Bournemouth University

KEY PROGRAMME INFORMATION

Originating institution(s) Bournemouth University	**Faculty responsible for the programme** Faculty of Health and Social Sciences
Final award(s), title(s) and credits MSc Medical Imaging with Management (180 credits / 90 ECTS Level 7; 20 credits / 10 ECTS)	
Intermediate award(s), title(s) and credits Post Graduate Diploma in Medical Imaging with Management 120 credits / 60 ECTS level 7. Post Graduate Certificate in Medical Imaging with Management 60 credits / 30 ECTS level 7.	
UCAS Programme Code(s) (where applicable and if known)	**HECoS (Higher Education Classification of Subjects) Code and balanced or major/minor load.** 100129 100131
External reference points The UK Quality Code for Higher Education; Part A: Setting and maintaining academic standards; Chapter A1: UK and European reference points for academic standards (October 2013) - incorporates the Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies (Qualification Frameworks), Master's Degree Characteristics and Subject Benchmark Statements	
Professional, Statutory and Regulatory Body (PSRB) links Not Applicable	
Places of delivery Bournemouth University	
Mode(s) of delivery 1. Full-time 2. Part-time 3. Individual units may be offered on a CPD basis	**Language of delivery** English
Typical duration Full time – 12 months Part-time – 24 months	
Date of first intake September 2021	**Expected start dates** September
Maximum student numbers 30	**Placements** No formal placements
Partner(s) Not applicable	**Partnership model** Not applicable
Date of this Programme Specification September 2021	
Version number V1.0-0922	
Approval, review or modification reference numbers E202113	
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PROGRAMME STRUCTURE

Programme Award and Title: MSc Medical Imaging with Management

Stage 1/ Level 7
Students are required to complete all 5 core units plus 1 optional unit.

Unit Name	Core/ Option	No of credits	Assessment Element Weightings		Expected contact hours per unit	Unit version no.	HECoS Code (plus balanced or major/minor load).
			Exam 1	Cwk 1			
Cross-sectional Imaging I (MRI)	Core	20 L7		100%	30	1.0	100129 100131 (balanced)
Cross-sectional Imaging II (CT)	Core	20 L7		100%	30	1.0	100129 100131 (balanced)
Research Methods for Health and Social Care	Core	20 L7		100%	30	1.2	100962
Managing People	Core	20 L7		100%	40	1.0	100085
Leadership Essentials	Core	20 L7		100%	40	1.0	100088
Foundations of Health Information Systems	Option	20 L7		100%	30	1.0	100374 100812 (balanced)
Systematic Reviewing to Inform Practice	Option	20 L7		100%	30	1.2	100246

Progression requirements: Successful completion of the requirements for the cross-sectional imaging units.
Exit Qualifications:

- MSc Medical Imaging with Management requires 180 credits at Level 7.
- Post Graduate Diploma in Medical Imaging with Management requires 120 credits at Level 7 (excluding 60 credits Individual Masters Project) and successful completion of the cross-sectional imaging units.
- Post Graduate Certificate in Medical Imaging with Management requires 60 credits at Level 7 and successful completion of the cross-sectional imaging units.

Programme Award and Title: MSc Medical Imaging with Management							
Stage 2/ Level 7 Students are required to complete this master's project for the award of the MSc.							
Unit Name	**Core/ Option**	**No of credits**	**Assessment Element Weightings**		**Expected contact hours per unit**	**Unit version no.**	**HECoS Code (plus balanced or major/minor load).**
			Exam 1	**Cwk 1**			
Dissertation Project	Core	60 L7		100%	12	2.3	100962

Exit Qualifications:

- MSc Medical Imaging with Management requires 180 credits at Level 7 and successful completion of the cross-sectional imaging units.
- Post Graduate Diploma in Medical Imaging with Management requires 120 credits at Level 7 (excluding 60 credits Individual Masters Project) and successful completion of the cross-sectional imaging units.
- Post Graduate Certificate in Medical Imaging with Management requires 60 credits at Level 7 and successful completion of the cross-sectional imaging units.

AIMS OF THE DOCUMENT

The aims of this document are to:

- define the structure of the MSc Medical Imaging with Management programme;
- specify the programme award titles;
- identify programme and level learning outcomes and to describe the underpinning educational philosophy;
- articulate the regulations governing the awards defined within the document.

AIMS OF THE PROGRAMME

Medical imaging and therapeutic departments are advancing at a very fast pace in terms of technology and other essential resources. For these complex and mostly large departments to run efficiently, high-quality clinical and managerial leadership skills are necessary to provide exemplary patient care and overall responsibility for the unit in line with departmental and hospital business plans. It is therefore imperative that radiographers and other scientists with interest in medical imaging understand these principles to be well equipped for future clinical and/or management roles.

The overall aim of this inter-disciplinary MSc Medical Imaging with Management programme is therefore to support allied health professionals (e.g., radiographers, radiotherapists, radiology/radiography managers), engineers (e.g., biomedical, medical), scientists (e.g., biomedical, medical, biological, physical), psychologists, and medical students wishing to intercalate (to prepare for a career in radiology) and others interested in medical imaging management/leadership roles on their journey to becoming competent healthcare or industry leaders/managers/researchers. Appropriate professional qualifications with significant work experience in medical imaging, for example, diploma graduates of the College of Radiographers are suitable. Of note, students who intend to practise as radiographers must be HCPC registered through completion of a recognised pre-registration degree. The programme aims to develop critically informed, agile and resourceful graduates for advanced medical imaging practice and management. They will also display and demonstrate skills expected of a UK HEI postgraduate. More specifically graduates of this programme will:

- have a critical understanding of advanced theoretical knowledge, methods and concepts of relevant cross-sectional anatomy and medical imaging technologies required for advanced practice and research.

- have specialised technical knowledge and practical skills to take a professional approach to the planning, design and critically evaluate performance management practice within medical imaging to address real-world healthcare problems.

- have desired transferable and professional skills to widen their employment prospects in healthcare and/or medical device manufacturing industry management.

- have advanced skills to carry out research to develop new and/or improved medical imaging management approaches using a broad range of methods, tools and technologies as effective independent healthcare researchers and/or consultants to inform effective decision making.

ALIGNMENT WITH THE UNIVERSITY'S STRATEGIC PLAN

Bournemouth University is recognised globally as a leading institution for inspiring learning, advancing knowledge and enriching society through the fusion of education, research and practice. The MSc Medical Imaging with Management programme is informed by and well-aligned with the BU2025 strategic plan and the University's fusion agenda as well as the local and national needs in the NHS and industry. The programme is an important part of Bournemouth University's Faculty of Health and Social Sciences (FHSS) portfolio, as identified in the Faculty's Strategic Plan with the establishment of the Department of Medical Science & Public Health and the Institute of Medical Imaging & Visualisation (IMIV). Thus, this programme will complement the broad range of research and related skillsets already spread across the University and it forms an important component of the BU2025 vision that indicates

it can be used to support/inform/improve sustainable social, environmental and economic growth and development.
The programme will provide the opportunities for students to learn from academics who are active in research and who can deliver inspiring learning with the aim to provide students with the opportunities to apply knowledge to practice and to integrate research into their understanding and practice.
The programme will make best use of evidence based educational approaches and technology enhanced learning to create an inspiring and effective learning experience for students.

LEARNING HOURS AND ASSESSMENT

Bournemouth University's taught programmes are composed of units of study, which are assigned a credit value indicating the amount of learning undertaken. The minimum credit value of a unit is normally 20 credits, above which credit values normally increase at 20-point intervals. 20 credits are the equivalent of 200 study hours required of the student, including lectures, seminars, assessment and independent study. 20 University credits are equivalent to 10 European Credit Transfer System (ECTS) credits.

The assessment workload for a unit should consider the total time devoted to study, including the assessment workload (i.e. formative and summative assessment) and the taught elements and independent study workload (i.e. lectures, seminars, preparatory work, practical activities, reading, critical reflection).

Assessment per 20 credit unit should normally consist of 3,000 words or equivalent. Dissertations and Level 6 and 7 Final Projects are distinct from other assessment types. The word count for these assignments is 5,000 words or equivalent per 20 credits, recognising that undertaking an in-depth piece of original research as the capstone to a degree is pedagogically sound.

STAFF DELIVERING THE PROGRAMME

Students will usually be taught by a combination of senior academic staff with others who have relevant expertise including – where appropriate according to the content of the unit – academic staff, qualified professional practitioners, demonstrators/technicians and research students.

Staff delivering the programme include:

- Programme Leader – An HCPC/SoR academic radiographer registrant who is research active leads the delivery of the programme.

- Unit leader – Each unit will have an academic who plans the unit delivery and coordinates the team of academic staff involved in teaching and assessment. For practice-based units the role of Academic Assessor will form part of the unit lead/ teaching team role.

- Academic Advisor – Each student will have a member of academic staff who provides academic and pastoral support in line with the BU policy. The student normally stays with the same academic advisor for the duration of the course.

- Programme support team include a range of faculty student support staff offering Mon - Fri daytime support and a dedicated team of programme support offices who provide administrative support.

- Professional Service staff provide academic and library support to students. The professional services staff also supports the Peer Assisted Learning scheme.

INTENDED LEARNING OUTCOMES – AND HOW THE PROGRAMME ENABLES STUDENTS TO ACHIEVE AND DEMONSTRATE THE INTENDED LEARNING OUTCOMES

Graduates from this programme would be prepared for a career in the evolving field of medical imaging with knowledge for clinical managerial leadership for effective decision making. Thus, they will possess the technical skillset mix and competencies to progress into careers in the NHS, medical imaging device manufacturing industry with organisations such as Siemens, General Electric Co, Philips etc. Additionally, practicing radiographers, scientists and other practitioners will acquire intellectual skillsets to improve and influence patient care and departmental management. They are expected to become lifelong learners, taking on the challenge of the rapid rate of change and emergence of new knowledge in both practice and research. Finally, the knowledge and research skills developed is an excellent preparation for further study at doctoral level.

PROGRAMME AND LEVEL 7 INTENDED PROGRAMME OUTCOMES

<table>
<tr><td>A: Subject knowledge and understanding

This programme provides opportunities for students to develop and demonstrate knowledge and understanding of:</td><td>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the programme learning outcomes:</td></tr>
<tr><td rowspan="2">A1 the physical principles and clinical applications of cross-sectional imaging modalities – specifically magnetic resonance imaging and computed tomography.

A2 the advanced theoretical knowledge, methods and concepts of relevant cross-sectional anatomy and medical imaging technologies required for advanced practice and research.

A3 the principles of governance required within the greater field of medical imaging to improve disease diagnosis, research and to inform effective decision making.

A4 the fundamental principles, processes and related issues/activities in the analysis and design of health information systems.

A5 the professional, legal and ethical responsibilities of medical imaging practitioners and scientists within an organisation and their role as managers in decision making.</td><td>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):

• lectures (A1 – A5);
• seminars (A1 – A5);
• directed reading (A1 – A5);
• independent research for dissertation (A1 – A5);
• simulation & practice (A1 – A5)</td></tr>
<tr><td>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):

• group presentation (A1 – A5)
• literature review (A1 – A5)
• course work essay (A1- A5)
• dissertation (A1- A5)</td></tr>
<tr><td>B: Intellectual skills

This programme provides opportunities for students to:</td><td>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the programme/level outcomes:</td></tr>
<tr><td>B1 consolidate advanced skills in literature searching and selection in order to ensure up to date and emerging developments are incorporated into the delivery of care and research.</td><td>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):

• lectures (B1 – B5);
• seminars (B1 – B5);
• directed reading (B1 – B5);</td></tr>
</table>

B2 critically analyse and synthesise the evidence base for the required training in management for medical imaging practice. **B3** critically evaluate and justify alternative approaches to solutions development in order to demonstrate a critical awareness of personal performance to develop their professional knowledge and skills. **B4** critically reflect upon constructive feedback and act accordingly to develop own professional knowledge and skills to develop advanced responses to complex challenges. **B5** Formulate, plan and execute a medical imaging/management project involving original contributions; and communicate findings to professional and academic standards.	• Independent research for dissertation (B1 – B5); • simulation & practice (B1 – B5) Assessment strategies and methods (referring to numbered Intended Learning Outcomes): • group presentation (B1 – B5) • literature review (B1 - B5) • course work essay (B1 - B5) • dissertation (B1- B5)
C: Practical skills This programme provides opportunities for students to:	The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the programme/level learning outcomes:
C1 demonstrate an awareness of current managerial and/or leadership challenges in clinical practice and/or industry in relation to medical imaging and identify novel solutions for improvement. **C2** retrieve, select and evaluate information from a variety of sources; **C3** Show advanced knowledge and understanding to formulate, analyse and specify plans to implement evidence-based approaches for accurate disease diagnosis and management. **C4** capability to plan, monitor and evaluate the progress of a medical imaging procedure both in clinical practice and research.	Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes): • lectures (C1 – C4); • seminars (C1 – C4); • directed reading (C1 – C4); • simulation & practice (C1 – C4) Assessment strategies and methods (referring to numbered Intended Learning Outcomes): • group presentation (C1 – C4) • literature review (C1 – C4) • course work essay (C1 – C4) • dissertation (C1- C4)
D: Transferable skills This programme provides opportunities for students to:	The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the programme/level learning outcomes:
D1 Demonstrate problem solving skills and the application of knowledge across the discipline areas; **D2** Gather, select, and analyse a range of experimental and fieldwork data and present professionally using appropriate media;	Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes): • lectures (D1 – D6); • seminars (D1 – D6); • directed reading (D1 – D6); • simulation & practice (D1 – D6)

D3 Structure and communicate ideas professionally and effectively to appropriate professional and academic standards; **D4** Demonstrate initiative, self-direction and exercise personal responsibility for management of own learning; **D5** Distil, synthesise and critically analyse alternative approaches and methodologies to problems and research results reported in literature and elsewhere. **D6** Appreciation of the required capabilities and skills for advanced leadership and people management, including those in relation to the professional context of medical imaging drawing upon a critical understanding of relevant theoretical perspectives.	Assessment strategies and methods (referring to numbered Intended Learning Outcomes): • group presentation (D1 – D6) • literature review (D1 – D6) • course work essay (D1 – D6) • dissertation (D1- D6)

ADMISSION REGULATIONS

The regulations for this programme are the University's Standard Postgraduate Admission Regulations with the following exceptions:

- A Bachelors Honours degree with a 2:2 classification in a required subject or an appropriate professional qualification. Required subjects: Science (e.g., biomedical/ medical/ biological/ physical), allied health professions (e.g., Radiography), medical physics, engineering (e.g., biomedical/medical)
- Applicants whose mother tongue is not English must offer evidence of qualifications in written and spoken English. Acceptable qualifications are: IELTS (Academic) 6.5 (with a minimum of 6.0 in each of the four categories) or a direct equivalent.

https://intranetsp.bournemouth.ac.uk/pandptest/3a-postgraduate-admissions-regulations.pdf

PROGRESSION ROUTES

Recognition arrangements provide formally approved entry or progression routes through which students are eligible to apply for a place on a programme leading to a BU award. Recognition does not guarantee entry onto the BU receiving programme only eligibility to apply. In some cases, additional entry criteria such as a Merit classification from the feeder programme may also apply. Please see the Recognition Register (https://intranetsp.bournemouth.ac.uk/pandptest/7J_Recognition_Register_Public.xlsx) for a full list of approved Recognition arrangements and agreed entry criteria.

In order to take advantage of exciting new approaches to learning and teaching, as well as developments in industry, the current, approved Articulation/Recognition/Progression route(s) for this programme may be subject to change. Where this happens students will be informed and supported by the Faculty as early as possible.

ASSESSMENT REGULATIONS

The regulations for this programme are the University's Standard Postgraduate Assessment Regulations. The University Standard Assessment regulations are available here:

https://intranetsp.bournemouth.ac.uk/pandptest/6a-standard-assessment-regulations-postgraduate.pdf

WORK BASED LEARNING (WBL) AND PLACEMENT ELEMENTS

The MSc Medical Imaging with Management programme involves some hours of supervised practice/simulation to observe advanced imaging procedures at the Institute of Medical Imaging & Visualisation – Lansdowne Campus.

Programme Skills Matrix

Units		Programme Intended Learning Outcomes																			
		A 1	**A 2**	**A 3**	**A 4**	**A 5**	**B 1**	**B 2**	**B 3**	**B 4**	**B 5**	**C 1**	**C 2**	**C 3**	**C 4**	**D 1**	**D 2**	**D 3**	**D 4**	**D 5**	**D 6**
STAGE 1/L7	Cross-sectional Imaging I (MRI)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
	Cross-sectional Imaging II (CT)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
	Managing People			x			x	x				x	x	x		x	x	x	x	x	x
	Foundations of Health Information Systems	x	x		x	x	x	x	x		x	x	x			x	x	x	x	x	
	Research Methods for Health and Social Care	x	x								x	x	x		x	x	x	x	x	x	
	Systematic Reviewing to Inform Practice	x					x	x	x		x	x		x	x	x	x	x	x	x	
	Leadership Essentials	x	x	x					x	x		x	x	x		x	x	x	x	x	x
STAGE 2/L7	Dissertation Project	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

Programme Specifications

A – Subject Knowledge and Understanding

This programme provides opportunities for students to develop and demonstrate knowledge and understanding of:

A1 the physical principles and clinical applications of cross-sectional imaging modalities – specifically magnetic resonance imaging and computed tomography.

A2 the advanced theoretical knowledge, methods and concepts of relevant cross-sectional anatomy and medical imaging technologies required for advanced practice and research.

A3 the principles of governance required within the greater field of medical imaging to improve disease diagnosis, research and to inform effective decision making.

A4 the fundamental principles, processes and related issues/activities in the analysis and design of health information systems.

A5 the professional, legal and ethical responsibilities of medical imaging practitioners and scientists within an organisation and their role as managers in decision making.

B – Intellectual Skills

This programme provides opportunities for students to:

B1 consolidate advanced skills in literature searching and selection in order to ensure up to date and emerging developments are incorporated into the delivery of care and research.

B2 critically analyse and synthesise the evidence base for the required training in management for medical imaging practice.

B3 critically evaluate and justify alternative approaches to solutions development in order to demonstrate a critical awareness of personal performance to develop their professional knowledge and skills.

B4 critically reflect upon constructive feedback and act accordingly to develop own professional knowledge and skills to develop advanced responses to complex challenges.

B5 Formulate, plan and execute a medical imaging/management project involving original contributions; and communicate findings to professional and academic standards.

C – Subject-specific/Practical Skills

This programme provides opportunities for students to:

C1 demonstrate an awareness of current managerial and/or leadership challenges in clinical practice and/or industry in relation to medical imaging and identify novel solutions for improvement.

C2 retrieve, select and evaluate information from a variety of sources.

C3 Show advanced knowledge and understanding to formulate, analyse and specify plans to implement evidence-based approaches for accurate disease diagnosis and management.

C4 capability to plan, monitor and evaluate the progress of a medical imaging procedure both in clinical practice and research.

D – Transferable Skills

This programme provides opportunities for students to:

D1 Demonstrate problem solving skills and the application of knowledge across the discipline areas;

D2 Gather, select, and analyse a range of experimental and fieldwork data and present professionally using appropriate media;

D3 Structure and communicate ideas professionally and effectively to appropriate professional and academic standards;

D4 Demonstrate initiative, self-direction and exercise personal responsibility for management of own learning.

D5 Distil, synthesise and critically analyse alternative approaches and methodologies to problems and research results reported in literature and elsewhere.

D6 Appreciation of the required capabilities and skills for advanced leadership and people management, including those in relation to the professional context of medical imaging drawing upon a critical understanding of relevant theoretical perspectives.