of each element	Element weighting (as % of component)	
1. Case Study	50%	
2. 2 hour timed assignment	50%	
Resit (further attendance at taught classes is not required)		
Component A (controlled conditions) Description of each element	Element weighting (as % of component)	
1. At the discretion of the Award Board	Pass/fail	
Component B Description of each element	Element weighting (as % of component)	
1. Case study	50%	
2. 2 hour timed assignment	50%	
If a student is permitted an EXCEPTIONAL RETAKE of the module the assessment will be that indicated by the Module Description at the time that retake commences.		