

School of Health and Social Work

Title of Programme: PgDip/MSc Medical Imaging and Radiation Science - Diagnostic Ultrasound

Programme Code: HSMIRS

Programme Specification

This programme specification is relevant to students entering: 23 September 2019

Associate Dean of School (Academic Quality Assurance): Cheryl Holman

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A programme specification is a collection of key information about a programme of study (or course). It identifies the aims and learning outcomes of the programme, lists the modules that make up each stage (or year) of the programme, and the teaching, learning and assessment methods used by teaching staff. It also describes the structure of the programme, its progression requirements and any programme-specific regulations. This information is therefore useful to potential students to help them choose the right programme of study, to current students on the programme, and to staff teaching and administering the programme.

If you have any queries regarding the changes please email <u>AQO@herts.ac.uk</u>

Date	Section	Amendment
27/03/19	Section 2	Removal of all Course Instances from Table 3 (no longer required)
17/07/19	D Table 1a and 2.	Removal of module 7HSK0059 – Developing and Managing People in Healthcare

Programme Specification PgDip/MSc Medical Imaging and Radiation Sciences – Diagnostic Ultrasound

This programme specification (PS) is designed for prospective students, enrolled 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 for each module can be found in Definitive Module Documents (DMDs) and Module Guides.

Section 1

Awarding Institution/BodyUniversity of HTeaching InstitutionUniversity of HUniversity/partner campusesCollege LaneProgramme accredited byCollege of RaFinal Award (Qualification)PgDip, MScAll Final Award titlesMedical Imag(Qualification and Subject)7FHEQ level of award7Language of DeliveryEnglish

University of Hertfordshire University of Hertfordshire College Lane College of Radiographers PgDip, MSc Medical Imaging and Radiation Sciences – Diagnostic Ultrasound 7 English

A. Programme Rationale

The programme is designed to provide practitioners with the skills and knowledge to meet clinical demands and advanced practice. It will provide an educational context in which students develop their intellectual potential, professional expertise and recognise the importance of continued professional development and lifelong learning.

Ultrasound Imaging practice has spread beyond the confines of the Radiology department and the programme aims to recognise this multi-disciplinary aspect and provide education and training to maintain the quality of the imaging service to the population. The student body will therefore be drawn from a variety of health professionals involved in imaging and image reporting. Students will be equipped with the necessary skills to support and develop their role while recognising the extent and limitations of their professional responsibilities. The programme fully integrates theory with practice and will enable students to respond appropriately to the rapid changes and development within the field.

The programme recognises that the graduate must be competent to practise, have an understanding of the principles of research and recognise the importance of reflection and evidence based practice. All graduates must recognise the importance of the multi-disciplinary approach to health care and where appropriate, the programme enables graduates to undertake an extended professional role. The changing nature of the health service requires pro-active practitioners who are innovative and capable of adapting to an environment where there is increasing emphasis on clinical audit, efficiency, resource management and continuing professional development.

B. Educational Aims of the Programme

The programme has been devised in accordance with the University's graduate attributes of programmes of study as set out in <u>UPR TL03</u>.

Mission statement

To offer a flexible and responsive range of courses that meet the vocational, educational, personal and professional development needs of qualified suitably qualified health care professionals enabling them to deliver consistently excellent and safe care.



Additionally this programme aims to:

- provide a patient-centred approach to sonographic practice within an inter-professional framework that values each individual and is committed to enhancing the quality of the patient experience and improving patient outcomes;
- provide an educational experience that is embedded in the University's graduate attributes and enhances career development;
- provide opportunities for students to develop a systematic understanding of knowledge, and a critical awareness of contemporary and emerging issues, much of which is at, or informed by, the forefront of sonographic practice;
- enable students to critically analyse and evaluate the evidence-base and current developments in practice and to propose new explanations and apply these where appropriate;
- enable students to demonstrate initiative, originality, leadership and self-reflection in decision making and to practice with a high level of personal and professional responsibility;
- enable students to develop a comprehensive understanding of methodologies applicable to sonographic practice;
- enable students to create new and interpret existing knowledge through originality in the application
 of knowledge and a practical understanding of research methodologies;
- enable students to address complex professional issues both systematically and creatively, making sound judgements in the presence of incomplete or contradictory areas of knowledge, and communicate their decisions clearly to relevant audiences.

C. Intended Learning Outcomes

The programme provides opportunities for students to develop and demonstrate knowledge and understanding, skills and other attributes in the following areas. The programme outcomes are referenced the Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies (2014), and relate to the typical student. Additionally, the SEEC Credit Level Descriptors for Further and Higher Education (2016) have been used as a guiding framework for curriculum design.

Knowledge and Understanding:	Teaching/learning methods & strategies	Assessment
 A1- Theories, principles and concepts underpinning diagnostic ultrasound practice and inter-relationships with other relevant disciplines. A2- The techniques/ methodologies applicable to diagnostic ultrasound practice and be able to interpret and apply this to current practice. 	Acquisition of knowledge and understanding is through a combination of lectures, small group tutorials, coursework and supervised clinical practice. Close monitoring of the clinical placement experience occurs through the formative appraisal mechanism and link visits by university staff to the placement site.	Knowledge and understanding are assessed through unseen exams; in-course assessments in the form of reports and case studies; presentations; portfolios; OSCEs and practice based assessments; project reports / dissertation.
A3 - Select and creatively apply an appropriate methodological paradigm in order to answer a health research question and critically apply suitable methods of analysis to research data and reach justifiable conclusions.	Throughout, the learner is encouraged to undertake independent study both to supplement and consolidate what is being taught/learnt and to broaden their individual knowledge and understanding of the subject. Delivery of the modules incorporates blended learning which aims to combine e-learning opportunities and traditional campus-based learning in reflective and innovative ways to enhance the students' learning.	

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Intellectual skills:	Teaching/learning methods & strategies	Assessment
 B1- Analyse complex diagnostic ultrasound practice and evaluate the methodologies used, either justifying their use or providing the rationale for alternative methods. B2- Autonomously address complex diagnostic ultrasound practice issues demonstrating initiative, originality and creativity in response to problems identified, taking into account the significant issues related to those problems. B3- Critically synthesise and evaluate current evidence and information and independently evaluate their own knowledge and understanding in the light of current developments and recent research findings in diagnostic ultrasound practice to generate transformative solutions; B4- Operate in complex and unpredictable contexts with an overview of the issues governing good diagnostic ultrasound practice to information from a range of sources in order to inform best practice. In relation to the above MSc students will also be able to: B5 - Initiate, plan, implement and disseminate a piece of independent research. 	Intellectual skills are developed throughout the programme by the methods and strategies outlined in section A above. Analysis, problem solving and modelling skills are further developed through tutorial work and in-course exercises. Development of these skills is facilitated by classroom discussions where students from a wide geographical and / or disciplinary range, with differing experiences of the client groups, share practical knowledge and ideas. Throughout, the learner is encouraged to develop intellectual skills further by independent study.	Intellectual skills are assessed through coursework related to practice and clinical scenarios which require analysis and problem solving.
Practical skills:	I eaching/learning methods & strategies	Assessment
 C1- Demonstrate professional expertise, performing skills effectively, adapting or developing new skills where appropriate. C2- Apply advanced problemsolving and clinical reasoning skills drawing on the expertise of others where appropriate. 	Practical skills are developed throughout the programme by demonstrations, laboratory sessions, the formative use of Objective Structured Clinical Examinations (OSCEs) and clinical practice. Throughout the learner is expected to consolidate their development of	Practical skills are assessed through a formative portfolio and a summative clinical assessment in the student's clinical placement site.

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C3- Demonstrate a critical awareness and ability to manage the legal, ethical and professional issues relevant to that activity and work proactively with others to generate solutions. C4- Exercise initiative, personal responsibility, accountability and leadership in professional practice; in accordance with professional and relevant guidelines. In relation to the above MSc students will also be able to: C5 - Undertake structured and informed synthesis of current research evidence and disseminate appropriately.	practical ultrasound skills by use of simulators and imaging equipment available in the university imaging department, learning resource centre and individual clinical sites.	
Transferable skills:	Teaching/learning methods & strategies	Assessment
 D1 - Engage effectively in academic and professional communication, demonstrating a range of communication skills that are appropriate to their professional activity. D2 - Demonstrate the ability to act as an independent and self-critical learner guiding the learning of others and managing their own requirements for continuing professional development. D3 - Reflect on their own and others performance in order to improve practice. In relation to the above MSc students will also be able to: D4 - Contribute to the advancement of Diagnostic Ultrasound practice through innovation and clinical leadership. 	Transferable skills are developed through a combination of lectures, tutorials, student led seminars, coursework reports, oral presentations and project reports. Throughout, the learner is encouraged to develop transferable skills by maintaining a record of evidence and completing a personal development plan.	Transferable skills are assessed through the use of oral presentations, project reports and formative and summative clinical assessment.
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D. Programme Structures, Features, Levels, Modules, and Credits

The programme is offered as a part time (normally 6 year) mode, and leads to the award of an MSc Medical Imaging and Radiation Sciences -Diagnostic Ultrasound. Intake is normally Semester A for core modules.

Professional and Statutory Regulatory Bodies

The programme is endorsed by the College of Radiographers.

Programme Structure

The programme structure and progression information below (Table 1a and 1b) is provided for the award. Any interim awards are identified in Table 1b. The Programme Learning Outcomes detailed above are developed and assessed through the constituent modules. Table 2 identifies where each learning outcome is assessed.

Mode of study

The programme is offered on a part-time basis.

Entry point Semester A or B

Table 1a Outline Programme Structure

PgDip/MSc Medical Imaging & Radiation Sciences – Diagnostic Ultrasound

To attain the MSc Medical Imaging & Radiation Sciences (Diagnostic Ultrasound) requires 180 credit points, including at least 150 at level 7 and successful completion of:

- 45/60 credits (minimum) from the core modules to include the compulsory modules Applications of Ultrasound Science (15 credits), Principles of Reporting (15 credits). The other 15/30 credits selected from the core modules must include a clinical module.
- 60/75 credits from the core, optional or inter-professional modules and accredited short courses from the AHP post graduate framework.
- 60 credits from the research modules.

In order to qualify for the award of MSc Medical Imaging & Radiation Sciences – Diagnostic Ultrasound, students must pass, both research related modules (60 credits and gain an additional 60 credits from any other modules offered from the core, optional or interprofessional modules and accredited short courses from the AHP post graduate framework and School of Health and Social Work).

Compulsory Modules Module Title	Module Code	Credit Points	Language of Delivery	% Examination	% Coursework	% Practical	Semesters				
Research modules											
Research Methods	7HSK0065	15	English	0	50	50	A				
or											
Research Methods – Distance Learning	7HSK0122	15	English	0	100	0	В				
Research Investigation	7HSK0063	45	English	0	100	0	ABC, BCA				
Compulsory modules for pathway											
Principles of Image Reporting	7HSK0237	15	English	0	70	30	А				
Applications of Ultrasound Science	7HSK0092	15	English	0	100	0	АВ				
Core modules							·				
Independent Professional Study 1	7HSK0210	15	English	0	100	0	A, B, C				
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Independent Professional Study 2	71	HSK0211	30)	English		0	1(00	0	А,	AB, B, BC
Independent Work Based Skills 1	71	HEP1047	15	5	Er	nglish	0	1(00	0	А,	AB, B, BC
Independent Work Based Skills 2	71	HEP1048	15	5	Er	nglish	0	1(00	0	А,	AB, B, BC
Independent Work Based Skills 3	7ŀ	ISK0062	30	כ	Er	nglish	0	1(00	0	А,	AB, B, BC
Independent Reflection in Professional practice 1	71	7HEP1049		5	Er	nglish	0	1(00	0	А,	В
Independent Reflection in Professional Practice 2 Abdominal and General Ultrasound	7H 7H	HEP1050 HSK0088	30 30		English English		0 0	1(00 0	0 60	A, Al	AB, B, BC 3C
Obstetric Ultrasound	71	HSK0089	30)	Er	nglish	0	4 P/	0 /F*	60	A	3C
Gynaecological Ultrasound	71	HSK0090	30	כ	Er	nglish	0	4 P/	0 ′F*	60	AI	3C
Musculoskeletal Ulrasound	71	ISK0236	30	כ	Er	nglish	0	4 P/	0 ′F*	60	A	B, ABC
Vascular ultrasound – Carotids and DVT	71	ISK0091	1	5	Er	nglish	0	4 P/	0 ′F*	60	A	3C
Ultrasound Independent Work based skills 1	7H	ISK0093	1{	5	Er	nglish	0	4 P/	0 ′F*	60	AI	3C
Ultrasound Independent Work based skills 2	71	ISK0094	1	5	Er	nglish	0	4 P/	0 ′F*	60	A	3C
Ultrasound Independent Work based skills 3	7ŀ	HSK0095	30)	Er	nglish	0	4 P/	0 ′F*	60	AI	3C
Early Pregnancy Ultrasound	71	HSK0202	30)	Er	nglish	0	4 P/	0 ′F*	60	AI	3C
Optional Modules		Module Code		Credit Points		Language of Deliverv		% Examination	% Coursework		% Practical	Semesters
Sectional Anatomy for Imaging – Distance Learning		7HSK010)7	15	5	Englis	h	0	10	0	0	B, BC
Musculoskeletal Image Interpretation		7HSK009	97	30	C	Englis	h	0	30	D	70	AB
Image Recognition: Chest Radiography		7HSK009	99	15	5	Englis	sh h	0	0		00	A, B, AB
Inter-professional modules		71131011			ן נ	Englis)II	0	30	5	10	А, В
Redesigning Services for the Future		7HSK006	50	15	5	Englis	h	0	10	0	0	В
Advanced Decision Making in Health and Social Car	е	7HSK016	68	15	5	Englis	h	0	10	0	0	В, С
Coaching Skills for Leading		7HSK018	36	15	5	Englis	h	0	10	0	0	A,B
Supporting Clinical Education Evidence Based Practice – Distance Learning		7HSK020 7LMS016)1 52	18 30	5)	Englis Englis	sh sh	0 0	7: 10	5	25 0	AB A, B
		1odule Code		Credit Points		Language of Deliverv		% examination	o coursework		% Practical	Semesters
Optional Short Course							0					



Ultrasound assessment of the third trimester	78070205	20	Engligh	0	100	0	ARC
pregnancy**	73020295	30	English	0	100	U	ADC

<u>NOTES</u>

* This Pass/Fail element of assessment must be successfully completed to pass the module, however it will not contribute to the overall numeric grade awarded. For further information regarding the assessment for each module please refer to the Definitive Module Document.

** Please note that if you wish to study this short course there may limitations as to which other modules you can subsequently study. Please contact programme staff for further details.

Students are also able to elect other relevant modules and accredited short courses from portfolios within the School and University that meet the programme aims and learning outcomes.

The award of an MSc requires 180 credit points of which a minimum of 150 should be at level 7, including the dissertation.

Table 1b Final and interim awards available

The programme provides the following final and interim awards:

Final Award	Award Title	Minimum requirements	Available at end of (normally):	Programme Learning Outcomes developed (see above)
Masters	MSc Medical Imaging and Radiation Sciences – Diagnostic Ultrasound	180 credit points of which 30 credits are compulsory modules of Applications of Ultrasound Science (15 credits) and Principles of Reporting (15 credits), at least 30 credits are core modules for the pathway and 60 credits of research modules. This must include a clinical module. No more than 30 can be below level 7	3 - 6 Semesters	All programme learning outcomes (see Table 2)
Postgraduate Diploma	Postgraduate Diploma Medical Imaging and Radiation Sciences - Diagnostic ultrasound	120 credit points of which 30 credits are compulsory modules of Applications of Ultrasound Science (15 credits) and Principles of Reporting (15 credits). A further 30 credits must be from core modules for the pathway. This must include a clinical module. Overall no more than 30 credits can be below level M	3-6 Semesters	Learning outcomes, e.g. A1, A2, B1, B2, B3, B4, C1, C2, C3, C4, D1, D2, D3,
Postgraduate Diploma	Postgraduate Diploma in Health Studies	120 credits from any modules within the framework including at least 90 at level 7	3-6 Semesters	Learning outcomes, e.g. A1, A2, B1, B2, B3, B4, C1, C2, C3, C4, D1, D2, D3,

				i rogramme Learning
			Available at	Outcomes developed
Interim Award	Award Title	Minimum requirements	end of Level	(see above)
Postgraduate	Postgraduate	60 credit points of which 15 credits are	2-3 Semesters	See UPR AS11, section
Certificate	Certificate	compulsory modules of Applications of		13:
	Medical	Ultrasound Science (15 credits) and		http://sitem.herts.ac.uk/s
	Imaging and	Principles of Reporting (15 credits).		ecreg/upr/AS11.htm
	Radiation	The remaining 30 credits from core		
	Sciences -	modules for the pathway and no more		
	Diagnostic	than 30 can be below level M. This		
	Ultrasound	must include a clinical module		
Postgraduate	Postgraduate	60 credits from any modules within the	2-3 Semesters	See UPR AS11, section
Certificate	Certificate in	framework including at least 45 at level		13:
	Health Studies	7.		http://sitem.herts.ac.uk/s
				ecreg/upr/AS11.htm

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Masters and Diploma awards can be made "with Distinction" or "with Commendation" where criteria as described in <u>UPR AS14</u>, Section D and the students' handbook are met.

Programme-specific assessment regulations

The programme is compliant with the University's academic regulations (in particular, <u>UPR AS11</u>, <u>UPR AS12</u> and <u>UPR AS14</u>) with the exception of those listed below, which have been specifically approved by the University:

NONE

Further points of clarification and interpretation relevant to this specific programme are given below:

- Length of student registration will normally be a maximum of 6 years.
- Final compensatory credit (exemption from UPR AS14 section D4.4) and or intramodular compensation is not permissible within the programme.

E. Management of Programme & Support for student learning

Management

The programme is managed and administered through:

- Dean of School
- Associate Dean (Academic Quality Assurance) who has delegated responsibility for programmes in the School of Health & Social Work
- Head of Department
- A Programme Leader who is responsible for the day to day management of the Medical Imaging & Radiation Sciences programme as a whole.
- Designated Programme administrators to deal with day to day administration associated with the programme
- Module Leaders who are responsible for individual modules
- A School Programme Committee, the membership of which includes: the Programme Leaders; Associate Deans as appropriate; all Module Leads involved in the postgraduate framework; Admissions Tutors; a representative from LIS; Programme Administrator; Head of Department; Associate Dean (Academic Quality); Representatives from each Division contributing to the Programme; representatives from clinical sites and Student representatives. The committee will be chaired by the Postgraduate Subject Lead.

Support

Students are supported by:

- A Programme Lead to help students understand the course / programme structure.
- Diagnostic Ultrasound Pathway Leader
- Module leaders
- Research Supervisor
- Student Representatives on Programme Committees.
- A designated programme administrator.
- An induction programme at the beginning of the academic session
- An extensive Learning Resources Centre, incorporating a library and computer centre with 'StudyNet' and on-line study facilities
- A substantial Student Services Centre that provides advice on issues such as finance, University regulations, legal matters, accommodation etc.
- Office of Dean of Students, incorporating Chaplaincy, Counselling & Nursery.
- A Mathematics Drop-in Centre.
- A University based Disabled Student Co-ordinator.
- An Equal Opportunities Officer.
- The Students' Union.
- Guided student-centred learning through the use of StudyNet.

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F. Other sources of information

In addition to this Programme Specification, the University publishes guidance to registered students on the programme and its constituent modules:

- A Programme (or Student) Handbook;
- A Definitive Module Document (DMD) for each constituent module;
- A Module Guide for each constituent module.

The <u>Ask Herts</u> website provides information on a wide range of resources and services available at the University of Hertfordshire including academic support, accommodation, fees, funding, visas, wellbeing services and student societies

As a condition of registration, all students of the University of Hertfordshire are required to comply with the University's rules, regulations and procedures. These are published in a series of documents called 'University Policies and Regulations' (UPRs). The University requires that all students consult these documents which are available on-line, on the UPR web site, at: <u>http://www.herts.ac.uk/secreg/upr/</u>. In particular, <u>UPR SA07</u> 'Regulations and Advice for Students' Particular Attention - Index' provides information on the UPRs that contain the academic regulations of particular relevance for undergraduate and taught postgraduate students.

In accordance with section 4(5) of the Higher Education and Research Act 2017 (HERA), the UK Office for Students (OfS) has registered the University of Hertfordshire in the register of English higher education providers. The Register can be viewed at: <u>https://www.officeforstudents.org.uk/advice-and-guidance/the-register/the-ofs-register/</u>. Furthermore, the OfS has judged that the University of Hertfordshire delivers consistently outstanding teaching, learning and outcomes for its students. It is of the highest quality found in the UK. Consequently, the University received a Gold award in the 2018 Teaching Excellence and Student Outcomes (TEF) exercise. This award was made in June 2018 and is valid for up to 3 years. The TEF panel's report and conclusions can be accessed at: https://www.officeforstudents.org.uk/advice-and-guidance/teaching/tef-outcomes/#/provider/10007147

G. Entry requirements

The normal entry requirements for the programme are:

- Normally candidates will have a UK honours degree in health care and be registered with the Health and Care Professions Council or equivalent in their respective health profession.
- Employment in, or access to an appropriate clinical site whilst enrolled on the programme. Students are responsible for securing an appropriate placement.
- Candidates normally will have some relevant clinical practice experience subsequent to qualification.

The programme is not open to international students on a full time pathway.

The programme is subject to the University's Principles, Policies and Regulations for the Admission of Students to Undergraduate and Taught Postgraduate Programmes (in <u>UPR SA03</u>), along with associated procedures. These will take account of University policy and guidelines for assessing accredited prior certificated learning (APCL) and accredited prior experiential learning (APEL).

If you would like this information in an alternative format please contact: Shirley Smith (s.a.1.smith@herts.ac.uk)

If you wish to receive a copy of the latest Programme Annual Monitoring and Evaluation Report (AMER) and/or the External Examiner's Report for the programme, please email a request to <u>aqo@herts.ac.uk</u>



Medical Imaging and Radiation Sciences – Diagnostic Ultrasound

Table 2: Development of Intended Programme Learning Outcomes in the Constituent Modules

This map identifies where the programme learning outcomes are assessed in the constituent modules. It provides (i) an aid to academic staff in understanding how individual modules contribute to the programme aims (ii) a checklist for quality control purposes and (iii) a means to help students monitor their own learning, personal and professional development as the programme progresses.

		Programme Learning Outcomes (as identified in section 1 and the following page))					
		Kn Und	owledg derstan	Intellectual Skills					Practical Skills						Transferable Sk			
Module Title	Module Code	A1	A2	A3	B1	B2	B3	B4	B5	C1	C2	C3	C4	C5	D1	D2	D3	D4
Research Modules																		
Research Investigation	7HSK0063	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Research Methods	7HSK0065	Х	Х		Х	Х	Х	Х			Х	Х			Х	Х	Х	
Research Methods – Distance Learning	7HSK0122	х	х		х	х	х	х			х	х			х	х	х	
Interprofessional modules																		
Redesigning Services for the Future	7HSK0060	х	Х		Х	Х	х	Х		х	Х	Х	Х		Х	Х	Х	
Coaching Skills for Leading	7HSK0186	Х	Х	Х	Х	Х	Х	Х		Х	Х	Х	Х		Х	Х	Х	
Advanced Decision Making in Health and Social Care	7HSK0168	Х	Х		Х	Х	Х	Х		Х	Х	Х	Х		Х	Х	Х	
Evidence Based Practice	7LMS0162	Х	х	Х	Х	Х	Х	Х		Х	Х	Х	Х		Х	Х	Х	
Supporting Clinical Education	7HSK0201	Х	Х		Х	Х	Х	Х		Х	Х	Х	Х		Х	Х	Х	

		Programme Learning Outcomes (as identified in section 1 and the following page))		
		Knowledge & Understanding			Intellectual Skills					Practical Skills						Transferable Skills			
Module Title	Module Code	A1	A2	A3	B1	B2	B3	B4	B5	C1	C2	C3	C4	C5	D1	D2	D3	D4	
Core modules																			
Independent Professional Study 1	7HSK0210	Х	Х	Х	Х	Х	X	Х	Х		Х		Х	Х	Х	Х	Х	Х	
Independent Professional Study 2	7HSK0211	Х	Х		Х	Х	Х	X			Х		Х		Х	Х	Х		
Independent Work Based Skills 1	7HEP1047	х	х		х	х	х	х		X	х	x	х		х	х	х		



Independent Work Based Skills 2	7HEP1048	х	x	х	х	х	x	х	х	х	х	х	x	х	
Independent Work Based Skills 3	7HSK0062	Х	Х	х	х	х	Х	х	х	х	х	Х	х	Х	
Independent Reflection in Professional practice 1	7HEP1049	х	х	х	х	х	х	х	х	х	х	х	x	х	
Independent Reflection in Professional Practice 2	7HEP1050	х	x	х	х	х	х	х	х	х	х	х	х	х	
Abdominal and General Ultrasound	7HSK0088	Х	Х	Х	Х	Х		Х	Х			Х	Х		
Obstetric Ultrasound	7HSK0089	Х	Х	Х	Х	Х		Х	Х			Х	Х		
Gynaecological Ultrasound	7HSK0090	Х	Х	Х	Х	Х		Х	Х			Х	Х		
Vascular Ultrasound - Carotids and DVT	7HSK0091	х	x	х	х	х		х	х			х	х		
Musculoskeletal Ultrasound	7HSK0236	Х	Х	Х		Х		Х	Х			Х	Х		
Application of Ultrasound Science	7HSK0092	Х	Х	Х		Х	Х	Х	Х			Х	Х		
Ultrasound Independent Work Based Skills 1	7HSK0093	х	x	х	х	х		х	х			х	x		
Ultrasound Independent Work Based Skills 2	7HSK0094	х	х	х	х	х		х	х			х	х		
Ultrasound Independent Work Based Skills 3	7HSK0095	х	х	х	х	х		х	х			х	х		
Early Pregnancy Ultrasound	7HSK0202	Х	Х	х	Х	Х		х	Х			Х	Х		
Optional modules															
Sectional Anatomy for Imaging – Distance Learning	7HSK0107	х	x	х	х	х	х		х	х	х	х		х	
Principles of Image Reporting	7HSK0237	Х	Х	х	Х	Х	Х		Х	Х	Х	Х	Х	Х	
Musculoskeletal Image interpretation	7HSK0097	х	х	х			х		х	х	х	х	х	х	
Image Recognition: Chest Radiography	7HSK0099	х	х	х			х		х	х	х	х	х	х	
Image Recognition: Brain (CT)	7HSK0100	Х	Х	Х			Х		Х	Х	Х	Х	Х	Х	
Optional short course															
Ultrasound assessment of the third trimester pregnancy*	7SCA0295	x	x				x	x		х	x	х	x	x	



Key to Programme Learning Outcomes

Knowledge and Understanding

A1 - Demonstrate a deep and systematic understanding of the knowledge base, theories, principles and concepts underpinning diagnostic ultrasound practice and inter-relationships with other relevant disciplines.

A2 - Demonstrate a comprehensive understanding of the techniques/methodologies applicable to diagnostic ultrasound practice and be able to interpret and apply this to current practice.

A3 - Select and creatively apply an appropriate methodological paradigm in order to answer a health research question and critically apply suitable methods of analysis to research data and reach justifiable conclusions.

Intellectual Skills

B1 - Analyses complex diagnostic ultrasound practice and evaluates the methodologies used, either justifying their use or providing the rationale for alternative methods.

B2 - Autonomously address complex diagnostic ultrasound practice issues demonstrating initiative, originality and creativity in response to problems identified, taking into account the significant issues related to those problems.

B3 - Critically synthesise and evaluate current evidence and information and independently evaluate their own knowledge and understanding in the light of current developments and recent research findings in diagnostic ultrasound practice to generate transformative solutions.

B4 - Operate in complex and unpredictable contexts with an overview of the issues governing good diagnostic ultrasound practice whilst demonstrating the ability to competently manage and evaluate information from a range of sources in order to inform best practice.

B5 - Initiate, plan, implement and disseminate a piece of independent research.

Master's Programme Specification / December 2018/ AS Review Date June 2018

Practical Skills

C1 - Demonstrate professional expertise, performing skills effectively, adapting or developing new skills where appropriate.

C2 - Apply advanced problem-solving and clinical reasoning skills drawing on the expertise of others where appropriate.

C3 - Demonstrate a critical awareness and ability to manage the legal, ethical and professional issues relevant to that activity and work proactively with others to generate solutions.

C4 - Exercise initiative, personal responsibility, accountability and leadership in professional practice; in accordance with professional and relevant guidelines.

C5 - Undertake structured and informed synthesis of current research evidence and disseminate appropriately.

Transferable Skills

D1 - Engage effectively in academic and professional communication, demonstrating a range of communication skills that are appropriate to their professional activity.

D2 - Demonstrate the ability to act as an independent and self-critical learner guiding the learning of others and managing their own requirements for continuing professional development.

D3 - Reflect on their own and others performance in order to improve practice.

D4 - Contribute to the advancement of Diagnostic Ultrasound practice through innovation and clinical leadership.

University of Hertfordshire

Section 2

Programme management

Relevant QAA subject benchmarking statements Type of programme Date of validation/last periodic review Relevant to level/cohort Administrative School None

Taught postgraduate September 13 Level 7 entering September 2019 School of Health and Social Work

Table 3 Course structure

Course details		
Course code	Course description	JACS
HSMIRSPGD	PgDip Medical Imaging and Radiation Sciences - Diagnostic Ultrasound	B820
HSMIRSMSC	MSc Medical Imaging and Radiation Sciences - Diagnostic Ultrasound	B820

