



UNIVERSITY OF
LIVERPOOL

MSc

Therapeutic Radiography and Oncology (Pre-registration)

Study mode

Full-time

Duration

27 months

Apply by: **9 January 2026**

Starts on: **26 January 2026**

About this course

The MSc TRON is a 27-month, full-time programme of teaching and learning which integrates the clinical skills, academic knowledge, attitudes and understanding required to practice as a Therapeutic Radiographer.

Introduction

The MSc Therapeutic Radiography and Oncology is a 2-year, full-time programme of teaching and learning which integrates the clinical skills, academic knowledge, attitudes and understanding required to practice as a Therapeutic Radiographer. Graduates from the programme will be fit for practice, purpose and award and will be flexible, adaptable individuals, capable of critical thinking and using an evidence-based approach to contribute to improvements in patient centred treatment and care.

Graduates will meet all of the required first post competencies as outlined in the Health and Care Professions Council Standards of Proficiency and be eligible to apply for registration as a Therapeutic Radiographer. In addition, graduates will meet the requirements of the Society and College of Radiographers Education and Career Framework for the Therapeutic Radiography workforce.

Students studying this programme will have the opportunity to study at a Russell Group research-led University. The radiotherapy simulation skills suite enables simulation to be core to student learning.

Who is this course for?

Applicants should normally present with an honour's degree of normally a 2:1 classification in health, science, biomedical sciences or social sciences subject.

Non-health related degrees and professional qualifications may be accepted but each application will be considered on its own merits.

In addition, applicants should normally present with GCSE level or equivalent in English Language and Mathematics graded 5–9.

What you'll learn

1. To develop a competent, caring, safe and proactive Therapeutic Radiographer with a professional qualification that confers eligibility for registration with the Health and Care Professions Council.
 2. To develop a compassionate Therapeutic Radiographer who is responsive to service user needs, able to manage own self in order to remain empathic whilst adaptive and resilient to the challenging health care environment.
 3. To develop a Therapeutic Radiographer with specialist knowledge and clinical reasoning skills to be able to deliver safe radiotherapy and care within legal, ethical and professional frameworks, aware of own limitations and scope of practice.
 4. To develop a Therapeutic Radiographer who communicates effectively and respectfully, demonstrating flexibility and embracing mutual learning in a variety of health professional teams whilst maintaining a service user focused approach; sensitive to cultural needs and the needs of vulnerable service user groups in order to ensure equality of care to all, with no discrimination.
 5. To develop critical and analytical skills in the Therapeutic Radiographer through critical thinking and evaluation, appreciating the importance of evidence-based practice and the role of the Therapeutic Radiographer in engaging in radiotherapy research, publication and dissemination.
 6. 6. To develop a critically reflective Therapeutic Radiography practitioner, able to manage their own learning with a commitment to, and passion for continued professional development and life-long learning.
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Accreditation

The course is pre-registration and gives entitlement to register with the HCPC as a Therapeutic Radiographer.

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Course content

Discover what you'll learn, what you'll study, and how you'll be taught and assessed.

Year one

Modules

Compulsory modules	Credits
<u>ONCOLOGY AND CLINICAL PRACTICE 2 (BREAST, BLADDER AND GYNAECOLOGICAL CANCERS) (RADT410)</u>	20
<u>PHYSICS AND RADIOBIOLOGY FOR RADIOTHERAPY (RADT411)</u>	10
<u>RESEARCH METHODS IN HEALTHCARE PRACTICE (HEAL417)</u>	15
<u>FOUNDATIONS OF PHYSICS AND RADIOBIOLOGY FOR RADIOTHERAPY (RADT421)</u>	10
<u>ONCOLOGY AND CLINICAL PRACTICE 1 (SKIN, COLORECTAL AND PROSTATE) (RADT420)</u>	20

Programme details and modules listed are illustrative only and subject to change.

Year two

Modules

Compulsory modules	Credits
<u>TECHNOLOGY FOR RADIOTHERAPY (RADT413)</u>	10

Compulsory modules	Credits
<u>ONCOLOGY AND CLINICAL PRACTICE 4 (RARE CANCERS AND PALLIATIVE CARE) (RADT412)</u>	20
<u>PRACTICAL ISSUES IN RADIOTHERAPY (RADT423)</u>	10
<u>ONCOLOGY AND CLINICAL PRACTICE 3 (HEAD, NECK AND THORAX) (RADT422)</u>	20
<u>DISSERTATION: HEALTHCARE PRACTICE (HEAL418)</u>	45

Programme details and modules listed are illustrative only and subject to change.

Teaching and assessment

How you'll learn

This pre-registration MSc programme is designed using a modular format that integrates blocks of academic studies with blocks of professional practice across both semesters at level 7. The learning and teaching strategy of Social Constructivism is intended to acknowledge and promote the need to develop the learner's knowledge, critical appraisal and evolving clinical skill as they progress through the programme, from being more guided in year 1 (level 6 and 7) to being more independent, and learner led in year 2 (level 7). Their learning is a collaborative process, and knowledge develops from the individuals' interactions with their culture and society as well as from each other.

The programme content is organised into 4 key themes:

1. Physical and Radiobiological Science for Radiotherapy
2. Treatment Planning and On-treatment Verification Imaging
3. Radiotherapy Theory & Clinical Practice
4. Research

In Year 1 of the programme, learners are introduced to foundations of physical and radiobiological science, with key concepts of ionising radiation interaction with matter, radiotherapy treatment planning and features of radiation beams introduced. In year 2 science modules, learners begin to evaluate critically the

technology used in clinical practice, comparing and contrasting the use of dosimetry equipment, treatment planning processes and justifying the use of on-treatment verification processes. As practitioners of the future, the final science module enables learners to explore new and emerging technologies and the critical role of the Therapeutic Radiographer in error propagation, clinical consequence and mitigation of risk.

In Radiotherapy Theory and Clinical Practice, learners are introduced to key concepts of oncology in Year 1 such as epidemiology, aetiology, anatomy and physiology, signs and symptoms, management and survivorship and link these to radiotherapy and oncology 1. Using a case-based approach, whereby each cancer site studied is framed by an authentic patient case; learners begin to evaluate critically key aspects of the radiotherapy patient journey. Radiotherapy treatment planning requires an understanding of cross-sectional anatomy and application of this knowledge in order to critically evaluate a treatment plan and its suitability. Throughout the 2 years of the programme, learners develop critical clinical reasoning skills which facilitate this essential skill. With alternate blocks of academic study and clinical practice, the learner is able to continually develop clinical skills and knowledge, which is reinforced by academic learning. The final Oncology and Clinical Practice module explores the complex needs of palliative and end of life care in the context of cancer care. New and emerging practice in relation to management of paediatric and young adults with cancer requires learners to consider challenging emotional concepts, critically evaluate the evidence base and continue to reflect critically on their own professional and personal development, leadership, management and future practice.

In year one students work with a research supervisor to develop a research question in an area of practice in which they are interested. This leads to their project proposal at the end of year 1. In year two they work with a project supervisor, who has expertise in the area they have chosen to study, in the year-long dissertation module to carry out the project in a supported but increasingly independent manner as the project progresses leading them to develop independent learning and research skills.

The themes reflect knowledge, understanding and skills that are integral to therapeutic radiography practice. The programme is designed to produce practitioners who are competent, discerning and committed to personal and professional development, whilst ensuring that their patients receive the treatment and care appropriate to their needs. The teaching and learning opportunities on this programme are chosen to equip the professional Therapeutic Radiographer with the appropriate knowledge, understanding and skills using a variety of pedagogic methods and skills development as well as

developing their professional identity. At the heart of all the learning and teaching, is a commitment to develop within the learner the capacity to care and show compassion to all patients. This is emphasised in all the academic modules, and especially whilst on clinical placement where, for example, compassionate patient care and communication form a core component of all formative feedback and continuous clinical assessment. Patient care, ethics, social awareness and communication are constantly highlighted and reflected upon. The MSc Therapeutic Radiography & Oncology embraces the University of Liverpool curriculum framework, ensuring that programme content is characterised by the three Liverpool Hallmarks:

- Research connected teaching
- Active learning
- Authentic Assessment

In the university setting, the learning and teaching for the primary knowledge base is achieved through a truly blended learning approach, utilising a mix of lectures, tutorials, seminars, practical sessions (simulation), computer-based and directed learning via study packs, University based technology enhanced learning resources, work-based, case-based and problem-based learning. The more formal teaching methods, such as lectures and tutorials, are used to develop the learners' knowledge acquisition of new subject matter since some may not have not studied these areas in their first degrees. However, lectures are usually delivered interactively with question and answer, and discussion methods in order to develop the learners' critical thinking, understanding and the applicability to radiotherapy. Multimedia is used where appropriate, through video clips and media streams in class and online sessions, as well as focussed reading for private study from sources such as books, e-journals, web resources, video clips etc. Introducing the concept of reflection and reflective practice during the first semester, in preparation for their first clinical placement, ensures that learners develop essential critical reflective skills needed for professional practice and development. Self-directed learning is used to develop research and information gathering skills.

Learners undertaking the programme are supported in their development of academic writing and critical thinking skills (University Strategy 2026). Level 6 module content introduces the learner to the key concepts, knowledge and skills required to optimise their learning of more advanced knowledge, problem solving and critical evaluation which characterises study at level 7. The level 6 Radiotherapy physics, technology and radiobiology module provides fundamental knowledge relating to radiation interaction, radiotherapy equipment, treatment planning, radiation safety and quality management.

Learners are encouraged to read widely around a subject theme, developing their information gathering and assimilation skills.

All of the teaching methods used support and develop higher level critical thinking, reading, academic writing and research; but with a continual focus on reflective clinical practice of radiotherapy and the care of the service user.

How you're assessed

The range of assessments selected are designed to integrate theory and practice and to ensure that there is constructive alignment between the learning outcomes, teaching and assessment. They also enable learners to develop independent and critical thinking via active and social processes.

All assessments are designed to motivate the learner and bring together the learning and assessment components of the programme. The wide range of learning and assessment methods enables learners to demonstrate their knowledge in a variety of ways which addresses different learning styles and preferences, enhancing their understanding. The clinical assessment methodology ensures that the learner is constantly monitored, given formative feedback, engages in their own action planning and, therefore, improves, develops and takes responsibility for their learning journey.

Assessments will be:

- Structured to allow the learner to be discriminating in their selection of appropriate information;
- Designed to test the ability of the learner to conceptualise, critique and evaluate;
- An appropriate method of assessing modular learning outcomes and learning level.

Learners will be required to communicate their knowledge orally and in written form; critically analyse, implement and evaluate their practice; and to explore the research and evidence base of the profession. This will be indicative of a reflective practitioner. The various methods of assessments have been chosen to provide a balance that will permit

There are both formative and summative assessments to give learners the opportunity for personal development and to build confidence through assessment. There are a range of formative assessments including quizzes, feedback on draft course work, feedback on presentations and feedback from facilitators and peers during the development of the research project. There are a range of different types of examinations in the programme.

Similarly, continuous clinical assessments will advance in their scope and complexity from year 1 to year 2. In year 1 learners will be expected to demonstrate a range of fundamental clinical skills in carrying out routine radiotherapy

treatments. In year 2 they will be expected to demonstrate their ability to respond to patients with more difficult conditions who require more complex management and treatment.

The programme has a diverse range of assessments and methods guided by Education Strategy 2026 and governed by the University Code of Practice on Assessment and its appendices. The overriding aim of the Education Strategy is to support learners as they become creative and culturally rich graduates with the capacity to find employment that will enable them to be agents for change in a connected world.

Liverpool Hallmarks

We have a distinctive approach to education, the Liverpool Curriculum Framework, which focuses on research-connected teaching, active learning, and authentic assessment to ensure our students graduate as digitally fluent and confident global citizens.

The Liverpool Curriculum framework sets out our distinctive approach to education. Our teaching staff support our students to develop academic knowledge, skills, and understanding alongside our **graduate attributes**:

- Digital fluency
- Confidence
- Global citizenship

Our curriculum is characterised by the three **Liverpool Hallmarks**:

- Research-connected teaching
- Active learning
- Authentic assessment

All this is underpinned by our core value of **inclusivity** and commitment to providing a curriculum that is accessible to all students.

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Careers and employability

This is a vocational programme to develop graduates to become Therapeutic Radiographers affording employment employed in either the NHS or the private sector as a Band 5 therapeutic radiographer.

They would then have the option of developing a whole career in therapeutic radiography. Options are to progress towards advanced and consultant practice undertaking further post graduate qualifications, or progressing into management with a managerial qualification such as an MBA.

They would also have an option of stopping clinical work and progressing into higher education and becoming an academic. This too would require further qualifications with an MSc as a minimum but a PhD preferred.

There is also a new 'clinical academic pathway' where radiographers can undertake both clinical and academic work. Some radiographers also take up the opportunity of progressing into the business side of radiotherapy in the private sector and become sales representatives or product specialists. There is also an opportunity to move into the education sector with further research and education qualifications and become a radiotherapy educator or researcher.

Career support from day one to graduation and beyond

Career planning

From education to employment

Networking events

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Fees and funding

Your tuition fees, funding your studies, and other costs to consider.

Tuition fees

UK fees (applies to Channel Islands, Isle of Man and Republic of Ireland)

Full-time place, per year – £9,535

International fees

Full-time place, per year – £29,100

Fees stated are for the 2025–26 academic year.

Tuition fees cover the cost of your teaching and assessment, operating facilities such as libraries, IT equipment, and access to academic and personal support.

- You can [pay your tuition fees in instalments](#).
- All or part of your tuition fees can be [funded by external sponsorship](#).
- International applicants who accept an offer of a place will need to [pay a tuition fee deposit](#).
- If you're eligible for tuition fees and maintenance support from the Student Loans Company, you may qualify for the [NHS Learning Support Fund](#) for this course.

Additional costs

We understand that budgeting for your time at university is important, and we want to make sure you understand any course-related costs that are not covered by your tuition fee. This could include buying a laptop, books, or stationery.

Find out more about the [additional study costs](#) that may apply to this course.

Entry requirements

The qualifications and exam results you'll need to apply for this course.

Postgraduate entry requirements

2:2 honours degree or above in a relevant health, physical, biological or life science subject.

You should include a personal statement of no more than 700 words in support of your application. This should reflect on your understanding of the profession and relevant qualities valuable to a healthcare professional.

You should demonstrate a good understanding of the scope of therapeutic radiography practice, including an awareness of the various settings a therapeutic radiographer might work in.

This could preferably be indicated by observation experience of therapeutic radiography working in a variety of clinical areas, or by other experience which can be related to the skills and qualities required to work in a therapeutic radiography environment.

Experience in a paid or voluntary capacity working with the general public, children, older persons or people with special needs will also help to strengthen your application.

You should include a personal statement of no more than 700 words in support of your application. This should reflect on your understanding of the profession and relevant qualities valuable to a healthcare professional.

An interview forms part of the selection process. The interview follows the values-based recruitment (VBR) process and you will be expected to demonstrate the relevance of the [NHS' values](#) and pertinent skills required to work in therapeutic radiography and oncology.

Please note: meeting the minimum criteria does not guarantee a place on the programme as competition is high. You are encouraged to present the strongest possible application.

Declaration of criminal background

You will understand that as an allied health professions and nursing student, and when you qualify, you will be asked to treat children and other vulnerable people. We therefore need information about any criminal offences of which you may have been convicted, or with which you have been charged. The information you provide may later be checked with the police.

If selected for interview you will be provided with the appropriate form to complete.

Health screening

The University and the School of Allied Health Professions and Nursing has an obligation to undertake health screening on all prospective healthcare students. Any offer of a place to study is conditional on completion of a health questionnaire and a satisfactory assessment of fitness to train from the University's Occupational Health Service. This will include some obligatory immunisations and blood tests. Please visit the [Higher Education Occupational Practitioners website](#) for further information.

International qualifications

[Select your country or region to view specific entry requirements.](#)

If you hold a bachelor's degree or equivalent, but don't meet our entry requirements, a Pre-Master's can help you gain a place. This specialist preparation course for postgraduate study is offered on campus at the [University of Liverpool International College](#), in partnership with Kaplan International Pathways. Although there's no direct Pre-Master's route to this PGDip, completing a Pre-Master's pathway can guarantee you a place on many other postgraduate courses at The University of Liverpool.

English language requirements

You'll need to demonstrate competence in the use of English language, unless you're from a [majority English speaking country](#).

Please note, while we accept IELTS for this course, your IELTS test must have been sat and completed in person and not online.

International applicants who do not meet the minimum required standard of English language can complete one of our [Pre-Sessional English courses](#) to achieve the required level.

IELTS

7.0 overall, with no component below 6.5

TOEFL iBT

100 overall, with minimum scores of listening 21, writing 21, reading 21 and speaking 23. TOEFL Home Edition not accepted.

Duolingo English Test

135 overall, with writing not less than 140, speaking and reading not less than 125, and listening not below 120. For academic year 2025/26 only, we will also accept the production, literacy, comprehension and conversation score set: 130 overall, with no component below 120.

Pearson PTE Academic

69 overall, with no component below 61

LanguageCert Academic

75 overall, with no skill below 70

PSI Skills for English

C1 Pass in all bands

INDIA Standard XII

National Curriculum (CBSE/ISC) – 75% and above in English. Accepted State Boards – 80% and above in English.

WAEC

C6 or above

Pre-sessional English

Do you need to complete a Pre-sessional English course to meet the English language requirements for this course?

The length of Pre-sessional English course you'll need to take depends on your current level of English language ability.

Pre-sessional English in detail

If you don't meet our English language requirements, we can use your most recent IELTS score, or [the equivalent score in selected other English language tests](#), to determine the length of Pre-sessional English course you require.

Use the table below to check the course length you're likely to require for your current English language ability and see whether the course is available on campus or online.

Your most recent IELTS score	Pre-sessional English course length	On campus or online
6.5 overall, with no component below 6.5	6 weeks	On campus
6.5 overall, with no component below 6.0	10 weeks	On campus and online options available
6.5 overall, with no component below 5.5	12 weeks	On campus and online options available
6.0 overall, with no component below 5.5	20 weeks	On campus
5.5 overall, with no component below 5.0	30 weeks	On campus
5.0 overall, with no more than one component below 5.0, and no component below 4.5	40 weeks	On campus

If you've completed an alternative English language test to IELTS, we may be able to use this to assess your English language ability and determine the Pre-sessional English course length you require.

Please see our guide to [Pre-sessional English entry requirements](#) for IELTS 7.0 overall, with no component below 6.5, for further details.

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