



		<p>College of Radiographers Values-based Practice in Diagnostic &amp; Therapeutic Radiography A Training Template (2016)  CoR Quality Standards for Practice Placements (2012)  CoR Research Strategy (2021 - 2026)  CoR Scope of Practice (2013)  Health and Care Professions (H&amp;CP) Practice Education Guidance (2016)  QAA The UK Quality Code for Higher Education 2018 Framework for Higher Education Qualifications  FHEQ Outcome Classification Descriptions for Level 6 Subject Benchmark Statements  OfS Guidance  PSRBs  SEEC Level Descriptors 2021  OfS Guidance</p>
<b>B. Course Aims and Features</b>		
<b>Distinctive features of course</b>	<p>The distinctive features of the BSc (Hons) Therapeutic Radiography programme include:</p> <ul style="list-style-type: none"> <li>• meeting the HCPC Standards of Proficiency (2023) and HCPC Standards of Education and Training (2017) and enable successful students to be eligible to apply for registration with the Health and Care Professions Council.</li> <li>• equipping individuals with the knowledge and skills required for eligibility to apply for registration with the Health and Care Professions Council as a therapeutic radiographer.</li> <li>• course design has been strategically built to reflect the indicative curriculum for autonomous practitioners published in the Society and College of Radiographers Education and Career Framework for the Radiography Workforce (2013).</li> </ul> <p>This revision of the existing programme has encompassed the ongoing change in technology and the format of the changing healthcare environment, with the aim of providing practitioners who are fit for purpose and fit for award.</p>	
<b>Course Aims</b>	<ul style="list-style-type: none"> <li>• ensure that the graduating radiography student achieves the competencies for registration as a therapeutic radiographer and undertake the role of practitioner and operator in accordance with the Ionising Radiation (Medical Exposure) Regulations [IR(ME)R], 2017.</li> <li>• develop confident, competent and reflective practitioners who practise autonomously, compassionately, skilfully and safely whilst maintaining dignity, and promoting health and wellbeing, of patients</li> <li>• develop a graduate therapeutic radiographer who is a critical consumer of research and evidence</li> <li>• foster independence in learning and commitment to continued professional development and lifelong learning</li> <li>• develop in the graduating student the qualities and transferable skills necessary for employment</li> </ul>	
<b>Course Learning Outcomes</b>	<p><b>Students will acquire knowledge and understanding of the:</b></p> <p>A1 philosophy underpinning the development of the profession of radiography</p>	

	<p>A2 role of the radiographer in the promotion of health and health education in relation to healthy living and health screening for disease detection</p> <p>A3 role of other professions and services in health and social care</p> <p>A4 structure and function of the human body, together with knowledge of health, disease, disorder and dysfunction relevant to their profession</p> <p>A5 structure and function of the human body in health and disease, including: – regional and cross-sectional anatomy of the head, neck, thorax, pelvis and abdomen – common pathologies and mechanisms of disease with a concentration on cancer, histology, haematology and the lymphatic and immune systems</p> <p>A6 physiological signs and symptoms, clinical investigations and diagnostic procedures that result in referral for radiotherapy</p> <p>A7 oncology and pathophysiology of solid and systemic malignancies, epidemiology; aetiology; clinical presentation; impact and the management of patients with cancer.</p> <p>A8 radiobiological principles on which the practice of radiography is based</p> <p>A9 risk-benefit philosophy and principles involved in the practice of therapeutic radiography</p> <p>A10 principles and applications of scientific enquiry, including the evaluation of treatment efficacy and the research process</p> <p>A11 physical principles of ionising radiation production, interaction, modification and protection underpinning radiation therapy. In particular, detailed knowledge of current legislation relating to the use of ionising radiation for medical purposes is essential;</p> <p>A12 physical and scientific principles on which image formation using ionising and non-ionising radiation is based</p> <p>A13 principles of dose calculation and radiation dosimetry</p> <p>A14 theoretical basis underpinning patient assessment prior to and during radiotherapy treatment</p> <p>A15 capability, applications and range of technological equipment used in radiotherapy</p> <p>A16 concepts and principles involved in the practice of radiotherapy and how these inform and direct clinical judgement and decision making</p> <p>A17 pharmacology and methods of administration of contrast agents, cytotoxic agents and drugs used in the relief of symptoms encountered frequently within the oncology setting.</p> <p>A18 quality assurance processes in place within radiotherapy</p> <p>A19 current developments and trends in the science and practice of radiotherapy</p> <p>A20 biochemical science of radiation pathophysiology</p>
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	<p>A21 influence of adjuvant treatment including surgery and chemotherapy on radiotherapy dose prescription, timing of radiotherapy and post radiotherapy complications</p> <p>A22 behavioural and communication sciences, and in depth understanding of their relevance and application to the care of people with cancer and undergoing cancer treatment, particularly radiation therapy;</p> <p>A23 legislative, policy, ethical and research frameworks that underpin inform and influence the practice of therapeutic radiographers.</p> <p>A24 current developments and trends in the science and practice of radiography and cancer management and therapy.</p> <p>A25 concept of leadership and its application to practice</p> <p><b>Students will develop their intellectual skills such that they are able to:</b></p> <p>B1 systematically evaluate and apply the scientific principles underpinning therapeutic radiography practices.</p> <p>B2 assess the role of radiotherapy and the therapy radiographer in the overall care of the client / patient.</p> <p>B3 assess the factors impinging on the delivery of continuity of care within a multidisciplinary team.</p> <p>B4 systematically evaluate the development of patient care and treatment or investigation strategies encountered in the oncology department and initiate action appropriate for the individual.</p> <p>B5 be able to assess a professional situation, determine the nature and severity of the problem and call upon the required knowledge and experience to make reasoned decisions to initiate, continue, modify or cease radiotherapy treatment</p> <p>B6 systematically evaluate the moral and ethical issues relevant to the clinical situation.</p> <p>B7 critically reflect on practice ensuring an evidence based approach to the professional role.</p> <p>B8 critically review research designs and methods which are used to generate evidence in radiotherapy</p> <p>B9 analyse and process data accurately, in order to conduct treatment preparation procedures and deliver radiation therapy efficiently and effectively.</p> <p>B10 demonstrate clinical reasoning skills based on judgements made from the collection, interrogation and interpretation of data from a range of sources and provided by a variety of methods.</p> <p>B11 recognise the value of research to the critical evaluation of radiotherapy practice.</p>
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	<p>B12 engage in the underlying principles of supervision.</p> <p><b>Students will acquire and develop practical skills such that they are able to:</b></p> <p>C1 accurately and safely operate a range of therapeutic radiography equipment and maintain a safe practice environment.</p> <p>C2 competently perform and evaluate a wide range of radiotherapy techniques and assure the quality of their practice.</p> <p>C3 practise within the legal and ethical boundaries of radiotherapy</p> <p>C4 demonstrate levels of clinical decision making commensurate with the level of theoretical and practical understanding.</p> <p>C5 consistently demonstrate skills in communication, information giving and developing therapeutic relationships.</p> <p>C6 prepare the patient both physically and psychologically in order to carry out an effective clinical procedure.</p> <p>C7 immobilise the patient for safe and accurate treatment preparation and delivery.</p> <p>C8 localise the target volume precisely in relation to external surface and anatomical reference markings using a range of techniques including computed tomography and magnetic resonance imaging</p> <p>C9 manipulate exposure and image recording parameters to optimal effect and interpret and evaluate images obtained during radiotherapy planning and treatment</p> <p>C10 be able to distinguish between normal and abnormal appearances evident on images, interpret and evaluate images obtained during radiotherapy planning and treatment identify organs at risk on images to provide information for radiotherapy treatment planning</p> <p>C11 generate a treatment plan and verify the treatment parameters to ensure delivery of the optimal radiation prescription.</p> <p>C12 to undertake radiation dose calculations</p> <p>C13 apply effective moving and handling skills in order to protect patients and self.</p> <p>C14 record and report outcomes of procedures appropriately.</p> <p>C15 demonstrate flexibility in working in a variety of work settings.</p> <p>C16 be able to remove and re-apply dressings and supports appropriately and in a safe, effective and considerate manner</p> <p>C17 manage their continuing professional development</p> <p>C18 practise as an autonomous professional, exercising their own professional judgement within their scope of knowledge</p> <p>Students will acquire and develop <b>transferable skills</b>, such that they are able to:</p>
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	D1	communicate effectively in both an inter and intra professional setting.
	D2	work effectively with others and perform as an effective member of an interdisciplinary team.
	D3	apply numeracy skills accurately to information and data relating to therapeutic radiography procedures.
	D4	use information and communications technology effectively, both in the practical situation and as a learning resource.
	D5	learn, think and problem solve independently in familiar and unfamiliar situations with an open mind.
	D6	interpret numerical, statistical data and written instructions accurately and safely and maintain records appropriately
	D7	identify and present material and the evidence base to support a reasoned argument.
	D8	critically reflect on practice / subject area using research evidence ensuring an evidence based approach to the professional role.
	D9	be accountable for their actions
	D10	practise in a non-discriminatory manner
	D11	meet the care needs of individuals and their significant others sensitively and respectfully having regard to the impact of illness and trauma and to socio-cultural differences.
	D12	be accountable for their actions

### C. Teaching and Learning Strategy

#### Knowledge & Intellectual skills:

- Lectures will be used to introduce and provide new information and consolidate existing knowledge
- Module leaders provide material on-line and students are encouraged to explore the use of on-line technologies that provide virtual teaching and assessment environments.
- Structured reading/guided study supplemented by e-activities on the virtual learning environment (VLE).
- Virtual Environment Radiotherapy Treatment (VERT), imaging and dosimetry skills lab workshops to prepare students for clinical placements
- Seminars, discussions and small group Triple R (Review, Reflect & Refocus) exercises to share ideas, undertake critical incident analysis and reflect on practice based issues
- Tutorials with individuals and small group exercises
- Structured reading/guided study
- Workbooks to develop and update knowledge
- Online group work and e-learning strategies
- Formative assessments

Students can expect, as part of the teaching and learning strategy, to be pro-active participants in the development of intellectual skills through discussion and peer presentation and subject reporting.

**Practical skills** are normally developed through practical skills based sessions, using VERT and dosimetry software, problem based approaches and clinical placements.

- Workshops / role play / simulation
- Enquiry based learning
- Tutorials
- Formative assessments
- Observation and demonstration of practices within clinical placements

**Transferable skills** are normally developed through engagement with, and completion of tasks in the academic and clinical curriculum. Interprofessional learning, group activities, practical skills development using VERT and dosimetry software, problem based approaches in the academic environment will be supplemented and enhanced by clinical placement experiences.

#### Resources

- Large and small teaching spaces.
- Skills laboratories, including two specialist Therapeutic Radiography laboratories (Virtual Environment for Radiotherapy Treatment and a Dosimetry planning suite, with Eclipse software)
- Manual and Handling suites (Hospital, ward set up)
- Computer laboratories.
- Library.
- Work-based learning environments.

### **D. Assessment**

Assessment methods are specified in each Module Guide and cover the module and course learning outcomes prescribed in the Module Guide. Content, knowledge and understanding is assessed through a variety of means and is aligned to the practical or theoretical content of the modules. Intellectual skills are assessed through a variety of means, aligned to the academic level, theoretical or practical content of the modules. A variety of assessment methods are used to assess transferable skills.

Assessment tasks are drawn from the following:

- Written Examination
- Written Coursework
- Objective Structured Clinical Examination (OSCE)
- VIVA
- Multi Modal Clinical Judgement Assessments (MMCJA)
- E-activities
- Clinical Competency Portfolio
- Poster Presentation
- Oral presentations
- Oral examinations
- Professional development portfolio and profile

### **E. Academic Regulations**

The University's Academic Regulations apply for this course: [LSBU Academic Regulations](#)

#### 1.0 Compensation

The schools follows the university regulations apart from:

- Students/Apprentices will not be eligible for compensation in any module as a pass in all elements of assessment is required to demonstrate competence.

#### 2.0 Third Attempts

An application for an exceptional third attempt at a single assessment in the final year of a pre-registration health and social care course may only be considered by the examination board in accordance with both of the following eligibility criteria for a single module.

Eligibility criteria

1. Increase in mark between first attempt and second.
2. Second attempt mark to be within 5% of the pass mark.

This protocol does not apply to:

1. Post-registration courses
2. CPPD stand-alone modules
3. Apprenticeship courses

### A. Entry Requirements

**BSc (Hons) Programme:** Applicants to these programmes will need to meet the following entry criteria (or recognised equivalent): [Admissions and Enrolment Procedure \(lsbu.ac.uk\)](http://lsbu.ac.uk)

It is anticipated that applicants will have a wide a variety of academic backgrounds, but they should ideally possess one of the following

- 120 UCAS tariff points (e.g. 3 A-Levels at grade B; BTEC Level 3 extended diploma (before 2010 known as BTEC national diploma level 3) (DMM); Plus GCSE (A–C or 4-9): five subjects including English, Mathematics and Physics/Combined Science
- or
- Access to Higher Education course in Science, Health or Social Care or similar with 60 credits (45 level 3 and 15 level 2) with 30 level 3 credits at Distinction and 15 level 3 credits at Merit
- or
- A foundation degree/higher apprenticeship in a professionally relevant subject
- or
- An Honours degree (minimum 2:2 Classification) in a subject related to science or health, for example, physics, biology, health sciences.

Consideration will also be given to other relevant qualifications recognised as equivalent to the above.

An overview of the recruitment requirements and AP(E)L process are detailed in the Generic Document (Document C).

The admission and selection procedures outlined are based on the following principles:

- Fitness for practice
- An imperative to ensure flexibility of entry in accordance with Department of Health guidance
- The course team's commitment to facilitate equal opportunities at the point of entry and throughout the course.

The university operates an equal opportunities policy where there is no discrimination in view of age, gender, race, marital status, sexual orientation, socio-economic background, disability or religious beliefs.

All offers of places on the programme are conditionally based on:

1. Satisfactory outcome of an interview;
2. Occupational Health clearance;
3. Satisfactory outcome of an Enhanced Criminal Records Bureau Disclosure

Potential students may also apply for exemption for certain modules on the basis of prior learning and/or experience through the AP(E)L process when applying. This will be reviewed by the APEL



team in the school for consideration of exemption.

Applications from candidates with disabilities are considered and assessment of abilities and needs undertaken sensitively. The safety of the potential students is an important consideration.

All applicants must be 18 years or over at the commencement of the course.

Students for whom English is not their first language must achieve a minimum Candidates must have the following minimum International English Language Test Score (IELTS) results at the time of applying:

- 7.0 overall or equivalent.
- 7.0 in the listening and reading sections.
- 7.0 in the writing and speaking sections.

Application is by UCAS.

### **G. Course structure(s)**

The programme is structured in order to maximise coherence of academic and clinical study. The university programme is based on a 3year model, taking 36 months to complete. In each year, academic delivery of the modules is organised across the two university semesters. The relative balance of academic to clinical practice reflects the expectation that graduate entry will provide students with skills necessary to progress at an appropriate pace and level of study.

Where appropriate academic sessions will be shared with the relevant pre-registration postgraduate therapeutic radiography modules; on other occasions the BSc (Hons) students will be taught alone. Shared teaching has been well received in the past, particularly when students from different clinical environments, who can discuss issues of common interest.

Practice is integrated throughout the three years; this structure recognises that clinical practice needs to be fundamentally embedded within the curriculum to enable students to develop the ability to link core knowledge and theory with practical clinical skills.

This programme design aims to ensure that future graduates are able to:

- Demonstrate strong professional role identity, autonomy, accountability and resilience;
- Work in partnership with peers, colleagues, service users and carers, to promote participation, health and well-being;
- Practice Radiotherapy in the context of current and emergent services and work effectively within a changing political and socio-economic climate.



#### Course overview:-

<b>Study Year</b>	<b>Semester 1 (September – January)</b>	<b>Semester 2 (January – June)</b>	<b>Summer (June – August)</b>	<b>Credits</b>
<b>Year 1</b> (months 1-12)	LSBU and practice-based learning	LSBU and practice-based learning	LSBU and practice-based learning	<b>120</b>
<b>Year 2</b> (months 13-24)	LSBU and practice-based learning	LSBU and practice-based learning	LSBU and practice-based learning	<b>120</b>
<b>Year 3</b> (months 25-36)	LSBU and practice-based learning	LSBU and practice-based learning	LSBU and practice-based learning	<b>120</b>
				<b>360 credits for award</b>

The programme consists of 15 modules:

- 3 Interprofessional Learning modules (IPL, Levels 4, 5 & 6), valued at 20 credits. The modules are shared with diagnostic radiography, therapeutic radiography, operating department practice, physiotherapy, sports rehabilitation, chiropractic, social work, and Therapeutic Radiography students.
- 9 profession-specific modules valued at 20 credits.
- 3 profession-specific modules valued at 40 credits, all of which include a practice placement.

All modules must be passed in order to be awarded the BSc (Hons) Therapeutic Radiography degree and to be eligible to apply for registration with the Health and Care Professions Council. Students who do not complete the course but have sufficient credits will be awarded a Diploma or Certificate in Health Studies. These awards do not confer eligibility to apply for registration with HCPC.

Year 1	
Semester 1	Semester 2
Interprofessional Learning Module (20)	
Anatomy and Biological Sciences (20)	
	Fundamental Oncological Management (20)
Introduction to Dosimetry and Radiotherapy Physics (20)	
Practice Placement 1 (40)	
 <b>Progress to Year 2</b>	
Semester 1	Semester 2
Interprofessional Learning Module (20)	
Cancer Imaging (20)	
Applied Oncological Management (20)	
Applied Dosimetry and Radiotherapy Physics (20)	
Practice Placement 2 (40)	
 <b>Progress to Year 3</b>	
Interprofessional Learning Module (20)	
Advancing Oncological Management (20)	

Advancing Dosimetry and Radiotherapy Physics (20)	
Contemporary Debates in Radiotherapy Practice (20)	
Practice Placement 3 (40)	

**Placements information**

Practice and Work Based Experience

Radiography is a practice-based profession and the primary aim is to produce competent Therapeutic Radiography practitioners who are fit for award, practice, purpose and profession. It is therefore essential to provide students with a structured education based upon their supervised involvement in practice- and service user-orientated activities. Competency is achieved through experimental learning and active participation, supported by the acquisition of a necessary extensive knowledge base. During the programme all students are required to gain a range of experience and all radiotherapy centres used for placement are able to provide an appropriate range of experience. Where there are occasions when specific experience is unavailable, in a particular placement, at these times students may need to attend an alternative placement site.

Practice Placement is organised through the programme as illustrated in the table below:-

Practice Placement	Focus of Placement	Time schedule
Practice Placement 1	Introduction to Therapeutic Radiography Practice	Year 1 Semester 1 + 2
Practice Placement 2	Enhancement and consolidation of foundation practice placement skills	Year 2 Semester 1 + 2
Practice Placement 3	Clinical judgement and problem-based learning, to ensure meeting of standards of clinical competence, required for HCPC registration	Year 3 Semester 1 + 2

Allocation of placement sites is influenced by personal circumstances, geography and clinical capacity however to ensure fairness and equality across the cohort, and promote student experience and employability, BSc (Hons) students are allocated a minimum of two clinical sites, which they rotate through during the three years of their course. In addition, opportunities to work in both public and private healthcare settings are facilitated to promote engagement with different clinical settings, techniques and equipment.

Seconded students will complete the majority of their clinical training at the trust which is supporting their training.

Crucial to the success of practice-based education is the successful integration of academic and clinical components of the programme. The relationship between these two areas of learning is a mutually supportive one: the knowledge base underpins practice activities but is itself sustained through reflection upon and critical appraisal of practice experiences. To facilitate the bridging of the theory-practice interface the programme incorporates the use of skills sessions and laboratory workshops in the university and work-based learning materials and tutorial sessions in clinical practice. Students will also have access to a range of web-based resources via the “Moodle” virtual learning environment.

In order to assist personal development and increase motivation, it is considered important for Therapeutic Radiography students to develop self-awareness, belief in their own abilities and appreciation of their own individual cognisance. Practice placements are at the centre of the Therapeutic Radiography programmes

and are designed to enable apprentices to develop a strong role identity as they become increasingly autonomous, accountable and resilient. Integration between the academic curriculum and the practice placements, at the level of the individual, aims to support students to manage and take responsibility for their professional development over time. Personal support will be offered by the course team, through link tutor roles.

Practice placements are audited annually as part of our quality assurance measures. Information discussed at tripartite reviews, will also look at placement quality to ensure the setting meets the requirements of the HCPC Standards of Education and Training, 2017.

#### H. Course Modules

YEAR 1		SEMESTER 1	Week	SEMESTER 2	Week
Introduction to Dosimetry and Radiotherapy Physics (20)	Formative	Mock exam	18		
	Summative	2hr unseen examination 100%	25		
Anatomy and Biological Sciences (20)	Formative	Anatomical skills practical	13	Mock examination	38
	Summative			2 hr unseen examination 100%	43
Fundamental Oncological Management	Formative	e-activities	13	Mock examination	38
	Summative			2 hr unseen examination 100%	43
Practice Placement 1 (40)	Formative	e-activities throughout			32
		Pecha Kucha	20	Group poster	29
	Summative			Poster 50%	34
				15 min presentation 50%	37
				Clinical competency portfolio P/F	51
Concepts of Interprofessional and Collaborative Practice (IPL1)	Formative	Group presentation of information resource	TBC		
	Summative			3000 word reflective account 100%	TBC
<b>YEAR 2</b>					
		<b>SEMESTER 1</b>		<b>SEMESTER 2</b>	
Applied Dosimetry and Radiotherapy Physics (20)	Formative	e-activities	18	Presentation	30
	Summative			20 min dosimetry planning presentation 100%	37
Cancer Imaging (20)	Formative	Imaging practicals throughout			32
	Summative			Imaging OSCE 100%	43
	Formative	e-activities	13	Mock examination	38

Applied Oncological Management (20)	Summative			2 hr unseen examination 100%	43
Practice Placement 2 (40)	Formative	e-activities throughout			32
		Mock Presentation	17	Mock MMCJA	38
	Summative	20 min presentation 50%	25	MMCJA 50%	43
				Clinical competency portfolio P/F as year 1	51
Appraising evidence for research informed practice (IPL2)	Formative	Journal club			
	Summative			3000-word critical appraisal 100%	37
<b>YEAR 3</b>		<b>SEMESTER 1</b>		<b>SEMESTER 2</b>	
Advancing Dosimetry and Radiotherapy Physics (20)	Formative	Skills and simulation activities	20	e-activities	33
	Summative			Poster (100%)	42
Contemporary Debates in Radiotherapy and Oncology (20)	Formative	Debate	20	500-word submission	26
	Summative			3000-words essay (100%)	37
Advancing Oncological Management (20)	Formative	e-activities	26	Mock examination	38
	Summative			2 hr unseen examination (100%)	43
Practice Placement 3	Formative			Mock multi-modal clinical judgement assessment (MMCJA) & VIVA	38
	Summative			MMCJA (50%)	43
				VIVA (50%)	43
				Clinical competency portfolio (P/F)	43
Improving quality, change management and leadership (IPL 3)	Formative			500-words draft or overview	
	Summative			3000-words assignment (100%)	43

#### I. Timetable information

Students can expect to receive a confirmed timetable for study commitments once they have enrolled onto the programme. During academic teaching blocks Wednesday have been identified as self-directed study days to enable students to participate in sporting/cultural activities to enhance their wellbeing and mindfulness. There may be circumstances when mandatory training sessions are scheduled during allocated study days.

All United Kingdom Bank holidays are upheld within the timetable.

Week	BSc Yr 1	BSc Yr 2	BSc Yr 3
8	INDUCTION	ACADEMIC	ACADEMIC
9	ACADEMIC	ACADEMIC	ACADEMIC
10	ACADEMIC	CLINICAL	ACADEMIC
11	ACADEMIC	CLINICAL	ACADEMIC
12	ACADEMIC	CLINICAL	ACADEMIC
13	ACADEMIC	CLINICAL	ACADEMIC
14	ACADEMIC	ACADEMIC	CLINICAL
15	ACADEMIC	ACADEMIC	CLINICAL
16	CLINICAL	ACADEMIC	CLINICAL
17	CLINICAL	ACADEMIC	CLINICAL
18	ACADEMIC	ACADEMIC	CLINICAL
19	ACADEMIC	ACADEMIC	CLINICAL
20	ACADEMIC	ACADEMIC	CLINICAL
21	ACADEMIC	ACADEMIC	ACADEMIC
22	Hol	Hol	Hol
23	Hol	Hol	Hol
24	Hol	Hol	Hol
25	ASSESS	ASSESS	ASSESS
26	ACADEMIC	ACADEMIC	ELECTIVE
27	CLINICAL	ACADEMIC	ELECTIVE
28	CLINICAL	ACADEMIC	CLINICAL
29	CLINICAL	ACADEMIC	CLINICAL
30	CLINICAL	ACADEMIC	ACADEMIC
31	CLINICAL	ACADEMIC	ACADEMIC
32	STUDY	CLINICAL	ACADEMIC
33	STUDY	CLINICAL	ACADEMIC
34	STUDY	CLINICAL	ACADEMIC
35	STUDY	CLINICAL	Hol
36	STUDY	CLINICAL	Hol
37	Hol	CLINICAL	Hol
38	Hol	CLINICAL	B/H
39	STUDY	Hol	CLINICAL
40	STUDY	Hol	CLINICAL
41	STUDY	ACADEMIC	ACADEMIC
42	REVISION	REVISION	REVISION
43	ASSESS	ASSESS	ASSESS
44	CLINICAL	Hol	Hol
45	CLINICAL	Hol	Hol
46	CLINICAL	Hol	CLINICAL
47	CLINICAL	Hol	CLINICAL
48	CLINICAL	Hol	CLINICAL
49	CLINICAL	ACADEMIC	ELECTIVE
50	ACADEMIC	CLINICAL	ELECTIVE
51	ACADEMIC/RESIT	CLINICAL/RESIT	ACADEMIC/RESIT
52	Hol	CLINICAL	CLINICAL
1	Hol	CLINICAL	CLINICAL
2	Hol	CLINICAL	CLINICAL
3	Hol	CLINICAL	
4	Hol / RESIT	CLINICAL/RESIT	
5	ACADEMIC	CLINICAL	

6	ACADEMIC	ACADEMIC	
7	ACADEMIC	ACADEMIC	

## J. Costs and financial support

### Course related costs

The learning and resource centre strives to provide maximum availability of core learning material via e-library therefore access to WiFi is imperative.

Clinical placements are varied in geographical location and availability, students should be aware that there will be travel and potentially accommodation costs associated with clinical placement attendance.

Uniforms and radiation badges are provided by the university. However, it is the responsibility of the student to provide and wear suitable footwear for placement.

### Tuition fees/financial support/accommodation and living costs

- Information on tuition fees/financial support can be found by clicking on the following link - <http://www.lsbu.ac.uk/courses/undergraduate/fees-and-funding> or
- <http://www.lsbu.ac.uk/courses/postgraduate/fees-and-funding>
- Information on living costs and accommodation can be found by clicking the following link- <https://my.lsbu.ac.uk/my/portal/Student-Life-Centre/International-Students/Starting-at-LSBU/#expenses>

### List of Appendices

- Appendix A: Curriculum Map
- Appendix B: Embedding the Educational Framework for Undergraduate Courses
- Appendix C: Terminology

## Appendix A: Curriculum Map

This map provides a design aid to help course teams identify where course outcomes are being developed, taught and assessed within the course. It also provides a checklist for quality assurance purposes and may be used in validation, accreditation and external examining processes. Making the learning outcomes explicit will also help students to monitor their own learning and development as the course progresses.

	Introduction to dosimetry and radiotherapy physics	Anatomy and Biological sciences	Fundamental Oncological Management	Practice Placement 1	Concepts of Interprofessional and Collaborative Practice	Applied dosimetry and radiotherapy physics	Cancer Imaging	Applied Oncological Management	Practice Placement 2	Appraising evidence for research informed practice	Advancing dosimetry and radiotherapy physics	Contemporary Debates in radiotherapy practice	Advancing Oncological management	Radiotherapy Practice 3	Improving quality, change management and leadership
A. Knowledge and understanding															
A1				TDA	TD	D	D		D			DA		D	D
A2									D			TDA		TDA	
A3				D	TDA				DA					DA	
A4		TDA	TD	TDA				TD	TDA				TD	TDA	
A5		TDA	TD	TDA				TD	TDA				TD	TDA	
A6		TDA	TD	TDA				TD	TDA				TD	TDA	
A7		TDA	TD	TDA				TD	TDA				TD	TDA	
A8	TD	TDA	TD	DA				TD	D				TD	DA	
A9	TD	TD	TD	TD			D	TD	D				TD	DA	
A10										TDA		D		DA	
A11	TDA		T	D		TDA		T	D		TDA		T	D	
A12						D	TDA		D		TDA				
A13				TD		D	TDA		D		D			DA	
A14		TD	T	TD				T	TD				DA	T	DA
A15	TDA			D		TDA	D		D		TDA	D		D	
A16		T	T	TD				T	D				T	DA	
A17		T	T	D			DA	T					T	DA	
A18	TDA			TDA		TDA			TDA		TDA	D		DA	D
A19		T	D	D		D	D	D	D		D	DA	D	D	TDA
A20	T	T												TDA	
A21		T		TDA					TDA					TDA	
A22				TA	T				DA					TDA	



A23	TDA			T					D	TDA		TD		D	
A24	TDA			TD					D	TDA		TD		D	
A25															TDA

	Introduction to dosimetry and radiotherapy physics	Anatomy and Biological sciences	Fundamental Oncological Management	Practice Placement 1	Concepts of Interprofessional and Collaborative Practice	Applied dosimetry and radiotherapy physics	Cancer Imaging	Applied Oncological Management	Practice Placement 2	Appraising evidence for research informed practice	Advancing dosimetry and radiotherapy physics	Contemporary Debates in radiotherapy practice	Advancing Oncological management	Radiotherapy Practice 3	Improving quality, change management and leadership
<b>B Intellectual skills</b>															
B1						TD	TD		D					TDA	
B2					TD							TDA		TDA	
B3					TD									TDA	
B4														TDA	
B5														TDA	
B6												TDA		D	
B7				TDA	T				TDA	D		D		TDA	D
B8										TDA	D	D	D	TDA	D
B9				TDA			TD		TDA					TDA	
B10									TDA					TDA	
B11							TD		D	TDA	D	D	D	TDA	D
B12														TDA	
<b>C Practical skills</b>															
C1				TDA			TDA		TDA					TDA	
C2				TDA					TDA					TDA	
C3				TDA					DA					DA	
C4				TDA			TDA		TDA					TDA	
C5				TDA	T				DA			TD		DA	
C6				TDA			TDA		DA					DA	
C7				TDA					TDA					TDA	
C8							TDA		DA					DA	
C9									TDA					TDA	

C10	T					TA	TDA		TDA		TA			TDA	
C11	T					TA	TDA		T		TA			DA	
C12	T					TA					TA			TDA	
C13				TDA										DA	
C14				TDA					DA					DA	
C15				DA					DA					DA	
C16				T					DA					DA	
C17				T					DA			D		DA	
C18														DA	
	Introduction to dosimetry and radiotherapy physics	Anatomy and Biological sciences	Fundamental Oncological Management	Practice Placement 1	Concepts of Interprofessional and Collaborative Practice	Applied dosimetry and radiotherapy physics	Cancer Imaging	Applied Oncological Management	Practice Placement 2	Appraising evidence for research informed practice	Advancing dosimetry and radiotherapy physics	Contemporary Debates in radiotherapy practice	Advancing Oncological management	Radiotherapy Practice 3	Improving quality, change management and leadership
D Transferable skills															
D1			TDA	TDA	TDA				DA			TDA		DA	D
D2			TDA	DA	TDA				DA			D		DA	DA
D3				TDA		TD	D	D	DA					DA	
D4	DA	TD	TDA	D	TDA	DA	D	D	DA	D	D	D	D	DA	D
D5									T					DA	
D6				TDA					DA					DA	
D7				TDA					DA					DA	
D8									D			DA		DA	
D9									D			DA		DA	
D10				TDA					DA					DA	
D11				TDA					DA					DA	
D12				TDA					DA					DA	

## Appendix B: Embedding the Educational Framework for Undergraduate Courses

The Educational Framework at London South Bank University is a set of principles for curriculum design and the wider student experience that articulate our commitment to the highest standards of academic knowledge and understanding applied to the challenges of the wider world.

The Educational Framework reflects our status as University of the Year for Graduate Employment awarded by *The Times and The Sunday Times Good University Guide 2018* and builds on our 125 year history as a civic university committed to fostering social mobility through employability and enterprise, enabling our students to translate academic achievement into career success.

There are four key characteristics of LSBU's distinctive approach to the undergraduate curriculum and student experience:

- Develop students' professional and vocational skills through application in industry-standard facilities
- Develop our students' graduate attributes, self-awareness and behaviours aligned to our EPIIC values
- Integrate opportunities for students to develop their confidence, skills and networks into the curriculum
- Foster close relationships with employers, industry, and Professional, Statutory and Regulatory Bodies that underpin our provision (including the opportunity for placements, internships and professional opportunities)

The dimensions of the Educational Framework for curriculum design are:

- **informed by employer and industry** needs as well as professional, statutory and regulatory body requirements
- **embedded learning development** for all students to scaffold their learning through the curriculum taking into account the specific writing and thinking requirements of the discipline/profession
- **high impact pedagogies** that enable the development of student professional and vocational learning through application in industry-standard or authentic workplace contexts
- **inclusive teaching, learning and assessment** that enables all students to access and engage the course
- **assessment for learning** that provides timely and formative feedback

All courses should be designed to support these five dimensions of the Educational Framework. Successful embedding of the Educational Framework requires a systematic approach to course design and delivery that conceptualises the student experience of the curriculum as a whole rather than at modular level and promotes the progressive development of understanding over the entire course. It also builds on a well-established evidence base across the sector for the pedagogic and assessment experiences that contribute to high quality learning.

This appendix to the course specification document enables course teams to evidence how their courses meet minimum expectations, at what level where appropriate, as the basis for embedding the Educational Framework in all undergraduate provision at LSBU.

Dimension of the Educational Framework	Minimum expectations and rationale	How this is achieved in the course
Curricula informed by	<u>Outcomes focus and professional/employer links</u>	Clinical placements are provided by the NHS and the private sector

<p>employer and industry need</p>	<p>All LSBU courses will evidence the involvement of external stakeholders in the curriculum design process as well as plan for the participation of employers and/or alumni through guest lectures or Q&amp;A sessions, employer panels, employer-generated case studies or other input of expertise into the delivery of the course provide students with access to current workplace examples and role models. Students should have access to employers and/or alumni in at least one module at level 4.</p>	<p>promoting a partnership in learning and education for the students.</p>
<p>Embedded learning development</p>	<p><u>Support for transition and academic preparedness</u> At least two modules at level 4 should include embedded learning development in the curriculum to support student understanding of, and familiarity with, disciplinary ways of thinking and practising (e.g. analytical thinking, academic writing, critical reading, reflection). Where possible, learning development will be normally integrated into content modules rather than as standalone modules. Other level 4 modules should reference and reinforce the learning development to aid in the transfer of learning.</p>	<p>Core modules at Level 4 include teaching and assessment that encourage students to develop their academic skills. Thus, providing fundamental knowledge and skills that provide a solid foundation for development and learning at higher level.</p>
<p>High impact pedagogies</p>	<p><u>Group-based learning experiences</u> The capacity to work effectively in teams enhances learning through working with peers and develops student outcomes, including communication, networking and respect for diversity of perspectives relevant to <b>professionalism</b> and <b>inclusivity</b>. At least one module at level 4 should include an opportunity for group working. Group-based learning can also be linked to assessment at level 4 if appropriate. Consideration should be given to how students are allocated to groups to foster experience of diverse perspectives and values.</p>	<p>Teamwork within the clinical environment is commonplace within radiotherapy practice, Level 4 students are expected to complete compulsory clinical placements and train within clinical teams enabling their skill development. The academic environment utilises an inter-professional module to promote group work, encouraging students to participate in formative group work to ensure students develop core team building skills critical for radiotherapy practice.</p>
<p>Inclusive teaching, learning and assessment</p>	<p><u>Accessible materials, resources and activities</u> All course materials and resources, including course guides, PowerPoint presentations, handouts and Moodle should be provided in an accessible format. For example, font type and size, layout and colour as well as captioning or transcripts for audio-visual materials. Consideration should also be given to accessibility and the</p>	<p>The virtual learning environment provides a multi-media approach to dissemination and sharing of learning material, resources and activities.</p>

	availability of alternative formats for reading lists.	
Assessment for learning	<p><u>Assessment and feedback to support attainment, progression and retention</u></p> <p>Assessment is recognised as a critical point for at risk students as well as integral to the learning of all students. Formative feedback is essential during transition into university. All first semester modules at level 4 should include a formative or low-stakes summative assessment (e.g. low weighted in final outcome for the module) to provide an early opportunity for students to check progress and receive prompt and useable feedback that can feed-forward into future learning and assessment. Assessment and feedback communicates high expectations and develops a commitment to <b>excellence</b>.</p>	<p>Within the therapeutic radiography level 4 studies all formative assessment does not carry any academic weighting, the formative assessment is provided as an opportunity to prepare the students for their summative assessment and is matched to support students to achieve these outcomes.</p> <p>Feedback is provided within positive timeframes in line with the university guidelines.</p>
High impact pedagogies	<p><u>Research and enquiry experiences</u></p> <p>Opportunities for students to undertake small-scale independent enquiry enable students to understand how knowledge is generated and tested in the discipline as well as prepare them to engage in enquiry as a highly sought after outcome of university study. In preparation for an undergraduate dissertation at level 6, courses should provide opportunities for students to develop research skills at level 4 and 5 and should engage with open-ended problems with appropriate support. Research opportunities should build student autonomy and are likely to encourage <b>creativity</b> and problem-solving. Dissemination of student research outcomes, for example via posters, presentations and reports with peer review, should also be considered.</p>	<p>Research is embedded within the therapeutic radiography profession and it is therefore reflected within the delivery of the programme. Within the Level 6 studies students are required to critically evaluate their clinical experience and propose an appropriate change management opportunity.</p> <p>Students are encouraged to participate in clinical audit within their clinical departments. The annual student conference by the Society and College of Radiographers is actively promoted within the programme.</p>
Curricula informed by employer and industry need / Assessment for learning	<p><u>Authentic learning and assessment tasks</u></p> <p>Live briefs, projects or equivalent authentic workplace learning experiences and/or assessments enable students, for example, to engage with external clients, develop their understanding through situated and experiential learning in real or simulated workplace contexts and deliver outputs to an agreed specification and deadline. Engagement with live briefs creates the opportunity for the development of student outcomes including <b>excellence, professionalism, integrity</b> and <b>creativity</b>. A live brief is likely to develop research and</p>	<p>Simulated and live workplace environments are embedded throughout the programme. Within the academic environment there are key learning opportunities provided through simulation utilising VERT and radiotherapy planning software. Simulation within this environment actively allows participation in clinical activities outside of the normal clinical time restraints, in addition provided a safe learning environment through experimental learning.</p>

	enquiry skills and can be linked to assessment if appropriate.	
Inclusive teaching, learning and assessment	<p><u>Course content and teaching methods acknowledge the diversity of the student cohort</u></p> <p>An inclusive curriculum incorporates images, examples, case studies and other resources from a broad range of cultural and social views reflecting diversity of the student cohort in terms of, for example, gender, ethnicity, sexuality, religious belief, socio-economic background etc. This commitment to <b>inclusivity</b> enables students to recognise themselves and their experiences in the curriculum as well as foster understanding of other viewpoints and identities.</p>	The field of oncology actively lends itself to an environment of inclusive teaching, learning and assessment. The therapeutic radiography programme is enhanced with varied service user accounts, reflections and case studies mirroring the variety seen amongst student and the patient population.
Curricula informed by employer and industry need	<p><u>Work-based learning</u></p> <p>Opportunities for learning that is relevant to future employment or undertaken in a workplace setting are fundamental to developing student applied knowledge as well as developing work-relevant student outcomes such as networking, <b>professionalism</b> and <b>integrity</b>. Work-based learning can take the form of work experience, internships or placements as well as, for example, case studies, simulations and role-play in industry-standards settings as relevant to the course. Work-based learning can be linked to assessment if appropriate.</p>	Students are required to achieve success in a clinical competency portfolio for each year of study. This clinical portfolio reflects the Standard of Proficiency of Radiographers published by the Health and Care Council. The clinical portfolio includes several sections including elements on professional behaviour, mandatory training, clinical competence and reflective practice. Quality standard and quality assurance are core elements within the pre-registration programme educating students of the importance and implications of quality management within clinical practice.
Embedded learning development	<p><u>Writing in the disciplines: Alternative formats</u></p> <p>The development of student awareness, understanding and mastery of the specific thinking and communication practices in the discipline is fundamental to applied subject knowledge. This involves explicitly defining the features of disciplinary thinking and practices, finding opportunities to scaffold student attempts to adopt these ways of thinking and practising and providing opportunities to receive formative feedback on this. A writing in the disciplines approach recognises that writing is not a discrete representation of knowledge but integral to the process of knowing and understanding in the discipline. It is expected that assessment utilises formats that are recognisable and applicable to those working in the profession. For example,</p>	The therapeutic radiography programme encompasses a range of assessment elements providing students with ample opportunity to excel in a variety of formats. The variety of assessment reflects the wide range of skills required for registration and progression within the profession. Communication skills are essential requirements of radiography practice and are identified clearly within the Scope of Practice of a Radiography and the Standards of Proficiency, therefore these are reflected within the curriculum.

	project report, presentation, poster, lab or field report, journal or professional article, position paper, case report, handbook, exhibition guide.	
High impact pedagogies	<p><u>Multi-disciplinary, interdisciplinary or interprofessional group-based learning experiences</u></p> <p>Building on experience of group working at level 4, at level 5 students should be provided with the opportunity to work and manage more complex tasks in groups that work across traditional disciplinary and professional boundaries and reflecting interprofessional work-place settings.</p> <p>Learning in multi- or interdisciplinary groups creates the opportunity for the development of student outcomes including <b>inclusivity</b>, communication and networking.</p>	Multi-disciplinary working is an essential component of the oncological management of patients, families and care givers students are provided with opportunities within the clinical and academic setting to review their own scope of practice and to consider the wider impact of their practice within the MDT environment. Within the level 4 studies students are inspired to establish professional identity, providing the foresight and basis for interprofessional partnership.
Assessment for learning	<p><u>Variation of assessment</u></p> <p>An inclusive approach to curriculum recognises diversity and seeks to create a learning environment that enables equal opportunities for learning for all students and does not give those with a particular prior qualification (e.g. A-level or BTEC) an advantage or disadvantage. An holistic assessment strategy should provide opportunities for all students to be able to demonstrate achievement of learning outcomes in different ways throughout the course. This may be by offering alternate assessment tasks at the same assessment point, for example either a written or oral assessment, or by offering a range of different assessment tasks across the curriculum.</p>	The programme is based on the assumption that assessment is an integral part of the learning process of the curriculum. Assessment encourages students to develop a variety of skills and abilities and build on the strengths that they already have. Formative feedback will be given to the students throughout the modules to promote the students to demonstrate excellence at summative assessment. A variety of approaches will be used in order to balance the assessment methods and to promote different skills/abilities whilst reflecting the nature of the module of learning.
Curricula informed by employer and industry need	<p><u>Career management skills</u></p> <p>Courses should provide support for the development of career management skills that enable student to be familiar with and understand relevant industries or professions, be able to build on work-related learning opportunities, understand the role of self-appraisal and planning for lifelong learning in career development, develop resilience and manage the career building process. This should be designed to inform the development of <b>excellence</b> and <b>professionalism</b>.</p>	Academic and clinical blocks are structured to enable effective theory practice links to be established, the proportion of clinical to academic increasing each year. Practice placement in the first year begins in the first semester to enable orientation and familiarisation of the student to the clinical environment, with the remainder of the practice occurring across the whole year. The integration and application of academic knowledge in the practice setting is developed through the three Radiotherapy Practice modules and is fundamental to the therapeutic radiographer's role.

		Elective placement opportunities are actively promoted and students are encouraged to negotiate and attend these placements during their final year of study.
Curricula informed by employer and industry need / Assessment for learning / High impact pedagogies	<u>Capstone project/dissertation</u> The level 6 project or dissertation is a critical point for the integration and synthesis of knowledge and skills from across the course. It also provides an important transition into employment if the assessment is authentic, industry-facing or client-driven. It is recommended that this is a capstone experience, bringing together all learning across the course and creates the opportunity for the development of student outcomes including <b>professionalism</b> , <b>integrity</b> and <b>creativity</b> .	The final interprofessional learning module explores leadership, quality improvement and change within organisations from an interprofessional perspective. Students review strategic, evidence based approach to change management in a range of environments bringing together all their learning across the course.



## Appendix C: Terminology

[Please provide a selection of definitions according to your own course and context to help prospective students who may not be familiar with terms used in higher education. Some examples are listed below]

<b>awarding body</b>	a UK higher education provider (typically a university) with the power to award higher education qualifications such as degrees
<b>bursary</b>	a financial award made to students to support their studies; sometimes used interchangeably with 'scholarship'
<b>collaborative provision</b>	a formal arrangement between a degree-awarding body and a partner organisation, allowing for the latter to provide higher education on behalf of the former
<b>compulsory module</b>	a module that students are required to take
<b>contact hours</b>	the time allocated to direct contact between a student and a member of staff through, for example, timetabled lectures, seminars and tutorials
<b>coursework</b>	student work that contributes towards the final result but is not assessed by written examination
<b>current students</b>	students enrolled on a course who have not yet completed their studies or been awarded their qualification
<b>delivery organisation</b>	an organisation that delivers learning opportunities on behalf of a degree-awarding body
<b>distance-learning course</b>	a course of study that does not involve face-to-face contact between students and tutors
<b>extracurricular</b>	activities undertaken by students outside their studies
<b>feedback (on assessment)</b>	advice to students following their completion of a piece of assessed or examined work
<b>formative assessment</b>	a type of assessment designed to help students learn more effectively, to progress in their studies and to prepare for summative assessment; formative assessment does not contribute to the final mark, grade or class of degree awarded to students

<b>higher education provider</b>	organisations that deliver higher education
<b>independent learning</b>	learning that occurs outside the classroom that might include preparation for scheduled sessions, follow-up work, wider reading or practice, completion of assessment tasks, or revision
<b>intensity of study</b>	the time taken to complete a part-time course compared to the equivalent full-time version: for example, half-time study would equate to 0.5 intensity of study
<b>lecture</b>	a presentation or talk on a particular topic; in general lectures involve larger groups of students than seminars and tutorials
<b>learning zone</b>	a flexible student space that supports independent and social learning
<b>material information</b>	information students need to make an informed decision, such as about what and where to study
<b>mode of study</b>	different ways of studying, such as full-time, part-time, e-learning or work-based learning
<b>modular course</b>	a course delivered using modules
<b>module</b>	a self-contained, formally structured unit of study, with a coherent and explicit set of learning outcomes and assessment criteria; some providers use the word 'course' or 'course unit' to refer to individual modules
<b>national teaching fellowship</b>	a national award for individuals who have made an outstanding impact on student learning and the teaching profession
<b>navigability (of websites)</b>	the ease with which users can obtain the information they require from a website
<b>optional module</b>	a module or course unit that students choose to take
<b>performance (examinations)</b>	a type of examination used in performance-based subjects such as drama and music
<b>professional body</b>	an organisation that oversees the activities of a particular profession and represents the interests of its members
<b>prospective student</b>	those applying or considering applying for any programme, at any level and employing any mode of study, with a higher education provider

<b>regulated course</b>	a course that is regulated by a regulatory body
<b>regulatory body</b>	an organisation recognised by government as being responsible for the regulation or approval of a particular range of issues and activities
<b>scholarship</b>	a type of bursary that recognises academic achievement and potential, and which is sometimes used interchangeably with 'bursary'
<b>semester</b>	either of the parts of an academic year that is divided into two for purposes of teaching and assessment (in contrast to division into terms)
<b>seminar</b>	seminars generally involve smaller numbers than lectures and enable students to engage in discussion of a particular topic and/or to explore it in more detail than might be covered in a lecture
<b>summative assessment</b>	formal assessment of students' work, contributing to the final result
<b>term</b>	any of the parts of an academic year that is divided into three or more for purposes of teaching and assessment (in contrast to division into semesters)
<b>total study time</b>	the total time required to study a module, unit or course, including all class contact, independent learning, revision and assessment
<b>tutorial</b>	one-to-one or small group supervision, feedback or detailed discussion on a particular topic or project
<b>work/study placement</b>	a planned period of experience outside the institution (for example, in a workplace or at another higher education institution) to help students develop particular skills, knowledge or understanding as part of their course
<b>workload</b>	see 'total study time'
<b>written examination</b>	a question or set of questions relating to a particular area of study to which candidates write answers usually (but not always) under timed conditions