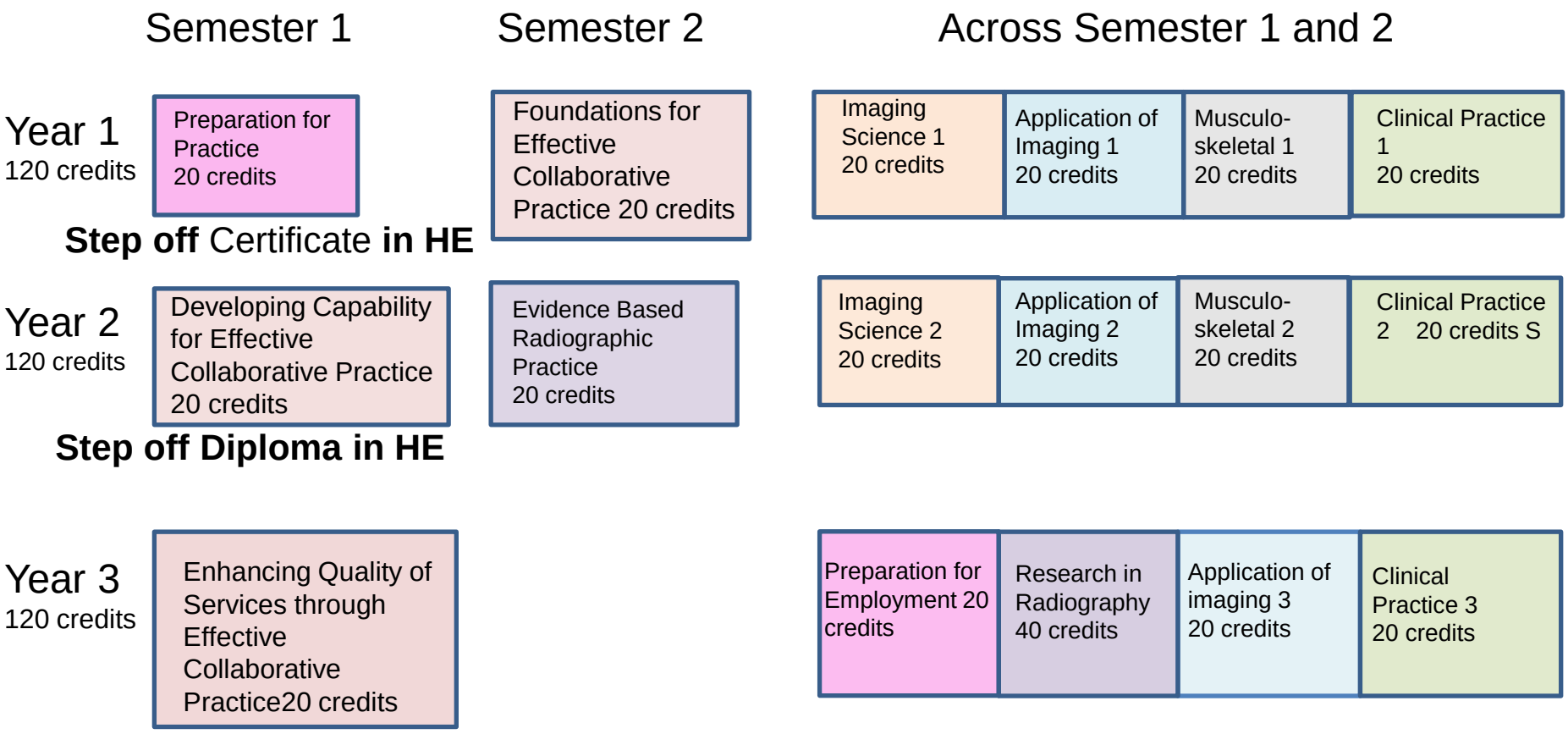
BSc(Hons) Diagnostic Radiography

Course Overview

Course structure



Assessment Loading

Year 1 Semester 1	Year 1 Semester 2	Year 2 Semester 1	Year 2 Semester 2	Year 3 Semester 1	Year 3 Semester 2
Pre clinical assessment followed by reflective report	Folder and reflective report		Folder and reflective report	CV and personal statement + poster	Folder and CPD portfolio
CBA	Written assignment	CBA	Scientific Poster		
Case study presentation	CBA	Written case study	CBA	Written assignment	CBA
Written case study	CBA	Written case study	VIVA		
	Written assignment	Written assignment	Lit review and proposal	Written assignment	Dissertation and presentation

Clinical Practice	Imaging Science	Application of Imaging	Musculo-skeletal	Inter-professional Education	Research

Academic Calendar 2016-17

WEEK No.	WEEK BEGINNING (MONDAY)	Y1 Level 4	Y2 Level 5	Y3 Level 6
1	25-Jul		C	V
2	01-Aug		C	V
3	08-Aug		V	C
4	15-Aug		V	C
5	22-Aug		V	C
6**	29-Aug		V	C
7	05-Sep		C	C
8	12-Sep		C	C
9	19-Sep	A	C	A
10	26-Sep	A	C	A
11	03-Oct	A	C	A
12	10-Oct	A	A	A
13	17-Oct	A	A	C
14	24-Oct	A	A	C
15	31-Oct	A	A	C
16	07-Nov	C	A	C
17	14-Nov	C	A	C
18	21-Nov	C	A	A
19	28-Nov	C	C	A
20	05-Dec	C	C	A
21	12-Dec	A	C	A
22	19-Dec	V	V	V
23**	26-Dec	V	V	V
24**	02-Jan	A	A	A
25	09-Jan	A	C	A
26	16-Jan	A	C	A
27	23-Jan	C	C	A
28	30-Jan	C	C	A
29	06-Feb	C	A	C
30	13-Feb	C	A	C
31	20-Feb	A	A	C
32	27-Feb	A	A	C
33	06-Mar	A	A	C
34	13-Mar	A	A	C
35	20-Mar	C	C	A
36	27-Mar	C	C	A
37	03-Apr	C	C	A
38**	10-Apr	A	A	A
39**	17-Apr	V	V	V
40	24-Apr	A	C	A
41**	01-May	C	C	A
42	08-May	C	A	A
43	15-May	C	A	C
44	22-May	C	A	C
45**	29-May	C	C	C
46	05-Jun	C	C	C
47	12-Jun	A	C	C
48	19-Jun	C	C	C
49	26-Jun	C	C	
50	03-Jul	C	C	
51	10-Jul	C	V	
52	17-Jul	C	V	
1	24-Jul	C	V	
2	31-Jul	C	V	
3	07-Aug	V	C	
4	14-Aug	V	C	
5	21-Aug	V	C	
6	28-Aug	V	C	
7	04-Sep	C	C	
8	11-Sep	C	C	
9	18-Sep	Enrol Y2	Enrol Y3	

C- weeks in placement
Blue A - weeks in university
Purple A - personal study weeks
V - vacation weeks

Year 1

Preparation for Practice

It is for the safety of both the student and the service user that mandatory pre-practice placement training is undertaken. This module includes areas such as moving and handling, infection control, basic life support, equality, diversity and human rights, and information governance.

Diagnostic radiographers are required to be autonomous, reflective practitioners and this module will start the student on this path by introducing them to searching for and using evidence, reflective practice and planning their personal and professional development in order to provide patient centred care.

Foundations for Effective Collaborative Practice

This first Interprofessional education module aims to introduce the student to the concept of professionalism and collaborative practice and the potential impact on diverse populations and communities. The module includes:

- Reflection
- Self-awareness to inform personal and professional development
- Communication issues when working collaboratively
- Psychosocial and diversity perspectives and their relationship to the principles of anti-oppressive and anti-discriminatory practice
- Professionalism
- Regulatory frameworks
- Behaviour / social class/lifestyle choices and their impact on health
- Service user and carer centredness - developing relationships
- Interprofessional Capability Framework
- National and international directives /contemporary policy drivers for collaborative working and integrated services
- Safeguarding

Year 1

Imaging Science 1
The module begins with a review and consolidation of the basic general and atomic physics relevant to Radiography. Students with no prior physics knowledge will be required to undertake additional guided study with tutorial support as required.

Students will be introduced to the X-ray room within the University and will explore the design features of equipment and enclosures that ensure safe operation, minimising electrical, physical and radiation hazards within local rules and National standards. This will include risk assessment, IRMER, ALARP, and the RPA.

The first semester will then focus on two key areas: Radio-biology and X-ray image production.

In semester two the focus will specifically be on digital radiographic imaging.

Application of Imaging 1
The module will first introduce students to basic anatomical and medical terminology.
Over two semesters they will study:
Cell and tissue structure and function, in health and in disease.
Disease processes and diagnostic imaging pathways for a range of clinical pathologies.
Gross anatomy of the body will include cavities, surface markings, planes and regions.
In the cardiovascular system they will explore the gross anatomy and physiology of the heart to include blood, cardiac cycle, and conduction pathways.
In the respiratory system they will explore the gross anatomy of the lungs and the physiology of respiration.

Year 1

Musculoskeletal Imaging 1
This module will focus on standard examinations of the following anatomical areas, upper limb, lower limb, shoulder, spine and pelvis. The module will cover anatomy, technique, image interpretation, physiology and pathology.

Clinical Practice 1
Student diagnostic radiographers will focus on standard examinations of the following anatomical areas, upper limb, lower limb, thorax, abdomen, shoulder, spine and pelvis. Knowledge and skills in these areas will be built on in the second year, increasing in complexity.
They will use a range of radiographic equipment to safely produce optimal images. This will be facilitated by participating in quality assurance procedures and gaining an understanding of how to manipulate exposure factors.
You will be interacting with service users to develop your communication skills and practice service user/ patient centred care. This will also enable you to work in accordance with statements of conduct, performance and ethics from relevant professional and regulatory bodies.
Through reflective practice and feedback from supervising radiographers students will have the opportunity to develop skills in reflection, recognition of strengths and weaknesses and action planning for development. These skills will be built on each year

Year 2

Evidence Based Radiographic Practice

This module will give students the opportunity to build on literature searching skills that have gained at level 4. They will be supported in developing skills in searching, appraising and summarising existing literature.

In preparation for level 6 students will be introduced to different methods of generating evidence in an ethical manner leading to the development of a research proposal. The module will cover;

Critical appraisal of literature, Qualitative and quantitative research methodologies, Research and evaluation methods, Generating and analysing data, Research governance, Developing advanced search strategies and Research ethics.

Clinical Practice 2

Drawing together information from other modules undertaken in years one and two, in the second year as a student diagnostic radiographer they will focus on complex examinations of skeletal and soft tissue radiography, theatre and mobile radiography, as well as exploring other imaging modalities in relation to technique and patient care.

They will have the opportunity to use a range of imaging equipment to safely produce optimal images. This will be facilitated by participating in quality assurance procedures and observing and assisting with contrast examinations and imaging using other modalities and procedures such as ultrasound, radio-nuclide imaging, lithotripsy, bone densitometry, positron emission tomography, CT, and MRI.

They will be interacting with service users and other professionals to further develop communication skills and practice patient centred care.

Year 2

Imaging Science 2
The module begins with a review of key learning from Imaging Science 1.
The principles of diagnostic image production will then be considered for digital fluoroscopy, computed tomography, magnetic resonance imaging, radio-nuclide and functional imaging, and ultrasound.
Students will consider the features of Radiological equipment design that are responsible for specific, accurate and safe operation, as well as range of quality assurance procedures. They will consider the practical considerations of Radiology Department design in order to ensure optimal workflow and safe operation.

Application of Imaging 2
In this module students will build on the underpinning knowledge of the systems of the body gained in year 1. They will examine the development of the disease process, and their impact on the patient, of a wide range of clinical pathologies.
Students will review diagnostic imaging pathways for a broad spectrum of pathologies and study the pharmacological properties of contrast media used in diagnostic imaging, their administration and the management of adverse reactions.

Year 2

Musculoskeletal Imaging 2
This module will build on the underpinning theory of radiographic positioning and technique gained at level 4 by exploring the use of adapted technique, alternative modalities, and extra-departmental imaging of patients in situations where standard technique is not possible.
Topic covered are:
Principles of Radiography in complex situations
Alternative imaging modalities used to image the musculoskeletal system including CT, MRI, US and RNI
Mobile and operating theatre Radiography/Fluoroscopy
Radiography of the skull and facial bones
Pathology of the musculoskeletal system.

Developing Capable Collaborative Practice
This second year Interprofessional education module will cover the following topics
Principles of team working, dynamics, structures, roles and responsibilities, conflict resolution
Role clarification and appreciation of others
Service user and carer involvement
Reflection
Collaborative decision making, active listening/negotiation/problem solving skills
Governance
Emotional resilience
Contemporary policy drivers for integrated services and collaborative working
Promoting safe and effective service environments

Year 3

Preparation for Employment
During this module students will be encouraged to appraise current level of professional practice against the health and Care Professions Council's Standards of Proficiency in order to provide them with greater understanding of what is expected of an autonomous practitioner.
Students will gain an understanding of the organisation and management of Health and Social Care services within the UK and developments and trends in legislation and Health and Social Care policy.
They will be supported through the process of application, Curriculum Vitae and personal statement writing with reference to personal and professional job specifications. Opportunity to practice interview technique and reflect on the process will be provided giving them a greater insight into the recruitment process.

Clinical Practice 3
Drawing together information from other modules undertaken in previous and current years, in the third year as a student diagnostic radiographer students will focus on more complex examinations of skeletal and soft tissue radiography, including poly trauma, critical care radiography, forensic radiography, dental radiography, mammography (where appropriate) and CT head scans.

They will develop knowledge and skills in the theory and practice of intra-venous administration and the supply and administration of medicine, and have the opportunity to use a range of imaging equipment to safely produce optimal images. Students will engage in the entire radiographic imaging process from justification of the request to providing a commentary on the image where appropriate whilst focusing on providing excellent patient care.

Year 3

Research in Radiography

This module will build on previous research skills gained at levels 4 and 5 and provide the foundations for generating and evaluating evidence in order to gain a deeper understanding of evidence based practice. The module will cover the following topics

- evidence-based practice
- application of the research process
- ethical approval of research
- searching, reviewing and using literature
- correct use of referencing and citation methods
- research design and methodology
- analysis and interpretation of data
- writing research reports
- implementation and dissemination of research

Enhancing Quality of Services through Effective Collaborative Practice

This third year IPE module has a focus on service improvement and leadership, it will cover the following topics:

- Quality improvement methodology and evaluation
- Leadership and entrepreneurial skills for collaborative service development
- Role clarification and appreciation of others
- Service user and carer involvement
- Reflection and consolidation of Interprofessional capability
- Contemporary policy drivers for integrated services and collaborative working

Year 3

Application of Imaging 3
The content of this module will be divided into looking at the practical, professional, and ethical aspects of the extended role of the Radiographer as well as the fundamentals of image perception and interpretation to a produce effective communication of findings. This will include:

Image interpretation and evaluation in:
Musculoskeletal Radiography
Chest and Abdomen Radiography
CT head

Professionals issues of extended role and advanced practice such as:
accountability and delegation
ethical issues and safety
competence
service delivery and improvement
legal aspects

Clinical Assessment Scheme

Section 1 - Weekly Attendance

Section 2 - Record of examinations/ activity

Section 3 - Weekly Review
- Supervising radiographer review
- Weekly Reflective Blog

Section 4 - Structured Observation

Year 1

Block 1
Thorax
Hand/wrist
Foot/ankle
Elbow

Block 2
Shoulder
Abdomen
Foot/ankle
Knee

Block 3
C spine
T spine
L spine

Section 5 - Confirmation of Progression:
- Attendance
- Completed observations
- Placement review