

Programme Specification

Title of Course: **Medical Imaging**

Date Specification Produced: **September 2016**

Date Specification Last Revised: **September 2015**

This Programme Specification is designed for prospective students, current students, academic staff and potential employers. It provides a concise summary of the main features of the programme and the intended learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. More detailed information on the teaching, learning and assessment methods, learning outcomes and content of each module can be found in Student Handbooks and Module Descriptors.

SECTION 1: GENERAL INFORMATION

| | |
|-------------------------------|--|
| Title: | Medical Imaging |
| Awarding Institution: | Kingston University |
| Teaching Institution: | Kingston University in collaboration with <ul style="list-style-type: none">• St George's Healthcare Trust, Breast Screening and Training Centre.• Virgin Care Limited, Jarvis Breast Screening and Diagnostic Centre |
| Location: | Kingston University, Penrhyn Road; St George's Healthcare Trust, Breast Screening and Training Centre (The Rose Centre), London Virgin Care Limited, Jarvis Breast Screening and Diagnostic Centre, Guildford |
| Programme Approved by: | College of Radiographers |

SECTION 2: THE PROGRAMME

A. Programme Introduction

The Medical Imaging field provides a range of opportunities for diagnostic radiographers (or equivalent) by offering modules aimed at developing skills appropriate to the developing role of the advanced practitioner and consultant radiographers. The learning opportunities within the field are greatly enhanced by collaboration between the University and partners within the NHS. Of particular note are modules relating to breast imaging, diagnosis and care provided by two breast screening and training centres that attract a high number of candidates due to the centres' national recognition for education and training in this area. The School and partners are in the vanguard of innovating advanced practice in mammography imaging, interpretation and reporting and interventional work for radiographers. A specific pathway is available relating to Mammography in recognition of the speciality modules that students may wish to follow.

A flexible and student-centred approach is a key feature of the programme: the choice of modules enables practitioners to follow an appropriate pathway to meet career and service needs and they also choose the point of entry onto the programme within the academic year. The students may enrol on a single module to fulfil Continuous Professional Development (CPD) needs or opt for a final award of PgC to acquire a set of skills specific to a particular role (e.g. mammography, Cross-sectional Imaging). Students who wish to progress to advanced practitioner status will normally study at least to the PgD award which includes a 30 credit module in Research and Evidence Based Practice. Students studying for the MSc must undertake a 60 credit dissertation module which includes undertaking experiential research in an area of professional interest and dissemination of findings.

Students following this field must normally be employed in an appropriate health related profession in order to satisfy the requirements of some of the summative assessments. The teaching team value the experience that practitioner-students bring to individual modules, and student participation and involvement is a key feature of the teaching methods employed. Students are encouraged to reflect upon their personal experience of working in a clinical setting and to develop clinical, managerial or leadership skills that underpin progression to advance and consultant roles.

The **Medical Imaging** field is closely linked to two related fields – Oncology Practice and Breast Evaluation. To place in context the valuable multi-professional shared learning that takes place on several modules, features of these fields are provided:

The Oncology Practice field provides the opportunity for therapeutic radiographers (or equivalent) to enhance their academic and professional capabilities. The

increasing role of imaging in the delivery of radiotherapy has given rise to a range of modules for oncology practitioners alone, and others shared learning with diagnostic imaging practitioners.

The Breast Evaluation field facilitates entry to the programme by medical practitioners and nurses working within breast cancer diagnosis and care. It constitutes a unique initiative enabling inter-professional learning crossing several professional boundaries and comprises a selection of modules offered within the Medical Imaging and Oncology Practice fields.

The programme reflects the Led-by-Learning agenda within the Strategic Plan (2011) of KU. As a result of rigorous academic and clinical education gained at Kingston University and Collaborative Partners sites our postgraduates are widely recognised as being thoroughly prepared for career progression, acquiring jobs as heads of school/department, advanced practitioners and consultant radiographers.

B. Aims of the Programme

MSc

The overall AIMS for the MSc in Medical Imaging are to:

- provide a varied learning environment in which current and developing issues of relevance to healthcare in the United Kingdom are aired and individual reflection and group discussion of the impact of such issues is enabled;
- facilitate development in each student of the skills of critical analysis, evaluation and appropriate responses to change;
- enable graduates to initiate and sustain a planned and co-ordinated and personal effectiveness in research activity whereby outcomes may inform practice;
- foster the development of advanced professional practice based skills and integration of the underlying theoretical concepts linked to such skills;
- facilitate the development of managerial skills related to self, others and resources to enhance the service provision to patients in health care settings.

Although there is not a clear delineation in progression between postgraduate certificate and diploma, since all modules are at level 7 it is recognised that the structure will enable progression of development by building on further module aims and learning outcomes to be achieved.

Postgraduate Diploma

The AIMS for the Postgraduate Diploma are to:

- provide a learning environment for specialist areas of each field;
- enhance research methodology skills appropriate to the clinical environment;
- further facilitate skills of critical assessment of reported research and evaluating the influence of research on clinical practice.

Postgraduate Certificate

The AIMS for the Postgraduate Certificate are to:

- initiate development of skills of critical analysis in relation to the advanced theory and practice of each field;
- develop research methodology skills appropriate to the clinical environment;
- provide a stimulating learning environment, which encourages practitioners to pursue further studies.

C. Intended Learning Outcomes

The programme outcomes are referenced to appropriate professional statements and standards and the Framework for Higher Education Qualifications in England, Wales and Northern Ireland (2008), and relate to the typical student. The programme provides opportunities for students to develop and demonstrate knowledge and understanding, skills and other attributes in the following areas.

| Programme Learning Outcomes | | | | | |
|------------------------------------|---|-----|--|-----|---|
| | Knowledge and Understanding | | Intellectual skills – able to: | | Subject Practical skills |
| | On completion of the course students will be able to: | | On completion of the course students will be able to: | | On completion of the course students will be able to: |
| A1 | Apply enhanced knowledge and develop advanced skills in individually selected topics associated with their professional practice; | B1 | Integrate complex clinical developments and health and social policy issues into professional practice; | C1 | Demonstrate competence in advanced practice skills; |
| A2 | Integrate advanced and contemporary knowledge of their discipline into professional practice; | B2 | Undertake independent research and thereby support evidence based practice and critically appraise evidence and the impact of research on professional practice; | C2 | Manage complex and unpredictable events related to professional practice; |
| A3 | Appraise theoretical concepts associated with their discipline and the need to link these with current professional practice; | B3 | Critically analyse their own professional practice and the theoretical framework of this practice, and the work of others in related health care disciplines; | C3 | Communicate a range of ideas and concepts to different audiences |
| A4 | Demonstrate self-responsibility and personal strategies for lifelong learning including evidence of reflective practice | B4 | Apply and critically review theoretical concepts associated with specialist areas of clinical practice and analyse the evidence base that supports clinical decision making. | C4 | Systematically analyse qualitative or quantitative data |
| Key Skills | | | | | |
| | Self Awareness Skills | | Communication Skills | | Interpersonal Skills |
| AK1 | Take responsibility for own learning and plan for and record own personal development | BK1 | Express ideas clearly and unambiguously in writing and the spoken work | CK1 | Work well with others in a group or team |
| AK2 | Recognise own academic strengths and weaknesses, reflect on performance and progress and respond to feedback | BK2 | Present, challenge and defend ideas and results effectively orally and in writing | CK2 | Work flexibly and respond to change |
| AK3 | Organise self effectively, agreeing and setting realistic targets, accessing support where appropriate and | BK3 | Actively listen and respond appropriately to ideas of others | CK3 | Discuss and debate with others and make concession to reach agreement |

| | | | | | |
|-----|---|-----|---|-----|---|
| | managing time to achieve targets | | | | |
| AK4 | Work effectively with limited supervision in unfamiliar contexts | | | CK4 | Give, accept and respond to constructive feedback |
| | | | | CK5 | Show sensitivity and respect for diverse values and beliefs |
| | Research and information Literacy Skills | | Numeracy Skills | | Management & Leadership Skills |
| DK1 | Search for and select relevant sources of information | EK1 | Collect data from primary and secondary sources and use appropriate methods to manipulate and analyse this data | FK1 | Determine the scope of a task (or project) |
| DK2 | Critically evaluate information and use it appropriately | EK2 | Present and record data in appropriate formats | FK2 | Identify resources needed to undertake the task (or project) and to schedule and manage the resources |
| DK3 | Apply the ethical and legal requirements in both the access and use of information | EK3 | Interpret and evaluate data to inform and justify arguments | FK3 | Evidence ability to successfully complete and evaluate a task (or project), revising the plan where necessary |
| DK4 | Accurately cite and reference information sources | EK4 | Be aware of issues of selection, accuracy and uncertainty in the collection and analysis of data | FK4 | Motivate and direct others to enable an effective contribution from all participants |
| DK5 | Use software and IT technology as appropriate | | | | |
| | Creativity and Problem Solving Skills | | | | |
| GK1 | Apply scientific and other knowledge to analyse and evaluate information and data and to find solutions to problems | | | | |
| GK2 | Work with complex ideas and justify judgements made through effective use of evidence | | | | |

| Teaching/learning methods and strategies | |
|---|--|
| The range of learning and teaching strategies includes: | |
| Formal Lectures | Practicals |
| Demonstrations | Seminars |
| Case Studies | Discussion Groups |
| Tutorials | Self Directed Learning |
| Independent Study | Film 'Test Roller' for image reporting |
| Individual tutorials | Clinical assessment exercises |
| Role-play | Group workshops |
| Debates | Observational placements and visits |
| Blended learning | |
| Learning strategies include: | |
| Seminar paper presentations | Written assignments |
| Use of learning contracts in group work | Observation |
| Participation in group work | Self-directed reading |
| Teaching and Learning Strategies for Work Based Learning | |
| Compilation of the portfolio | Peer review |
| Case study presentations | Reflective 'diaries' |
| Assessment strategies | |
| The assessment strategies employed in the Fields include the following:: | |
| Essays | |
| Reports | |
| Case Studies | |
| Seminar Presentation | |
| Clinical Portfolio (log book and reflective diary) | |
| Objective Structured Clinical/Practical Examination (OSCE/OSPE) | |
| Formative Assessment and Feedforward | |
| <i>The full assessment range is identified within the Module Directory.</i> | |

D. Entry Requirements

Entry requirements for award-bearing courses within the proposed field of Medical Imaging Regulations for admissions are consistent with the general requirements of Kingston University (Regulations for Courses leading to Awards of Kingston University/ Admissions Handbook)

Applicants should normally provide evidence of the following:

- a degree/diploma or equivalent professional qualification in a healthcare profession;
- at least 2 years full-time post qualifying clinical experience with normally one continuous year and still working in a relevant work area related to diagnostic radiography or breast diagnosis and care e.g. breast screening or symptomatic unit or breast oncology work. Applicants may however register for the Professional Practice in Mammography 1 and 2 modules without the relevant work related experience, where subsequent completion of these modules will fulfil the eligibility criteria to continue on the programme.
- academic potential to study at level 7 demonstrated by means of professional references, post registration qualifications, examples of academic work or performance at personal interview.
- access to appropriate clinical practice **and** confirmed mentoring support from appropriate personnel at the workplace for those modules that contain a clinical element.

Where the third criteria above may not be readily demonstrated, candidates may be initially registered for a stand alone or first module as an associate student or for the award of Postgraduate Certificate with the ability to progress on successful completion.

Candidates who are not registered with the UK statutory and regulatory body will not normally be able to undertake modules that incorporate a clinical component. However, where there is an opportunity for close collaboration between the module leader and the service manager at an overseas clinical site where a candidate is employed, it may be possible to agree mentorship and standards of achievement in practice that allow such modules to be offered.

Students for whom English is not their first language must provide evidence of proficiency in oral and written English (e.g. a minimum of 6.5 points in an English Examination for overseas students such as IELTS with no less than 6.0 points in any category). Where necessary, international students may have the opportunity to attend language support sessions.

Selection Procedure

Students will normally be selected by the Course Director following scrutiny of the application form and supporting documents in order to:

- Ensure that candidate meets the criteria for clinical aspects of the relevant modules;
- Ensure the candidates ability to achieve the required academic standard;
- Evaluate the candidates written and spoken English;
- Ensure that there will be a suitable practice area supported by appropriate mentors.

The Course Director may also initially discuss pathway options and modules that are available with potential candidates in determining their registration. Where the student wishes to attend modules to be undertaken with the networking partners only, selection will be undertaken in collaboration with the module leaders from those sites.

Admission with Advance Standing or credit through Recognition of prior learning (RPL)

Applicant's offering prior qualifications and learning may be exempted from appropriate parts of the course in accordance with Kingston University's mechanisms and policies for the assessment of prior learning on an individual basis but at the discretion of the course team.

Associate Students

Individuals, who do not wish to enrol on a full programme of study leading to an award, may apply for Associate Student status. This allows them to participate in an individual module as a 'stand alone module'. In order to gain credit for the module the requirement of assessment of that module must be satisfied.

E. Programme Structure

The Medical Imaging field is offered in full- and part-time mode and conforms to the University's Postgraduate Credit Framework (PCF). The field comprises modules that are designated at level 7 with single modules valued at 30 credits and the field may contain a number of multiple modules. The minimum requirement for the award of a Postgraduate Certificate is 60 credits, for a Postgraduate Diploma, 120 credits and a Masters Degree 180 credits; the Certificate or Diploma may be selected as the exit award. All students will be provided with the University regulations (PCF) and specific additions that are required for accreditation by professional or statutory bodies that confer professional accreditation. Relevant sections will be provided in detail for students in field handbooks.

Commencement of courses for EU, part-time students may be at any stage during an academic year as appropriate to module choice, making this a "rolling" programme rather than specific to any academic year period: For full-time students, entry is limited to a January start.

E1. Professional and Statutory Regulatory Bodies

- Approval by the College of Radiographers

Indicative Guidance and Policy documents

- National Occupational Standards for Mammography
- College of Radiographers' Postgraduate Award in Mammography Practice
- NHS Breast Screening Programme directives
- DH/NHS Directives and Policies
- Health and Care Professions Council: Standards of Proficiency
- College of Radiographers' Education and Career Framework for the Radiography Workforce 2013
- College of Radiographers Scope of Practice
- Collaborative links with the expertise at Breast Screening Training Centre at Jarvis, Guildford and St George's Hospital, London
- Kingston University Postgraduate Credit Framework

E2. Work-based learning

Normally all the students are either in fulltime or part-time employment as diagnostic radiographers, mammographers or other health related fields. This allows students to reflect upon their own personal experience of working in a practice setting, to focus on aspects of this experience that they can clearly relate to theoretical concepts and to evaluate the relationship between theory and practice. In certain circumstance where students are

unable to access appropriate experience, non-competency based assignments may be adapted to a more theoretical perspective. For modules leading to competency, students must have access to practice in the United Kingdom (UK) in order to fulfil the assessment criteria. It is the responsibility of the student to source and secure such work placement and appoint a suitable person who will act as a mentor to provide guidance in the practice. Students not based in the UK who are enrolled on the programme may in exceptional circumstances register for such modules and use their 'home' department for work-based learning and assessment: this would only be obtained where close collaboration between the module leader and the local service manager allows a criterion-based shared understanding of standards of achievement to be established.

E3. Outline Programme Structure

Full details of each module will be provided in module descriptors and student module guides. The module delivery generally follows the pattern of pre-contact tutor-directed study followed by contact 'taught' week(s) with further student-directed study / practice and assessment. The following sets of grids demonstrate the field structure available within the **Medical Imaging Field**

Medical Imaging

| Award | Module type | Module(s) / Credits | Credits |
|---------------------------------|--------------------|--|----------------|
| Post graduate certificate (PGC) | Options (#) | Minimum of 30 credits | 60 |
| | Free Choice (##) | Maximum of 30 credits | |
| Post graduate diploma (PGD) | Core | Research and Evidence Based Practice in Healthcare | 30 |
| | Options (#) | Minimum of 30 credits | 30 |
| | Free Choice (##) | Maximum of 30 credits | |
| Masters Degree (MSc) | Core | Dissertation | 60 |

The modules available are listed below.

| Module Code | Module Title | Creds | Pre-reqs |
|---|--|--------------|-----------------|
| <u>Core:</u> RA7015 | Research and Evidence Based Practice in Healthcare (for PgD) | 30 L7 | PgC |
| RA7006 | Dissertation (for MSc) | 60 L7 | PgD |
| <u># Option:</u> RA7001 | Advanced Practice – Negotiated Independent Work Based Learning | 30 L7 | None |
| RA7005a | Cross Sectional Imaging - Diagnostic | 30 L7 | None |
| RA7017 | PACS (Picture Archiving and Communication System) Administration | 30 L7 | None |
| <u>## Free Choice:</u> RA7010 | Management of Resources and Quality within Healthcare | 30 L7 | None |

| | | | |
|--------|--|-------|------|
| RA7012 | Practice Education and Mentorship ⁺ | 30 L7 | None |
|--------|--|-------|------|

⁺Satisfactory completion of Practice Education and Mentorship confers eligibility for application for accreditation under the College of Radiographers Practice Educators Accreditation Scheme (PEAS).

Medical Imaging (Mammography)

| Award | Module type | Module(s) / Credits | Credits |
|---------------------------------|--------------------|--|----------------|
| Post graduate certificate (PGC) | Core | Professional Practice in Mammography 1 and 2 | 60 |
| | | OR equivalent Mammography and option module | |
| Post graduate diploma (PGD) | Core | Research and Evidence Based Practice In Healthcare | 30 |
| | Options (#) | Minimum of 30 credits | 30 |
| | Free Choice (##) | Maximum of 30 credits | |
| Masters Degree (MSc) | Core | Dissertation | 60 |

The modules available are listed below.

| Module Code | Module Title | Credits | Pre-reqs |
|-------------------------------|--|----------------|-----------------|
| <u>Core:</u> | | | |
| RA7013 | Professional Practice in Mammography 1 ^ | 30 L7 | corec |
| RA7014 | Professional Practice in Mammography 2 ^ | 30 L7 | corec |
| RA7015 | Research and Evidence Based Practice in Healthcare (for PgD) | 30 L7 | PgC |
| RA7006 | Dissertation (for MSc) | 60 L7 | PgD |
| <u># Option:</u> | | | |
| RA7001 | Advanced Practice – Negotiated Independent Work Based Learning | 30 L7 | None |
| RA7002 | Advanced Principles and Practice of Breast Interventional Techniques | 30 L7 | None/ RA7016 |
| RA7003 | Clinical Breast Examination and Client Communication | 30 L7 | None |
| RA7004 | Contemporary Practice in Breast Cancer Genetics & Diagnosis | 30 L7 | None |
| RA7005a | Cross Sectional Imaging - Diagnostic | 30 L7 | None |
| RA7009 | Interpretation and Reporting in Mammography | 30 L7 | None |
| RA7016 | Ultrasound of the Breast | 30 L7 | None |
| RA7017 | PACS (Picture Archiving and Communication System) Administration | 30 L7 | None |
| <u>## Free Choice:</u> | | | |
| RA7010 | Management of Resources and Quality within Healthcare | 30 L7 | None |
| RA7012 | Practice Education and Mentorship ⁺ | 30 L7 | None |

^Satisfactory completion both Professional Practice in Mammography modules (1 & 2) confers eligibility for application to the College of Radiographers for the Postgraduate award in Mammography.

*Satisfactory completion of the Practice Education and Mentorship module confers eligibility for accreditation under the College of Radiographers Practice Educators Accreditation Scheme (PEAS).

F. Principles of Teaching Learning and Assessment

Teaching and Learning

The Medical Imaging field has been designed to take account of the KU Curriculum Design Principles and good practices emerging from the Faculty Learning, Teaching and Assessment Committee and faculty support systems.

Students meet a wide range of learning methods (listed on page 6). These methods are carefully crafted to suit the content and the learning outcomes of each module and also for the overall programme. Typically the strategy involves using lectures to ensure that students have the key theoretical knowledge relating to the module before using strategies that allow the students to apply this knowledge in a variety of ways. Through group discussions and seminar work, practical and role play sessions students are able to develop more individual and personal key skills. Debates will develop their critical skills. For the essential practice based and clinical skills, observational placement, demonstration, image interpretation and clinical assessments are employed. The diversity of individuals comprising the module cohort greatly enhances the quality of peer discussion and cooperation that enriches learning. Each student brings to the cohort their own particulate insight and strength and this is seen as an important part of professional education and the reinforcement of the principles and skills required of working in a team.

Research-informed and research-led teaching is strongly embedded in the programme. The Research and Evidence Based Practice module has a strong research-oriented teaching focus. It is designed to foster an understanding of the research process, hone skills of critical appraisal and develop research and inquiry skills as applied to both quantitative and qualitative research.

Students will have shared learning across the Oncology Practice and Breast Evaluation fields. This inter-professional feature of some modules results in a unique learning experience provided by the exchange of dialogue between a wide range of professionals e.g. diagnostic radiographers, therapeutic radiographers, radiologists, breast physicians, nurses, surgeons, and physicists. Some modules are delivered at collaborative partners' sites in order to enable better the teaching by subject experts; for modules linked to competency, students attend the academic aspect of the module at the collaborative partner's site or at KU followed by clinical skills acquisition at their workplace. This by nature requires work-based learning, fostering integration between academic and clinical learning, linking theory to practice. Academic modules also support generic clinical activities by teachings vital skills in research, assessing and supervising, management of people all of which foster enquiry based learning.

The final Dissertation module is dominated by research-based learning as students undertake research. This allows them to demonstrate and apply the knowledge and skills that they have acquired throughout the whole of their course. The students are encouraged to be proactive and suggest their own topic of research dependant on their area of expertise, resources available and their own clinical needs. The project also allows students to develop and hone their research skills thus providing them with relevant practical experience required

to conceptualise, design and implement projects for the generation of new knowledge and understanding. Contributing to their professional role is knowledge transfer. This is achieved by students disseminating their findings as a poster at a conference or publishing it in a professional journal. There are further opportunities to disseminate their findings to their peers at the faculty's research forums.

Technology Enhanced Learning (TEL) is widely used within modules as part of a blended learning approach: web based materials supported by the virtual learning environment (VLE) enable students to develop an investigative, independent and individualised approach to learning skills vital for an autonomous practitioner. It also lays the foundation for further studies and research within continuing education. Workshops using state-of-the-art technology in imaging and image appraisal enhances the student experience and increases the professional creditability of the provision. Anticipated TEL developments include e-based OSPEs, use of Personal Response Devices within contact teaching sessions and continued development of on-line marking and feedback. The programme also embraces a range of TEL strategies to assist in the development and support of students. This is especially relevant in facilitating the establishment of a cohesive student community and fostering peer support on a programme with a national and international recruitment profile. E-mail groups, Wimba and discussion boards have all been employed although students rate most highly the opportunity for face to face interaction with professional colleagues from disparate practice centres.

Service users are involved in various aspects of delivering the programme in role plays, assessments (simulating patients) and delivering lectures providing valuable opportunity for students to gain insight into patient/client perceptions of practice.

Specific learning and teaching strategies are indicated in the individual module guides and in the Module Directory.

Assessment

The philosophy underpinning the programme's assessment strategy is to provide a diverse range of assessments (listed on page 6) to enable students to demonstrate their own particular strengths whilst allowing sufficient commonality that allows development of skills and progression in achievement as they advance through the programme. Each is selected to ensure that students can demonstrate that they have fulfilled the learning outcomes of the programme of study and achieved the standard required for level 7 award. They also have a role to play in facilitating achievement of the overall course aims as undertaking items of assessment will form part of the learning process. Since the course combines academic rigour closely allied to professional development [clinical competence] the assessment methods effectively reflect factors that lie at the foundation of the discipline. These include knowledge, analysis and decision making, clinical safety and accuracy, and research methodology. The overall assessment aims for the postgraduate programmes, in summary are to:

- demonstrate the achievement of level-7 learning within modules;
- demonstrate that the students have a thorough grounding in the academic, and where appropriate, clinical components of the course;
- ensure that the students have a high degree of competence in understanding research relevant to their discipline;
- demonstrate that the students have gained a high level of competency in transferable skills;
- reflect the students' abilities accurately in determining that their progression is appropriate to their abilities;
- highlight individual strengths and weaknesses and give a guide as to how the student is performing and progressing;
- help facilitate the achievement of the overall course aims and objectives.

- assist learning by providing feedback to students.

Research shows that **formative assessment** improves learning and features across all modules. Tutors provide students with the opportunity to practise each of the assessment strategies and also give information on the level of performance expected for demonstrating the achievement of the learning outcomes through feedback and feed-forward, forming an integral part of module teaching, learning and assessment. They also guide future studying in the light of past performance and encourage the learner to 'self-supervise'. **Feedback** may be informal (for example in day-to-day encounters between tutors and students or between peers) or formal (for example as part of written or clinical assessment) about the past performance. **Feed-forward** provides suggestions for what can be done to improve work or achieve success in future assignments. The quality of feedback and guidance provided by module leaders to students is consistently praised by external examiners to the programme.

Assessment strategies are also considered within the study skills guidance and students attempting their first module assignment are offered the opportunity to present a full draft for comment by the module leader. Generic assessment criteria for academic work are indicated in the Course Handbook and detailed specific marking criteria are provided with the module handbook along with the guidelines for the assignment. All clinical staff involved with practice supervision and mentoring are provided with the appropriate support and mentoring guide and students will be expected to provide evidence from their clinical centre that clinical support will be undertaken by a suitable mentor who meets the required criteria.

G. Support for Students and their Learning

- The Course Director acts as the main advisor in terms of helping applicants and students understand the programme structure, discussing progression, academic support and achievement, and monitoring students to ensure that appropriate support is offered. The Course Director is also responsible for the personalised induction of international students who are also advised about accommodation and access to English Language Support sessions provided by the University.
- Personal Tutors provide academic and personal support. All students are assigned a personal tutor for the whole of their course, drawn from staff of the School of Radiography or Collaborative site. They play a key role in supporting students who have registered for an award. Students, who are studying a standalone module receive personal tutor support from their module leader.
- The Module Leader and /or Collaborative Partner lead give advice on content specific and academic issues. Module leaders hold group and individual tutorials within and outside scheduled teaching sessions to provide specific guidance to module preparation, content and assessment and personalised support on study skills development. Personal and increasingly, electronic contact is maintained with students by module leaders during their assessment preparation period and students are encouraged to submit draft assignments prior to the final submission of the assignments.
- E-induction pack provides a useful first reference point when commencing masters level education. It provides useful information and guidance about the postgraduate programme, its purpose, resources and support available (e.g. inter/intranet, library and learning facilities, assessment guidance), key skills required to study and achieve level 7 learning outcomes etc. It includes an interactive study skills guidance enabling students to test their own knowledge about the vital level 7 skills and develop additional skills in order to progress on the course.
- Technical support is available to advise students on IT and the use of software. Module delivery is enhanced by use of web based materials supported by the virtual

learning environment (VLE), StudySpace – a versatile on-line interactive intranet and learning environment.

- Discussion boards/blogs have been set up on the generic postgraduate module and some individual modules on study space as a means for students to communicate with each other.
- Learning Resource Centre induction and advice from subject-specific librarian is provided at the start of each module for new entrants or those requiring up-dates.
- A mentor gives support and academic direction when students are engaged in practice-based learning.
- A Student-Staff Committee meets twice a year to provide a forum for discussion of student issues and all students receive an electronic survey annually to elicit individual views.
- Study skills: students are provided with study skills guidance when they attend their first module and additional study skills materials have been published on StudySpace. The Academic Study Skills Centre provides advice on academic writing.
- University level student support facilities provide advice on issues such as finance, regulations, legal matters, accommodation and include specific support for international student and disabled students and the Careers and Employability Service.
- The Students' Union provides a wide range of services and social opportunities
- A designated programme administrator
- Peer support networks – students will be encouraged to set up study groups and other learning networks.

Postgraduates, whose time at University is limited and intensive, are encouraged to make appointments with staff to seek advice and/or help.

There are several sources of documentary guidance as shown below;

- An 'Information for Applicants' booklet provides full details of the application process, pathways, summary of all the modules, frequency of delivery of modules and a module plan for the academic year.
- A Postgraduate newsletter provides a means of updating students on information about changes to policies or procedures, conduct and outcome of the Student-Staff Committee, external examiners comments and feedback on any issues that they have raised.
- An electronic course handbook provides details of guidance and briefings e.g. assessment criteria, policy on word limit, mitigation guidelines, confidentiality and anonymity guidelines, access to LRC and e-documentation etc. This is used as the main induction tool.
- Pre-module pack includes module timetable, pre-reading material, module guides, etc. This is sent to the students two weeks prior to students attending the module. A brief activity is also included to ensure that students engage with the material within this pack.
- Dissertation handbook provides comprehensive guidance about the dissertation process and writing the report. In addition to this, each student is allocated an academic supervisor who provides academic support and guidance as well as a clinical supervisor who provides subject specific guidance.

H. Ensuring and Enhancing the Quality of the Course

The University has several methods for evaluating and improving the quality and standards of its provision. These include:

- External Examining process and report

- Executive Committee and Collaborative Partners forum
- Boards of study with student and collaborative partner representation
- Student-Staff Committee Annual review and development
- Periodic review undertaken at the subject level
- Enhanced Quality Assurance and Contract Performance Monitoring(QCPM) for Work Force Development (WFD) provision
- Moderation policies for assessment
- Module Review and Development Plans
- Student evaluation of the modules and the programme
- Academic participation in peer observed teaching sessions
- Compulsory enrolment of new lecturers on a post graduate teaching course
- Effective deployment of a Staff development budget to enhance the skills and knowledge of academic staff
- Staff appraisal scheme

I. Employability Statement

The nature of the programme is inextricably linked to practice; therefore the key purpose of the programmes is to facilitate academic and clinical development in advanced practice roles supporting the advanced/consultant practitioner career pathway.

The programme has been an important basis for developing new skills in health care practice through achieving competency, reflective practice and development of attributes that employers seek. These include advanced clinical skills, independent learning, creative thinkers, service developments, ability to work across professional boundaries and organisational boundaries the ability to work in teams, time management skills, verbal and written communication skills, etc. A number of these skills are also developed through group work, case based learning, debates, presentations etc in the modules.

On achievement of advanced skills such as supervision and teaching (Practice Education and Mentorship), research (research and evidence based practice), performing biopsies (Advanced Principles and Practice in Breast Interventional Techniques), interpretation and reporting on mammograms (Image Interpretation and Reporting in Mammography), and other specialist practices students have gained a career progression through the career progression framework (4 tier structure) to advanced practitioner status, and in some cases extending this to consultant radiography status. Currently there are approximately 105 consultant radiographers in the UK, of which 35 have completed their masters' award at KU.

On successful completion of Practice Education and Mentorship module, confers eligibility for accreditation under the College of Radiographers Practice Educators Accreditation Scheme. This equips students to teach in the workplace.

This field enables shared learning for different healthcare disciplines across a range of modules. The consequences of this provide an opportunity to shape the multidisciplinary workforce structure within this healthcare area.

Students who have successfully completed this degree have gone on to progress in their careers including, further academic study at PhD level, education, senior management of imaging and radiotherapy departments, managing caseloads etc.

J. Approved Variants from the UMS/PCF

1. In line with the '**compensation for failure**' regulation (as outlined in the postgraduate credit framework, academic regulations 3B section 5), compensation

between modules **WILL NOT** be permitted due to the nature of the programme associated with competency.

2. Exemption from the '**maximum credit load for re-assessment following failure at the first attempt**' regulation (as outlined in the postgraduate regulations, academic regulations 3, section 5) and allow re-assessment by retake of all failed or marginally failed modules **once only**.

Rationale for exemption 2

- Students are required to undertake multiple elements of assessment in total thus increasing their chances of failure
- Employment requires successful completion of the award, thus failure has greater ramifications than for most modules/awards
- Some modules are core pre-requisites / co-requisites for progression to PgD or MSc hence a requirement that both modules are successfully completed
- Students are in full-time employment as well as studying and therefore have severe time restraints.
- There is no compensation system in place for the post graduate radiography programmes, unlike other programmes due to the clinical competency elements within hence there is a greater pressure on this group of students comparatively.
- The requested variants are in parity with other institutions where similar programmes are delivered and thus capping the retake opportunity to 50% of the failed credits for an award could compromise recruitment.
- The external examiners report and recommendations (December 2015) supports the application of these variants.

K. Other sources of information that you may wish to consult

Development of Programme Learning Outcomes in Modules

This map identifies where the programme learning outcomes are assessed across the modules for this programme. It provides an aid to academic staff in understanding how individual modules contribute to the programme aims, and a means to help students monitor their own learning, personal and professional development as the programme progresses and a checklist for quality assurance purposes. Include both core and option modules.

| | | Level 7 | | | | | | | | | | | | | | |
|-----------------------------|---------------------------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Module Code | | | RA7001 | RA7002 | RA7003 | RA7004 | RA7005 | RA7006 | RA7009 | RA7010 | RA7012 | RA7013 | RA7014 | RA7015 | RA7016 | RA7017 |
| Programme Learning Outcomes | Knowledge & Understanding | A1 | S | S | S | S | S | S | S | S | S | S | S | S | S | S |
| | | A2 | S | S | S | S | S | S | S | S | S | S | S | S | S | S |
| | | A3 | S | S | S | S | S | S | S | S | S | S | S | S | S | S |
| | | A4 | S | S | S | S | S | S | S | S | S | S | S | S | S | S |
| | Intellectual Skills | B1 | S | S | S | S | S | S | S | S | S | S | S | S | S | S |
| | | B2 | S | S | S | S | S | S | S | S | S | S | S | S | S | S |
| | | B3 | S | S | S | S | S | S | S | S | S | S | S | S | S | S |
| | | B4 | S | S | S | S | S | S | S | S | S | S | S | S | S | S |
| | Practical Skills | C1 | S/F | S/F | S/F | | | | S/F | | | S/F | S/F | | S/F | |
| | | C2 | S | S | S | S | S | S | S | S | S | S | S | | S | |
| | | C3 | S | S | S | S | S | S | S | S | S | S | S | | S | |
| | | C4 | S | S | S | | | S | S | | | S | S | S | S | S |
| | Transferable Skills | D1 | S | S | S | S | S | S | S | S | S | S | S | S | S | S |
| | | D2 | S | S | S | S | S | S | S | S | S | S | S | S | S | S |
| | | D3 | S | S | S | S | S | S | S | S | S | S | S | S | S | S |
| | | D4 | S | S | S | S | S | S | S | S | S | S | S | S | S | S |

S indicates where a summative assessment occurs.
F where formative assessment/feedback occurs.

Indicative Module Assessment Map

This map identifies the elements of assessment for each module. Course teams are reminded that:

- There should be no more than three elements of assessment per module
- There should be no more than one formal examination per module.
- Synoptic assessments that test the learning outcomes of more than one module are permitted

| Module | | | | | Coursework 1 | | | | Coursework 2 | | | | Examination | | | |
|--------|---|-------------|--------------|-------------|--------------------|--------------|----------|------|---------------------------|--------------|-------------|------|----------------------------------|----------|-------------|------|
| Level | Module Name | Module code | Credit value | Core/option | Type of coursework | No. of words | Weight % | S/F* | Type of coursework | No. of words | Weight % | S/F* | Type | Duration | Weight % | S/F* |
| 7 | Advanced Practice – Negotiated Independent Work Based Learning Module | RA 7001 | 30 | option | Portfolio | | 100% | s | Log Book or Profile | | Pass / Fail | s | | | | |
| 7 | Advanced Principles and Practice of Breast Interventional Techniques | RA 7002 | 30 | option | Portfolio | | 80% | s | Clinical Logbook | | Pass / Fail | s | OSCE | | 20% | s |
| 7 | Clinical Breast Examination and Client Communication | RA 7003 | 30 | option | Clinical Logbook | | 50% | s | Essay | 3,000 | 30% | s | OSCE | | 20% | s |
| 7 | Contemporary Practice in Breast Cancer Genetics & Diagnosis | RA 7004 | 30 | option | Essay | 2,500 | 50% | s | Review of the literature | 1,500 | 25% | s | (Course Work 3) Case analysis | 1500 | 25% | s |
| 7 | Cross Sectional Imaging | RA 7005 | 30 | option | Essay | 2500 | 50% | s | Poster | | 50% | s | | | | |
| 7 | Dissertation | RA 7006 | 60 | Core: MSc | Written report | 10,000 | 70% | s | Dissemination of findings | | 30% | s | | | | |
| 7 | Interpretation and Reporting in Mammography | RA 7009 | 30 | option | Essay | 2,500 | 50% | s | Reflective Summary | | 50% | s | OSPE | | Pass / Fail | s |

| Module | | | | | Coursework 1 | | | | Coursework 2 | | | | Examination | | | |
|--------|---|-------------|--------------|------------------------|--------------------------|--------------|----------|------|-----------------------------------|--------------|-------------|------|-------------|----------|----------|------|
| Level | Module Name | Module code | Credit value | Core/option | Type of coursework | No. of words | Weight % | S/F* | Type of coursework | No. of words | Weight % | S/F* | Type | Duration | Weight % | S/F* |
| 7 | Management of Resources and Quality within Healthcare | RA 7010 | 30 | option | Presentati on & Critique | 2,000 | 60% | s | Written report | 2,000 | 40% | s | | | | |
| 7 | Practice Education and Mentorship | RA 7012 | 30 | option | Reflective report | 1,500 | 30% | s | Structured Essay | 3,500 | 70% | s | | | | |
| 7 | Professional Practice in Mammography (1) | RA 7013 | 30 | Core: PgC MI (MM) only | Essay | 3,000 | 75% | s | Assessment of Clinical Competence | | Pass / Fail | s | OSPE | | 25% | s |
| 7 | Professional Practice in Mammography (2) | RA 7014 | 30 | Core: PgC MI (MM) only | Reflection s | 3,000 | 75% | s | Assessment of Clinical Competence | | Pass / Fail | s | OSCE | | 25% | s |
| 7 | Research and Evidence Based Practice in Healthcare | RA 7015 | 30 | Core: MSc and PgD | Critical review | 3,000 | 50% | s | Research proposal | 2,000 | 50% | s | | | | |
| 7 | Ultrasound of the Breast | RA 7016 | 30 | option | Clinical Logbook | | 50% | s | | | | | OSPE | | 50% | s |
| 7 | PACS (Picture Archiving and Communicatio n System) Administration | RA7017 | 30 | option | Essay | 4500 | 80% | s | | | | | MCQ | | 20% | s |

Technical Annex

| | |
|--|-----------------------------------|
| Final Award(s): | PgCert PgDip MSc Medical Imaging |
| Part-time: | |
| Maximum period of registration - MSc: | 5 years |
| Maximum period of registration - PgD: | 4 years |
| Maximum period of registration - PgC: | 2 years |
| Full-time MSc: | |
| Minimum period of registration: | 1 year |
| Maximum period of registration: | 2 years |
| FHEQ Level for the Final Award | Masters |
| QAA Subject Benchmark: | None available at this level |
| Modes of Delivery: | Part-time / Full-time |
| Language of Delivery: | English |
| Faculty: | Health, Social Care and Education |
| School: | Radiography |
| JACS code: | B900 |
| Course Code: | KRAMPMASPRMI |
| Route Code: | KPRMI |