Programme Specification
Full Time Direct Graduate Entry

University of CUMBRIA

Title and Name of Award	MSc Medical Imaging (Ultrasound)		
Academic Level	7	Total Credits	180
Professional Body Accreditation / Qualification	Accredited by the Consortium for the Accreditation of Sonographic Education (CASE)		
Date of Professional Body Accreditation	March 2023	Accreditation Period	"open ended approval" reviewed as a minimum every 6 years
UCAS Code	Not applicable		
HECoS Code	100129		
Criteria for Admission to the Programme	The University's standard criteria for admissions apply. Please refer to the Applicant Information pages of the University website for more information. For APL, please refer to the University website. This is a specialised programme which is governed by the standards and competences of the professional body and as such, Accreditation of Prior Learning (APL) will not normally be permitted on this pathway, unless from a CASE accredited ultrasound course, from a previous validation at this institution. Detailed criteria for admission to this programme can be found on the programme webpage: www.cumbria.ac.uk/study/courses/postgraduate/accelerated-route-medical-ultrasound-direct-entry/ The following additional requirements apply for entry to this programme: Minimum of 5 GCSE passes to include Maths, English and Science (grade B for Science) or above. At least one science subject at A level (or equivalent) at grade C or above. An honours degree (upper second class) honours or above is preferred but those with a lower second-class honours may still be considered on a case-by-case basis. Candidates must demonstrate a thorough understanding of the subject and clinical specialism. You will be asked to submit a short essay, prior to being invited to a selection day. Only applicants who meet the standard of 50% at level 6 or above will progress to the next stage.		

	You will be expected to attend a selection day at the university. Successful applicants will be then invited to attend one of the placement sites for a clinical visit. Acceptance on the course ultimately depends on the placement site's willingness to offer a place based on their performance during the placement visit and your suitability for that respective placement site.
	As part of the recruitment process, you will be assessed for your values using the core requirements set out in the Value Based Recruitment (VBR) Behaviour Framework as outlined in the NHS Constitution http://www.nhsemployers.org/case-studies-and-resources/2014/11/values-based-recruitment-behaviour-framework
Teaching Institution	University of Cumbria
Owning Institute	Health
Programme delivered in conjunction with	NHS and private sector placement providers
Principal Mode of Delivery	Blended Learning
excepPattern of Delivery	The full-time direct graduate entry MSc in Medical Imaging (Ultrasound) is a **full time** 2 year (24 month) taught pathway of study. This is usually taught in calendar years and not the traditional academic year. Module delivery is usually via one-week academic study blocks. These are normally delivered by a combination of online and campus based scheduled learning and teaching delivery. This delivery runs alongside continuous clinical placement.
Delivery Site(s)	Online and Lancaster Campus
Programme Length	Up to 2 years standard and 5 years maximum
Exit Awards	If you exit the MSc Medical Imaging (Ultrasound) Graduate Entry pathway early, and have passed all of the academic and clinical components required you may be awarded: PgDip Medical Imaging (Ultrasound) PgCert Medical Imaging (Ultrasound) You may be awarded one of the following Exit Awards if you fail to achieve the requirements of the clinical components but pass the academic components: **(Not CASE accredited)** MSc The Theory of Medical Imaging (Ultrasound) PgDip The Theory of Medical Imaging (Ultrasound) PgCert The Theory of Medical Imaging (Ultrasound) A CoA in any specific modules passed **(Not CASE accredited)**

Period of Approval	August 2023 – July 2029

This programme has been approved (validated) by the University of Cumbria as suitable for a range of delivery modes, delivery patterns, and delivery sites. This level of potential flexibility does not reflect a commitment on behalf of the University to offer the programme by all modes/patterns and at all locations in every academic cycle. The details of the programme offered for a particular intake year will be as detailed on the programme webpage:
www.cumbria.ac.uk/study/courses/postgraduate/accelerated-route-medical-ultrasound-direct-entry/

Cumbria Graduate Attributes

Throughout your studies, you will be provided with the skills and knowledge relevant to the global workplace. All successful graduates of the University of Cumbria will be:

- Enquiring and open to change

- Self-reliant, adaptable and flexible

- Confident in your discipline as it develops and changes over time

- Capable of working across disciplines and working well with others

- Confident in your digital capabilities

- Able to manage your own professional and personal development

- A global citizen, socially responsible and aware of the potential contribution of your work to the cultural and economic wellbeing of the community and its impact on the environment

- A leader of people and of places

- Ambitious and proud

Programme Features

The pathway sits within the MSc Medical Imaging (Ultrasound) programme and is aimed at graduates with science, healthcare or other relevant backgrounds. This pathway provides an innovative opportunity for graduate entrants (who may not hold an existing health care qualification) to complete a CASE accredited qualification in medical ultrasound. This is in an exciting course designed specifically for those wishing to be ultrasound practitioners.

You will learn all the professional knowledge and skills required to work as a Sonographer* in the UK healthcare sector. This pathway is open to graduates from a range of academic or clinical backgrounds with clinical placements provided by NHS and private sector partners across the region, providing practical applications of the knowledge you learn from studying. On this pathway you are a full time student of the university and will attend the practical elements of the course in an assigned clinical placement, with one of our placement partners. You will not be employees of those placement sites and therefore will not be paid during training. On this pathway you will cover the regional core skills passport mandatory training prior to going out on placement.

We have modules covering a range of ultrasound specialisms, from general medical purposes to obstetrics, gynaecology, vascular and musculoskeletal ultrasound. This pathway is perfect for highly motivated individuals willing to self-direct their studies, taking on the responsibility to continue

learning outside timetabled hours. With a current skills shortage in medical ultrasound, it's highly important to create trained professionals to meet the national demand. This is one of the first courses to allow those not currently employed within a suitable placement environment to enter the ultrasound clinical specialism.

You will be expected to complete the full award, it is not suitable for those wishing to only undertake a focused area of ultrasound. Unfortunately, this pathway is unavailable for international students.

This pathway, like the part time pathway, also allows you to develop the knowledge and skills required to become a competent sonographer and it is accredited by the Consortium for the Accreditation of Sonographic Education (CASE) ensuring it meets national standards commensurate with similar/equivalent courses across the United Kingdom (UK).

The academic component for this pathway shares modules within the medical imaging (ultrasound) programme. The programme is taught by a team of experienced ultrasound practitioners both in the university and clinical setting. Top of the range ultrasound equipment and test phantoms, as well as simulated practice facilities are available at the university to prepare you for your time on clinical placement. We currently have two well-equipped ultrasound simulation hubs, which is an excellent advantage for our students. Some of the formative clinical assessments will be performed using the skills hubs, ensuring you are confident in a range of basic skills before even attempting to scan a patient. It is hoped that the use of simulated practice will be developed further in the future, with possible opportunities to develop 'cloud based' shared/distance learning activity with other universities and practitioners. The ultrasound machines and practice simulators are housed in two purpose-built on-campus skills facilities, where you will be able to consolidate your theoretical knowledge and practical skills during the academic blocks at university, ensuring you are adequately prepared with the appropriate skills, prior to each placement block.

You will be supported in developing your skills to become autonomous practitioners, who are able to undertake advanced practice safely, by ensuring clinical competencies achieved meet national standards. You will have the opportunity for inter-professional learning, during clinical placement through the sharing of best clinical practice. The development of critical, analytical and evaluative skills and incorporating these into the clinical environment, encouraging evidence based practice will be a fundamental part of the course.

The clinical placement sites have been working with the university for many years, supporting students through the traditional part-time route for sonographers, and have friendly, supportive and experienced staff to help them develop their clinical skills whilst maintaining strong links with the university.

The principal academic staff members on the programme team are university lecturers as well as experienced sonographers. The programme is also supported by colleagues from the wider medical science programmes at the University of Cumbria.

The programme is supported by a wide range of locally and nationally respected ultrasound professionals and physicists who act as honorary lecturers of the University of Cumbria and provide advice on the programme content and contribute to the programme delivery.

The programme team are respected nationally in their field and are currently research active. The team are actively involved in the development and maintenance of ultrasound education at a national level.

'Sonographer' is not currently a protected title in the UK and at this present time graduates will NOT be eligible to be registered with the HCPC, although it is hoped that this will become a possibility in the future. For this reason, employment may not be possible in certain NHS trusts and some private sector organisations, although many organisations already employ sonographers from non-traditional backgrounds

Additional Costs

You need to be aware that you will incur additional costs whilst on programme. The list below will provide you with an overview of potential additional costs, although the list is not exhaustive, and this may be different depending on individual circumstances.

Books and Journals

Books are reviewed annually and are therefore subject to change, course welcome information will provide you with an indicative list for the year.

The university holds copies of core texts (including some as eBooks, which are accessible online).

You may wish to spend approximately £100-£200 on purchasing your own copies of certain textbooks and scripts although this cost can be reduced considerably by sourcing second hand copies of these resources.

IT equipment/Stationery

Stationery for your own personal use (pens, papers and folders, etc.).

Whilst you will choose how much you need, expect to pay around £30 - £40 per year for these.

The bulk of your work will be saved and written electronically, although you have IT facilities available (some 24hrs) on university campuses, most students do have their own laptop or PC, which they have purchased at their own expense.

You may use your allocated space on the university 'cloud' for electronically saved work or have some alternative personal remote safe storage including an external hard drive or some form of memory stick etc.

There will be some printing costs as required by yourself, but the majority of coursework is submitted electronically, and feedback received similarly.

You will need adequate IT facilities and broadband speed for accessing remote, and any online, learning and teaching.

Clothing and Equipment

You are required to wear a uniform, supplied by the University of Cumbria, whilst on placement. This includes tunics and plain black trousers. Any additional or replacement items are funded by you, dependant on the reasons for replacement.

(See PU Uniform Policy)

Footwear is not included and must be purchased. Sensible, plain black, comfortable and supportive flat footwear is suggested but you will be further advised on this subject by uniform policy from the Trust you are allocated to. You should budget approximately £20-£40 for footwear but be realistic about replacing this over the 3 years. You may also wish to purchase different footwear to use in the hospital theatre environment (if required).

Travel

You will be expected to incur all travel and any potential accommodation costs which are required to attend allocated placement sites and university academic scheduled learning and teaching blocks, as well as any other required university campus attendance such as practical skills and simulation sessions, examinations and assessments.

To enable you to be eligible for the target award MSc Medical Imaging (Ultrasound) you must complete the core modules and a range of clinical option modules, the research methods module and a piece of independent scholarship (dissertation project) equivalent to a total of 180 credits. Module choice, for clinically related modules, will be decided at the start of the programme by your placement site as this is governed by clinical caseload and placement capacity.

Placements

Structured learning in a clinical department with the support of an experienced mentor is an integral and essential part of the programme.

Professional development activities

You will be encouraged to reflect on your relevant skills and experience on entry to the programme and your individual personal and professional development needs. This process will inform development of learning objectives for each stage of study that are linked closely with programme and module learning outcomes.

On this pathway, you are a full-time student (entering with a recognised healthcare qualification), consequently you will be supported to reflect on your own personal and professional development and learning needs as your scope of ultrasound practice expands. There is no such thing as a 'typical' ultrasound student. Therefore, learning needs will vary considerably and an individually negotiated programme of development activities and opportunities will be encouraged.

Engagement with professional development activities will be captured through an e-portfolio (Pebblepad). You will be asked to submit this for review at the end of each Clinical module.

Progression

Progression between stages for ALL students is dependent on successful completion of requisite core and clinical option modules.

This programme has been designed to ensure that all graduates, regardless of professional or academic background, are prepared for the demands of working independently within a high-pressure clinical environment. Your progress will be monitored at each stage, not just in relation to practical skills and academic achievement but also to ensure your individual development as a healthcare professional.

If you are joining the programme as a graduate entrant and do not already hold a healthcare professional qualification, engagement with the programme of mandatory training and professional development activities is of particular importance.

You MUST complete ALL mandatory training activities (as outlined in the Mandatory Training Passport) prior to attendance in clinical placement. (See placement handbook for details.)

Your e-portfolio will be reviewed at the beginning of each year and, where evidence of professional development activities is missing, you will be offered support to complete these prior to the relevant stage summative assessment period.

Where we have any concerns regarding your progress you will be supported to address these through the Cause for Concern process. (See placement handbook for details.)

Because of the nature of this programme, it is necessary to supplement the academic regulations with additional regulations concerning professional fitness to practice. If any concerns are identified

with regard to your professional conduct or behaviour, you may be referred to a Professional Practice Case Conference (PPCC) or a Health and Conduct Committee (HCC).

Programme Learning Outcomes

By the end of this Programme learners will be able to:

1. Prepare for a career in medical ultrasound by developing their understanding and clinical expertise in the theory and application of medical ultrasound.

2. Facilitate and support effective learning and develop their abilities to reflect on their professional practice so that they will continue as independent practitioners with a commitment to lifelong learning, scholarship and research.

3. Ensure they have a comprehensive understanding of ultrasound, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of their areas of professional practice.

4. Develop enthusiasm for, and knowledge and understanding of, the continually expanding field of medical ultrasound by developing the transferable skills expected of the postgraduate student in health care who is able to recognise the interface between academic and applied clinical working and is able to manage and adapt to the rapidly changing technological, medico-legal and ethical frameworks of the National Health Service.

5. Ensure you are both safe and proficient for first post competence (both in a subject specific way and having the evidence-based techniques in their grasp to practice into the future as lifelong learners) in three or four clinical specialisms.

The programme aims, at the point of graduation, to produce graduates who will be able to:

1. Practice competently according to the HCPC Standards of Practice for Radiographers* and the Society and College of Radiographers (SCoR) Code of Conduct and Ethics

2. Critically evaluate the quality of the evidence-base and articulate difficulties related to its implementation in complex clinical situations

3. Demonstrate clear supervision, leadership and management abilities through appropriate decision-making, resource allocation and team working

4. To understand and apply the values enshrined within the NHS Constitution in all aspects of their professional practice

5. Plan and be prepared to undertake research in practice

Level Descriptors

Level Descriptors describe in general terms the expected outcomes you will achieve at each level of study as you progress through your programmes. They describe the relative demand, complexity, depth of learning and learner autonomy associated with a particular level of learning and achievement. The University's Level Descriptors are aligned to the national Framework for Higher Education Qualifications (FHEQ) and are a key mechanism for ensuring the academic standards of the University's provision.

At Level 7 (Usually Master's level), you will be able to demonstrate that you have the ability:

- To display a systematic understanding of knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of your academic discipline, field of study or area of professional practice.

- Employ advanced subject-specific and cognitive skills to enable decision-making in complex and unpredictable situations.

- Generate new ideas and support the achievement of desired outcomes.

- Accept accountability for decision making including the use of supervision.

- Analyse complex concepts and professional situations by means of synthesis of personal and workplace reflection and data drawn from scholarship and research in the field.

Programme Outcomes – Knowledge and Understanding

The programme provides opportunities for you to develop and demonstrate the following:

After 60 credits of study (PgCert) you will be able to demonstrate:

K1. A detailed understanding of physical principles of ultrasound image formation and the relationships between tissue structure and associated image appearances.

K2. The requirements of diagnostic ultrasound requests and the advice which should be given to other health care professionals on matters of diagnostic imaging.

K3. The justification and critical analysis of the use of particular imaging modalities in different clinical situations.

K4. The evaluation of the medico-legal and ethical implications of using imaging techniques and the subsequent dissemination of the diagnostic information provided. The role of medical ultrasound practitioners/clinical specialists in a multi-disciplinary environment.

K5. The psycho-social effects of medical imaging on the patient and their partner/carer.

K6. The methods used to locate, interrogate, evaluate and synthesise the evidence in their chosen area of study.

K7. Demonstrate skilled, competent, reflective and safe ultrasound practice within a legal and ethical context in line with current local and national UK guidelines.

K8. A creative approach to learning in order to develop as an 'independent learner' in order to evaluate a wide range of research to gain a coherent understanding of theory and practice.

K9. Utilise appropriate strategies to solve complex problems and make evaluative judgements on the outcomes of ultrasound examinations and report findings accordingly.

K10. Recognise and act accordingly in situations where the limits of skill or knowledge are being approached (cognisance).

After 120 credits of study (PGDip) you will be able to demonstrate:

K11. All of the above in a wider range of clinical practice or specialist clinical areas.

After 180 credits of study (MSc) you will be able to demonstrate:

K12. A comprehensive understanding of techniques applicable to their own research or advanced scholarship.

K13. To understand and apply the values enshrined within the NHS Constitution in all aspects of their professional practice.

K14. Plan and be prepared to undertake research in practice.

Programme Outcomes – Skills and other Attributes (including Employability Skills)

The programme provides opportunities for you to develop and demonstrate the following:

After 60 credits of study (PgCert) you will be able to demonstrate:

S1. The capacity for enquiry, inductive and deductive reasoning and critical thinking and analysis.

S2. A creative and independent approach to learning contributing to peer learning and support.

S3. Synthesise information from a wide range of sources in order to gain a coherent understanding of the relationship between theory and practice.

S4. Critically evaluate research techniques/methodologies, where appropriate propose new hypotheses.

S5. Demonstrate key transferable skills such as; information fluency skills, appropriate communication skills and the ability to manage resources effectively in the planning, commissioning and delivery of imaging services.

S6. The ability to disseminate and communicate ideas and findings coherently.

S7. Manage change effectively in response to changing demands.

S8. Reflect on and evaluate your own academic, professional and clinical performance, exercising autonomy in the management of your learning and recording of continuing professional development.

S9. The use of information technology (IT) competently and appropriately to support academic studies and ultrasound practice.

After 120 credits of study (PgDip) you will be able to demonstrate:

S.10. Clinical competence in a broad range of ultrasound specialisms.

After 180 credits of study (MSc) you will be able to demonstrate:

S11. An ability to critically evaluate and synthesise key and peripheral primary and secondary sources.

S12. An ability to organise and structure critical discussion and supporting evidence into a coherent project that generates new ideas and thinking.

S13. An ability to disseminate findings to your wider community of professional practice

External and Internal Reference Points

The following Subject Benchmark Statements and other external and internal reference points have been used to inform the Programme Outcomes:

The academic and clinical modules have been mapped against the Consortium for the Accreditation of Sonographic Education (CASE) recommended learning outcomes.

Health and Care Professions Council (HCPC) professional standards in Radiography

Society and College of Radiographers (SCoR) guidelines on professional standards

British Medical Ultrasound Society (BMUS) guidelines

Internal drivers having informed the development include:

University Academic Strategy

Institute Business Plan for Medical and Sport Sciences

UoC Strategic Plan

UoC Learning, Teaching and Assessment Strategy

UoC Academic Regulations and Academic Procedures and Processes

Graduate Prospects

Ultrasound is a recognised shortage profession within the UK. There is a current estimated 20% deficit of sonographers and multiple sonographer job opportunities. CASE accredited ultrasound training programmes are also highly regarded worldwide.

Your advanced critical thinking, research and independent enquiry skills, acquired from completing this programme of study, will put you in a great position to advance your career and to take on the challenges that clinical leadership and more senior clinical roles can bring.

Ultrasound is a fundamental diagnostic tool with growing relevance in a range of clinical contexts.

Further career development opportunities exist for ultrasound practitioners. These include clinical role extension through further study, research engagement and development of a clinical management or clinical academic role. The University of Cumbria offer a wide portfolio of health related CPD modules as well as support for study up to doctoral level.

At present, sonography is not a registerable healthcare profession. On successful completion of the full MSc in Medical Imaging (Ultrasound), graduate entrants (who do not hold an existing registerable qualification) will NOT be eligible for HCPC registration. However, the programme has been mapped closely against existing HCPC standards. Consultation with key service partners confirms that this would allow appointment of graduates in most regional NHS settings.

Learning, Teaching and Assessment Strategies employed to enable the Programme Outcomes to be Achieved and Demonstrated

As a student at the University of Cumbria, you are part of an inclusive learning community that recognises diversity. You will have opportunities to learn by interacting with others in a collegiate, facilitative and dynamic learning environment. Teaching, assessment and student support will allow equal and equitable opportunities for you to optimise your potential and develop autonomy.

We seek to create a stimulating and innovative community of learning, whether encountered on campus or at a distance, on placement or in the workplace. Facilitated by our expert practitioner staff, you will experience a learning environment that is well equipped, flexible, and stimulating.

The programme and modules are structured to meet the needs of students and employers. Taught components of the academic modules on the programme are delivered in attendance blocks at the university followed by clinical learning blocks in the designated clinical placement. You are supported on placement by experienced mentors who have been trained by the university. You are also able to access UoC digital resources, library facilities, Pebblepad and Blackboard (VLE), whilst on placement. You will also be supported by your personal tutor, who is a member of the academic team at the university. The clinical aspects of the programme are documented in your clinical e-portfolio, and it is a requirement of the programme that you take ownership of this portfolio throughout the programme in line with professional requirements to maintain lifelong learning and to monitor and ensure clinical progress and competence.

Learning is based within academic study and professional practice, and the programme team collaborates with experienced clinical ultrasound practitioners. These practitioners perform key roles in helping to maintain the currency and relevance of the programme through their involvement in curriculum planning and delivery as well as providing mentorship support for students during placement blocks.

Learning and assessment are considered as interrelated, as the assessments enable you to demonstrate the extent to which you have achieved the learning outcome of modules and the programme of study overall. You are supported throughout the assessment process, and formative and summative assessment will be undertaken, and will be an integral part of the academic and clinical modules for ultrasound.

There are extensive opportunities within the clinical sphere, evidenced within the clinical portfolio in the form of reflective practice, for students to engage with inter-professional learning. Examples of how this might be achieved are: by following the patient pathway in an obstetrics/gynaecology clinic, or through other imaging modalities/radiology reporting sessions within an imaging department or reflective practice based on working with the multi-disciplinary team (MDT) on clinical placement.

A wide range of assessment methods are used which are clinically relevant and aligned to programme and module level learning outcomes.

Intellectual, professional and key transferable skills are central to learning opportunities and assessment. Successfully undertaking modules on this programme will enhance opportunities for your professional careers.

Student Support

We provide responsive learner support that promotes student success. Our approach to learner support is designed to support achievement and progression, champion inclusivity and accessibility, prepare you for opportunities beyond study, and promote independence and resilience, enabling you to achieve your potential.

As a student of the University of Cumbria, you will be taught by academics and expert practitioners who facilitate learning through structured inquiry. You will be provided with access to high quality academic resources through physical and digital libraries and will be supported to develop skills that enable you to become a critical, reflective, discerning and independent learner and researcher.

Pastoral support is available from your personal tutor (PT), clinical co-ordinator and the Programme Leader at the university. Your personal tutor can offer broad support, and signpost to other services within the university, whilst the Programme Leader can offer advice on matters such as:

- those that may affect your attendance – such as illness which may result in absence of more than a week
- personal issues which your personal tutor feels needs the programme leader's advice
- progression issues (e.g. requests to temporarily suspend or terminate studies)

You will also be supported by a named mentor, and other clinical colleagues, at your designated placement site, for the duration of your course. Several of our 'spoke' placement sites now also have a clinical tutor who is another point of contact for you when on placement. The clinical tutors liaise closely with the ultrasound teams both in department and at the university. The University aim to provide structured training for all mentors to ensure that they understand their role and can offer support for learning. Working with your personal tutor and placement mentor, you will be able to identify individual learning and support needs and we will be able to direct you to relevant support services where these relevant.

The placement handbook will explain more about how to report any issues that arise during your clinical placement weeks.

Induction

You will engage in a full induction at the University of Cumbria, followed by a placement induction, where you will be expected to complete any other relevant requirements of the individual placement. This will also give you the opportunity to meet the relevant staff who will support you through the programme and clarify any queries you might have.

Induction portfolios are available from the New Students MyCumbria page: https://my.cumbria.ac.uk/Student-Life/New-Students/

- Postgraduate Induction Portfolio

Personal Tutoring

You will attend tutorials and/or workshops at the University of Cumbria during the longer placement blocks.

You will also be allocated a Personal Tutor. Your Personal Tutor will be proactively involved in the delivery of your programme and will have contact with you throughout your time at the University. They will support your learning and development, including through tutorials, Progress Reviews and other support as outlined in the Personal Tutoring Policy.

A comprehensive support network is also in place as articulated in your Placement Handbook.

Personal Development Planning

Throughout each year of study, you will undertake a range of professional development activities that are delivered in parallel with the taught modules. These include essential mandatory training activities for 'direct graduate entrants' and structured learning opportunities through which you will be asked to reflect on your learning needs and development as a healthcare professional. This programme of activities also allows delivery of core modular content within an inter-professional context, providing you with the opportunity to learn with and from other professionals on other pathways of this programme and the wider multi-professional team at your placement site.

Professional development activities

You will be supported to reflect on your relevant skills and experience on entry to the programme and your individual personal and professional development needs. This process will inform development of learning objectives for each stage of study that are linked closely with programme and module learning outcomes.

If you are a 'direct graduate entrant' (and do not hold a recognised healthcare qualification) your learning objectives will also be linked explicitly to HCPC standards of proficiency for diagnostic imaging practice. Working closely with an academic tutor and practice based mentor, you will be supported to develop an in-depth understanding of the skills required for professional practice and how your existing skills and experiences may be utilised in a healthcare context.

Library Services and Academic Skills

The Library home page can be accessed here: https://my.cumbria.ac.uk/Student-Life/Learning.

Module leaders will collaborate with Library Services to ensure that your online reading and resource lists are current and items are available via the library discovery tool OneSearch. In order to maximise access, availability and usefulness, ebooks and electronic journal titles will, in most cases, be prioritised. You can access a wide range of electronic and print content using OneSearch and you can find out more about key texts, databases and journals for your subject by accessing the library's subject resources webpages. Where appropriate, module reading and resource lists will be made available to you electronically on Blackboard using the University's online reading and resource list system.

Each campus library has a dedicated webpage. Check out local information about opening hours, reserving books, using self-service kiosks, printing and photocopying, booking study spaces and more. https://my.cumbria.ac.uk/Student-Life/Learning/Libraries/

An Ask a Librarian service runs from 17:00 - 09:00 weekdays and round the clock on weekends and holidays. This means you can get professional help using about library services, finding information, referencing and searching, even when the library is closed. https://my.cumbria.ac.uk/Student-Life/Learning/Libraries/Ask/

The Skills@Cumbria service can help support your academic, library and digital skills and success throughout your programme. It includes a suite of online self-help resources accessible 24/7 via the University's website and Blackboard site.

The Student Enquiry Point is a simple way to contact Library and Skills@Cumbria Services. Additional skills support for students is offered via:

- Workshops
- Appointments
- Webinars
- Learn Well at Cumbria
- Study from Home Webpage
- Digital Capabilities and LinkedIn Learning Pathways

Head Start to Postgraduate Study: This free online pre-entry Master's level course is available free of charge through Blackboard. It provides a useful insight into the academic requirements of study at postgraduate level, including advice from academic tutors and current students, and an opportunity to refresh and develop the library, academic and digital skills for this level. It is recommended to students who are about to start their PG qualification.

The module is accessible via Blackboard on a self-enrol basis, where you receive badges and certificate of completion, or there is a non-certificated open access version available via the Head Start webpage.

Student Support Services

The Student Enquiry Point is a simple way to contact Student Services. Using the Student Enquiry Point tile on the Student Hub you can submit an enquiry to any of the Student Services teams, which includes:

- [Careers and Employability](#)

- [Chaplaincy](#) for faith and spiritual wellbeing

- [Mental Health and Wellbeing](#)

- [Digital Skills](#)

- [Disability and Specific Learning Difficulty (SpLD](#))

- [International Student Support](#)

- [Library](#)

- [Money Matters](#)

- [Safeguarding](#)

- [Skills@Cumbria](#)

- [Sports and Fitness Facilities](#)

- [University Student Accommodation](#)

Further support and guidance, including EDI and Safeguarding: We are an inclusive community, committed to supporting and learning from each other, find out more about [Equality, Diversity and Inclusion (EDI)](#). Depending on the nature of your course, you may well already know about or be learning about safeguarding in a professional context and to find out about the University of Cumbria's safeguarding policy and procedures visit: [Safeguarding](#).

Student Voice

As a student at the University of Cumbria you automatically become a member of the Students' Union. The Students' Union represents the views and interests of students within the University.

The Students' Union is led by a group of Student Representatives who are elected by students in annual elections. They also support approximately 400 Student Academic Reps within each cohort across the entire University. The Students' Union represent the views of their cohort and work with academic staff to continuously develop and improve the experience for all University of Cumbria students. You can find out more about who represents you at www.ucsu.me.

You can email at any time on studentvoice@cumbria.ac.uk.

IT and Technical Support

Technology is an invaluable asset when it comes to studying, so it's important you know how to make the most out of the excellent [IT facilities](#) we have available. Our aim is to ensure you can access university electronic resources from anywhere or any device, whether on or off campus. The [Student Hub](#) is your one-stop gateway to all University systems, Outlook email, and OneDrive.

Whether you consider yourself a computer expert or you're not confident about your IT skills, we're always around to ensure you get the level of support you need. We have a wealth of information and support available on the [IT Services website](#) and have a dedicated IT Service Desk where you can talk to someone by phone or log your question online from anywhere, at any time.

University Cumbria Students' Union (UCSU) Student Support

UCSU offers a free, independent and confidential advice service to all students. They can help with things like academic appeals, extenuating circumstances or if you're considering a formal complaint. UCSU are also on hand to represent you in any formal meetings, for example in malpractice panels or fitness to practice meetings. Appointments are telephone based and can be booked at www.ucsu.me/support.

Programme Curriculum Map					
Academic Level	**Module Code**	**Module Title**	**Credits**	**Module Status***	**Programme Outcomes achieved**
7	HMSU7162	Physical Principles & Technology in Ultrasound	20	Core	K1, K3, S1, S2, S3, S5, S6, S7, S9
7	HMSU7163	Professional, Legal & Ethical Issues in Ultrasound	20	Core	K2, K3, K4, K5, K6, K8, K9, S1, S2, S3, S5, S6, S7, S8, S9
7	HMSU7164	Obstetric Ultrasound (Theory)	20	Optional	K2, K3, K4, K6, K7, K8, K9, K10, K11, S1, S2, S3, S5, S6, S7, S8, S9, S10
7	HMSU9064	Obstetric Ultrasound (Clinical Practice)	0	Qualificatory Unit	K1, K2, K3, K4, K5, K9, K10, K11, S1, S2, S3, S5, S6, S7, S8, S9, S10
7	HMSU7165	Gynaecological Ultrasound (Theory)	20	Optional	K2, K3, K4, K6, K7, K8, K9, K10, K11, S1, S2, S3, S5, S6, S7, S8, S9, S10
7	HMSU9065	Gynaecological Ultrasound (Clinical Practice)	0	Qualificatory Unit	K1, K2, K3, K4, K5, K9, K10, K11, S1, S2, S3, S5, S6, S7, S8, S9, S10
7	HMSU7166	General Medical Ultrasound (Theory)	20	Optional	K2, K3, K4, K6, K7, K8, K9, K10, K11, S1, S2, S3, S5, S6, S7, S8, S9, S10
7	HMSU9066	General Medical Ultrasound (Clinical Practice)	0	Qualificatory Unit	K1, K2, K3, K4, K5, K9, K10, K11, S1, S2, S3, S5, S6, S7, S8, S9, S10

7	HMSU7167	Vascular Ultrasound (Theory)	20	Optional	K2, K3, K4, K6, K7, K8, K9, K10, K11, S1, S2, S3, S5, S6, S7, S8, S9, S10
7	HMSU9067	Vascular Ultrasound (Clinical Practice)	0	Qualificatory Unit	K1, K2, K3, K4, K5, K9, K10, K11, S1, S2, S3, S5, S6, S7, S8, S9, S10
7	HMSU7168	Musculoskeletal Ultrasound (Theory)	20	Optional	K2, K3, K4, K6, K7, K8, K9, K10, K11, S1, S2, S3, S5, S6, S7, S8, S9, S10
7	HMSU9068	Musculoskeletal Ultrasound (Clinical Practice)	0	Qualificatory Unit	K1, K2, K3, K4, K5, K9, K10, K11, S1, S2, S3, S5, S6, S7, S8, S9, S10
7	HMSU7169	Breast Ultrasound	20	Optional	K2, K3, K4, K6, K7, K8, K9, K10, K11, S1, S2, S3, S5, S6, S7, S8, S9, S10
7	HMSU9069	Breast Ultrasound (Clinical Practice)	0	Qualificatory Unit	K1, K2, K3, K4, K5, K9, K10, K11, S1, S2, S3, S5, S6, S7, S8, S9, S10
7	HMSU7070	Negotiated Ultrasound Practice 1	20	Optional	K2, K3, K4, K6, K7, K8, K9, K10, K11, S1, S2, S3, S5, S6, S7, S8, S9, S10
7	HMSU9070	Negotiated Ultrasound Practice 1 (Clinical Practice)	0	Qualificatory Unit	K1, K2, K3, K4, K5, K9, K10, K11, S1, S2, S3, S5, S6, S7, S8, S9, S10
7	HMSU7071	Negotiated Ultrasound Practice 2	20	Optional	K2, K3, K4, K6, K7, K8, K9, K10, K11, S1, S2, S3, S5, S6, S7, S8, S9, S10

7	HMSU9071	Negotiated Ultrasound Practice 2 (Clinical Practice)	0	Qualificatory Unit	K1, K2, K3, K4, K5, K9, K10, K11, S1, S2, S3, S5, S6, S7, S8, S9, S10
7	HMSU7072	Negotiated Ultrasound Practice 3	20	Optional	K2, K3, K4, K6, K7, K8, K9, K10, K11, S1, S2, S3, S5, S6, S7, S8, S9, S10
7	HMSU9072	Negotiated Ultrasound Practice 3 (Clinical Practice)		Qualificatory Unit	K1, K2, K3, K4, K5, K9, K10, K11, S1, S2, S3, S5, S6, S7, S8, S9, S10
7	HMSU7073	Independent Study in Ultrasound (non-Clinical Practice)	20	Optional	K6, K7, K8, K10, K12, K13, S1, S2, S3, S4 S5, S6, S7, S8, S9
7	HMSU7074	Research Methods	20	Optional	K6, K7, K8, K10, K12, K13, K14, S1, S2, S3, S4, S5, S6, S7, S8, S9
7	HMSU7075	Dissertation (40 credit)	40	Optional	K6, K7, K8, K10, K12, K13, K14, S1, S2, S3, S4, S5, S6, S7, S8, S9, S11, S12, S13
7	HMSU7076	Dissertation (60 credit)	60	Optional	K6, K7, K8, K10, K12, K13, K14, S1, S2, S3, S4, S5, S6, S7, S8, S9, S11, S12, S13

Notes

This programme operates in accordance with the University's Academic Regulations and Academic Procedures and Processes

The optional modules on this pathway are chosen by the university and allocated placement provider and not you the student. This may vary from placement to placement and year to year dependent on the needs of the local service and availability of suitable patient caseload and mentor.

Optional modules cannot be condoned, i.e. it is not possible to carry a fail for the optional modules, they must be successfully passed at 50%.

HMSU7162 and HMSU7163 are core modules and must be studied in the first semester alongside one optional module.

If HMSU7074 Research Methods is chosen, following already having enough credits for a PgDip then the 40 credit Dissertation module HMSU7075 follows this, otherwise you have the option to choose the 60 credit Dissertation module HMSU7076, provided HMSU7074 has been studied as part of the PgDip, or APL equivalent thereof.

Each clinical module has an associated Clinical Module, which is a co-requisite and is shown underneath its associated Clinical Practice module in the above table, and must always be taken in conjunction with each other.

Optional modules may be subject to availability and viability. If we have insufficient numbers of students interested in an optional module in any given academic year, this may not be offered. If an optional module will not be running, we will advise you as soon as possible and help you choose an alternative module. Optional modules are normally selected 3 - 5 months in advance.

Where a student has not succeeded in their programme, they will not be permitted to re-register on the same programme.

* **Key to Module Statuses**	
Core Modules	Must be taken and must be successfully passed.
Optional Modules	Are a set of modules from which you will be required to choose a set number to study. Once chosen, it may possible to condone/compensate as a marginal fail (within the limits set out in the Academic Regulations and provided that all core or pass/fail elements of module assessment have been passed).
Qualificatory Practice Units	These are non-credit-bearing pass/fail components that are used to satisfy relevant professional, statutory or regulatory body professional requirements that are associated with the programme. These units must be successfully completed in order to pass the award but do not affect the final degree classification. An alternate award is available if you are not successful in the QPU element of your programme.

Programme Delivery Structure: Full Time / Block Teaching				
Module Code	**Module Title**	**Delivery Pattern**	**Method(s) of Assessment**	**Indicative Assessment Deadline**
HMSU7162	Physical Principles and Technology in Ultrasound	September-October	Coursework/Set Exercise	March-May
HMSU7163	Professional, Legal and Ethical Issues in Ultrasound	Jan - Feb	Coursework	April
HMSU7164	Obstetric Ultrasound (Theory)	Sept - Dec	Coursework/Set Exercise	January
HMSU9064	Obstetric Ultrasound (Clinical Practice)	Year Long	Clinical Portfolio	September
HMSU7165	Gynaecological Ultrasound (Theory)	November	Coursework/Set Exercise	March
HMSU9065	Gynaecological Ultrasound (Clinical Practice)	Year Long	Clinical Portfolio	November
HMSU7166	General Medical Ultrasound (Theory)	March	Coursework/Set Exercise	August
HMSU9066	General Medical Ultrasound (Clinical Practice)	Year Long	Clinical Portfolio	April
HMSU7167	Vascular Ultrasound (Theory)	March	Coursework/Set Exercise	August
HMSU9067	Vascular Ultrasound (Clinical Practice)	Year Long	Clinical Portfolio	April

HMSU7168	Musculoskeletal Ultrasound (Theory)	Sept	Coursework/Set Exercise	January
HMSU9068	Musculoskeletal Ultrasound (Clinical Practice)	Year Long	Clinical Portfolio	September
HMSU7169	Breast Ultrasound (Theory)	June	Coursework/Set Exercise	Negotiated
HMSU9069	Breast Ultrasound (Clinical Practice)	Year Long	Clinical Portfolio	Negotiated
HMSU7070	Negotiated Ultrasound Practice 1 (Theory)	Year Long	Coursework/Negotiated	Negotiated
HMSU9070	Negotiated Ultrasound Practice 1 (Clinical Practice)	Year Long	Clinical Portfolio	Negotiated
HMSU7071	Negotiated Ultrasound Practice 2 (Theory)	Year Long	Coursework/Negotiated	Negotiated
HMSU9071	Negotiated Ultrasound Practice 2 (Clinical Practice)	Year Long	Clinical Portfolio	Negotiated
HMSU7072	Negotiated Ultrasound Practice 3 (Theory)	Year Long	Coursework/Negotiated	Negotiated
HMSU9072	Negotiated Ultrasound Practice 3 (Clinical Practice)	Year Long	Clinical Portfolio	Negotiated

Dates above are indicative only and variations may take place and some modules may run more than once within an academic year.

Students exiting with 60 credits, including the 2 core modules, ONE clinical 'theory' module and passes in the associated Clinical Practice module would receive a PgCert Medical Imaging (Ultrasound).

In the case of a student successfully passing 60 academic credits including the 2 core modules and ONE optional theory module but a failure in the associated Clinical Practice Module, they may receive a PgCert The Theory of Medical Imaging (Ultrasound)

Students exiting at this point with 120 academic credits, including the 2 core modules and at least 3 clinical 'theory' modules and passes in the 3 associated Clinical Practice modules would receive a PGDip Medical Imaging (Ultrasound).

In the case of a student successfully passing 120 academic credits along with passes in 1 or 2 Clinical Practice modules, they will receive a PGCert Medical Imaging (Ultrasound) and an academic transcript detailing the modules and academic credit completed.

In the case of a student successfully passing 120 academic credits (including the 2 core modules) but a failure in 3 Clinical Practice modules they may receive a PGDip The Theory of Medical Imaging Ultrasound award.

HMSU7074	Research Methods	Jan - May	Coursework	April
HMSU7075	Dissertation Module	Year Long	Dissertation	September
HMSU7076	Dissertation Module	Year long	Dissertation	September

Students exiting at this point with 180 credits, including the 2 core modules and at least 3 clinical 'theory' modules and passes in the 3 associated Clinical Practice modules, will receive an MSc Medical Imaging (Ultrasound)

If a student passes 180 credits, including the 2 core modules and 3 clinical 'theory' modules and passes in only 1 or 2 associated Clinical Practice modules they will receive a PgCert Medical Imaging (Ultrasound) and a transcript noting the additional modules and academic credit completed

If a student passes 120 academic credits least 3 clinical 'theory' modules and passes in the 3 associated Clinical Practice modules, they will receive a PgDip Medical Imaging (Ultrasound)
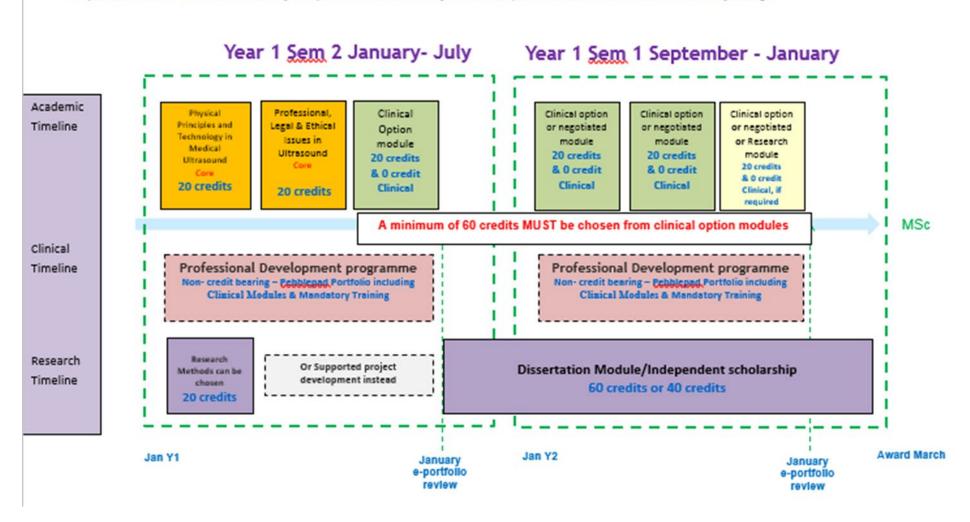
MSc Medical Imaging (Ultrasound) Graduate Entry Full Time Pathway

Proposed time line – students will usually complete within 2 calendar years in exceptional circumstances module order may change

Year 1 Sem 2 January- July

Year 1 Sem 1 September - January

Academic Timeline

Physical Principles and Technology in Medical Ultrasound **Core** 20 credits	Professional, Legal & Ethical Issues in Ultrasound **Core** 20 credits	Clinical Option module **20 credits & 0 credit Clinical**

Clinical option or negotiated module **20 credits & 0 credit Clinical**	Clinical option or negotiated module **20 credits & 0 credit Clinical**	Clinical option or negotiated or Research module **20 credits & 0 credit Clinical, if required**

A minimum of 60 credits MUST be chosen from clinical option modules

MSc

Clinical Timeline

Professional Development programme
Non- credit bearing – Pebblepad Portfolio including Clinical Modules & Mandatory Training

Professional Development programme
Non- credit bearing – Pebblepad Portfolio including Clinical Modules & Mandatory Training

Research Timeline

Research Methods can be chosen **20 credits**	Or Supported project development instead

Dissertation Module/Independent scholarship
60 credits or 40 credits

Jan Y1

January e-portfolio review

Jan Y2

January e-portfolio review

Award March

This pathway runs in calendar years and not standard academic years and starts in January each year where you will be introduced to the expectations of the whole pathway including the 2 core modules and one clinical option, usually HMSU7166 (General Medical Ultrasound) CFwhich run in semester 2 of the standard academic year.

You will normally then be introduced to 2 more clinical option modules in semester 1, of the standard academic year starting September of the same calendar year as your year of entry to the pathway; HMSU7164 (Obstetric Ultrasound) and HMSU7165 (Gynaecological Ultrasound).

Students will usually complete the Research methods module in the January of their second calendar year which will then lead into the dissertation module for the remainder of this calendar year. In certain circumstances, depending on placement capacity and your prior academic achievements/experiences, the clinical options may be subject to change and a further clinical option may be taken alongside a smaller dissertation. Please note optional module choices are made by the placement and not you the student, and these are based fundamentally on patient caseload availability, mentor support and service need.

Exceptions to Academic Regulations

This programme operates in accordance with the University's Academic Regulations and Academic Procedures and Processes with the following permitted exceptions due to the requirements of CASE, who accredit the programme:

- The programme length is non-standard, as this is a 2-year full time programme
- All summative assessments, other than exams, will have a stated word count or duration which provides a direction on the expected submission length. Academic assessments will carry penalties where the word count or duration in the assignment exceeds the allowed length and the penalties which will be applied as follows:

1 – 10%	No penalty
11 – 30%	Deduction of 10% marks
31%+	Mark capped at 50%

  The word count for each assessment submission should be calculated by highlighting all the text from the first word of the first sentence and the last word of the last sentence. It therefore includes headings, in text references, quotes, page numbers, dates and any other words in the main body of the text. It does not include the assessment title or the reference list. In dissertations or reports, the following would also be excluded where relevant: table of contents, list of tables, list of figures, abstract, acknowledgements, appendices
- Re-take modules are not permitted for any of the modules, when studied as part of this programme, or as a CoA.

CASE position statement:

"In the absence of evidenced exceptional/mitigating circumstances or equivalent, CASE permits two attempts at each assessment (a first attempt and one reassessment). CASE does not permit the use of compensation or condonement in relation to failed elements of assessment; all assessments must be passed. In addition, CASE do not support 're-take' modules where a student has exhausted both first and re-assessment opportunities on the first attempt at a given module".

Methods for Evaluating and Improving the Quality and Standards of Learning

Mechanisms used for the Review and Evaluation of the Curriculum and Learning, Teaching and Assessment Methods	• Module Evaluation • Programme Validation and Periodic Review • Annual Monitoring • Peer Review of Teaching • External Examiner Reports • Clinical Placement Evaluations • Online Forums (Blackboard etc) • Student Module Evaluations (given to students on completion of each academic module) • Personal Tutor meetings with feedback to Module and Programme Leads • Informal discussion with students • Staff-Student Forum Meetings (SSFs) • Stakeholder and Steering Group meetings

	- Student Success and Quality Assurance Committee (SSQAC) - Module Confirmation Boards (MCB) - University Programme Assessment Board (UPAB)
Mechanisms used for gaining and responding to feedback on the quality of teaching and the learning experience – gained from: Students, graduates, employers, placement and work-based learning providers, other stakeholders, etc.	- Staff Student Forum - Module Evaluation Forms - Programme Evaluation: UK Engagement Survey - Module/Programme/Personal tutorials - Meetings with External Examiners

Date of Programme Specification Production:	October 2022
Date Programme Specification was last updated:	November 2024
For further information about this programme, refer to the programme page on the University website	

The following information has implications for potential international applicants who require a Student Visa to study in the UK	
Is the placement requirement more than 50% of the programme?	Yes
If yes, what % of the programme is the placement requirement?	75%
If yes, is the amount of placement a statutory requirement to meet Professional, Statutory or Regulatory Body (PSRB) or Department of Education requirements?	Yes