



AECC
University College

MSc Medical Ultrasound Course Specification

Version 1.0

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Applies to students entering the MSc Medical Ultrasound
Course as an AECC University College award
October 2017 and thereafter

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Record of Modifications

Description of Modification	Date approved	Cohort(s) to which modification applies

Title: MSc Medical Ultrasound [2017]

This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided.

Programmes, major changes to programmes and modifications to programmes are approved following consideration through the AECC University College's programme approval and review processes or Programme and Unit Modification procedure, as appropriate. It is, however, expected that programmes change over time, for example as a result of changes to professional accreditation requirements, in response to feedback from faculty and students, and through annual review processes. Any such changes will be discussed with and communicated to students in an appropriate and timely manner.

Basic Programme Information

Awarding Institution	AECC University College
Final award, title and credits	MSc Medical Ultrasound 180 Level 7 Credits (90 ECTS)
Interim exit awards, titles and credits	PgCert Medical Ultrasound 60 Level 7 Credits (30 ECTS) PgDip Medical Ultrasound 120 Level 7 Credits (60 ECTS)
FHEQ level of final award	7
Mode of study	Part-time
Accreditation details	Professional accreditation: Consortium for Accreditation of Sonographic Education (CASE)
Standard length of programme	Normally 3-4 years
Minimum and maximum periods of study	Minimum 2-3 years, Maximum 5 years.
Language of delivery	English
Place of delivery	AECC University College Norway
UCAS code (where applicable)	n/a
HESA JACS (Joint Academic Coding System) Code(s) per programme/pathway	B800
Date Framework /Programme initially validated	Programme initially approved as award of Bournemouth University April 2008. Approved as award of the AECC University College July 2017
Date of first intake	10/2017
Version number of this Framework/Programme Specification	Version 1.0
Date this version approved/intake to which this applies	July 2017/01.10.2017
Author	ML Thiel; Prof J Bolton

Programme Overview

1. Admissions regulations and entry requirements

The regulations for this programme are the AECC University College Standard Admission Regulations together with the Postgraduate schedule to this policy which may be found at the Policies for Students webpage <http://www.aecc.ac.uk/student-life/policies-for-students/>. These regulations include the entry requirements and specific requirements regarding English language. Applicants must complete to the satisfaction of the Programme Leader a Clinical Placement Agreement Form (signed by the workplace practice educator).

Recognition of Prior Learning (RPL)

AECC University College has a Recognition of Prior Learning Policy which can be found at the Policies for Students webpage <http://www.aecc.ac.uk/student-life/policies-for-students/>.

2. Aims of the Programme

This programme aims to enable students to attain application-specific skills in diagnostic ultrasound ensuring safe and competent practice at the advanced level of a reflective and critical practitioner. As part of this process, the programme aims to:

- acquire in-depth knowledge and understanding in diagnostic ultrasound at the forefront of professional practice;
- develop advanced clinical skills for safe and competent practice in ultrasound;
- apply clinical competencies to inform advanced professional practice in ultrasound;
- advance professional practice through critical evaluation and critical reflection on practice skills;
- develop a philosophy consistent with continual learning and professional development throughout professional life.

3. Intended Learning Outcomes

Subject Knowledge and Understanding

Having successfully completed this programme students will be able to demonstrate knowledge and understanding of:

- A1 Acquire a systematic knowledge and understanding of the science of ultrasound at the forefront of knowledge
- A2 Acquire a systematic knowledge and understanding of the relevant anatomy and pathology in a named clinical application(s)
- A3 Acquire a systematic understanding of the techniques and use of diagnostic ultrasound in a named clinical application(s) at the forefront of knowledge
- A4 Develop a systematic understanding of how methodologies of research and audit enquiry are used to create and interpret knowledge in the discipline

Intellectual Skills

Having successfully completed this programme students will be able to:

- B1 Develop a critical awareness of issues and problems in the practice of diagnostic ultrasound
- B2 Deal with complex issues, making sound judgements in the absence of complete data
- B3 Critically evaluate research and experiential evidence, and apply new knowledge and insight to inform and change professional practice.
- B4 Synthesise existing knowledge and practice to identify areas amenable to research and other forms of enquiry.
- B5 Find and critically evaluate research and experiential evidence, and apply new knowledge and insight to inform and improve professional practice

3. Intended Learning Outcomes

Practical Skills

Having successfully completed this programme students will be able to:

- C1 Develop new skills for safe and competent diagnostic ultrasound practice
- C2 Act autonomously in planning and implementing tasks at a professional level
- C3 Communicate findings and conclusions from the practice of diagnostic ultrasound to peers, colleagues and patients
- C4 Integrate acquired knowledge and skills with those of colleagues as part of an effective and professional team
- C5 Plan and undertake an original and systematic line of enquiry to inform professional practice

Transferable skills

Having successfully completed this programme students will be able to:

- D1 Take personal responsibility for meeting learning needs through learned outcomes
- D2 Acquire the ability to learn independently necessary for continuing professional development
- D3 Think critically and communicate reasoned arguments to interested parties
- D4 Make judgements based on a range of evidence sources
- D5 Acquire the attitudes and abilities necessary for critical self-analysis and reflective practice

Programme Structure

4. Outline of programme content

This programme underpins the education and training of healthcare professionals in diagnostic ultrasound at the postgraduate level. It combines skills-based units demonstrating the acquisition of clinical competencies in diagnostic ultrasound with the contextual units of reflective practice and research/audit enquiry. The programme is intended for healthcare professionals employed in their respective working communities to undertake part-time study and base a significant part of their learning in their own workplace. As such, this is a part-time programme with some attendance requirement for seminars and supervised practical workshops.

In the academic context, this is a Level 7 programme requiring critical thinking and critical writing skills at all stages of the programme. Irrespective of the optional units chosen, the acquisition and demonstration of level 7 learning outcomes is the underpinning basis of the programme.

In the professional context, the programme reflects safe and competent practice in specified clinical applications in diagnostic ultrasound. The programme is designed to be flexible to the individual needs of practitioners working in different disciplines, enabling them to acquire diagnostic and other ultrasound skills in different body parts and techniques. Ultrasound is an increasingly used clinical skill, and this programme is responsive to employers' needs as well as those of individual practitioners. This programme is currently accredited by the national professional body (Consortium for Accreditation of Sonographic Education, CASE).

All students graduate with the same award. It is the academic transcript that clearly shows the specific skills attainment and profile of the student. This is in line with other similar programmes in the sector, and common practice to inform employers in this area.

5. Placements, work-based learning or other special features of the programme

In order to satisfy the assessed elements of the clinical application units, students must submit a Clinical Placement Agreement Form. This Form must be completed to the satisfaction of the programme leader at the stage prior to acceptance on the programme. This form ensures that the student has the opportunity to fulfil the clinical requirements of the programme in his/her workplace. It is the responsibility of the student and not the University College to ensure that these opportunities are both available and sufficient to meet the requirements of the programme.

6. Programme structure, levels, units credit and award

The level of study, units and credits required for the programme and for final and exit awards are set out in the **programme diagram** provided as [Appendix 1](#).

The **learning outcomes mapping document** at [Appendix 2](#) shows the relationship between ILOs for units and the overarching ILOs of the programme.

Learning, Teaching and Assessment

7. Learning and teaching strategies and methods

A range of teaching and learning methods are used. The primary learning environment is the workplace setting. The student is expected to adopt self-directed and adult learning strategies in which individual learning needs are identified within the individual's own professional practice, learning achieved by appropriate means, and learning outcomes applied to meet these needs and change practice. This experiential and reflective learning model specifically demonstrates the transferable skills D1-D5. Students are required to attend for formal lectures and presentations (A1-A4), as well as for practical demonstrations and practical hands-on workshops (C1-C3). Learning experiences in the clinical setting achieve many of the intellectual and practical skills associated with diagnostic ultrasound (B1-B3, C1-C4). Learning by undertaking a research study or clinical audit under supervision in the final stage achieves knowledge and skills in empirical data collection, analysis and interpretation generating original knowledge in the form of answers to research questions or recommendations based on review of current practice against pre-determined standards (B4, B5, C5).

8. Assessment strategies and methods

ILOs A1-A3, B1-B3, C1-C4, D1-D5 are assessed in critical reflective written accounts in which critical thinking and critical writing skills are demonstrated in relevant applications. Clinical competency is assessed through reflective case studies (A1-A3, B1-B3, C1-C4, D1-D6), a record of clinical cases (C1) and a practical assessment (C1-C4). The research/audit protocol and dissertation/clinical audit assess A4, B4, B5, C5, D1- D5.

Students receive feedback on their written work through an assessment feedback form which grades individual assessment criteria and gives an overall grade for the work. In addition to the grade students receive literal feedback through the open comments box. In specified units students are given the opportunity to submit a draft of their work for feedback before their final submission. Students receive feedback immediately after their practical examinations by engaging with their assessor. In particular, detailed oral feedback is provided in cases where remedial work is necessary.

9. Learning hours

Programmes are composed of units of study, which are assigned a credit value indicating the amount of learning undertaken. The minimum credit value of a unit is normally 20 credits. 20 credits is the equivalent of 200 student study hours, including lectures, seminars, assessment and independent study. 20 University credits are equivalent to 10 European Credit Transfer System (ECTS) credits.

10. Staff delivering the programme

Students will be taught by AECC University College academic staff and qualified professional practitioners with relevant expertise.

Visiting subject specialist lecturers and workshop facilitators are brought in for all ultrasound skills-based units. Most are GMC or HCPC registered and include Consultant Radiologists, Sports Exercise Medicine Consultants, Consultant Rheumatologists, as well as ultrasound trained chiropractors, podiatrists and physiotherapists.

11. Progression and assessment regulations

The regulations for this programme are the University College's Standard Assessment Regulations which may be found at <http://www.aecc.ac.uk/student-life/policies-for-students/>. Please refer to section 19.

11. Progression and assessment regulations

Provision for candidates with valid reasons for poor performance.
Aegrotat award is not available.

12. Additional costs

Additional costs are mandatory or optional costs which students will need to meet in order to fully participate in and complete their programme. Students will need to budget for these costs separately as they are not included in the overall Tuition Fee they are charged. Information about additional costs applying to students on this programme can be found in the document [Important information to take into account when choosing your programme](#). There are also optional costs that apply to the programme. These are however not required in order to complete the programme.

Students with external musculoskeletal clinical placements are offered an optional mock assessment at the Centre for Ultrasound Studies (CUS) to assess their progress and familiarise themselves with the CUS machine controls which will be used for their final assessment. This is optional and will take place in CUS. Those students who wish to attend will be charged a fee of £107. The programme team will provide a feedback on strengths, weaknesses and advice on any remedial training.

13. Methods for evaluating the quality of learning and teaching

Students have the opportunity to engage in the quality assurance and enhancement of their programmes in a number of ways, which may include:

- Completing student surveys annually to give feedback on individual units and on the programme as a whole
- Seeking nomination as a Student Union representative OR engaging with these elected student representatives
- Serving as a student representative on Evaluation panels for programme approval/review
- Taking part in programme approval or professional body meetings by joining a group of students to meet with the panel
- Taking part in meetings with the external examiner(s) for the programme (such meetings may take place virtually where programmes are part-time)

The ways in which the quality of the University College's programmes are monitored and assured checked, both inside and outside the institution, are:

- Annual monitoring of units and programmes
- Periodic Programme review, at least every six years.
- External examiners, who produce an annual report
- Oversight by Academic Development and Quality Committee (which includes student representation), reporting to Academic Board
- Professional body accreditation (Consortium for Accreditation of Sonographic Education) and annual report
- External Quality Assurance Reviews and annual monitoring

14. Inclusivity Statement

AECC University College is committed to being an institution where students and staff from all backgrounds can flourish. AECC University College recognises the importance of equality of opportunity and promoting diversity, in accordance with our Dignity Diversity and Equality Policy. We are committed to a working and learning environment that is free from physical, verbal and non-verbal harassment and bullying of individuals on any grounds, and where everyone is treated with dignity and respect, within a positive and satisfying learning and working environment.

14. Inclusivity Statement

AECC University College seeks to ensure that all students admitted to our programmes have the opportunity to fulfil their educational potential. The interests of students with protected characteristics will be taken into consideration and reasonable adjustments will be made provided that these do not compromise academic or professional standards as expressed through the learning outcomes.

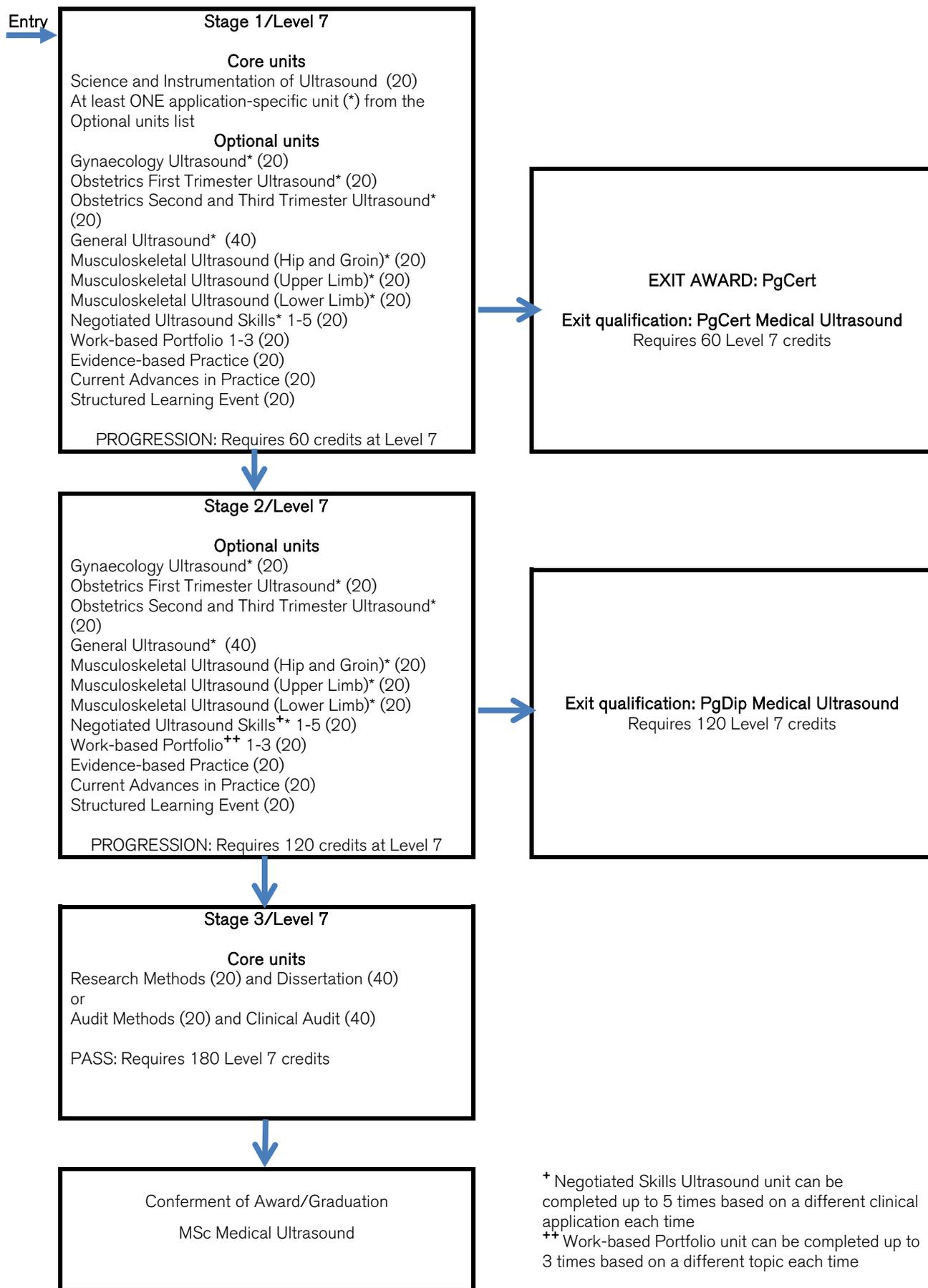
15. Reference points including QAA Benchmark statements

- The UK Quality Code - including the Frameworks for Higher Education of UK Degree-Awarding Bodies in Part A, and the Masters degree characteristics statement 2010 (version in place at the time of initial approval) <http://www.qaa.ac.uk/assuring-standards-and-quality/the-quality-code> (Previously the QAA Academic Infrastructure www.qaa.ac.uk/ASSURINGSTANDARDSANDQUALITY/ACADEMICINFRASTRUCTURE/Pages/default.aspx)
- QAA Quality Code Chapter B10: Managing Higher Education Provision with Others <http://www.qaa.ac.uk/assuring-standards-and-quality/the-quality-code/quality-code-part-b> (Previously Code of practice for the assurance of academic quality and standards in higher education, Section 2: Collaborative provision and flexible and distributed learning (including e-learning) - Amplified version (October 2010) www.qaa.ac.uk/AssuringStandardsAndQuality/code-of-practice/Pages/default.aspx)
- Royal College of Radiology: Standards for providing 24-hour diagnostic Radiology Service [https://www.rcr.ac.uk/sites/default/files/docs/radiology/pdf/BFCR\(09\)3_diagnostic24hr.pdf](https://www.rcr.ac.uk/sites/default/files/docs/radiology/pdf/BFCR(09)3_diagnostic24hr.pdf) (Previously [www.rcr.ac.uk/docs/radiology/pdf/BFCR\(09\)3_diagnostic24hr.pdf](http://www.rcr.ac.uk/docs/radiology/pdf/BFCR(09)3_diagnostic24hr.pdf))
- Ultrasound training recommendations for medical and surgical specialties, Second edition <http://www.rcr.ac.uk/publications.aspx?PageID=310&PublicationID=385>
- BMUS Safety Guidelines <https://www.bmus.org/policies-statements-guidelines/safety-statements/> (Previously: www.bmus.org/policies-guides/pg-safetystatements.asp)
- UKAS Guidelines for Professional Working Standards <http://www.sor.org/learning/document-library/continuing-professional-development-professional-and-regulatory-requirements> (Previously: www.bmus.org/policies-guides/SoR-Professional-Working-Standards-guidelines.pdf)
- Society of Radiographers The Scope of Practice in Medical Ultrasound [www.radiographyonline.com/article/S1078-8174\(99\)90223-7/abstract](http://www.radiographyonline.com/article/S1078-8174(99)90223-7/abstract)

16. Regulatory & Policy Framework

The programme conforms fully with the AECC University College Academic Regulations and Policies for Taught Programmes.

Appendix 1: Programme Diagram MSc Medical Ultrasound



Appendix 2: Learning outcomes mapping document

This table shows where a learning outcome referenced in the programme specification may be demonstrated by successful completion of a unit.

Unit Code		Programme Intended Learning Outcomes																		
		Subject Knowledge and Understanding				Intellectual Skills					Practical Skills					Transferable skills				
		A 1	A 2	A 3	A 4	B 1	B 2	B 3	B 4	B 5	C 1	C 2	C 3	C 4	C 5	D 1	D 2	D 3	D 4	D 5
01	Science and Instrumentation of Ultrasound	*	*	*		*	*	*			*	*				*	*	*	*	*
06	Gynaecology Ultrasound	*	*	*		*	*	*			*	*	*	*		*	*	*	*	*
08	Obstetrics First Trimester Ultrasound	*	*	*		*	*	*			*	*	*	*		*	*	*	*	*
09	Obstetrics Second and Third Trimester Ultrasound	*	*	*		*	*	*			*	*	*	*		*	*	*	*	*
05	General Ultrasound	*	*	*		*	*	*			*	*	*	*		*	*	*	*	*
04	Musculoskeletal Ultrasound (Hip and Groin)	*	*	*		*	*	*			*	*	*	*		*	*	*	*	*
02	Musculoskeletal Ultrasound (Upper Limb)	*	*	*		*	*	*			*	*	*	*		*	*	*	*	*
03	Musculoskeletal Ultrasound (Lower Limb)	*	*	*		*	*	*			*	*	*	*		*	*	*	*	*
10,11,12,13,14	Negotiated Ultrasound Skills (1-5)	*	*	*		*	*	*			*	*	*	*		*	*	*	*	*
18,19a,19b	Work-based Portfolio (1,2 and 3)				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22	Current Advances in Practice				*			*	*	*					*	*	*	*	*	*
21	Evidence-based Practice				*			*	*	*					*	*	*	*	*	*
40	Structured Learning Event				*	*		*	*	*					*	*	*	*	*	*
51	Research Methods				*			*	*						*	*	*	*	*	*
52	Dissertation				*			*	*	*					*	*	*	*	*	*
53	Audit Methods				*			*	*						*	*	*	*	*	*
54	Clinical Audit				*			*	*	*					*	*	*	*	*	*