

Course Information Document: Undergraduate

For students starting in Academic Year 2019/2020

1. Course Summary

Names of programme(s) and award title(s)	BSc (Hons) Radiography (Diagnostic Imaging)
Award type	Single Honours
Mode of study	Full time
Framework of Higher Education Qualification (FHEQ) level of final award	Level 6
Duration	3 years
Location of study	Keele University – main campus
Accreditation (if applicable)	This programme is accredited by the Society and College of Radiographers and approved by the Health and Care Professions Council (HCPC). For further details see the section on Accreditation.
Regulator	Office for Students (OfS)
Tuition Fees	UK/EU students: Fee for 2019/20 is £9,250* International students: Fee for 2019/20 is £18,000**
Additional Costs	Please refer to the Additional costs section

How this information might change: Please read the important information at <http://www.keele.ac.uk/student-agreement/>. This explains how and why we may need to make changes to the information provided in this document and to help you understand how we will communicate with you if this happens.

2. What is a Single Honours programme?

The Single Honours programme described in this document allows you to focus more or less exclusively on Radiography (Diagnostic Imaging). However, the programme includes some multi-professional learning with other healthcare programmes.

3. Overview of the Programme

As a student on the BSc (Hons) Radiography (Diagnostic Imaging) programme in the School of Health and Rehabilitation (SHAR), you will study undergraduate radiography alongside physiotherapy and rehabilitation science students. SHAR sits within the Faculty of Medicine and Health Sciences and other professional groups represented within faculty include medicine, nursing and midwifery, and pharmacy. This gives you a wide range

of opportunities for inter-professional learning, which is a key feature of the programme, in line with government guidelines¹.

Radiography (Diagnostic Imaging) has undergone, and continues to undergo, significant development due to the philosophical and political changes that have occurred in health and social care since the early 1990s. These developments have occurred against a backdrop of rapid and on-going changes in technology, changes in the Ionising Radiation Regulations², fundamental changes in health care practices and extension of responsibility for diagnostic radiographers³.

The profession of Radiography, like many other health professions, should be evidence based, with an emphasis on patient care and service delivery, therefore the research element of the programme is consistent with the Society and College of Radiographers Research Strategy⁴

Radiographers, more than at any other time in the history of the profession, are key practitioners in the provision of diagnostic imaging services. In addition to ionising radiation based imaging, they are responsible for the operation of ultrasound, nuclear medicine and MRI facilities, providing health screening, diagnosing and monitoring disease processes and performing interventional procedures carried out under imaging control. The increased role of all allied health professionals in Public Health and Health Promotion means that for radiographers this will be a core part of their future role⁵.

The clinical sites used to place students from this programme are already encouraging and supporting increasing numbers of radiography practitioners to provide verbal or written advice and guidance to medical and other healthcare workers regarding the interpretation of the clinical images they produce. The Audit Commission (2002) also found that 'many departments are using radiographers more flexibly to take on new roles and there is scope to extend this further'. The College of Radiographers stated, "as a vision for the profession, by 2010 clinical reporting (at least at initial image interpretation level) by radiographers, at the level of production of a written or verbal comment, should become a core competence". Therefore, the programme has a significant emphasis on initial image interpretation with the intention that all students are able to offer a written comment at their point of qualification, as this is a crucial part of practice and development of the profession.

The BSc (Hons) Radiography (Diagnostic Imaging) programme is intended to develop practitioners who can respond to a diverse and challenging service context in which traditional health and social service and associated professional roles are changing rapidly in response to broader political, social, economic and demographic change. These changes have highlighted a need for locally focused, clinically driven, evidence based, health care services which may widen opportunities for radiographers to step into positions of leadership within service. To ensure competence there is an obvious need to support these changes through imaginative and innovative education, such as inter-professional learning.

The opportunity for career progression in healthcare has made it increasingly important to ensure that newly qualified radiographers, and other health and social care professionals, have appropriate supervisory, communication, research and management skills to not only support student radiographers, but also assistant practitioners⁶. Many of these issues are explored within the collaborative elements of the programme but BSc (Hons) Radiography (Diagnostic Imaging) specific modules will address these issues where appropriate. The BSc (Hons) Radiography (Diagnostic Imaging) programme has been developed with specific reference to several additional key external documents including the Health and Care Professions Council Standards for Proficiency for Radiographers (2009), and the QAA Subject Benchmarks Statement – Diagnostic Radiography (2002).

¹ Learning Together – Working Together (DoH, 2001)

² The Ionising Radiation (Medical Exposure) Regulations (DoH, 2000)

³ Radiography Skills Mix: A report on the four-tier service delivery model (DoH 2004)

⁴ 2016-2019 Society and College of Radiographers Research Strategy: Society and College of Radiographer 2015

⁵ Healthy Lives, Health People (DoH 2010)

⁶ Radiography Skills Mix: A report on the four-tier service delivery model (DoH 2004)

The programme design is consistent with outcomes for autonomous practice and the indicative curriculum for Practitioners set out in Society and College of Radiographers; Education and Career Framework for the Radiography Workforce (2013)⁷

The profession is founded on a strong, evolving evidence base and scope of practice, clinical leadership and patient-centred professionalism. The Keele BSc (Hons) Radiography (Diagnostic Imaging) programme is designed to ensure that its content is current, reflecting contemporary radiography practice in the UK, and sufficiently flexible to accommodate the changing demands of health and social care and the future requirements of the profession, both in the UK and globally. The programme is committed to the development and provision of high quality multi- and inter-professional learning. The School of Health and Rehabilitation utilises a range of high quality local clinical bases to deliver the clinical component of their programmes.

The regular monitoring and evaluation of practice placements is the collaborative responsibility of education providers and placement providers. Such systems are systematic and measurable as per SCoR guidelines. They should demonstrate a logical and contextual linkage to institutional ongoing quality monitoring and enhancement arrangements.

The BSc (Hons) Radiography (Diagnostic Imaging) programme at Keele will enable you, through an environment of reflection and research awareness, to develop into an autonomous professional who can initiate and respond to change in a wide variety of settings. You will embrace a vision of patient-centred care within contemporary health and social care environments. You will develop the attributes of a competent practitioner underpinned by knowledge enabling you to become, and remain, fit for purpose, delivering high quality, safe, integrated and effective care. During the programme, you will develop responsibility for your own continuing professional development and will be confident to function in partnership and leadership roles.

Key features of the BSc (Hons) Radiography (Diagnostic Imaging) programme are:

- Collaborative partnerships with a range of clinical bases which are well recognised;
- Expert teaching through a range of highly skilled, appropriately qualified and knowledgeable staff;
- Practical placements in a variety of healthcare environments supported by professionally registered clinical/practice educators with extensive knowledge and experience in a range of clinical specialities;
- A state of the art pre-clinical Radiography suite to ensure high level vocational skills with a Digital Health Hub for image interpretation skills training;
- Inter-professional education embedded within the programme allowing students to learn alongside other health and social care students. This is designed to contribute to professional understanding and respect as students of various professions learn with, from and about each other for the benefit of patient care;
- Comprehensive range of student support mechanisms (See the Student Handbook: Section 5).

4. Aims of the Programme

The broad aims of the programme are to enable you to:

- Gain the knowledge, skills, attitudes and values to underpin contemporary radiography (diagnostic imaging) practice and develop your competence in applying clinical skills to the practice of radiography (diagnostic imaging). You will develop your clinical reasoning and decision-making skills to enable you to undertake best radiography (diagnostic imaging) practice. The programme will facilitate your development of the competencies required for autonomous practice.
- Develop your research awareness and research application to radiographic practice and the wider health and social care context, and equip you with the skills to adapt and respond positively to change. In doing this, you will develop key transferable skills to prepare for graduate employment.

⁷ Education and Career Framework for the Radiography Workforce: Society and College of Radiographers 2013

- Enhance the development of your interpersonal skills along with effective team working and partnership skills. This promotes engagement in lifelong learning, a key feature of the development of an autonomous professional.
- Cultivate effective inter-professional working practices that will facilitate the development of leadership, management and entrepreneurial skills.
- Achieve the standards of education and training that is approved by the Health and Care Professions Council and the Society and College of Radiographers and prepare you for lifelong learning throughout your career.

5. What you will learn

Subject knowledge and understanding

The programme design meets the Health and Care Professions Council's (HCPC) Standards of Education and Training (2014).

Successful students will be able to meet the:

- HCPC's Standards of Proficiency: Radiographer (2013)
- HCPC's Standards of Conduct, Performance and Ethics (2016)

Subject specific skills

Successful students will be able to:

1. Demonstrate a critical understanding of the theories, models, principles and concepts underpinning radiography (diagnostic imaging) within the public policy and organisational context for health and social care practice and service delivery;
2. Practise safely, competently and confidently in radiography (diagnostic imaging) within the boundaries of legal, ethical and professional frameworks and be eligible to apply for entry to the professional register;
3. Adhere to and, where appropriate, challenge the boundaries, constraints and obligations inherent in professional practice employing skills of critical self-reflection and a commitment to lifelong learning;
4. Critically analyse, reflect upon and evaluate research findings, utilising these where appropriate, to underpin an evidence based approach to practice;
5. Communicate and work collaboratively with patients, carers and fellow professionals in an appropriate and context specific way;
6. Exhibit the appropriate professional values, attitudes and behaviours expected of an integrated member of the inter-professional healthcare team.
7. Demonstrate leadership skills.

These elements are taught, developed and assessed via individual modules, across the three years of the programme. Achievement of the outcomes for the BSc (Hons) Radiography (Diagnostic Imaging) demonstrates the HCPC Standards of Proficiency (radiographers). The programme has been mapped to the following regulatory body outcomes, subject benchmark statements and the professional body outcome (see Appendix 1 of the Programme Specification):

- HCPC Standards of Proficiency for Radiographers
- HCPC Standards of Education and Training
- QAA subject benchmarks for radiography
- SCoR Outcomes for Autonomous Practice (Practitioners)

Key or transferable skills (including employability skills)

Successful students will be able demonstrate:

- The ability to use information and communication technology effectively;
- The ability to engage with numerical data and calculations, and understand their significance;
- The ability to communicate effectively in writing, including the use of language that is appropriate for a variety of audiences;
- The ability to critically review their own work;
- The capability to communicate effectively orally and visually, including participation in group discussions, communicating ideas and presenting information to a variety of audiences;
- The competence to use mature interpersonal skills and awareness, including: a capacity to work in groups both as a team member and as a leader, to be sensitive to the views of others, to be able to negotiate, and to be aware of how one's actions are seen by others;
- The ability to solve problems, including the ability to generate a variety of strategies to address a problem and design, implement and evaluate a solution that addresses the problem;
- The ability to use information handling skills which enables the individual to locate, assess and evaluate information and synthesise and build upon existing information;
- The proficiency to identify and develop a research question/hypothesis within research skills and to be able to construct a range of strategies and methods for answering research questions or testing hypotheses;
- An aptitude to develop independent study skills, including the maturity and judgment to manage one's own personal development and a capacity for self-reflection, self-assessment and self-criticism;
- A readiness for lifelong learning and recognition of its necessity within the profession.

6. How is the Programme taught?

Learning and teaching methods used on the programme vary according to the subject matter and level of the module (see list below). The programme is structured around six key study themes that are introduced, developed and enhanced via individual modules over the three-year programme. In addition, study will include clinical practice throughout the three years. Each module has a clinical component, this is designed to ensure university learning and teaching integrates with the teaching and learning in clinical practice. Clinical/Practice training and education occurs in a range of health care provider organisations, including a large teaching hospital, district general hospitals and small private hospital providers. Most practice placements are currently within a 50-mile radius of the University.

Radiographic practical skills are taught initially in small groups in the university using simulation and role play, as are some other areas of the programme. The number of students within these groups is variable depending upon subject matter. In the clinical setting students work with designated clinical/practice educators and are also supported by visiting tutors from the School. This ensures integration of academic learning and clinical practice.

The University based elements of the programme are taught using a variety of blended learning approaches including:

- **Traditional lectures** where the lecturer provides students with a framework and context for further reading and independent study; some lectures may feature invited external speakers who are clinicians, active researchers, and academics in the field of radiography, radiation science and related health practice
- **Interactive lectures** to engage the students in their learning for example the use of Audience Response Systems
- **Practical work** allows students to observe the application of, or develop the acquisition of radiography (diagnostic imaging) practical skills under the supervision of academic staff
- **Simulation and role play**, to allow the students to practice in a realistic, safe environment
- **Learning in the clinical environment** (practice placements) where students develop their clinical and professional skills under the supervision of a designated practice educator(s)
- **Small group workshops** when students work together to, for example, critically appraise papers relating to some aspect of radiography (diagnostic imaging) practice

- **Group workshops** which require students to work together over an extended period to develop a piece of work
- **Individual and group presentations** where students research and present a topic with relevance to practice (for example specific approaches to communication or reasoning for particular approaches in radiography research) to the whole group with time allowed for interactive questions and discussion
- **Student and tutor-led tutorials** which encourage topics of interest and relevance to a theme to be discussed in depth within a small group; problem-solving scenarios and case studies may be used as a vehicle for such discussion
- **Web-based learning** using the Keele Virtual Learning Environment (KLE): this is used by all modules and provides a platform for students to share online discussions and to access a wide range of learning resources. In addition, applications such as Google Communities, web-based audience feedback systems are used to support and monitor learning.
- **Independent study** will be required in each module; some study will be guided by tutors where necessary, but will also be self-directed in relation to the various demands of each module and its assessment. This type of learning may be facilitated by use of various resources such as work packages and access to specific web based programmes. The development of a portfolio will also be used as a vehicle for learning. Independent study also forms an important part of the development of the final year research project, which is supported by a designated member of the academic staff
- Students will engage in **inter-professional learning** in groups made up of a range of other health and social care students

Apart from these formal activities, students are also provided with regular opportunities to talk through particular areas of difficulty, and any special learning needs they may have, with their Personal Tutors or module lecturers on a one-to-one basis.

These learning and teaching methods enable students to achieve the learning outcomes of the programme in a variety of ways. For example:

- Lectures and independent study enable students to broaden and deepen their existing professional knowledge and understanding of the core scientific principles and concepts of radiography (diagnostic imaging), and to transfer scientific knowledge from theory into practice.
- Practical work in both university and clinical environments enables students to develop, enhance and update their learning of new skills under the supervision of experts and to ensure safe and competent practice, and to integrate theoretical and practical knowledge.
- Focusing on identification of common pathologies demonstrated on the radiographic image, while demonstrating the transferability of these skills to identification of the existence of less common pathologies.
- Discussion on a one-to-one basis following clinical work (de-brief session) using for example, case studies, justification of exposure of the patient to ionising radiation, with evidence and reflection upon experiences to identify personal learning needs.
- Small group work, such as seminars, and workshops, provides opportunities for students to clarify and exchange ideas, and to question and challenge professional concepts.
- Guided independent study, tutorials and the use of portfolios will assist the student to explore in depth, and evaluate, aspects of professional practice.
- Seminars, tutorials and web-based activities encourage students to reflect upon their learning and to take responsibility for its development, and to collaborate with others to share, explore, and evaluate ideas in greater depth.
- Undertaking a research-based project, using the support of small group workshops (where relevant) and tutorial supervision, further develops the student's independent learning and research capability; it also enables them to plan, implement and document a piece of research with relevance to radiography (Diagnostic Imaging) in line with the aims of the 2016-2021 Society and College of Radiographers Research Strategy. This piece of work encourages competence with IT skills including use of software packages for data analysis.

7. Teaching Staff

The permanent academic staff contributing to the programme are drawn from the University's School of Health and Rehabilitation along with contributions from specialist experts when appropriate. The School Team includes: professors, senior lecturers, lecturers, teaching fellows and academic related staff giving a current staff student ratio for the programme of 1:15. All permanent academic staff are currently members of, or are working towards, membership of the Higher Education Academy. All permanent academic staff hold (or are working towards) academic qualifications to at least Masters Level. All staff who are recognised healthcare professionals, such as radiographers, physiotherapists or nurses are registered with the relevant body e.g. HCPC or NMC, and have had experience working in the NHS and other areas of healthcare. The academic staff group currently includes staff from different professions such as Radiographers, Physiotherapists, an Exercise Physiologist and a Biomedical Scientist. The staff group has extensive experience of teaching at undergraduate and postgraduate level and includes individuals with expertise in learning and teaching and research. The work of research active staff has been widely published and shared via conference presentations.

Several staff are active members of clinical specialist interest groups. The Medical School has honorary contracts in place with Consultant Radiologists and Medical Physicists.

The clinical component of the programme is delivered and assessed by a range of Practice Educators. These are suitably qualified clinicians and professionally registered working across a broad range of clinical environments who will undertake the SHAR Practice Educators training course (which includes regular updates). This will enable them to achieve the learning outcomes required to participate in the College of Radiographers Practice Educators Accreditation Scheme⁸. <https://www.sor.org/learning/document-library/practice-educator-accreditation-scheme-approval-accreditation-educational-programmes-professional>

The University will attempt to minimise changes to our core teaching teams, however, delivery of the programme depends on having a sufficient number of staff with the relevant expertise to ensure that the programme is taught to the appropriate academic standard.

Staff turnover, for example where key members of staff leave, fall ill or go on research leave, may result in changes to the programme's content. The University will endeavour to ensure that any impact on students is limited if such changes occur.

8. What is the Structure of the Programme?

The programme is studied full-time over three years and the teaching is delivered via individual modules relating to six themes across each year. Each year is arranged into two units called semesters (Autumn and Spring) which vary in length. In each academic year, blocks of time are spent in both the university and clinical settings - Table 1. (The structure of the academic year is available in the Student Handbook).

N.B. Practice experience equates to a minimum of 1,200 hours over the course of the programme.

Table 1. Academic and Clinical Learning

	YEAR 1 / FHEQ LEVEL 4	YEAR 2 / FHEQ LEVEL 5	YEAR 3 / FHEQ LEVEL 6
Total weeks in education/ annum	31	31 + volunteer period	31
Total weeks in University/ annum	21	20	20
Academic teaching weeks / annum	14	13	13

⁸ Practice Educator Accreditation Scheme; The Approval and Accreditation of Educational Programmes and Professional Practice; Society and College of Radiographers 2006.

Hours available for academic study / annum (6 hours x 4.5 days possible contact / week)	378	351	351
Percentage time for academic study	50.20%	45.90%	45.90%
Clinical teaching weeks/ annum	10	11	11
Hours available for clinical study / annum (7.5 hours x 5 days = 37.5 hours / week @ FTE)	375	413	413
Percentage time for clinical practice	49.80%	54.10%	54.10%

The course is structured around six themes which each have an academic and clinical component. Two relate to inter-professional learning (Collaborative Practice) to research (Professional Development); four relate to the key areas of Radiographic practice:

- Radiographic Practice
- Radiographic Science
- The Human Body
- Image Interpretation

Each of these themes are introduced, developed and enhanced via individual modules (worth 20 credits per module (please refer to Table 2) over the three-year programme, each year carries 120 credits. Adopting a spiral curriculum approach⁹ allows each theme to be revisited in subsequent years adding depth and breadth of knowledge. The curriculum also facilitates the progression from novice to advanced beginner to competent practitioner¹⁰. Table 3 shows where the subject specific learning outcomes are introduced, developed and assessed.

Table 2. Overview of Modules and Credit Value for BSc (Hons) Radiography (Diagnostic Imaging) Programme

Module lists

Year 1 (Level 4)

Compulsory modules	Abbreviation	Module Code	Credits	Semester
Introduction to the Human Body 1	HB1	RDI-10001	20	1-2
Foundations of Radiographic Science	FRS	RDI-10003	20	1-2
Image Interpretation 1	II1	RDI-10004	20	1-2
Introduction to Radiographic Practice	IRP	RDI-10006	20	1-2
Professional Development 1: Principles of Measurement & Research	PD1	RDI-10005	20	1-2
Collaborative Practice 1: Professionalism & Effective Communication	CP1	RDI-10002	20	1-2

Year 2 (Level 5)

Compulsory modules	Abbreviation	Module Code	Credits	Semester
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⁹ Harden and Stamper 1999, General Teaching Council for England 2006

¹⁰ Benner 2001 and Benner 2009

The Human Body 2	HB2	RDI-20002	20	1-2
Exploring Radiation Protection	ERP	RDI-20005	20	1-2
Image Interpretation 2	II2	RDI-20003	20	1-2
Radiographic Practice 2	RP2	RDI-20006	20	1-2
Professional Development 2: Evidence Based Diagnostic Imaging	PD2	RDI-20004	20	1-2
Collaborative Practice 2: Inter-professional Learning	CP2	RDI-20001	20	1-2

Year 3 (Level 6)

Compulsory modules	Abbreviation	Module Code	Credits	Semester
Human Body 3: Applying Knowledge	HB2	RDI-30006	20	1-2
Advanced Imaging Modalities	ERP	RDI-30001	20	1-2
Initial Image Commenting	II2	RDI-30005	20	1-2
Radiographic Practice 3	RP2	RDI-30004	20	1-2
Professional Development 3: Research Project	PD2	RDI-30003	20	1-2
Collaborative Practice 3: Professionalism, Collaboration & Leadership	CP2	RDI-30002	20	1-2

For further information on the content of modules currently offered, please visit:

www.keele.ac.uk/recordsandexams/az

9. Final and intermediate awards

The programme is designed to educate Radiography (Diagnostic Imaging) practitioners. Consequently, the expectation is that students will complete the full programme of study obtaining 360 credits and so be awarded BSc (Hons) Radiography (Diagnostic Imaging). Students usually accumulate 120 credits per academic year. If a student leaves the programme before completing 360 credits they may be eligible for an alternative award. Radiographers must complete an approved programme of study (minimum 360 credits) in order to use the title 'radiographer'. Any alternative award will not contain the term 'radiography' or "radiographer".

Whilst it is expected that students will complete the full programme, including the all of the academic and clinical components, it is possible for students to leave the BSc (Hons) Radiography (Diagnostic Imaging) programme with one of four final awards:

Honours Degree in Radiography (Diagnostic Imaging)	360 credits	You will require at least 120 credits at levels 4, 5 and 6. You must also have passed all clinical assessments. Graduates are eligible to apply for registration with the HCPC and on successful registration will be entitled to practice as a Diagnostic Radiographer in the UK.
Honours Degree in Imaging Studies	360 credits	You will require 120 credits at FHEQ Level 4 (Year 1) and 120 credits at FHEQ Level 5 (Year 2). If you are unable to achieve 120 credits within the BSc (Hons) Radiography (Diagnostic Imaging) programme but achieve a minimum of 100 credits (equivalent) at FHEQ Level 6 (Year 3), you will be offered an opportunity to study alternative elective module(s) to achieve the required minimum 120 credits at level 6, as advised by the relevant Programme Lead in the School. Upon successful completion in such circumstances and providing 360 credits have been achieved, the title of the award will be BSc (Hons) Imaging Studies. Graduates with this award will not be eligible for registration with the HCPC and will not be entitled to

		practice Radiography.
Diploma in Higher Education	240 credits	You will require at least 120 credits at level 4 or higher and at least 120 credits at level 5 or higher. This award does not confer eligibility to apply for registration with the HCPC or to practice as a radiographer.
Certificate in Higher Education	120 credits	You will require at least 120 credits at level 4 or higher. This award does not confer eligibility to apply for registration with the HCPC or to practice as a radiographer.

10. How is the Programme assessed?

The wide variety of assessment methods used within Radiography (Diagnostic Imaging) at Keele reflects the broad range of knowledge and skills that are developed as you progress through the degree programme. Teaching staff pay particular attention to specifying clear assessment criteria and providing timely, regular and constructive feedback that helps to clarify things you did not understand and helps you to improve your performance. The following list is representative of the variety of assessment methods used within Radiography (Diagnostic Imaging):

- **Written work/assignments** test the quality and application of subject knowledge. In addition, they allow students to demonstrate their ability to carry out basic literature searches, communicate their ideas effectively in writing and support their arguments with appropriate referencing. Written pieces vary in their length depending upon the module.
- **Written Examinations** in different formats test students' knowledge and (as appropriate), their ability to apply that knowledge appropriately to professional practice. Examinations may consist of essay, short answer and/or multiple-choice questions.
- **Reflective assignments** enable the student to develop their skills of reflective learning and practice; these are fundamental skills used by all healthcare professionals as part of their continuing professional development
- **Oral presentations** assess students' subject knowledge and understanding. They also test their ability to work effectively as members of a team, to communicate what they know orally and visually, and to reflect on these processes as part of their own personal development.
- **Practical Examinations** – these occur in modules that involve the teaching and learning of practical clinical skills. These examinations enable students to demonstrate the safe and effective application of practical clinical skills, and to justify their choice
- **Research project** is a student led piece of independent research. Nominated supervisors support the student throughout the process, which includes gaining ethical approval from the Student Project Ethics Committee (SPEC) within the School of Health and Rehabilitation or other appropriate ethics committee. This assessment develops the student's capacity as an independent learner and their ability to engage in the research process. It also develops the student's IT skills in use of various software for presentation and data analysis (e.g. Word, Excel, SPSS)
- **Clinical assessment** is undertaken during clinical practice using the Practice Education Portfolio (PEP). This is concluded with an oral assessment undertaken by the academic team to enable the students to demonstrate the safe and effective application of the academic learning in professional practice.

You will also be assessed formatively to enable you to monitor your own progress and to assist staff in identifying and addressing any specific learning needs. Feedback, including guidance on how you can improve the quality of your work, is also provided on all summative assessments within three working weeks of submission, unless there are compelling circumstances that make this impossible, and more informally in the course of tutorial and seminar discussions. Clinical competence is assessed as on pass/fail and is not credit bearing. All clinical assessments must be passed to enable successful completion of the programme. See Appendix 2 of the Programme Specification.

11. Contact Time and Expected Workload

This contact time measure is intended to provide you with an indication of the type of activity you are likely to undertake during this programme. The data is compiled based on module choices and learning patterns of students on similar programmes in previous years. Every effort is made to ensure this data is a realistic representation of what you are likely to experience, but changes to programmes, teaching methods and assessment methods mean this data is representative and not specific.

Undergraduate courses at Keele contain an element of module choice; therefore, individual students will experience a different mix of contact time and assessment types dependent upon their own individual choice of modules. The figures below are an example of activities that a student may expect on your chosen course by year/stage of study. Contact time includes scheduled activities such as: lecture, seminar, tutorial, project supervision, demonstration, practical classes and labs, supervised time in labs/workshop, fieldwork and external visits. The figures are based on 1,200 hours of student effort each year for full-time students.

Activity	Year 1 (Level 4)	Year 2 (Level 5)	Year 3 (Level 6)
Scheduled learning and teaching activities	30%	30%	30%
Guided independent Study	33%	28%	28%
Placements	37%	42%	42%

12. Accreditation

This programme is accredited by the Society and College of Radiographers and approved by the Health and Care Professions Council (HCPC).

Please note: Graduates of the programme are eligible to apply for registration with the Health and Care Professions Council (HCPC). In order to use the title 'radiographer' a practitioner must be registered with the HCPC. HCPC registration is a prerequisite for employment as a radiographer in the NHS. The programme meets the requirements of the HCPC Standards of Education and Training (2014) and HCPC Standards of Proficiency (Radiographers) and the Society and College of Radiographers (SCoR) Education and Career Framework for the Radiography Workforce (2013)

The programme design is consistent with outcomes for autonomous practice and guidance set out in the 'Indicative Curriculum for Practitioners' by the SCoR.

13. Regulations

The University Regulations form the framework for learning, teaching and assessment and other aspects of the student experience. Further information about the University Regulations can be found at: <http://www.keele.ac.uk/student-agreement/>

14. Other learning opportunities

Some students may have the opportunity to present their 3rd year project work via poster or presentation at conferences. A contribution from the School towards the costs incurred by the student in these ventures may be available and will be considered on an individual basis.

Students will be encouraged to submit their research work for publication in Synergy: Imaging and Therapy Practice, to gain experience in writing for publication.

Such opportunities occur outside the normal timetabled programme thus a commitment of time will be required from the student.

15. Additional costs

During the programme there will be some additional mandatory costs incurred by all students:

- Student membership of the Society and College of Radiographers is free for the first year and currently costs £48 for subsequent years, this can be paid annually or monthly. Students at education institutions

in the UK can pay an additional annual fee to receive paper copies of the magazine “Synergy News” and the journal “Synergy: Imaging & Therapy Practice” by post (£24 at 2015/16 rates).

- In the first-year students may borrow half skeletons in pairs to help anatomy learning. There is a charge of £40 per person paid in cash at the start of the first semester. A partial refund of £10 (providing the skeleton is returned in good condition) will take place at the start of the next academic year.
- Subscription to the Disclosure and Barring update service (DBS) is a requirement and currently costs £13 per year which the student pays online at the start of each academic year.
- Students will be required to pay for their own uniforms (as ordered centrally by the school), shoes (own purchase as guided by the school) and anatomical markers (as guided by the school)

BSc (Hons) Radiography (Diagnostic Imaging) students will usually undertake a minimum of 1,200 hours of assessed practice placement before graduating. Typical hours will be around 37.5 hours per week while on placement, with between 10 or 11 weeks spent in the practice environment per year. Placements are allocated based on availability and the student’s clinical experience profile. Some students may be required to travel to complete their placements and may prefer therefore to source accommodation for that time. Currently most placements are within a 50-mile radius of the university.

Variable costs associated with Clinical Placements

There are some costs associated with attending practice placements related to both travel expenses and accommodation.

- A non-refundable grant is available to help cover the cost of travel. Additional accommodation costs incurred during practice placement are refundable.
- Many students continue to fund their own university/private accommodation while accessing additional accommodation for placements outside of easily commutable distances.
- Should students choose to undertake an elective placement beyond the usual geographical placement area for the programme, this may incur travel, health and liability insurance costs to be paid by the student.
- Optional costs: Students are also encouraged to purchase their own anatomical side markers at the start of the programme in the first year.

These costs have been forecast by the University as accurately as possible but may be subject to change as a result of factors outside of our control (for example, increase in costs for external services). Forecast costs are reviewed on an annual basis to ensure they remain representative. Where additional costs are in direct control of the University we will ensure increases do not exceed 5%.

As to be expected there will be additional costs for inter-library loans and potential overdue library fines, print and graduation.

We do not anticipate any further costs for this undergraduate programme.

16. Document Version History

Date of first approved version (v1.0): 18th October 2018

Revision history

Version number ¹¹	Author	Date	Summary of and rationale for changes

¹¹ 1.1, 1.2 etc. are used for minor changes and 2.0, 3.0 etc. for major changes (as defined in the University’s Guidance on processes supporting curriculum changes)