UNIVERSITY of BRADFORD
Faculty of Health Studies

MSc Medical Imaging Programme Specification

Academic Year	**2021/2**
Degree Awarding Body	**University of Bradford**
Final and interim awards at Framework for Higher Education Qualifications in England (FHEQ) Level 7	**Master of Science in Medical Imaging** **Postgraduate Diploma Medical Imaging** **Postgraduate Certificate Medical Imaging - Computed Tomography (CT)**
Programme accredited by	**College of Radiographers**
Programme duration	**Part Time: 3 years**
Date last confirmed by Faculty Board	

Please note: This programme specification has been published in advance of the academic year to which it applies. Every effort has been made to ensure that the information is accurate at the time of publication, but changes may occur given the interval between publishing and commencement of teaching. Any change which impacts the terms and conditions of an applicant's offer will be communicated to them. Upon commencement of the programme, students will receive further detail about their course and any minor changes will be discussed and/or communicated at this point.

Introduction

The MSc Medical Imaging is delivered by the Radiography academic team within the School of Allied Health Professions and Midwifery, in partnership with clinical and scientific experts working within specialised areas of medical imaging to ensure that the curriculum remains appropriately diverse and clinically relevant.

The MSc Medical Imaging programme provides healthcare practitioners engaged in a diverse range of imaging specialities with a vocational pathway of flexible study. It is designed to support healthcare practitioners develop the knowledge, understanding and skills in medical imaging that are required of a professional who aspires to work at an advanced level of practice.

The University of Bradford has long established courses in Computed Tomography, Magnetic Resonance Imaging and Medical Image Reporting (now part of the new MSc Advanced Clinical Practitioner Radiographic Reporting programme) which are highly regarded by local NHS managers and are seen as essential qualifications by professional bodies (RCR SCoR 2012) and some managers for advanced practitioner posts. Applicants are able to enrol on the MSc Medical Imaging or Postgraduate Diploma in September 2021. or the specialist certificate, Postgraduate Certificate Medical Imaging (Computed Tomography). During the academic year 2021/22 the Magnetic Resonance Imaging modules and named Postgraduate Certificate will be available.

Students will be able to obtain credits for short episodes of study, transfer credits from prior certificated or experiential learning, undertake a single module or combine studying a choice of modules over time. A Personal Academic Tutor (PAT) will discuss and support individual student choices.

Programme Aims

The **Postgraduate Certificate programme** intends to:

A1 Provide a flexible educational framework that is vocationally relevant, which meets the professional development needs of the student, as well as the organisational needs of employers.

A2 Stimulate students to become autonomous self-directed learners who are motivated to sustain and advance their own continuous professional learning with a confidence to support the professional development of colleagues and the work of their organisations.

A3 Develop the skills, knowledge, critical understanding and awareness of the depth and breadth of knowledge applicable to their own field of medical imaging practice.

A4 Further develop the students cognitive and practical skills to undertake data synthesis, complex problem solving, the articulation of competing perspectives and competence in their field of medical imaging practice.

A5 Provide opportunities for multiprofessional teaching and learning to share the knowledge, skills and experience common to a range of different health and social care disciplines.

A6 Develop critically reflective, competent practitioners, managers and leaders who will inform and shape or change inclusive, fair and ethically sensitive medical imaging service provision.

A7 Provide a framework within which the curriculum, where required, meets the regulatory needs of professional bodies such as the HCPC.

A8 Develop the skills required for life-long learning and professional development.

Additionally, the **Postgraduate Diploma programme** intends to:

A9 Develop critical perspectives on research and knowledge development in medical imaging practice and management.

Additionally, the **Masters Degree programme** intends to:

A10 Develop an understanding of the theoretical constructs underpinning research or project management which will inform the undertaking of an ethical piece of research or a management project and the ability to demonstration how the findings can influence imaging practice and policy.

Admission Requirements

Applications are sought from registered health professionals working in the medical imaging field who feel that the programme may be of benefit.

We take into consideration a number of factors when assessing your application. It's not just about your grades; we take the time to understand your personal circumstances and make decisions based on your potential to thrive at university and beyond.

We specifically require that all applicants have a first degree or an appropriate professional qualification in radiography or related subject. Applicants should also have appropriate clinical experience in the area of development.

In addition, for work-based modules students must:

- possess a registered qualification with a UK professional regulatory organisation that enables the student to practice in the UK. For example, this includes registration with the HCPC, NMC or another health care regulator.
- have managerial support for their studies, including a commitment that appropriate facilities, relevant clinical experience and time will be made available to support their studies (15 hours a week).

The University of Bradford has computers with internet and word processing facilities available to students across a number of locations. However, for postgraduate students it is advisable that they have access to a computer that has a broadband connection and that can browse the internet and has word processing on it and have computing skills commensurate with the demands of course.

A limited number of laptop loans are available via the University Library. The University of Bradford Academic Skills unit can support students in developing skills needed to support their studies.

The Disability Office can provide support to students who have a disability, including pre-application. Dyslexia screening is also available. For further information please see https://www.bradford.ac.uk/disability/before/

Recognition of Prior Learning

Applications are welcome from students with non-standard qualifications or mature students (those over 21 years of age on entry) with significant relevant experience. Students whose qualifications do not meet the entry requirements above but who have significant experience and other evidence of ability to study at this level will be considered on an individual basis.

If applicants have prior certificated learning or professional experience which may be equivalent to parts of this programme, the University has procedures to evaluate and recognise this learning in order to provide exemptions from specified modules or parts of the programme. Where there is a difference in credit volume the 10 credit Independent Studies module may be used to ensure the correct volume of credit is achieved.

Programme Learning Outcomes

To be eligible for the award of **Postgraduate Certificate** at FHEQ level 7, students will be able to:

LO1 Develop a detailed knowledge and understanding of the literature that relates to their specialist field of imaging practice.

LO2 Critically analyse research and synthesise the research evidence that informs the development of policy and service delivery in their specialist field of imaging practice or area of employment.

LO3 Evaluate and critically apply theoretical concepts, and where appropriate, master practical skills for the management of complex issues within their field of medical imaging practice.

LO4 Reflect upon and demonstrate knowledge of values, ethical thinking, equality awareness, inclusive practice and demonstrate mastery within their specialist field or practice in medical imaging.

LO5 Develop and demonstrate the ability to articulate sound arguments using a variety of formats including written and oral communication.

LO6 Demonstrate management and leadership through effective communication, complex problem solving, and decision making.

LO7 Demonstrate the ability to become an autonomous learner through independent study and critical reflection on their own continuing development needs.

LO8 Demonstrate the ability to use IT skills to gather, synthesise and appropriately apply information.

Additionally, to be eligible for the award of **Postgraduate Diploma** at FHEQ level 7, students will be able to:

LO9 Demonstrate a critical awareness and understanding of different theoretical constructs underpinning research and/or change and project management methodologies.

Additionally, to be eligible for the award of **Degree of Master** at FHEQ level 7, students will be able to:

LO10 Design, undertake and report on either a systematic review, a piece of empirical research, work based or management project that contributes to or extends the body of knowledge for their specialist field of practice in medical imaging.

Learning and Teaching Strategy

The modules and courses nested within the programme offer students the capacity to acknowledge and build upon the knowledge and skills they may have acquired through previous learning experiences including those in the workplace. As students undertake their chosen pathway or undertake the modules of their choice, students will be given the opportunity to develop theoretical understanding, advance their knowledge and critical thinking and to develop a range of skills appropriate and competencies appropriate to their professional/employment field, which will enable students to function more effectively in their workplace.

The programme takes a blended learning approach with a mix of online synchronous and asynchronous lectures, and on campus activity. The delivery approach varies from module to module and includes block delivery, distance learning and blended learning. Students may wish to consider the delivery approach for each module when choosing the modules that they wish to study.

Whilst following this programme of study, students will engage with learning through a range of teaching methods. To a degree these methods will be dependent on modules

studied, however student-centred approaches to learning are a feature of many of the modules. Students will be expected to take responsibility for their own learning as they develop their academic skills. There is an expectation that students will use throughout their course of study the University virtual learning environment (VLE). This will be particularly important for student who chose distance or blended learning modules for a range of learning activities such as discussion groups, online tutorials and accessing learning materials. When devising the individual, tailored study plan with the personal tutor allocated, students will be informed regarding delivery methods and which semester the chosen modules are being delivered. Students will also be informed about dates and times of attendance at the university.

Following enrolment, students will be allocated a personal academic tutor appointed and they will provide holistic guidance encompassing academic and personal support throughout their course of study. For those students registering for the full MSc award this will include personal and professional development (PDP) planning.

The course of study will expose students to a range of different teaching, learning and assessment strategies required to achieve the learning outcomes. The teaching approaches that are used across the Faculty of Health Studies are informed by the University core values which are for teaching and learning to be: Reflective, Adaptable, Inclusive, Supportive, Ethical and Sustainable. Students may experience these across their choice of modules in order to meet both the aims of the programme and learning outcomes.

Technology is used to enrich learning and simulate the working environment with tutorials undertaken in the Picture Archive Communication System (PACS) suite, and the VLE and Zoom, used to facilitate peer and blended learning. Student-centred approaches to learning are a feature of many of the modules. Students will be expected to take responsibility for their own learning as they develop their academic skills through:

- **Lectures:** face to face or online to a group of students where information will be presented and discussed whilst informed by the core values.
- **Facilitated seminars and group discussion:** face to face or online where learning will be through the interpretation and critical application of information and group learning.
- **Tutorial** where small group number of students reflect and discuss issues related to their learning.
- **Work-based learning**: where learning is directed within the work environment and is reflected upon in light of theory and best practice, and then reported on.
- Use of Web based **virtual learning environments**, such as Canvas, to access information and to interact with other students undertaking group work.
- **Distance learning packages** where clearly defined directed study and tasks are available for the student to undertake.
- **Directed reading**: where set reading may be recommended.
- **Self-Directed learning**: Where students are expected to develop their own learning by identifying areas of interest and areas in which knowledge needs to be developed.

- **Undertaking a work-based project or a research module** which is shaped by their own self-directed learning needs and the learning outcomes at MSc level.

Some of the modules will be delivered alongside other healthcare professionals from the UK and beyond. This allows for multi-disciplinary learning with perspectives beyond UK practice. Students will be expected to develop an autonomous learning style and become self-directed as a learner.

Assessment Strategy

Student learning will be assessed against the learning outcomes and programme aims through the use of a range of different assessment techniques which may include one or more of the following approaches:

- **Written essay**
- **Reflective Case study**
- **The development of a reflective portfolio**
- **Completion of practice audit**
- **Practical examination (OSCE)**
- **Computer based examination**
- **Presentation**
- **Written project report**
- **Completion of a Dissertation**
- **Journal article**

Some of these teaching and assessment strategies may change over time and through the ongoing development of the courses.

Curriculum

The Medical Imaging curriculum provides a range of modules from the Faculty of Health Studies that are combined to provide an individualised award that suits each students particular learning or employment needs.

Postgraduate Certificate and Diploma Stage

PGCert Medical Imaging – Computed Tomography (CT)

Module Code	Module Title	Module Type	Credit	FHEQ Level	Study Period
RAD7007-C	Computed Tomography ‡	Core	30	7	Sem 2
RAD7010-C	Clinical Computed Tomography ‡	Core	30	7	Sem 3

‡ RAD7007-C must be studied and completed before taking RAD7010-C.

Students will be eligible to exit with the award of **Postgraduate Certificate Medical Imaging – Computed Tomography (CT)** if they have successfully completed the core 60 credits and achieved the award learning outcomes. This award does not confer eligibility to register with the Health and Care Professions Council (HCPC), or any other Professional Statutory Regulatory Body.

FHEQ Level	Module Title	Module Type	Credits	Study Period	Module Code
7	Independent Study	Option	30	Sem 1 or Sem 2	HES7004-C
7	Leadership for Advanced Practitioners	Option	30	Sem 1 or Sem 2	LEM7011-C
7	Research Methods and Data Analysis	Option	30	Sem 1 or 2	RES7016-C
7	Computed Tomography ‡	Option	30	Sem 2	RAD7007-C
7	Clinical Computed Tomography ‡	Option	30	Sem 3	RAD7010-C

‡ RAD7007-C must be studied and completed before taking RAD7010-C.

Students will be eligible to exit with the award of **Postgraduate Certificate Medical Imaging** if they have successfully completed 60 credits and achieved the award learning outcomes. This award does not confer eligibility to register with the Health and Care Professions Council (HCPC), or any other Professional Statutory Regulatory Body.

Students will be eligible to exit with the award of **Postgraduate Diploma Medical Imaging** if they have successfully completed 120 credits and achieved the award learning outcomes. This award does not confer eligibility to register with the Health and Care Professions Council (HCPC), or any other Professional Statutory Regulatory Body.

Masters Stage

In addition to the 120 credits from the PG Diploma, a 60-credit final stage module must be undertaken from the SSPRD Framework to work towards the Degree of Master. Students pick one of the following:

FHEQ Level	Module Title	Credits	Study Period	Module Code
7	Dissertation*	60	FLYR or NSYR	RES7017-E
7	Service Evaluation and Improvement in Clinical Practice	60	FLYR or NSYR	RES7018-E

*RES7016-C Research Methods and Data Analysis must have been studied and completed before taking RES7017-E.

Students will be eligible for the award of **Degree of Master of Science in Medical Imaging** if they have successfully completed at least 180 credits and achieved the award learning outcomes. This award does not confer eligibility to register with the Health and Care Professions Council (HCPC), or any other Professional Statutory Regulatory Body.

Assessment Regulations

This Programme conforms to the standard University Postgraduate Assessment Regulations which are available at the link www.bradford.ac.uk/regulations. However, there are three exceptions to these regulations:

1. Students must achieve at least 40% in each module which makes up an award.
2. Within modules, students must achieve at least an assessment component pass of 40% of which all elements of assessment are achieved at 40%.

Minor Modification Schedule

Version Number	Brief description of Modification	Date of Approval (Faculty Board)
1	Annual changes for 2021 academic year	July 2021