UNIVERSITY OF LIVERPOOL

Diagnostic Radiography (Pre-registration) MSc

COURSE DETAILS

- Full-time: 24 months

KEY DATES

- Apply by: 31 October 2025
- Starts: 26 January 2026

Course overview

Gain eligibility to apply to the Health Care Professions Council (HCPC) for professional registration as a diagnostic radiographer on completion of this MSc. You'll discover the radiographic techniques and imaging technologies required to conduct patient x-rays and scans on a course underpinned by team-based and problem-based learning.

INTRODUCTION

If you want to work as a diagnostic radiographer, x-raying and scanning patients in an NHS or private setting, this pre-registration MSc combines the academic knowledge and clinical learning experience you'll need.

The programme will immerse you in the theory and practice of a comprehensive range of radiographic techniques needed for first post competencies working in the modern healthcare sector.

You'll build awareness of anatomy, physiology and pathology and gain experience working with radiographic and cross-sectional images. You'll also achieve an understanding of radiological science which is associated with medical imaging and radiation protection.

An introduction to research methods in health care will highlight the importance of evidence-based practice in diagnostic radiography.

You'll develop into a diagnostic radiographer with the skills, knowledge and understanding required for safe and ethical practice. This expertise will be underpinned by a caring approach to patients, providing care in a professional, culturally sensitive and emotionally intelligent manner, with the ability to identify potential improvements in service delivery.

On completion of the course, you'll be eligible to apply for professional registration with the Health Care Professions Council (HCPC). This registration is required to work as a diagnostic radiographer in the UK.

WHO IS THIS COURSE FOR?

We are looking for science graduates, or those with degrees in related subjects, such as psychology. You should be a caring, empathetic person who is energetic and wants to make a difference to people's lives.

WHAT YOU'LL LEARN

- How to deliver safe, effective and professional practice as a diagnostic radiographer
- Diagnostic imaging techniques
- Knowledge and understanding of anatomy, physiology and pathology
- Radiographic and contrast imaging procedures
- An understanding of radiological science and radiation protection
- Advanced imaging techniques including ultrasound and nuclear medicine
- How to make informed decisions about diagnostic image quality and patient dose
- Key skills and methodologies for healthcare research
- Professionalism and role development in radiography

Course content

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

YEAR ONE

COMPULSORY MODULES

CLINICAL AND PROFESSIONAL PRACTICE (DRAD403)

Credits: 20 / Semester: whole session

This is the first of two modules that relate to Clinical Practice and Professionalism. This module combines personal and professional development with the first practice placement experience which takes place over 14 weeks during Year 1. The student will be introduced to the importance of professionalism, skills and attitudes in preparation for first post competencies and lifelong learning. The clinical practice experience enforces the university-based learning to ensure the student will meet the Health and Care Professions Council Standards of Proficiency for Radiographers for safe and effective practice.
This module will also enable students to develop their clinical knowledge and skills in the university and clinical environments. Within this module, diagnostic imaging techniques of the chest, abdomen, appendicular and axial skeletons will be taught, practised and assessed at University and undertaken whilst on clinical placement. During their placement the student will undertake imaging techniques of the chest, abdomen, appendicular and axial skeleton (lateral skull, facial bones and dental techniques), under close supervision.

The learning and teaching strategy for this module will take a student centred approach and will consist of university based lectures, tutorials, practicals, simulation and supportive online resources. The practical tutorials and simulation will take place in the Rose Thompson imaging lab and Florence Nightingale clinical simulation suite. Practice placements will facilitate the supervised practice and consolidation of skills, related to communication, patient-centred care and radiographic practice. The module will be assessed by three components: assessment of radiographic imaging techniques and patient care, reflective writing assignment, to demonstrate personal development/patient-centred care and assessment of clinical practice using the ‘Practice Assessment Record and Evaluation’ (PARE). In preparation for these assessments, the student will also be provided with formative feedback relating to academic and professional practice.

MUSCULOSKELETAL AND SOFT TISSUE IMAGING SYSTEMS 1 (DRAD402)

Credits: 20 / Semester: semester 2

This module is the first of the anatomy/patho-physiology and image interpretation modules in the Diagnostic Radiography Post-Graduate Pre-Registration Masters programme.

On successful completion the student will have developed knowledge of anatomy, patho-physiology and image interpretation of the skeleton, thoracic and abdominal cavities and their associated organs.

The module will be delivered using 'Team Based Learning' (TBL) and image viewing tutorials using both projection radiography (x-ray) and cross-sectional images, covering normal radiographic anatomy and common pathologies of the skeleton, thoracic and abdominal cavities. Teaching sessions in the Human Anatomy Resource Centre (HARC) contribute to this module and enable the student to visualise the anatomical body parts, giving a clearer understanding.

The module will be assessed via 2 on-campus written examinations.

The content of this module is delivered in the first teaching block, prior to clinical placement where students have the opportunity to apply this knowledge over the summer period.

RADIOGRAPHIC SCIENCE AND IMAGING TECHNOLOGIES (DRAD401)

Credits: 20 / Semester: semester 2

This Year 1 module provides a solid theoretical foundation in radiologic science to allow the student to make informed decisions about diagnostic image quality and patient dose. This module also provides a working knowledge of radiation protection and the relevant legislative framework in order to work safely in the clinical environment. This module also introduces a range of ionising and non-ionising imaging technologies used in radiography. The module will be delivered via lectures to provide a theoretical foundation, while sessions using radiographic simulation software will demonstrate the application of the concepts to medical imaging. Tutorials will allow consolidation of the concepts covered in the lectures. The blended learning approach will be enhanced with a range of interactive educational technologies (e.g. Kahoot) to facilitate e-learning made available on the VLE. In addition to the ongoing formative quizzes in the VLE, a revision session will be available towards the end of the module to help students prepare for the assessment. The final assessment will be an electronic exam.

MUSCULOSKELETAL AND SOFT TISSUE IMAGING SYSTEMS 2 (DRAD404)

Credits: 15 / Semester: semester 1

This module is the second of the anatomy, patho-physiology and image interpretation modules in the Diagnostic Radiography Pre-registration Masters programme. It also includes some radiographic procedures related to imaging these anatomical areas.

On successful completion, the student will have developed an understanding of anatomy, physiology and pathology of the central and peripheral nervous systems, skull, facial bones and dentition. Additionally they will be introduced to contrast imaging procedures of the cranial, thoracic and abdominal cavities.

The module will be delivered using 'Team Based Learning' (TBL) and image viewing tutorials, using both projection radiography (x-ray) and cross-sectional images , covering normal radiographic anatomy and common pathologies of the cranial, thoracic and abdominal cavities

Teaching sessions in the Human Anatomy Resource Centre (HARC) contribute to this module.

The module will be assessed via 2 on-campus written examinations.

The content of this module is delivered in the second teaching block, after clinical placement.
It prepares the students for the forthcoming radiographic techniques of year 2.

RESEARCH METHODS IN HEALTHCARE PRACTICE (HEAL417)

Credits: 15 / Semester: semester 1

This module will enable students to develop a research proposal for either a review of evidence, empirical project, clinical audit or service evaluation that will contribute to the development of evidence-based healthcare practice.

The module is aimed at graduates from a range of different disciplines/subjects who have a range of knowledge and experience of research methods at undergraduate level and are looking to develop their research knowledge and skills further and prepare for a masters level research project in their own area of clinical practice e.g. diagnostic radiography, mental health nursing, occupational therapy or physiotherapy. The likely range of research skills in students from different undergraduate programmes is recognised and this module is designed to raise them all to the appropriate master level in the subject.
At the end of this module, students will be able to understand and appropriately critique the elements of 'the research journey' from conception of research question, through development of a proposal. They will be both consumers and producers of research who will meet the requirements of the standard of proficiency, for each profession, as laid down by the Health and Care Professions Council and the requirements of each professional body for evidence based practice.
The proposal produced in this module will then be undertaken as the students' dissertation in the final year of their pre-registration master programme.

The syllabus for this module is aligned to the Curriculum 2021 Hallmarks and demonstrates active learning and authentic assessment, designed to create students with greater confidence to understand research evidence, contribute to that evidence and be able to develop research in their own area of professional practice.

The module delivery will use a blended approach with face to face and online delivery supported with synchronous and asynchronous lectures, quizzes and profession specific interactive discussion boards and tutorials.

The assessments for this module will be a Research Proposal. The assessments can be tailored to focus on the student's area of interest and area of speciality and will include consideration of the ethical requirements of the selected project.

Any optional modules listed above are illustrative only and may vary from year to year. Modules may be subject to minimum student numbers being achieved and staff availability. This means that the availability of specific optional modules cannot be guaranteed.

YEAR TWO

COMPULSORY MODULES

DISSERTATION: HEALTHCARE PRACTICE (HEAL418)

Credits: 45 / Semester: whole session

This module comprises the dissertation for the preregistration healthcare programmers. It will enable students to undertake a piece of empirical research, a service evaluation/audit or a review of evidence in their chosen field of interest.

ADVANCED IMAGING TECHNIQUES AND MULTIMODALITY IMAGING (DRAD501)

Credits: 20 / Semester: semester 2

This Year 2 module will prepare the learner for their second year practice placement block.

It incorporates anatomy, physiology and pathology of the reproductive and endocrine systems, the visual and auditory systems, not covered in earlier modules, and their radiographic appearances using more complex imaging techniques including ultrasound and cross-sectional imaging. The student will also learn the theory of more advanced imaging procedures including adaptive trauma techniques, theatre imaging, and computed tomography (CT) scanning techniques. There will be an element of practical work relating to CT scanning, in preparation for the Year 2 placement block.

Students will learn about the role of the radiographer in management of major incidents, and within the operating theatre team, including the importance of time management and communication skills. Students will broaden their knowledge of the clinical application of advanced imaging techniques, including ultrasound, nuclear medicine, magnetic resonance (MRI), computed tomography (CT), through the opportunity to explore imaging of a selected medical condition.

Delivered in semester 1 of year 2 of the programme (Semester 2 of academic year 2023-24), the module adopts a student-centered, blended approach to learning combining e-learning and lectures with interactive sessions using team-based learning and formative activities, and practical training in the CT scanner suite. Through this blended approach using directed learning, practical training and informed discussion, this module promotes the development of 'life-long learners' equipped with the knowledge, skills and competencies relevant to diagnostic radiography graduates.

This module will build upon the knowledge of anatomy, pathology, professionalism and image interpretation gained from previous modules DRAD403 and DRAD404, in preparation for post qualification practice, and enhance the student's decision-making skills when reviewing visual information from medical images. This will enable them to make informed clinical judgements and decisions and communicate these to referrers of imaging examinations.

The module will be assessed via electronic examination, and a verbal presentation related to diagnosis of a selected medical condition using advanced imaging techniques.

PROFESSIONALISM, ADVANCED PRACTICE AND IMAGING SERVICES (DRAD502)

Credits: 25 / Semester:

This 25 Credit M-level module will explore issues of professionalism and role development in preparation for graduation and employment in a first-post either in the NHS (Band 5 Diagnostic Radiographer) or private organisational setting. The module builds on the clinical practice from Year 1 of the MSc, and imaging modalities and associated anatomy and pathology in both Year 1 and Year 2. The module will facilitate critical exploration of both the entry level and advanced roles radiographers can undertake. Teaching will be a mixture of online and synchronous on-campus lectures with quiz based formative tests, and group work in order to explore service user experiences of health-care in addition to group workshops to provide peer-feedback on the written assignment.
Assessment consists of an online portfolio and an essay on the role of the radiographer in advanced practice.

Any optional modules listed above are illustrative only and may vary from year to year. Modules may be subject to minimum student numbers being achieved and staff availability. This means that the availability of specific optional modules cannot be guaranteed.

HOW YOU'LL LEARN

Team-based learning, problem-based learning and research-connected teaching are central elements of the programme.

You'll be taught through a combination of lectures, tutorials, laboratory work, practical workshops, simulations, clinical placements and independent study.

A range of interactive digital tools will also be used.

HOW YOU'RE ASSESSED

A variety of authentic assessments provide the opportunity to demonstrate your clinical competence.

There are exams which involve a mix of seen and unseen tasks, multiple choice questions, short-answer exercises, medical image viewing assessments and anatomical diagrams which need to be annotated.

You'll also produce a research proposal and complete a research project which is submitted in the form of a journal.

Weekly assessments in clinical practice will review your performance and ensure you receive regular feedback.

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.

Careers and employability

Graduates in diagnostic radiography are a vital part of modern health care and in high demand both in the UK and abroad.

Successful completion of the programme confers eligibility to apply for professional registration as a qualified diagnostic radiographer with the Health and Care Professions Council (HCPC).

You will also be eligible to become a member of the Society and College of Radiographers.

You'll be capable of challenging current clinical practice with an evidence-based approach and have the expertise to drive improvements in radiology services and patient-centred care.

Career support from day one to graduation and beyond

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Career planning

Our Careers Studio and career coaches can provide tailored support for your future plans.

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From education to employment

Employability in your curriculum for a successful transition

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Networking events

Make meaningful connections with like-minded professionals

YOUR FUTURE

Upon successful registration with the HCPC, you'll be eligible to apply to work as a band 5 diagnostic radiographer in either the NHS or private sector. There is an excellent chance of immediate post-qualification employment.

Your future career plans could involve undertaking post-registration qualifications with the HCPC in preparation for advanced and consultant practice. This could lead to opportunities to specialise in areas including medical ultrasound, computer tomography, magnetic resonance imaging, radionuclide imaging or mammography.

You could alternatively choose to pursue a managerial qualification, such as an MBA, or consider PhD study and a potential career in academia as a radiography educator or

researcher.

Some radiographers also take up the opportunity of progressing into the business side of radiography in the private sector and become sales reps or product specialists.

99% OF ALLIED HEALTH PROFESSIONS AND NURSING STUDENTS FROM THE UNIVERSITY OF LIVERPOOL FIND THEIR MAIN ACTIVITY AFTER GRADUATION MEANINGFUL.

Graduate Outcomes, 2018-19.

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	£9,250

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 a UK national, or have settled status in the UK, you may be eligible to apply for a Postgraduate Loan worth up to £12,167 to help with course fees and living costs. **Learn more about fees and funding**.

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.

SCHOLARSHIPS AND BURSARIES

We offer a range of scholarships and bursaries that could help pay your tuition and living expenses.

We've set the country or region your qualifications are from as United Kingdom. Change it here

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POSTGRADUATE GLOBAL ADVANCEMENT SCHOLARSHIP – ACHIEVEMENT

- International students

If you're an international student joining a master's course with us, you could be eligible to receive a tuition fee discount of £2,500, based on your prior academic achievement, choice of course, and you not having studied with us before.

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POSTGRADUATE GLOBAL ADVANCEMENT SCHOLARSHIP – COUNTRY

- International students
- Antigua and Barbuda
- Australia
- Bangladesh
- Barbados
- Belize
- Brunei
- Canada
- China
- Cyprus
- Dominica
- Egypt
- Ghana
- Grenada
- Guyana
- India
- Jamaica
- Japan
- Kenya
- Malaysia
- Mauritius
- Mexico
- New Zealand
- Nigeria
- Pakistan
- Saint Kitts and Nevis
- Saint Lucia
- Saint Vincent and The Grenadines
- Singapore
- South Africa
- South Korea
- Sri Lanka
- Tanzania
- Thailand
- Trinidad and Tobago

- Turkey
- Uganda
- Vietnam

If you're an international student joining a master's course with us, you could be eligible to receive a tuition fee discount of £2,500, based on your nationality, choice of course, and you not having studied with us before.

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GRADUATE LOYALTY ADVANCEMENT SCHOLARSHIP

- Home and international students

If you're a University of Liverpool graduate starting this master's degree with us, you could be eligible to receive a loyalty discount of up to £2,500 off your master's tuition fees.

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CHILEAN NATIONAL AGENCY FOR RESEARCH AND DEVELOPMENT (ANID) SCHOLARSHIP

- International students
- Chile

If you're a Chilean student joining a master's degree, you could be eligible to apply for a 20% discount on your tuition fees with a Chilean National Agency for Research and Development (ANID) Scholarship. Scholarship.

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CONSEJO NACIONAL DE CIENCIA Y TECNOLOGIA (CONACYT) AWARD

- International students
- Mexico

If you're a Mexican student joining a master's degree, you could be eligible to apply for a 30% discount on your tuition fees with a CONACyT Award.

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FUND FOR THE DEVELOPMENT OF HUMAN RESOURCES (FIDERH) AWARD

- International students
- Mexico

If you're a Mexican student joining a master's degree and you're in receipt of a FIDERH graduate loan, you could be eligible to benefit from a 20% discount on your tuition fees with a FIDERH Award.

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FUNED AWARD

- International students
- Mexico

If you're a Mexican student joining a master's degree and you're in receipt of a FUNED loan, you can apply to be considered for a 20% tuition fee discount. A total of up to 50 awards will be available to master's and PhD students per academic year.

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FUNED SCHOLARSHIP FOR WOMEN IN STEM SUBJECTS

- International students
- Mexico

If you're a female Mexican student joining an eligible master's course in a science, technology, engineering or maths (STEM) subject and you're in receipt of a FUNED loan, you can apply to be considered for a 25% tuition fee discount. Up to five awards are available in each academic year.

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HONG KONG GRADUATE ASSOCIATION & TUNG FOUNDATION POSTGRADUATE SCHOLARSHIPS

- International students
- China
- Hong Kong

If you're a master's student from Hong Kong or the People's Republic of China who can demonstrate academic excellence, you may be eligible to apply for a scholarship worth up to £10,000 in partnership with the Tung Foundation.

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HRH PRINCESS SIRINDHORN UNIVERSITY OF LIVERPOOL SCHOLARSHIP (THAILAND)

- International students
- Thailand

If you're a student from Thailand joining a one-year master's degree, you might be eligible to apply to have your tuition fees paid in full and receive help with living costs. One award is available and only students who are new to the University will be considered.

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JOHN LENNON MEMORIAL SCHOLARSHIP

- Home students

If you're a UK student, either born in or with strong family connections to Merseyside, you could be eligible to apply for a fee discount of up to £4,500. You'll need to demonstrate an active interest in global, community and environmental issues to be considered.

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JUVENTUDESGTO SCHOLARSHIP

- International students
- Mexico

If you're a resident of the state of Guanajuato in Mexico joining a master's degree, you could be eligible for a 10% discount on your tuition fees with a JuventudEsGto Scholarship.

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MARSHALL SCHOLARSHIP

- International students
- United States

If you're a USA student joining an eligible master's with us, you could be eligible to apply for a Marshall Scholarship. If your application is successful, your master's tuition fees will be paid in full. One Marshall Scholarship for master's study is available in each academic year.

- ## POSTGRADUATE OPPORTUNITY BURSARY

  - Home students

  If you're a UK University of Liverpool graduate joining a master's degree with us, you could be eligible to receive £3,000 off your tuition fees. You must have graduated in the last two years and received a widening access scholarship during your undergraduate studies.

- ## SPORT LIVERPOOL PERFORMANCE PROGRAMME

  - Home and international students

  Apply to receive tailored training support to enhance your sporting performance. Our athlete support package includes a range of benefits, from bespoke strength and conditioning training to physiotherapy sessions and one-to-one nutritional advice.

- ## TURKISH MINISTRY OF EDUCATION SCHOLARSHIP

  - International students
  - Turkey

  If you're a Turkish student joining a master's degree, you could be eligible to apply for a 20% discount on your tuition fees with a Turkish Ministry of Education Scholarship.

- ## UNIVERSITY OF LIVERPOOL INTERNATIONAL COLLEGE IMPACT PROGRESSION SCHOLARSHIPS

  - International students

  If you're a University of Liverpool International College student awarded a Kaplan Impact Scholarship, we'll also consider you for an Impact Progression Scholarship. If selected, you'll receive a fee discount worth £3,000 off the first year of your master's course.

- ## VICE-CHANCELLOR'S INTERNATIONAL ATTAINMENT SCHOLARSHIP FOR MAINLAND CHINA

  - International students
  - China

  Are you a high-achieving graduate from the People's Republic of China with a degree from a Chinese university? You could be eligible to apply for a £5,000 fee discount if you're joining an eligible master's course. Up to 15 eligible students will receive this scholarship.

Entry requirements

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

Your qualification	**Requirements** About our typical entry requirements
GCSE	4/C in English and 4/C in Mathematics
Postgraduate entry requirements	**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.** The programme will recruit graduates from across a range of disciplines, eg biological sciences, physics, health sciences, who have obtained at least a 2:2 classification in their degree. We will also consider those who are able to provide wider contextual information of recent relevant experience or further study. Non-health related degrees and professional qualifications may be accepted but each application will be considered on its own merits. GCSEs in Mathematics, English Language and a Science at a minimum of grade 5 or C or above are required. You should demonstrate a good understanding of the scope of diagnostic radiography practice, including an awareness of the various settings a diagnostic radiographer might work in. This could preferably be indicated by observation experience of diagnostic radiographers 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 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

Your qualification	**Requirements** About our typical entry requirements
	be expected to demonstrate the relevance of the NHS' values and pertinent skills required to work in diagnostic radiography. 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 a health sciences 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 Health Sciences 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	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 MSc, completing a Pre-Master's pathway can guarantee you a place on many other postgraduate courses at The University of Liverpool.

THE ORIGINAL REDBRICK

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