



Advanced Clinical Practice (Radiography) MSc and Postgraduate Programmes Specification

<https://www.bradford.ac.uk/courses/pg/advanced-clinical-practice-radiography/>

Academic Year:	2024/25
Degree Awarding Body:	The University of Bradford
Programme Accrediting Body:	College of Radiographers and NHSE
Target FHEQ Level 7 Awards:	Degree of Master of Science in Advanced Clinical Practice (Radiography); Postgraduate Diploma Enhanced Practice (Radiography); Postgraduate Certificate Enhanced Practice (Radiography)
Programme Admissions:	September and January
Programme Mode of Study:	1 year part-time (PGC); 2 years part-time (PGD); 3 years part-time (MSc)

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.

Minor Modifications Schedule

1. June 2022: Specification reformatted and made accessible.
2. May 2024: Minor updates for 2024 academic year.

Introduction

This programme has been designed to meet the increasing demand for radiographers who can safely undertake expert clinical practice informing clinical decision making across the NHS and the independent (private) sector.

It builds on the UK's first Advanced Clinical Practitioner Programme specifically for reporting radiographers approved in 2017 at the University of Bradford to expand the opportunities for clinicians to contribute to service provision through the development of advanced level capabilities. Role extension is a well-recognised development in the health professions in the UK. The radiography profession has also embraced developments in the roles and expects these to be underpinned with appropriate education. Formalisation of such activities has taken place over the last three decades and the publication of the Multi-professional Framework for Advanced Clinical Practice (Health Education England 2017) established the key expectations of roles at an advanced level.

Specifically, these posts, and therefore their educational preparation, must incorporate the 'four pillars', which are taught and assessed as part of the academic award, namely:

- Expert clinical practice
- Leadership
- Education
- Research

The expectations of the advanced practitioner within the College of Radiographers (CoR) Education and Career Framework for the Radiography Profession are met by this programme. It also supports the requirements of the CoR Research Strategy (2021) which expects that radiographers working at this level to achieve a Master's degree and strong grounding in practice-based research.

Learning and teaching is designed to equip students with skills in using a range of information, data, tools and techniques to improve the quality of patient care and health outcomes as well as demonstrate impact and value. There is also a focus on patient safety, risk assessment and risk management within a clinical governance context. The modules within the MSc Advanced Clinical Practice (Radiography) pathway focus on developing the skills and capabilities of students across the four pillars of practice (Clinical, Leadership, Education and Research) expected at the ACP level. These are embedded and assessed across the Masters pathway but students exiting at an interim award level will not have achieved all the expected capabilities of an ACP.

The Faculty of Health Studies is a major provider of education and training for individuals working within the health, social, independent, and community/voluntary sector organisations across the Yorkshire and Humber Region and the UK. The Faculty's focus on excellence through knowledge, practice, research, leadership and management aims to support the future sustainability of the individuals, through lifelong learning and improved employability and thereby influencing the future adaptability of individual organisations and service delivery to promote change.

The programme is designed to develop the skills in complex reasoning, critical thinking and analysis required to undertake enhanced and advanced clinical practice roles. The awards offer students the opportunity to apply knowledge to a range of clinical and professional situations through reflection and practice experience, delivered and supported by experienced educators, clinical experts, eminent researchers and clinical supervisors (mentors).

The student will contextualise their learning to fulfil the capabilities of the Advanced Clinical Practitioner, supported by their employer, and address the Aims and Learning Outcomes for the programme, outlined in the following section of this document. Modules such as Independent Study, Competence for Advanced Practice and Service Evaluation and Improvement in Clinical Practice enable students to shape their own focus of study within the modules aims and learning outcomes by learning the principles being taught and applying them to their own professional/employment area.

Programme Aims

The programme is intended to:

- a. 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.
- b. 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.
- c. Develop the skills, knowledge, critical understanding and awareness of the depth and breadth of knowledge applicable to their own field of practice.
- d. Provide opportunities for inter-professional teaching and learning to share the knowledge, skills and experience common to a range of different health and social care disciplines.
- e. Develop students as practitioners who will innovate, promote evidence informed practice and improve service user outcomes.
- f. Develop students' clinical skills, knowledge and critical understanding to an advanced level, applicable to their own field of practice.
- g. Develop critical perspectives on research, knowledge development and change in imaging practice and service delivery.
- h. Develop students as a leader with skills and confidence, to act as a role model, supporting the professional development of colleagues and the work within their organisation.
- i. Develop students as a critically reflective, competent leader who will manage service development towards effective, sustainable, inclusive, fair and ethically sensitive service provision.
- j. Prepare students to become an autonomous practitioner, to work in enhanced, specialist and advanced roles with high levels of accountability.
- k. Develop students as a practitioner who will innovate, promote evidence informed practice and improve service user outcomes.
- l. Further develop cognitive and practical skills to undertake data synthesis, complex problem solving and risk assessment.
- m. Develop an understanding of the theoretical constructs underpinning research or project management which will inform the undertaking an ethical piece of research or a management project and the ability to demonstrate how the findings can influence imaging practice and policy.
- n. Provide a framework within which the curriculum, where required, meets the regulatory needs of national bodies in relation to enhanced practice.

Programme Learning Outcomes

To be eligible for the FHEQ Level 7 award of Postgraduate Certificate in Enhanced Practice (Radiography), students will be able to:

1. Critically analyse and apply the research evidence and best-practice in their specialist field.
2. Demonstrate mastery of clinical and/or practical skills for the management of complex issues within their scope of practice.
3. Apply knowledge of anatomy and physiology to undertake advanced assessment, diagnosis, complex care planning, health promotion and evaluation appropriate to their scope of practice.
4. Reflect upon and demonstrate knowledge of values, ethical thinking, equality awareness, inclusive practice.
5. Demonstrate the ability to articulate sound arguments and justify decisions using a variety of formats, including written and oral communication skills.
6. Demonstrate the ability to be an autonomous learner through independent study and critical reflection on continuing development needs.
7. Demonstrate the ability to use IT skills to gather and synthesise information and appropriately apply information.

Additionally, to be eligible for the FHEQ Level 7 award of Postgraduate Diploma in Enhanced Practice (Radiography), students will be able to:

8. Critically reflect on their leadership skills and apply their knowledge to support the professional development of others.
9. Critically analyse clinical governance, service delivery and patient safety issues in their speciality.

Additionally, to be eligible for the FHEQ Level 7 Degree award of Master in Advanced Clinical Practice (Radiography), students will be able to:

10. Demonstrate understanding of the theoretical constructs underpinning evaluation, improvement, and research.
11. Apply research skills to influence and improve practice and policy in the student's own area of practice.
12. Demonstrate project management skills by completing an extended project.

Programme Structure and Pathways

Students may join the programme to study towards a Postgraduate Certificate in 1 year, a Postgraduate Diploma (both in Enhanced Practice) in 1-2 years or the Master's Degree in Advanced Clinical Practice (Radiography) in 2-3 years.

The programme is designed for radiographers working towards enhanced or advanced clinical roles, but two discrete pathways are included, one for those students focusing on radiographer reporting (X-ray) and another for those pursuing a negotiated radiographic practice route. The three-year Advanced Clinical Practice (Radiography) Master's Degree programme covers the four pillars of ACP and either pathway is suitable for candidates joining with a Bachelor's degree.

Students may join either pathway in September ("Semester 1") or January ("Semester 2"). Students joining in September study 60 credits of modules per year in the attendance pattern 1, 2(, 3) while students joining in January study 60 credits of modules per year in the pattern 2, (3,) 1.

Both pathways contain optionality and student choice. Candidates with more experience who possess a Postgraduate Certificate in another specialism of radiography such as Magnetic Resonance Imaging or Computed Tomography can apply to join the Postgraduate Diploma stage of the Negotiated Practice route directly (through recognition of their prior certificated learning) and focus on the competencies of Advanced Clinical Practice to complete the degree in 2 years.

The programme incorporates modules from the Faculty of Health Studies taught postgraduate studies CPD framework to enable students to learn alongside and from other healthcare professionals from the UK and beyond. The Service Evaluation and Improvement in Clinical Practice module enables MSc students to shape their own focus of study within the modules aims and learning outcomes by learning the principles being taught and applying them to their own professional areas of interest.

Curriculum

Table 1: Pathway over 1-3 years

Award Stage	Modules (3 year programme)
Postgraduate Certificate (Enhanced Practice)	Radiographer reporting and the transition to advanced practice (RAD7014-C) and one Medical imaging option choice: Chest and abdomen radiographs (RAD7015-C); or Musculoskeletal radiographs (RAD7016-C); or Clinical competence in advanced practice (RAD7020-C)
Postgraduate Diploma (Enhanced Practice)	Leadership for advanced practice (LEM7010-C) and one option choice from: the other Medical imaging module available (RAD7015-C/16-C); Clinical competence in advanced practice (RAD7020-C); or Independent study for radiographers (RAD7021-C)
Master's Degree (Advanced Practice)	Service evaluation & improvement in clinical practice (RES7018-E)

Postgraduate Certificate in Enhanced Practice (Radiography)

Students study 60 credits at this stage and will be eligible to exit with the award of Postgraduate Certificate if they have successfully completed 60 credits and achieved the award learning outcomes. The PG Certificate core and optional modules are outlined below.

Table 2: Certificate Stage Module Details

Study Period	Code	Title	Type	Credit	FHEQ
Semester 2	RAD7019-C	Radiography and the transition to advanced practice	core	30	Level 7
NSYR (April to December)	RAD7015-C	Medical image reporting - chest and abdomen radiographs	option	30	Level 7
NSYR (April to December)	RAD7016-C	Medical image reporting - musculoskeletal radiographs	option	30	Level 7
Semester 2	RAD7020-C	Clinical competence in advanced practice	option	30	Level 7

Postgraduate Diploma in Enhanced Practice (Radiography)

Students study 60 credits at this stage and will be eligible to exit with the award of Postgraduate Diploma if they have successfully completed 120 credits (including LEM7011-C) and achieved the award learning outcomes.

Table 3: Diploma Stage Module Details

Study Period	Code	Title	Type	Credit	FHEQ
Semester 1 or Semester 2	LEM7011-C	Leadership for advanced practitioners	Core	30	Level 7
Semester 1 or Semester 2	RAD7021-C	Independent study for radiographers	Option	30	Level 7
Semester 2	RAD7020-C	Clinical competence in advanced practice	Option +	30	Level 7
NSYR (April to December)	RAD7015-C	Medical image reporting - chest and abdomen radiographs	Option +	30	Level 7
NSYR (April to December)	RAD7016-C	Medical image reporting - musculoskeletal radiographs	Option +	30	Level 7

+ Available only if not yet studied.

Degree of Master in Advanced Clinical Practice (Radiography)

Students will be eligible for the award of Degree of Master if they have successfully completed at least 180 credits including the module below and achieved all the award learning outcomes.

Table 4: Degree Stage Module Details

Study Period	Code	Title	Type	Credit	FHEQ
Full Year September to August	RES7018-E	Service evaluation and improvement in clinical practice	Core	60	Level 7

Please note: the curriculum may change, subject to availability and the University's programme approval, monitoring and review processes.

Learning Teaching and Assessment Strategy

Whilst following this programme of study, students will engage with learning through a range of teaching methods; student-centred approaches to learning are a feature of the modules and students will be expected to take responsibility for their learning as they develop their academic skills. The programme uses a blended approach to learning incorporating short block attendance and online learning via the university virtual learning environment (VLE) platforms. Both on campus and online students collaborate in small groups as well as in the whole cohort both for learning and formative feedback. Structured feedback sessions allow all the students to engage in the iterative learning process building confidence in critical thinking and constructive criticism as expected of their emerging clinical leadership role. The student peer support provided by the utilisation of social media enables a community approach throughout the programme.

Work-based learning is key to the focus of the award and students will have formalised support in the clinical environment to develop alongside academic progress.

Throughout the programme progress, professional reflection and development, and knowledge and skills within the students' role and tripartite review (student, clinical workplace, and university) will be supported.

The aims of the teaching and learning strategies have been designed so that students will be given the opportunity to develop theoretical understanding, research informed knowledge and critical thinking (Programme Learning Outcomes 1, 4, 5, 6, 7, 8, 9, 10, 11) to develop a range of skills appropriate to their professional field (Programme Learning Outcomes 2, 3, 5, 9), their organisation and workplace setting. Students will also develop their skills and knowledge of research, service evaluation and improvement and application to their practice area (Programme Learning Outcomes 1, 10, 11, 12). The scope of practice for the student (reporting or other negotiated practice) will shape their learning and personal development and this will be evidenced in the clinical modules. The modules offer the capacity to acknowledge and build upon

the knowledge and skills students may have acquired through previous learning experiences including those in the workplace.

The Programme will expose students to a range of different teaching, learning and assessment strategies required to achieve the learning outcomes. Formative feedback and group activities facilitate students to understand the and prepare for the requirements of assessment. The teaching approaches that are used across the Faculty of Health Studies are informed by the University and Faculty core values which are for teaching and learning to be: *Research informed, Reflective, Adaptable, Inclusive, Supportive, Ethical* and *Sustainable*. Therefore, the programme delivery includes the following:

- **Lectures:** to a group of students where information will be presented and discussed whilst informed by the core values.
- **Facilitated seminars and group discussion:** 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 clinical environment and is reflected upon and where skills are taught in relation to theory and best practice enabling students to advance their capabilities in their field of practice.
- Use of the **virtual learning environment**, to support learning and personal development.
- **Directed reading:** where set reading may be recommended.
- **Self-Directed learning:** Students will be expected to develop an autonomous learning style and become self-directed as a learner by identifying areas of interest and areas in which knowledge needs to be developed.
- Undertaking an **independent project** which is shaped by the students own self-directed learning needs and the learning outcomes at MSc level.

The programme has been designed to enhance learning using inclusive principles that provide students with opportunities to engage with a diversity of assessments across the programme of study. There is a range of assessment methods designed and positioned to integrate learning from different modules and the wider programme, in ways that prepare students to apply their learning successfully. UK and International Students from other programmes may also be undertaking the Independent Study, Competence for Advanced Practice, Leadership for Advanced Practice and Service Evaluation and Improvement in Clinical Practice modules: This allows for multi-disciplinary learning with perspectives beyond their own practice.

Throughout the period of study, students will be given timely, actionable, and understandable formative feedback on learning (also known as assessment for learning). This will be facilitated by way of frequent/regular assessment activities where they will have opportunities to get constructive feedback to support their learning. Informal assessment opportunities are built into the modules to allow peers and academic staff to feedback, making suggestions and supporting development of

learning towards final assessment: this may take a variety of formats i.e., written/verbal.

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 assignment
- Oral presentation
- Written examination
- Completion of clinical competency document(s)
- Poster(s)
- Completion of a dissertation

There are multiple opportunities for focussing assessments around the student's area of practice and workplace enabling the choice of assessment topics to be relevant to their workplace, scope of practice and learning needs.

Pillars of Advanced Practice

The 4 pillars of advanced practice are embedded in the programme delivery and assessment schedule. Specific content includes:

Clinical Practice

This is the focus of the reporting and clinical competence modules (LEM7011-C, RAD7019-C, RAD7015-C, RAD7016-C, RAD7020-C) with teaching directed at the skills required for delivery of complex clinical services. Assessment is undertaken in collaboration with the students' workplace. In addition, the final stage module enables students to evaluate an area of clinical practice evidencing their collaborative approach to developing pathways and services. Competence in accurate report writing will be demonstrated via the examination and clinical audit of reporting (Pass/Fail) in the Medical Image Reporting modules. For the Clinical Competence in Advanced Practice a pass/fail bespoke competency document will be developed in conjunction with the student's supervisor.

Leadership

The programme incorporates a specific module focussed on developing leadership capabilities, exploring different leader styles and their application to practice. In addition, the programme expects students to critique clinical pathways and services through multiple modules, with a particular focus on building new multidisciplinary collaborations (RAD7019-C, RAD7015-C, RAD7015-C, RAD7020-C), this is particularly in the final stage module where the student is required to lead an evaluation or improvement in practice (RES7018-E).

Education

Content related to the education pillar is embedded throughout the programme providing students the opportunity to reflect on their own learning whilst developing transferrable skills to support their peers and the multidisciplinary team. Analysis of their own learning needs is a key focus of RAD7019-C with the assessment requiring the students to consider lifelong learning and career planning. Specifically, through formative and summative presentations and posters (RAD7019-C, RAD7015-C, RAD7016-C, RES7018-E) students evidence their ability to support others, acting as a role model and advocate for learning in practice.

Research

To support the development of their critical appraisal skills, students undertake a number of academic assignments, reviewing the literature underpinning the evidence base in their area of practice (RAD7011-C, RAD7021-C). A mandatory academic integrity VLE education package supports their understanding of plagiarism and appropriate academic review. Through group formative assessment in RAD7019-C students collaboratively audit their clinical practice developing their skills in data collection, manipulation and analysis. The final stage module includes taught sessions on research methods, ethics and governance to enable the students to undertake a project in their workplace supported by an academic supervisor.

Assessment Regulations

This Programme conforms to the standard University Postgraduate Assessment Regulations which are available at the link: <https://www.bradford.ac.uk/regulations/>

However, the following variations to these regulations apply to this programme:

- In order to pass the module overall students must pass all components of the module assessment at 40% or above.
- The Medical image reporting examinations (RAD7015-C and RAD7016-C) must be passed at 90% to meet the expectations of national bodies (CoR and RCR).

Admission Requirements

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. The standard entry requirements for the programme are as follows:

- Hold a BSc Hons Diagnostic Radiography (or equivalent) qualification.
- Registration as a radiographer with the Health and Care Professions Council (HCPC).

- Have managerial support for your studies, including a commitment that appropriate facilities, relevant clinical experience and time (average 15 hours per week) will be made available to support your studies.
- Have an identified educational supervisor (radiologist or experienced advanced/consultant radiographer) in practice that can support you in your role.

This programme is open to international students **only if** you meet the professional entry requirements including HCPC registration and UK employment. We cannot accept overseas registrations.

Access and Recognition of Prior Learning

The University welcomes applications from all potential students. Consideration of applications will be based on a combination of formal academic qualifications and other relevant experience.

The University welcomes disabled students who may wish to access our Disability Service before you apply: <https://www.bradford.ac.uk/disability/before/>

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 applicants with exemptions from specified modules or parts of the programme. This is particularly relevant for students who have completed a postgraduate certificate (PGC) in specialist radiographic practice (for example Computed Tomography or Magnetic Resonance Imaging – MSc Medical Imaging pathway) who then wish to develop in an advanced practice area.

For Recognition of Prior Certificated Learning, you will need to provide your certificate, transcript, and programme documentation including learning outcomes. We recommend that all applicants considering applying with RPL email AdmissionsHealth@bradford.ac.uk for advice before doing so. For more general information about our RPL procedures, visit our website: <https://www.bradford.ac.uk/teaching-quality/prior-learning/>

Students for whom English is not their first language must have at least International English Language Testing System (IELTS) score of 7.0 with no sub-test score below 6.5. This is an HCPC registration requirement to demonstrate English language proficiency which is crucial to working as a health professional in the UK.

Please see: <https://www.bradford.ac.uk/international/entry-requirements/> for more details of alternative qualifications and English proficiency test scores which we can accept. If you do not meet the IELTS requirement, you may be able to take a University of Bradford pre-sessional English course with our Language Centre: <https://www.brad.ac.uk/courses/other/pre-sessional-english-language-programme/>

Please note: The information above relates to the contemporary recruitment cycle at time of publication and therefore may now be out of date. The current tariff, accepted qualifications for entry onto the programme and any restrictions that apply to admission or funding are published on the programme course listing website: <https://www.bradford.ac.uk/courses/pg/advanced-clinical-practice-radiography/>

