Consortium for the Accreditation of Sonographic Education

Guidance for Education Providers on the Accreditation/Reaccreditation of Focused Courses

Member Organisations

British Medical Ultrasound Society

British Society of Echocardiography

Chartered Society of Physiotherapy

College of Radiographers

Institute of Physics and Engineering in Medicine

Royal College of Podiatry

The College and Society for Clinical Vascular Science Great Britain and Ireland

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1. Introduction

The purpose of this guidance document is to support Education Providers in the design and development of Focused Ultrasound Courses by providing clarity on what the Consortium for the Accreditation of Sonographic Education (CASE) requires and why. It has been created in response to the changing ultrasound landscape, the subsequent proliferation of different types of ultrasound education and training, and the demand for shorter, specialised ultrasound courses.

Formed in 1993, CASE consists of seven member organisations "drawn together by a common desire to ensure that the education and training of sonographers in the United Kingdom and Republic of Ireland is delivered at an appropriate level to ensure that those completing programmes or courses achieve a standard of competency to practise as professional practitioners". The primary role of the Consortium is to accredit high quality training programmes and focused courses that promote best ultrasound practice and ensure that ultrasound practitioners are safe and competent to practise, whilst considering informed views of service needs. In 2015 the Consortium agreed the following four principles that should be adhered to in respect to ultrasound practice and ultrasound education:

1. Reporting should **not** be separated from scanning.

2. Scanning is a 'dynamic' investigation in which the acquisition of suitable images and assessment of them is entirely operator-dependent at the time of the scan. Deficiencies in acquisition cannot be rectified by involving a more skilled practitioner at a later stage. Assessment and interpretation of saved images is recognised as sub-optimal practice although, as with all image interpretation, dual reporting can be helpful in increasing specificity.

3. The risk of patient harm and consequent litigation against any healthcare organisation providing a poor-quality service is very high and therefore the need for competence at the point of scanning is paramount.

4. Workforce modelling and the development of innovative training routes to meet the demand for sonography services should demonstrate increased efficiency of provision and effectiveness in delivery of diagnosis and treatment to patients".

The first CASE principle is of key importance for ultrasound examinations and has been recognised as such by the Society & College of Radiographers (SCoR) and the British Medical Ultrasound Society (BMUS) in their joint publication 'Guidelines for Professional Ultrasound Practice' (2022) in which they state the "ultrasound report should be written and issued by the operator undertaking the ultrasound examination and viewed as an integral part of the whole examination".

Historically, focused courses have emerged in response to service need and to the lack of flexibility within some formal Higher Education Institution (HEI) programmes. Flexibility and innovation in course content and delivery are to be encouraged; however, this must not be at the expense of patient safety. All CASE accredited focused courses must include learning outcomes that are linked explicitly to a defined scope of practice, include assessment of theoretical and practical elements that reflect best practice (rather than minimal competence) and are achievable within the course structure (including placement support).

In review of focused courses seeking CASE accreditation, a key area for consideration is the scope and depth of underpinning physics and technology theory required for safe and effective practice. The extent to which this can be delivered and assessed effectively within a focused course format depends, not only on the technical complexity of the defined area of diagnostic ultrasound imaging (DUI) practice, but also on the level of experience and professional background of the target course attendants (novice → extended scope of practice). It is therefore helpful to make a clear distinction between focused courses that are targeted at existing ultrasound users who have undertaken formal DUI training, and courses aimed at complete novices. HEIs, Course Leads and Accreditors need to ensure that neither would be disadvantaged.

A number of existing documents identify a recommended minimum basic theoretical training for non-imaging specialists and it would be a reasonable starting point to assume that CASE requirements would be in line with these for ALL entry level practice. However, for applications that are technically complex, or where differential diagnosis and actionable reporting are required, existing CASE learning outcomes (Level 6 or Level 7) (Appendix 1) would need to be met. As a potential future development, these could perhaps be achieved via on-line learning with pre-course assessment.

Where scope of practice is limited to a clearly defined area; for example, neonatal hips, tendon trauma or early pregnancy viability; delivery of theoretical science content should be tailored to reflect this with reference to relevant artifacts / equipment settings etc. However, the same CASE Level 6 or Level 7 learning outcomes should apply where content is relevant.

Rapid change within the DUI landscape means that a highly prescriptive approach to focused course content and learning outcomes across a wide range of applications is likely to be unhelpful. An alternative approach, created by CASE, is the development of a decision making tool that enables accreditors and course developers to make a clear distinction between the requirements of non-accredited short courses, accredited focused courses, and formal credit bearing modules.

PLEASE NOTE: This guidance document should be read in conjunction with the CASE Standards for Sonographic Education.

2. Is the Proposed Course a Focused Course?

Prior to applying for accreditation or re-accreditation, it will be necessary to determine whether the proposed course meets, or continues to meet, the CASE definition of a focused course (Appendix 2). A CASE-defined focused course is a course that:

- Covers a well-defined area of clinical practice;
- Is developed to meet a specific identifiable service need;
- Ensures competence in the defined area of practice;
- Includes relevant elements of ultrasound science and professional issues;
- Requires the trainee exiting to demonstrate the same level of competency in the defined area of practice as any other healthcare practitioner carrying out that examination.

Importantly, CASE will not accredit short courses that do not include a record of formative development and a formal endpoint assessment of clinical competence to practice. Theory-based short courses lasting from one to a few days are not eligible for CASE accreditation but may apply directly for individual professional body endorsement.

Any Focused Courses accredited by CASE must be in line with the same clinical practice and academic standards as found in any full programme that CASE accredits. This is to ensure a minimal national standard across all training programmes and courses, albeit in a well-defined and restricted area of practice.

CASE will need to be assured at the time of accreditation / reaccreditation that the title evidenced on the course competency certificate, issued on successful completion, reflects the defined area of clinical competency and is otherwise fit for purpose. It is also appropriate for institutions to formally award credits; for example, 20 Level 7 credits, to students upon successful completion of a Focused Course. If a student wishes to import these credits, via APCL/RPCL into an MSc they are doing elsewhere, the decision to allow this via a process of 'general credit recognition' will rest with that University; however, a Focused Course cannot be imported into a full ultrasound programme.

CASE has developed the following **Focused Course Accreditation Decision Tool** to help you determine whether your course is appropriate to be accredited, or re-accredited, as a focused course. The tool identifies the following five areas for consideration:

- target course attendant (who is this course aimed at? Is it an ultrasound novice or an experienced ultrasound practitioner?)

- technical complexity of the scan (depth / breadth of underpinning science required to undertake the examination
- scanning skills and interpretation of findings
- patient care and communication skills (professional issues requirements)
- breadth of proposed practice.

Asking the following twelve questions will help you to decide whether your course may be suitable for accreditation, or re-accreditation, as a focused course:

The answers should all be “yes” or as defined.

1. Does it cover a clearly identifiable, limited, scope of ultrasound practice?

2. Is it clear what is not covered, as well as what is covered?

3. Are there clearly defined learning outcomes that align with relevant CASE level 6/7 learning outcomes?

4. Can you provide evidence that there is a specific need for the course, separate to a standard postgraduate ultrasound course?

5. Will the teaching include underpinning physics and technology appropriate to the level of technical complexity of the proposed scope of practice?

6. Will the teaching include professional issues related to the scope of ultrasound practice?

7. Does the course include a formal summative clinical assessment of competence?

8. In terms of scanning ability, is the course aimed at novice, intermediate or expert practitioner ultrasound users?

Target course attendant	
Novice	No previous ultrasound experience
Intermediate	Specialist focused practitioner. Some limited scope of prior diagnostic ultrasound imaging experience. (e.g. fertility nurse performing follicle tracking)
Expert	Career sonographer / expert specialist ultrasound practitioner (e.g. cardiac / vascular specialist)

9. In terms of the technical complexity of the scan, does the course require core, intermediate or advanced use of the ultrasound equipment?

Technical complexity of the scan	
Core	Requires use of pre-sets / manipulation of basic controls / appreciation of image quality parameters and image artefacts relevant to target structure / protocol driven
Intermediate	Requires confident adaptation of equipment settings relevant to area of practice / good appreciation of image quality parameters and image artefacts / appreciation of scan limitations
Expert	Underpinning knowledge and skill level consistent with career level 6/7 sonographer practice

10. In terms of the identified area of clinical practice and scanning skills, does the course require core, intermediate or advanced skills?

Scanning skills & interpretation of findings	
Core	Protocol based. Rule-in / observation only. (Target skill is consistent with assistant practitioner level diagnostic ultrasound imaging practice)
Intermediate	Protocol based with some interpretation of findings. (Target skill is consistent with practitioner level diagnostic ultrasound imaging practice)
Expert	Interpretation of scan and differential diagnosis. (Target skill is consistent with enhanced practitioner level diagnostic ultrasound imaging practice)

11. In terms of patient care and communications skills, does the course require core, intermediate or advanced skills?

Patient care and communication skills	
Core	Meets core proficiencies for person-centred care. Limited communication of scan findings. Clear referral pathways in place
Intermediate	Meets core proficiencies for person-centred care. Some communication of scan findings and referral pathways
Expert	Meets core proficiencies for person-centred care Communication of complex scan findings and implications for on-going care

12. In terms of the breadth of practice including referrals and clinical expectation of examination outcome, does the course require core, intermediate or advanced skills?

Breadth of practice	
Core	Highly focused / single target e.g. abdominal aortic aneurysm; above knee deep vein thrombosis; follicle tracking
Intermediate	Clearly defined scope of practice. A sub-set of wider scope of practice in this area e.g. first trimester dating, carotid screening
Expert	Broad but defined range of referrals. Comparable to wider career sonographer scope of practice in this area e.g. full range of early pregnancy referrals, Rheumatoid Arthritis (RA) screening across a range of joints

Having answered these questions, you now need to use the **Focused Course Accreditation Decision Tool** (below) to determine whether your course might be a focused course that CASE may accredit.

ASPECT OF CLINICAL PRACTICE		**Target Recruitment**		
		Novice	**Intermediate**	**Expert**
Scanning skills and interpretation of findings	**Core** Protocol based. Rule in / observation only. (Target skill is consistent with assistant practitioner level diagnostic ultrasound imaging practice).	Focused Course	Focused Course	Focused Course
	Intermediate Protocol based with some interpretation of findings. (Target skill is consistent with practitioner level diagnostic ultrasound imaging practice).	Focused Course + (and targeted recruitment	Focused Course + (and targeted recruitment	Focused Course
	Expert Interpretation of scan and differential diagnosis. (Target skill is consistent with enhanced practitioner level diagnostic ultrasound imaging practice).	HEI course recommended	HEI course recommended	Focused Course + (narrow scope of practice)

ASPECT OF CLINICAL PRACTICE		**Target Recruitment**		
		Novice	**Intermediate**	**Expert**
Technical complexity of the scan	**Core** Requires use of pre-sets / manipulation of basic controls / appreciation of image quality parameters and image artifacts relevant to target structure / protocol driven.	Focused Course	Focused Course	Focused Course
	Intermediate Requires confident adaptation of equipment settings relevant to area of practice / good appreciation of image quality parameters and image artifacts / appreciation of scan limitations.	Focused Course + (and targeted recruitment	Focused Course + (and targeted recruitment	Focused Course
	Expert Underpinning knowledge and skill level consistent with enhanced sonographer practice.	HEI course recommended	HEI course recommended	Focused Course + (narrow scope of practice)

ASPECT OF CLINICAL PRACTICE		Target Recruitment		
		Novice	Intermediate	Expert
Patient care and communication	**Core** Meets core proficiencies* for patient care. Limited communication of scan findings. Clear referral pathways in place.	Focused Course	Focused Course	Focused Course
	Intermediate Meets core proficiencies* for patient care. Some communication of scan findings and referral pathways.	Focused Course + (and targeted recruitment	Focused Course + (and targeted recruitment	Focused Course
	Expert Meets core proficiencies* for patient care. Communication of complex scan findings and implications for on-going care.	HEI course recommended	HEI course recommended	Focused Course + (narrow scope of practice)

ASPECT OF CLINICAL PRACTICE		Target Recruitment		
		Novice	Intermediate	Expert
Breadth of practice	**Core** Highly focused / single target e.g. abdominal aortic aneurysm; above knee deep vein thrombosis; follicle tracking.	Focused Course	Focused Course	Focused Course
	Intermediate Clearly defined scope of practice. A sub-set of wider scope of practice in this area e.g. third trimester biometry; first trimester dating; carotid screening.	Focused Course + (and targeted recruitment	Focused Course + (and targeted recruitment	Focused Course
	Expert Broad but defined range of referrals. Comparable to enhanced sonographer scope of practice in this area. e.g. full range of trimester 1 referrals; rheumatoid arthritis screening across a range of joints.	HEI course recommended	HEI course recommended	HEI course recommended

Focused Course Accreditation Decision Tool Outcome Definitions:

Focused Course
A focused course format is suitable for the proposed area of diagnostic ultrasound practice.

Focused Course +
A focused course format may be suitable. Content and delivery must enable students to meet relevant CASE Level 6 or Level 7 learning outcomes.

Targeted Recruitment
A focused course format may be suitable if prior learning requirements are clearly defined as part of the course entry criteria e.g. injection course.

Narrow Scope of Practice
A focused course format may be suitable if the scope of practice is a clearly defined sub-set of a wider scope of practice in this area.

HEI Course Recommended
The proposed area of training is not appropriate for delivery by a focused course format. A formal HEI award is recommended.

	Focused course format suitable for the proposed area and scope of practice.	Course Leads and Accreditors are confident that the proposed focused course content, format and delivery (including placement support) will enable students to meet the course learning outcomes.
	Focused course format **may** be suitable for the proposed area and scope of practice. Course must demonstrate clear support for trainee development of relevant knowledge and skills consistent with CASE learning outcomes (level 6 / level 7) in science / professional issues **OR** recruitment must be restricted to trainees who can evidence these skills from prior learning. (This may include attendees who already hold a formal diagnostic ultrasound imaging qualification or who have completed previous focused training.)	Course Leads and Accreditors are confident that the potential limitations of a focused course format may be mitigated by required co-requisite learning or restricted (targeted) recruitment. This could include other relevant **prior learning** requirements such as joint injection / non-medical prescribing etc. or a formal diagnostic ultrasound imaging qualification.
	Proposed area of training is **not** appropriate for delivery by **focused course format**. Formal Higher Education Institution (HEI) award or credited module recommended.	The proposed course learning outcomes are unlikely to be met within a focused course format. Students are likely to be disadvantaged and patients may be placed at risk.

If you believe your course qualifies as a focused course that CASE might accredit then you are now in a position to complete and submit an application form for Focused Course Accreditation or Re-accreditation to CASE. The form is available on the CASE website at Apply for Accreditation (case-uk.org).

However, upon reflection, you may wish to consider whether your course would be better presented as a stand-alone module or a module within a formal HEI ultrasound postgraduate programme. If this is the case, please visit Apply for Accreditation (case-uk.org).

If you have any questions at this stage, please contact the CASE Education Officer at: case.education.officer@gmail.com.

3. Relevant CASE Position Statements

Following in-depth review of CASE processes and requirements for focused course accreditation, the following position statements were issued in 2021-2023:

3.1 Focused Obstetric Courses for 3rd Trimester Obstetrics, Saving Babies Lives Care Bundle version 2 (SBLCBv3)

CASE accreditation will only be approved for focused courses that specify a clearly defined scope of practice and that require trainees to demonstrate the same level of competency as any other health care professional (HCP) carrying out that same examination. For applications that are technically complex, or where differential diagnosis is required, existing CASE learning outcomes (level 6 / level 7) need to be met. The extent to which this can be delivered and assessed effectively within a Focused Course format is dependent on target course attendants, as well as the technical complexity of the defined area of practice.

Following review of the requirements of the Saving Babies Lives Care Bundle (SBLCBv3), we confirm that Third Trimester Obstetric Scanning will **not** be considered by CASE as appropriate for delivery by a focused course format due to the breadth and complexity of scanning undertaken in this high-risk context. A formal HEI award is required.

A stand-alone module format (such as a negotiated module) may be suitable for CPD applicants where recruitment is restricted to trainees who can evidence prior knowledge and skills consistent with CASE learning outcomes (level 6 / level 7) in science / professional issues. For example, this may include learners who already hold a formal obstetric ultrasound qualification (or who have completed previous focused training) who wish to develop additional skills in middle cerebral artery (MCA) or uterine artery (UA) Doppler.

3.2 Social Scanning

Social scanning is defined as the use of ultrasound for pregnant patients where there is no clinical justification for the scan. This may include scanning solely for fetal sexing and/or to capture souvenir images of the baby.

Issues around 'social scanning' have been raised as Programme/Course Leads are seeing an increase in applicants looking to qualify in sonography, not for diagnostic purposes but for commercial reasons (e.g. baby scans for gender-reveal parties). They have asked for clarification on CASE's position and so the following response has been issued as a formal position statement:

CASE has a responsibility to provide assurance that ultrasound trainees completing an accredited course are safe, competent and have a clear and confident understanding of their scope of practice. This is at the heart of why CASE exists. The learning outcomes that must be met by students completing a CASE accredited course reflect the level of understanding and skill required for a first post competent practitioner, undertaking medical ultrasound examinations within an evidence-based environment. (For example, for obstetric ultrasound, these outcomes must be consistent with current national guidelines, including the NHS Fetal Anomaly Screening Programme or equivalent and Saving Babies Lives Care Bundle v2.)

Members of the public are unable to distinguish between sonographers employed in an NHS context and individuals undertaking social scans. To safeguard patients, and to be able to hold practitioners to account, it is recognised that there is urgent need for statutory regulation of ultrasound practice in the UK. Personal accreditation of an individual's ultrasound practice is not a process that falls within the remit of CASE. However, in the absence of statutory regulation, CASE has a vital role in ensuring that all trainees completing an accredited course are prepared

fully for practice within an NHS context. On completion of a CASE accredited award (PgC, PgD or MSc) sonographers are able to register as a sonographer with the Register of Clinical Technologists therct.org.uk

In line with the position of our member organisations, CASE accreditation is only applicable to courses of study that prepare students for the use of ultrasound imaging for medical diagnosis and /or as an aid to medical/surgical interventions. CASE will not accredit courses (full awards or focused) that prepare trainees solely for the purpose of social scanning where there is no medical justification.

3.3 Independent Scanning Prior to Award Ratification

Students enrolled on a CASE accredited Focused Course must not undertake independent scanning / decision making without supervision until the final Focused Course award has been ratified by the university examination board. For students achieving a pass grade in all academic and clinical assessments, final marks and the overall Focused Course exit award remain provisional until subject to the scrutiny of the university academic examination boards. The position statement is as follows:

Until the final Focused Course award is ratified, the trainee remains a student of the university, and an appropriate level of supervision (commensurate with their ability) must continue to remain in place in line with university, CASE, BMUS, SCoR and any other relevant United Kingdom (UK) professional body guidelines. The employer must be able to provide primary indemnity cover for any individual being employed as a sonographer. Students/new sonographers are strongly advised to check that their employment contract covers this. Additional secondary professional indemnity insurance cover can be arranged, for example through their respective professional body, as long as employer primary insurance is in place.

3.4 Practice Educator/Mentor/Clinical Supervisor Requirements

Student scans must be directly supervised by an appropriate practice educator/mentor/clinical supervisor who has appropriate qualifications and experience (i.e. PgC qualification and a minimum of 2-year post-qualification experience or level 2 Radiology), aligned with the student's breadth/remit of practice, as defined in their portfolio. Where there is a significant shortage of available practice educators/mentors/clinical supervisors, qualified staff with a minimum of 1-year post-qualification experience may act as the local practice educator/mentor/clinical supervisor if at least one other member of the supervisory team meets the minimum requirement of 2 years' experience.

CASE position statements are online at: https://www.case-uk.org/advice-useful-links/position-statements/

4. Focused Course Philosophy

Focused Courses must support the development of sonographers with the underpinning knowledge, skills and attributes required for safe and effective ultrasound practice. Sonographers should also develop critical thinking skills to enable them to deal with situations arising within their scope of practice and demonstrate a clear understanding of their strengths and limitations and role within the patient care pathway. Sonographers should have a sound understanding of patient care pathways, local and national guidelines, develop inter-professional and team working, perform audits and engage in research collaborations to make service improvements. The importance of and engagement with 'Experts by Experience', service users and carers within their work is an essential element of the role and education of sonographers. As a practitioner progresses through their career, they should develop expertise that can be adapted to new and increasingly complex situations and, at all levels, be supported through a formal, structured preceptorship period, with appropriate on-going mentoring, continuing professional development (CPD) and support to undertake further educational study and research.

At all levels, it is important that qualified health practitioners undertaking diagnostic ultrasound as part of their scope of practice follow Royal College of Radiologists (RCR) guidance and:

- Acknowledge the importance of robust clinical governance and inter-professional relationships within teams;
- Practise within their level of competency;
- Practise in accordance with their local clinical protocols, an approved scheme of work and agreed delegation of clinical responsibility;
- Refer to more experienced sonographic and radiological colleagues when uncertain of the findings and/or seek advice about patient management/further investigations;
- Practise according to current evidence-based professional standards and requirements.

Where the practise is outside the Radiology Department setting, medical input may be from other colleagues such as vascular surgeons, rheumatologists, orthopaedic surgeons, obstetricians, gynaecologists.

The definition of scope of practice is "the area or areas of your profession in which you have the knowledge, skills and experience to practise lawfully, safely and effectively, in a way that meets our standards and does not pose any danger to the public or to yourself."

Although sonography is not yet subject to statutory registration, qualified health practitioners, such as diagnostic radiographers, midwives and physiotherapists, undertaking focused courses

will be registered with the relevant regulatory body and will therefore be required to work within their scope of practice at all times.

4.1 Focused Course Aims

The following aims relate to academic levels 6 and 7.

Academic Level 6

Level 6 programme aims are:

- To produce a competent, safe ultrasound practitioner with the knowledge, understanding and ability to independently undertake, interpret, analyse and report ultrasound scan findings within their focused scope of practice, with appropriate supervision available;
- To equip the ultrasound practitioner with the appropriate professional attributes including the six C's of care, compassion, courage, commitment, competence and communication skills, to work effectively and empathetically with a wide range of service users and carers, and meet core skills required for professional practice;
- To ensure that the ultrasound practitioner has a thorough understanding of their scope of practice and the importance of working under the supervision and mentorship of senior staff to develop personal, professional, clinical and research skills;
- To develop ultrasound practitioners who are safe, reflective, responsive to patient and service needs, with analytical and problem-solving skills, the ability to critically review evidence and clinical practice and disseminate knowledge to others;
- To ensure the ultrasound practitioner has a comprehensive understanding of how to evidence and develop their skills, knowledge, reporting practice and clinical competency to progress to the next level of practice.

Academic Level 7

Level 7 programme aims, in addition to academic level 6 aims, are:

- To produce a competent, safe, reflective sonographer with the knowledge, understanding and ability to independently undertake, interpret, analyse and report ultrasound scan findings within their scope of practice, with appropriate supervision available. They will have the skills to develop and become capable of managing and independently reporting complex caseloads within their scope of practice;
- To equip the sonographer with the skills and attributes to communicate effectively with a wide range of service users and carers, use evidence-based practice and clinical decision-making skills in a range of situations, suited to their scope of practice, with the ability to progress to managing complex and uncertain situations;

- To ensure the sonographer has the underpinning knowledge and ability to develop their leadership and management skills, education of self and others, and engage in research;
- To develop sonographers who are able to mentor and support others to ensure safe practice that is responsive to patient and service needs;
- To ensure the sonographer has a comprehensive understanding of how to evidence and develop their own skills, knowledge and practice, and those of others to implement change and improve the service provision;
- To equip the sonographer with the skills, knowledge and confidence to engage in effective team-working with senior clinical and radiological colleagues, along with the ability to contribute meaningfully to multi-disciplinary team meetings;
- To ensure that the practitioner has high-level communication skills to communicate highly complex, conflicting and sometimes ambiguous information clearly, to influence policy makers and inform decisions about future directions within the profession;
- To provide support to enable the sonographer to proactively engage in leadership and management, consultancy, education and research at local, national and international levels and support the professional development of others;
- To equip the sonographer with a thorough understanding of the need for and complex nature of reflective practice, staff development, preceptorship, mentoring and coaching, to enable them to ensure practice and ultrasound reports of junior colleagues are sufficient to guide effective patient management;
- To provide the sonographer with the skills, knowledge and confidence to engender a leadership culture for positive change and improvements to service delivery to ensure high standards of patient-centred care.

5. The Accreditation Process

The accreditation process for a Focused Course is broadly similar to that of a full programme and only differs in some details. In particular, there may not be a formal validation event, and a visit to the institution/organisation offering the course may not always be necessary, as it may be sufficient to conduct the approval process by electronic communication alone.

5.1 Application for Accreditation

The host institution/course developer needs to apply to CASE, using the appropriate form, to indicate that they wish to seek accreditation for their Focused Course. The form is available on the CASE website Apply for Accreditation (case-uk.org)

NOTE: Only the current form from the website should be used.

Focused Course documentation is to be sent to CASE 12-months before the proposed validation/re-validation event and a decision as to whether the course satisfies the conditions for CASE accreditation will be made at the next CASE Committee meeting. Where a Focused Course does not meet the criteria for entry into the accreditation process, an explanation will be given and advice may be offered to enable a successful application to be made. For example, this may be because the proposed course is too broad in terms of subject matter or lacks practical clinical competency training and assessment.

5.2 Accreditation Timeline and Associated Responsibilities

Action	Indicative Time - indicates before the event + indicates after the event	Education Provider	CASE Committee	Lead Accreditor	Co-accreditor	Shadow Accreditor
Application submitted for accreditation	-12 months	☐				
CASE agrees to accredit or sends explanation	-9 to 12 months		☐			
Accreditation team assigned	-9 to 12 months		☐			
Lead Accreditor liaises with programme team	When appointed			☐		
Support provided (as required)	-6 months	☐		☐		
Timeframe for the process agreed between all stakeholders (including event date if required)	-4 months	☐		☐	☐	☐
Documentation submitted to CASE accreditation team	-2 months	☐				
Accreditors review the documentation	-2 to -1 month			☐	☐	☐
Accreditors send initial feedback to Lead Accreditor	-6 or 7 weeks				☐	☐
Lead Accreditor arranges meeting with accrediting team	-6 or 7 weeks			☐		
Accreditors discuss the documentation	-6 or 7 weeks			☐	☐	☐
Additional advice sought from Education Officer or Training Lead (as required)	-6 or 7 weeks		☐	☐		
Request further documentation/evidence from Education Provider (as required)	-5 or 6 weeks			☐		
Review additional documentation (as required)	-5 weeks			☐	☐	☐

Action	Indicative Time - indicates before the event + indicates after the event	Education Provider	CASE Committee	Lead Accreditor	Co-accreditor	Shadow Accreditor
Collate feedback from all accreditors and send to Education Provider [named contact]	-1 month			☐		
Possible further response from education provider	-2 weeks	☐				
Draft validation event agenda circulated (if required)	-2 weeks	☐				
Agenda agreed (if required)	-2 weeks	☐		☐		
In-person or virtual event	Event	☐		☐	☐	☐ **If remote attendance**
Discussions take place	Event or online	☐		☐	☐	
Minutes taken	Event or online	☐				
Initial feedback provided*[1]	Event or online			☐		
Headline report / meeting minutes received from Education Provider	+1 week	☐				
Draft accreditor report completed	+1week			☐		
Draft accreditor report agreed	+1 week			☐	☐	☐
Debrief meeting arranged with CASE Education Officer, Training Lead &/or Committee Members and Accrediting Team. Draft report sent to attendees	+2 weeks				☐	
Debrief meeting	+1 to +2 weeks		☐	☐	☐	☐
Lead Accreditor informs Education Provider of finalised conditions, recommendations and commendations*[2]	+2 weeks			☐		
Amended documentation submitted to Accrediting Team (as required)	Agreed at event or within 6 weeks post-event	☐				
Discussion on revised documentation (as required)	As agreed, +3 months			☐	☐	☐
Final Accreditor Report agreed with Accrediting Team and sent to CASE	+2 weeks after final documents reviewed			☐		
CASE Committee review results of accreditation	+3 months		☐			
CASE informs Education Provider and provides feedback	+ 3 months		☐			
Definitive documents sent to CASE, fees up to date	+4 months	☐				
Programme entered onto CASE Directory of Courses	+4 months		☐			

*[1] Feedback may be given at the event or afterwards depending on the circumstances. New or complex courses may require consultation with CASE Committee. No decisions at an event are final.

*[2] All feedback is subject to review by CASE Committee.

5.3 Interaction with the CASE Accreditors

Following acceptance of a Focused Course for accreditation/re-accreditation, CASE will appoint a Lead Accreditor and a Co-accreditor. The Lead Accreditor will contact the Focused Course Leader and liaise with them to agree a way to proceed. In particular, they will indicate whether a formal event is required and whether it should be in-person or virtual.

If a face-to-face 1-day CASE-only accreditation event is required, the example timetable shown below can be used by accreditors and adapted to their own needs. This example includes all activities that should be covered, including private time for CASE Accreditors. The start time can be adjusted to suit the accreditors travel arrangements. Once agreed, the Lead Accreditor will share the timetable with the Course Leader so that the event can be arranged. If a virtual event is planned, separate online meetings will need to be set up for the private CASE Panel meetings described below.

Example Timetable for a CASE-only Accreditation Event	
TIME	**ACTIVITY**
09:00 – 09:30	REFRESHMENTS
09:30 – 10:00	Guided tour of the University's ultrasound facilities e.g. Simulation Suite
10:00 – 10:30	Private CASE Panel meeting with external stakeholders and Clinical Placement Leads
10:30 – 11:00	Private CASE Panel meeting with students (if revalidation)
11:00 – 11:10	Welcome and Introductions
11:10 – 11:20	Brief presentation from the Focused Course Team with brief Q&A session
11:20 – 11:30	Dean's report to the CASE Panel demonstrating support for the Focused Course
11:30 – 12:30	Main question and answer discussion between the Team and the CASE Panel
12:30 – 13:30	LUNCH BREAK
13:30 – 14:00	Private CASE Panel meeting to determine conditions, recommendations and commendations
14:00 – 15:00	Discussion of proposals between the Team and the CASE Panel
15:00 – 15:45	Private CASE Panel meeting to agree outcome, conditions, recommendations and commendations
15:45 – 16:00	CASE Panel provide feedback to the Focused Course team (including the identification of areas of good and best practice)
16:00	**CLOSE**

Student and stakeholder feedback may be required even if no formal meeting/event occurs. In the case of a formal validation meeting, a secretariat to minute proceedings is normally arranged by the course faculty.

Following any formal meeting/event and review of the documentation, the Co-Accreditor will convene an online post-accreditation debrief meeting to act as a feedback mechanism between the accreditors and CASE Committee members. The purpose of this meeting is to discuss the proposed conditions, recommendations and commendations with Committee members to ensure parity across all accredited Focused Courses. The Lead Accreditor will prepare a formal report using the Focused Course proforma for consideration at the debrief meeting. All members of the accrediting team should have oversight and input into this report.

The online debrief meeting also supports accrediting teams by providing a forum to explore any challenges and concerns related to the event, the documentation, the conditions and/or the recommendations. The Lead Accreditor, Co-Accreditor **and Shadow Accreditor** should all attend, as it presents a learning opportunity for the accrediting team to discuss any issues after a period of reflection.

Following the online debrief meeting, the Lead Accreditor will prepare a formal report using the Focused Course proforma for consideration and action by CASE Committee at its next meeting.

CASE will then inform the Course Leader of the result of the accreditation process or request further information, as required.

CASE accreditation for a Focused Course will normally be for three years; however, CASE may recommend earlier review in some circumstances.

PLEASE NOTE: Lead and Co-Accreditor travel and accommodation expenses are paid by the course faculty.

5.4 What are the CASE Accreditors looking for?

Course documentation should include similar information to that listed for full programmes, as appropriate for a focused course. In particular, it should give clear detail regarding the following:

- Does the course title reflect the defined scope of the course?
- The specialist area to be covered and any limitations to the scope of practice?
- The duration of the course;

- The amount of face-to-face contact time between the course team and the students (this must be a minimum equivalent of 4 days; however, where blended e-learning is included, there must be a minimum of 2 full contact days);
- The content of the teaching provided;
- How knowledge and understanding of the theory will be assessed;
- How the core topics of science and technology and professional issues will be covered;
- The practical clinical training provided;
- How the students will gain practical clinical experience;
- Who will supervise students' clinical training throughout the course?
- How the students are to be assessed to ensure competence to practise;
- The competency certificate issued on successful completion of the course.

In relation to the above, Course Leaders need to be aware of the following statement to reinforce the use of the **Documentation Checklist** (Appendix 3) and to understand that poor documentation can cause a delay in the process.

CASE accreditors undertake this work in addition to their substantive roles. To ensure timely and effective accreditation processes, documentation should be complete, in a logical order with clear indexing and sent in a timely manner. The CASE website has a section entitled 'Documentation requirements - A checklist for the course team' to assist course teams when preparing for accreditation / reaccreditation.

Inaccurate, incomplete, contradictory or disorganised documentation takes up an enormous amount of accreditor time. CASE will no longer be able to review substandard documentation. Course teams will be asked to follow the guidance and complete the documents to an acceptable standard otherwise this may delay accreditation / reaccreditation.

6. Criteria for Successful Accreditation

CASE supports innovation in development and flexibility of delivery for all medical ultrasound related educational programmes and focused courses, actively encouraging the utilisation of an outcome-based approach throughout the process. Educational and training paradigms promote the philosophy of student-centred learning supported by appropriate and robust tutor provision, in addition to the traditional method of lecture-based delivery. This places the responsibility of learning jointly on the student and the tutor. Material may also be presented to the student by electronic means as blended learning. Simulation of scanning is increasingly being used as a teaching and assessment tool and is to be encouraged, as it can reduce the time required to achieve competent scanning whilst helping to monitor student progress. During the validation

and accreditation process, CASE accreditors will expect to see documented evidence that supports this mixed approach both in the classroom and workplace.

CASE will look to Focused Course Leaders to embed originality of thought and evidence-based practice within the curricula, mode of delivery and assessment process, whilst complying with current international, national and local legislation, healthcare policy and professional guidelines, to ensure that practitioners meet the required standards of practice. In particular, CASE will support focused courses that offer learning in such a way as to suit the workforce for whom they are developed, whilst ensuring that a competency to practise outcome is paramount.

6.1 Scope of Validation

There are seven areas of particular importance which accreditors, focused course leaders, and clinical teams will need to consider in order to secure CASE accreditation. These are:

- course learning outcomes;
- course content and learning material;
- theoretical and clinical assessments;
- academic and clinical teaching teams;
- academic learning environment;
- clinical skills placements;
- quality assurance procedures.

The contents of this section are appropriate for both accreditation and re-accreditation of focused courses. CASE will expect information relating to the above areas to be embedded appropriately throughout the course documentation and used as a basis for discussion at the validation/periodic review/revalidation meeting/event.

6.2 Mapping Focused Course Learning Outcomes

The course learning outcomes indicate what a student should be able to do by the end of the course and must be relevant to the clinical application of ultrasound being studied. The CASE Level 6 and Level 7 Learning Outcomes are included in Appendix 1.

National Occupational Standards for Sonography (Appendix 4), developed as part of the National Health Service (NHS) Knowledge and Skills Framework describe the “skills, knowledge and understanding needed to undertake ultrasound examinations to a nationally recognised level of competence. They focus on what the ultrasound practitioner needs to be able to do, as well as what they must know and understand to work effectively.”

The Society and College of Radiographers (SCoR) and the British Medical Ultrasound Society (BMUS) support the minimum training requirements for the practice of medical ultrasound in

Europe proposed by The European Federation of Societies for Ultrasound in Medicine and Biology (EFSUMB), which includes theoretical and clinical education, with clinical competency assessment.

UK Higher Education Institutions (HEIs) refer to the minimum training requirements identified in the 'Ultrasound Training Recommendations for Medical and Surgical Specialities' published by the Royal College of Radiologists (RCR, 2017), along with the 'Standards for Interpretation and Reporting of Imaging Investigations' (RCR, 2018) when developing focused ultrasound courses. These documents, which have been used to inform the development of ultrasound educational standards, can be found at:

- Ultrasound training recommendations for medical and surgical specialties, Third edition | The Royal College of Radiologists (rcr.ac.uk)
- Standards for interpretation and reporting of imaging investigations, Second edition | The Royal College of Radiologists (rcr.ac.uk)

As part of the accreditation process, the Focused Course aims (Section 4.1) and learning outcomes need to be accurately mapped to the following two documents:

- CASE Level 6 or Level 7 Learning Outcomes (Appendix 1)
- National Occupational Standards for Sonography (Appendix 4).

6.3 Focused Course Content and Learning Material

CASE will consider the Focused Course learning material in terms of its specific clinical and academic topic area. Although the course titles and learning components may vary between institutions and faculties, the learning material will contain essential knowledge that is common to all.

CASE requires the institution or faculty to clearly evidence that the Focused Course seeking accreditation/periodic review/reaccreditation delivers this learning material effectively and, as such, CASE accreditors will expect to see evidence in the documentation of learning theory related to contemporary clinical practice.

For purposes of accreditation, CASE divides the learning material into distinct components:

- **Science and Technology**

Typical subject areas may include: Principles of ultrasonic imaging; ultrasound and its propagation in tissue; image generation; ultrasound artifacts; principles of Doppler ultrasound; development of ultrasound imaging technology; equipment choice and manipulation; equipment appraisal and evaluation; image recording; ultrasound bio-effects; quality assurance. These are

to be linked to image acquisition, optimisation and interpretation, and must be relevant to the Focused Course topic.

- **Professional Studies**

Typical subject areas may include: Communication; person-centred care and advocacy; health and safety (including ergonomics and infection control); image appraisal; clinical reporting; judgement and decision-making; clinical audit; evidence-based practice and clinical governance; national and local healthcare policies and ethics; promoting health and wellbeing; self-development; critical appraisal skills and generative AI. As students completing focused courses may or may not be qualified health practitioners, this learning will need to be tailored according to their professional background and the focused course topic.

- **Specific Clinical Areas**

All CASE accredited focused courses are required to identify an appropriate, well-defined scope of practice (please see Section 2) in addition to the science and technology, and professional studies learning material. The following will need to be included in relation to the focused course clinical topic:

- Applied anatomy, physiology and patho-physiology;
- Scanning methods and techniques, including relevant measurements;
- Ultrasound appearances, including normal anomalous appearances and the appearances of common pathological processes;
- Power Doppler, colour flow mapping and spectral analysis (as relevant);
- Use and applications of ultrasound contrast agents (as relevant);
- Clinical reporting;
- The contribution ultrasound makes to the clinical management of patients;
- The role and value of complementary imaging.

6.4 Theoretical and Clinical Assessments

All CASE accredited focused courses require a robust and transparent process for monitoring and assessment of a student or trainee's clinical progress and competence. These guidelines are designed to ensure patient safety, maintain professional standards and ensure equitable provision of academic awards. They indicate the areas the accreditors will examine to validate the achievement of clinical competence in scanning practice. Details of how the focused course will implement all aspects of clinical training and assessment of competence should therefore be given in the course documentation.

An institution seeking CASE accreditation must satisfy CASE that the assessment strategies applied to the academic and clinical components are sufficiently rigorous to enable successful students and trainees to demonstrate such skills as appropriate to a competent practitioner.

These strategies must be appropriately matched to and measure the learning outcomes for the Focused Course. CASE advises that the assessment methods used for the academic components of the Focused Course reflect relevant aspects of the clinical or professional role of the competent practitioner and, wherever possible, are linked to practice.

Examples of typical theoretical methods of assessment may include objective structured tests (OST, OSE or OSCE), multiple choice questions, case studies, essays, presentations, posters, portfolios, unseen examinations, open book examinations and on-line discussions. Peer or group assessment may be used where appropriate. Electronic assessment will be considered; however, it must demonstrate academic rigour for Level 7 programmes/courses. In the absence of evidenced exceptional/mitigating circumstances or equivalent, CASE permits two attempts at each assessment (a first attempt and one reassessment). CASE does not permit the use of compensation or condonement in relation to failed elements of assessment; all assessments must be passed. In addition, CASE does not support undefined assessment length, or 're-take' modules where a student has exhausted both first and reassessment opportunities on the first attempt at a given module.

Simulation can be offered as a response to the challenge of ensuring consistent learning in clinical practice and has become increasingly attractive as an alternative education strategy in many settings. Simulators have a valuable role in giving the trainee exposure to specific scans and pathologies in a standardised setting, which enables the trainee to gain in confidence whilst learning to scan. Psychomotor skills can be developed in the safety of a classroom, and the trainee will be introduced to a wide range of scanning appearances to prepare them for real-life scanning. The use of simulators can never replace scanning performed in a clinical setting with patients and should therefore only be incorporated as an adjunct during training. Simulators provide a tool for giving feedback to the trainee during formative training and may also have a limited role within a summative assessment. This, however, should not substitute assessment in a real clinical situation that would include patient interaction, scanning, management of machine set-up and reporting.

Clinically, the emphasis needs to be on demonstration of competence. The number of scans completed and period of supervision needed to achieve this may vary considerably between different areas of practice and individual prior experience. For example, there may be some specialist areas where ultrasound is used infrequently (e.g. ultrasound-guided injection) and a flexible or extended period of training may be required. Self-audit against an agreed standard is recommended to provide evidence that learning outcomes have been met.

As the clinical supervision and experience required is dependent on the scope of intended learning outcomes, CASE will consider each individual focused course to ensure that these are achievable within the proposed clinical practice arrangements.

Gaining clinical competence may be aided by keeping a log of scans undertaken, whether they are observational, supervised-assisted or supervised-unassisted, together with a brief indication of the reason for referral, the outcome of the scan and any learning points noted. This log, which may form part of a portfolio, will provide a record of the students' progress against defined milestones and evidence of the range of ultrasound examinations undertaken.

Gaining extra scanning experience through the use simulation, where available, is encouraged to increase confidence when performing scans and operating equipment controls. This is particularly helpful during the early stage of a course, as it facilitates the development of hand-eye co-ordination and scanning techniques in a safe learning environment.

In addition to appropriate patient management, achieving clinical competence includes being able to operate the scanner controls so as to work with the optimal image for each patient, to obtain the required images of the anatomy and pathology being examined, together with any measurements, and to write a clinical report of the examination. All of these aspects of clinical competence need to be assessed to determine whether baseline clinical competence has been achieved.

The fundamental aim of CASE is to ensure that, on completion of a period of learning, the exiting students or trainees are clinically competent to undertake ultrasound examinations and are professionally responsible for their own workload. **In order to demonstrate competency, clinical assessment must be undertaken in all CASE accredited focused courses.**

Clinical competence should be formally assessed and documented by the student's practice educator/mentor/clinical supervisor periodically throughout the course using a Formative Clinical Assessment Form (example shown in Appendix 5), with ongoing developmental feedback being given to the student. The aims of the formative clinical assessment process are multifold, in that they facilitate familiarity with the clinical assessment process, allow identification of the students' current strengths and weaknesses, provide evidence of sufficient/insufficient progress and demonstrate the level of proficiency attained in the relevant pre-defined area of clinical practice. As a result of this process, targeted interventions must be put in place to ensure that students are ready to undertake the summative clinical assessment by the course submission date.

CASE requires that summative clinical assessments must carry a Pass or Fail criterion, where Pass is a minimum standard that is equivalent to safe practice or baseline clinical competence. The assessment methods employed must be clearly identified and the rationale appropriately justified by the course team or faculty. An example of a Summative Clinical Assessment Form is shown in Appendix 6.

Two internal clinical assessors are required for every summative clinical **assessment**. For first attempts, one **MUST** be the student's practice educator/mentor/clinical supervisor and the other

must be a suitably qualified independent assessor who has not been heavily involved in the training of that student.

For every summative clinical **re-assessment**, two assessors are required. One **MUST** be the student's practice educator/mentor/clinical supervisor and the other may be a member of the academic team staff or a trained assessor acting as a representative of the education provider qualified in the clinical application of ultrasound being studied/assessed.

The course team or faculty need to demonstrate how external moderation will be applied for ensuring consistency of clinical assessments across different clinical departments.

6.5 Academic and Clinical Teaching Teams

In this context, the course team is taken to mean those individuals who contribute to the delivery of the academic and clinical components of the course and to its quality assurance. The terminology for the different roles varies amongst professional groups. The terms below are to assist in defining each role, although there may be some overlap between roles in practice.

- **Education/Training Provider**

A higher education institution (HEI)/university, or training course/centre without university affiliation, providing a CASE accredited focused course(s) https://www.case-uk.org/advice-useful-links/position-statements/courses-with-no-affiliation/

The education/training provider must provide support, advice and regular training updates for individuals who contribute to the delivery of the clinical components of the course and to its quality assurance.

CASE will normally expect practice educators/mentors/clinical supervisors and external assessors/external moderators/independent assessors to attend training run by the education provider to ensure sharing of good practice and continuing updates. The education provider is expected to organise such training days, including additional training following any major changes to the focused course. If on-line training is utilised, CASE will need to see evidence of this to assess the suitability for preparing clinical staff for their role in relation to the delivery of the focused course.

- **Academic Teaching Team**

CASE requires that the Course Leader, or Deputy, holds a postgraduate ultrasound qualification or Diploma in Medical Ultrasound (DMU) and has at least two years appropriate clinical experience. CASE also requires that the course must have an adequate level of expertise and staffing to cover the anticipated student numbers.

CASE also strongly recommends that:

- At least one other member of the academic teaching team holds an ultrasound qualification and has had relevant clinical experience;
- At least one member of the academic teaching team holds an ultrasound qualification and has an honorary or permanent contract with a local department in order to be able to regularly participate in ultrasound sessions;
- The relevant expertise, for full focused course delivery, should ideally be held across members of the course team; however, where specialist expertise is needed, relevant external/associate lecturers should be sourced from outside the education provider.

- **Practice Educator / Mentor / Clinical Supervisor**

Ultrasound practitioners in the clinical placements identified as practice educators, mentors or clinical supervisors are named individuals who lead on the clinical teaching of a student or trainee. They are responsible for the delivery, integration and quality of the clinical learning episodes and for ensuring that they match those of the theoretical knowledge acquired in the classroom. It is expected that the practice educator/mentor/clinical supervisor will work closely with the student, facilitating the clinical training and ensuring that learning outcomes and competencies are achieved within the designated timeframe. In order to provide high quality experiential learning in the workplace, student scans must be directly supervised by an appropriate practice educator/mentor/clinical supervisor who has appropriate qualifications and experience (i.e. PgC qualification and a minimum of 2-year post-qualification experience or level 2 Radiology), aligned with the student's breadth/remit of practice, as defined in their portfolio. Where there is a significant shortage of available practice educators/mentors/clinical supervisors, qualified staff with a minimum of 1-year post-qualification experience may act as the local practice educator/mentor/clinical supervisor if at least one other member of the supervisory team meets the minimum requirement of 2 years' experience. All students/trainees must have an appropriate level of supervision (commensurate with their ability) which must continue to remain in place in line with university, CASE, BMUS and any other relevant United Kingdom (UK) professional body guidelines.

Enthusiasm and ability to teach are essential qualities of a good practice educator/mentor/clinical supervisor which, coupled with knowledge and expertise, are as important as the length of experience. The named practice educator/mentor/clinical supervisor is responsible for liaising with the education provider on issues relating to training. The practice educator/mentor/clinical supervisor fulfils the role of internal assessor for both formative and summative clinical assessments and liaises with the academic team and clinical training co-ordinator regarding any targeted interventions that need to be put in place to ensure that students are ready to undertake the summative clinical assessment by the course submission date.

- **Clinical Training Co-ordinator**

A named individual, within the clinical department, who co-ordinates the training of a student or trainee to ensure there is a supportive environment in which they can develop the required range of clinical skills. This individual may not necessarily be involved in the clinical training of a student or trainee but, in addition to their co-ordination role, acts in a supportive, pastoral capacity for the student or trainee and provides support for the clinical supervisor/mentor/clinical supervisor. This role may also include involvement in the accreditation process of the clinical department by the training centre. Clinical training co-ordinators may be identified as relevant to some focused courses to ensure that equivalent standards of clinical experience are offered to all students irrespective of their clinical skills placement.

- **External Assessor / External Moderator / Independent Assessor**

This role is usually fulfilled by an external, independent person who ensures unbiased clinical competency assessments are carried out. This person may be known as a verifier by some training centres. This would normally be an individual nominated by the education and/or training provider, working independently from the student or trainee's clinical placement, who moderates the final summative clinical competency assessment with the internal assessor. To ensure rigorous and equitable assessment of the students'/trainees' clinical abilities, protection of the public and reduce bias, CASE expects all focused course summative clinical assessments to be moderated by an external assessor/moderator/independent assessor who is not directly responsible for the students' training.

The external assessor/moderator/independent assessor should be a senior professional with appropriate experience who is able to demonstrate on-going continual professional development (CPD) relevant to the area(s) of practice they are assessing. As the role involves ensuring appropriate standards are consistently met, it is advisable for the external assessor/moderator/independent assessor to have a minimum of three years clinical experience, plus appropriate training in relation to the summative assessment process.

The external assessor/moderator/independent assessor should be carefully chosen to ensure extensive experience in their field of practice, with a good knowledge of current clinical practice, and academic and clinical standards, to provide a supportive, fair and unbiased summative assessment. Regular assessor training or updates, along with clear assessment guidelines, should be used by the education and training provider to ensure consistency of assessment. Moderation of new external assessors/moderators/independent assessors is advisable to ensure consistency.

- **Student / Trainee**

An individual who is learning ultrasound in any capacity i.e. someone learning ultrasound for the first time or extending their scope of ultrasound practice.

CASE strongly recommends that a Learning Contract or Agreement is set up between the education provider and the student's/trainee's employer in which the employer agrees to provide clinical training and assessment in accordance with the accredited procedures and expectations of the course or programme. The education provider will be responsible for providing mentor and assessor training. In addition, it is recommended that institutions or course faculties retain a register of appropriately trained staff participating in the mentoring and assessment scheme.

CASE will expect clear documentation regarding the quality, nature and range of clinical facilities, including equipment and staffing, necessary to support the students/trainees in their clinical education and practice. For example, CASE will expect to see evidence that students/trainees are able to take part in appropriate, dedicated training lists throughout the duration of the focused course. There should also be:

- Clear evidence of co-operation strategies between the academic and clinical teaching teams;
- A defined strategy for the selection, training and provision of support mechanisms for practice educators and mentors;
- Evidence that the external/independent assessor is familiar with medical ultrasound practice in a wide range of healthcare situations, the practitioners who access the course and its methods of clinical training and assessment;
- Evidence that the teaching teams, practice educators/mentors/clinical supervisors and clinical staff involved in supporting students are undertaking appropriate continuing professional development (CPD) as defined by the relevant professional and/or regulatory bodies.

6.6 Academic Learning Environment

The academic learning environment may refer to an actual or virtual classroom. CASE strongly recommends that:

- Suitable accommodation is available for the delivery of lectures, skills workshops, group sessions and tutorials for the anticipated maximum number of students;
- Suitable audio-visual and information technology equipment is available for delivery of an illustrative focused ultrasound course, both at the learning centre and clinical placements;
- A virtual learning environment is available for those students who are remote from the classroom environment;
- Academic learning support is available for students who require it;
- Library facilities are available to support ultrasound students working at academic levels 6 and 7.

6.7 Clinical Skills Placements

A Clinical Skills Placement is a provider of high quality medical ultrasound education and training which undertakes medical ultrasound examinations that reflect the current evidence base and are appropriate to the student's academic and clinical needs. Its staff, in particular those who undertake the role of practice educator, mentor or clinical supervisor to support students and trainees, must be committed to the focused course's philosophy.

It is the responsibility of the course team to determine the suitability of clinical departments for clinical skills training. This may be achieved by auditing proposed clinical placements as part of the admissions process (Appendix 7) and/or by carrying out site visits. CASE expects education providers to have a robust mechanism in place to assess the clinical placement site prior to enrolling a student or trainee onto the programme or course, and to monitor the site throughout the duration of the course. This is to ensure that students or trainees will have access to:

- A full range of examinations relevant to the area of clinical practice;
- Protected, supervised hands-on scanning time for the duration of the award. Until the final Programme award is ratified, the trainee remains a student of the university, and an appropriate level of supervision (commensurate with their ability) must continue to remain in place in line with university, CASE, BMUS and any other relevant United Kingdom (UK) professional body guidelines.
- An appropriate number of suitably qualified staff to support them within the department;
- Tutoring from experienced professionals;
- A supportive learning environment;
- A clinical learning experience supported by evidence-based protocols and adhering to national/international recommendations where these exist.

Clinical placement decisions should be based on the ability of the clinical site to provide appropriate evidence-based training. In order to achieve appropriate clinical competency, a student or trainee needs access to high-quality hands-on supervised experience within the clinical department. Students/trainees **must not** scan and report independently until they have achieved formal clinical competency i.e. until they have successfully completed their summative assessments and their award has been formally ratified by the appropriate examination board(s) for that clinical area of practice. Dedicated training lists should, therefore, be incorporated into the department's work schedule, in order to provide protected hands-on time for student learning with the clinical supervisor/mentor/practice educator.

The guidance on minimum requirements and mentoring will vary slightly for focused courses relating to point of care ultrasound, due to the variability of workload, the nature of the examinations and the opportunities to undertake scans. Education providers will need to provide robust evidence of progress monitoring, the quality of mentoring and clinical competency assessment during the accreditation process. In order to ensure patient safety, no student/trainee should be taking full responsibility for an ultrasound examination until they have received their ratified award. Supervision is essential during the learning process for any CASE accredited award.

7. Quality Assurance Procedures

It is expected that focused courses will be subject to the formal quality assurance processes of the HEI or training course/centre providing the course. This will include, for example, adherence to admissions and assessment policies/procedures, external scrutiny by an appropriately qualified External Examiner and completion of an internal Annual Programme Monitoring and Review report. CASE requires that the External Examiner holds a postgraduate ultrasound qualification or Diploma in Medical Ultrasound (DMU) and has at least two years appropriate clinical experience.

7.1 CASE Focused Course Monitoring

CASE believes that Annual Programme Monitoring and Review reports (APMRs) act as a valuable source of qualitative and quantitative information regarding the design, development, monitoring and evaluation of focused courses. This evidence complements the factual information available through definitive course documentation. APMR data may be used by CASE to provide an overview of standards being achieved, changing patterns of curricular provision and innovative practices.

In autumn, institutions are required, as a condition of ongoing CASE accreditation, to send an annual report of their focused course's recruitment, student outcomes and challenges to CASE using an electronic pro-forma.

If APMR data is not submitted by the deadline, without explanation, CASE reserves the right to withdraw accreditation.

The CASE APMR working group reviews the returns and compiles an overall annual report for discussion at the spring CASE Committee meeting. The APMR Lead will contact individual institutions if any clarity or additional APMR information is required. CASE reserves the right to nominate a representative to visit institutions or course faculties to fulfil its monitoring role. Each institution will ultimately receive a letter from the CASE APMR Lead regarding the satisfactory

nature of their APMR report. Receipt and approval of the APMR report will be necessary for retention on the public CASE Directory of Accredited Courses.

Changes to focused courses that are necessary between review periods normally need CASE approval. Where approval for a change has been given by CASE, or a minor modification has been made, these should be clearly identified in the next CASE monitoring exercise return.

8. Accreditation Fees for Focused Courses

The current fees in force, including penalty fees, may be found on the CASE website at: www.case-uk.org/for-heis/apply-for-accreditation/accreditation-fees/

8.1 Education and Training Providers with CASE accredited Programmes

If an education and training provider has a current CASE-accredited ultrasound programme, they are entitled to apply for CASE accreditation for up to **three focused courses** at no extra cost.

If an education and training provider wishes to apply for accreditation of further focused courses (over and above three), there will be an annual retention fee for each additional accredited focused course to remain on the public CASE Directory of Accredited Courses.

In addition, if a site visit is required, the education and training provider shall meet all costs.

8.2 Education and Training Providers with No CASE accredited Programmes

Where an education and training provider has no other current programmes or courses accredited with CASE, the following fees will apply:

- A non-returnable administration fee, including the first year's annual retention fee, charged on initial application;
- An annual retention fee for the accredited focused course to remain on the public CASE Directory of Accredited Courses;
- If a site visit is required, the education provider shall meet all costs.

9. Frequently Asked Questions

Does the Course Leader need to have a postgraduate ultrasound qualification?

Yes. CASE requires that the Course Leader, or Deputy, holds a postgraduate ultrasound qualification or Diploma in Medical Ultrasound (DMU) and has at least two years appropriate clinical experience.

Do all members of the academic teaching team need to have a postgraduate ultrasound qualification?

No. CASE recommends that at least one other member of the academic teaching team holds an ultrasound qualification and has had relevant clinical experience.

Do all members of the academic teaching team need to have a teaching qualification?

Yes. CASE requires academic teaching staff to hold or be working towards a teaching qualification and, where relevant, hold fellowship of a recognised body such as AdvanceHE fellowship.

Do members of the academic teaching team have to provide all of the necessary clinical expertise?

No. The relevant expertise, for full course delivery, should ideally be held across members of the Course Team; however, where specialist expertise is needed, relevant external/associate/sessional lecturers should be sourced from outside the institution.

Do all members of the academic teaching team need to have clinical currency?

No. CASE recommends that at least one member of the academic teaching team holds an ultrasound qualification and has an honorary or permanent contract with a local department in order to be able to regularly participate in ultrasound sessions.

Does the External Examiner need to have a postgraduate ultrasound qualification?

Yes. CASE requires that the External Examiner holds a postgraduate ultrasound qualification or Diploma in Medical Ultrasound (DMU) and has at least two years appropriate clinical experience.

What qualifications and experience are necessary to become a practice educator, a mentor or a clinical supervisor?

Student scans must be directly supervised by a practice educator/mentor/clinical supervisor who has appropriate qualifications and experience (i.e. PgC qualification and a minimum of 2-year post-qualification experience or level 2 Radiology), aligned with the student's breadth/remit of

practice, as defined in their portfolio. Where there is a significant shortage of available practice educators/mentors/clinical supervisors, qualified staff with a minimum of 1-year post-qualification experience may act as the local practice educator/mentor/clinical supervisor if at least one other member of the supervisory team meets the minimum requirement of 2 years' experience.

What qualifications and experience are necessary to become an external assessor, moderator or independent assessor?

The external assessor/moderator/independent assessor should be a senior professional with appropriate experience who is able to demonstrate on-going continual professional development (CPD) relevant to the area(s) of practice they are assessing. As the role involves ensuring appropriate standards are consistently met, it is advisable for the external assessor/moderator/independent assessor to have a minimum of three years clinical experience, plus appropriate training in relation to the summative assessment process.

Does the title of the Focused Course matter?

Yes. CASE will need to be assured at the time of accreditation/reaccreditation that the title evidenced on the course competency certificate, issued on successful completion, reflects the defined area of clinical competency and is otherwise fit for purpose. It is also appropriate for institutions to formally award credits; for example, 20 Level 7 credits, to students upon successful completion of a Focused Course.

Is it necessary for a Focused Course to have a clearly defined scope of practice?

Yes. CASE accreditation will only be approved for focused courses that specify a clearly defined scope of practice and that require trainees to demonstrate the same level of competency as any other health care professional (HCP) carrying out that same examination.

How much contact time is needed between the Course Team and the students?

The amount of face-to-face contact time between the Focused Course team and the students must be a minimum equivalent of 4 days; however, where blended e-learning is included, there must be a minimum of 2 full contact days.

Does a formal clinical assessment need to be included as part of the course?

Yes. CASE will not accredit Focused Courses that do not include a record of formative development and a formal endpoint assessment of clinical competence to practise. Theory-based short courses lasting from one to a few days are not eligible for CASE accreditation but may apply directly for individual professional body endorsement.

How many clinical assessors are required when carrying out a summative clinical assessment?

Two internal clinical assessors are required for every summative clinical **assessment**. For first attempts, one **MUST** be the student's practice educator/mentor/clinical supervisor and the other must be a suitably qualified independent assessor who has not been heavily involved in the training of that student.

How many clinical assessors are required when carrying out a summative clinical reassessment?

For every summative clinical **re-assessment**, two assessors are required. One **MUST** be the student's practice educator/mentor/clinical supervisor and the other may be an independent assessor, a member of the academic team staff or a trained assessor acting as a representative of the education provider qualified in the clinical application of ultrasound being studied/assessed.

Can simulation be used in isolation for summative clinical assessments?

No. Simulators provide a tool for giving feedback to the trainee during formative training and may also have a limited role within a summative assessment; however, this should not substitute assessment in a real clinical situation that would include patient interaction, scanning, management of machine set-up and reporting.

Do summative clinical assessments have to be pass / fail?

Yes. CASE requires that clinical assessments must carry a Pass or Fail criterion, where Pass is a minimum standard that is equivalent to safe practice or baseline clinical competence.

Is external moderation of clinical assessments necessary?

Yes. The Course Team or Faculty need to demonstrate how external moderation will be applied for ensuring consistency of clinical assessments across different clinical departments.

How many assessment attempts can each student have?

CASE permits two attempts at each assessment (a first attempt and one reassessment).

Is the use of compensation or condonement permitted?

No. CASE does not permit the use of compensation or condonement in relation to failed elements of assessment; all assessments must be passed.

Can an individual say that they are CASE-Accredited after completing a CASE-accredited Focused Course?

No. The education provider is accredited by CASE to deliver the Focused Course and issue appropriate award certificates and/or credits. Personal accreditation of an individual's ultrasound practice is not a process that falls within the remit of CASE.

How long does CASE accreditation for a Focused Course last?

CASE accreditation for a Focused Course will normally be for three years.

Why is it necessary for the Course Lead to complete and submit an APMR?

Receipt and approval of the APMR report is a CASE requirement for retention on the public CASE Directory of Accredited Courses.

Appendix 1:CASE Learning Outcomes for Academic Levels 6 and 7

The learning outcomes are designed to support course teams in developing courses to meet CASE requirements and assist clinical departments determine the level of working for staff at these academic levels.

CASE Learning Outcomes	
Level 6	**Level 7**
Core Skills	
HCPC Standards of Proficiency should be adapted for ultrasound and mapped to the programme and module learning outcomes (Appendix 4)	Core skills are expected, as part of the original qualification in health care for those progressing from a healthcare profession background
Consideration of graduate attributes should be evident within the programme	Consideration of post-graduate attributes should be evident within the programme
Clinical Education	
Carry out a medical ultrasound examination, interpret and analyse scan findings under appropriate supervision, within a defined scope of practice, safely and competently. Produce written reports, within a focused scope of practice, for ultrasound examinations undertaken	Carry out and supervise a range of complex medical ultrasound examinations and other appropriate actions, including interpretative reporting safely, competently and independently. Provide appropriate supervision, mentorship and leadership for less experienced colleagues
Critically relate theory to practice in the clinical setting and nationally in order to contribute to patient diagnosis and management	Critically relate theory to practice in the clinical setting and nationally in order to contribute to patient diagnosis, management and service delivery
Recognise the limitations of practice and the need to consult other senior colleagues. Identify sources with whom to consult in order to influence patient management	Recognise the limitations of practice and the need to consult other senior colleagues. Identify sources with whom to consult in order to influence patient management and change practice. Engage in audit and research, present findings and make recommendations as appropriate
Critically reflect on self to demonstrate continuing professional development within clinical practice	Critically reflect on self to demonstrate continuing professional development within clinical practice and assist others in developing skills locally and nationally
Function independently and as part of a team with critical awareness of scope i.e. extent and limitations of practice	Function independently and as part of a team, whilst developing collaborations and engaging in inter-professional team working, education and research
Enhance the service by engaging with service users and carers to promote and improve patient- centred care	Demonstrate originality and self- direction in tackling and solving problems, and engaging service users to promote patient-centred care

Science and Technology	
Demonstrate and apply a systematic knowledge and understanding of the physical and technological principles and processes of diagnostic ultrasound, describing their relevance to the ultrasound image and the equipment utilized	Demonstrate and apply a systematic and thorough knowledge and understanding of the physical and technological principles and processes of diagnostic ultrasound and show a comprehensive understanding of their relevance to the ultrasound image and the equipment utilized
Deploy appropriate techniques to effectively produce diagnostic ultrasound images and spectra, ensuring image quality is optimised and exposure to ultrasound is minimised according to clinical need	Deploy appropriate advanced techniques to effectively produce diagnostic ultrasound images and spectra, ensuring image quality is optimised and exposure to ultrasound is minimised according to clinical need. Critically evaluate images within a wide range of complex clinical settings, implement new technology and support colleagues in the use of advanced techniques
Demonstrate proficiency in recording ultrasound images and Doppler outputs	Demonstrate proficiency in recording ultrasound images and Doppler outputs, evidencing a comprehensive understanding of the findings in relation to clinical practice
Critically evaluate and discuss the safety issues related to diagnostic ultrasound to enable optimal use of the equipment within the current, internationally recognised recommendations for safe practice, actively reducing any hazard to patients and staff	Critically evaluate, analyse and debate the safety issues related to diagnostic ultrasound to enable optimal use of the equipment within the current, internationally recognised recommendations for safe practice, actively reducing any hazard to patients and staff
Deploy accurately established techniques of analysis and enquiry to evaluate the role of current ultrasound equipment, latest technology and associated quality assurance procedures for pertinent use to assist in the selection of new machines	Critically appraise current ultrasound equipment, latest technology and associated quality assurance procedures for pertinent use to identify and select new machines
Demonstrate a systematic understanding of graphical and numerical data commensurate with ultrasound practice	Develop a comprehensive understanding and utilise graphical and numerical data commensurate with ultrasound practice
Demonstrate awareness of the principles of Artificial Intelligence (AI) and deep learning technology, and its application to practice. This includes having an understanding of the sonographer's legal, ethical and moral duties when using AI	Demonstrate a critical awareness of the principles of AI and deep learning technology, and its development and application to practice. This includes having an understanding of the sonographer's legal, ethical and moral duties when using AI

Professional Issues	
Critically evaluate the emotional impact of the ultrasound examination on the client, carers and relevant healthcare professionals and meet HCPC core proficiencies	Critically evaluate the emotional impact of the ultrasound examination on the client, carers and relevant healthcare professionals. Demonstrate a critical awareness of clinical problems and identify potential solutions
Devise and sustain arguments relating to national and local legal, ethical, professional and organisational principles that underpin diagnostic ultrasound practice	Critically analyse international, national and local legal, ethical, professional and organisational principles that underpin diagnostic ultrasound practice and assist in the leadership of change
Demonstrate a conceptual understanding of the changing national and local health care needs of clients, patients, carers and organisations	Critically discuss the changing national and local healthcare needs of clients, patients, carers and organisations. Suggest improvements and ways to implement change
Identify qualitatively and quantitatively the limitations and constraints associated with ultrasound imaging	Critically evaluate qualitatively and quantitatively the limitations and constraints associated with ultrasound imaging and suggest alternative solutions to improve service provision
Demonstrate a systematic understanding of the need for life-long learning in medical ultrasound practice	Evaluate the need for life-long learning in medical ultrasound practice. Relate this to the development of self and others
Develop negotiation and time management skills to achieve the core knowledge, skills and clinical practice learning outcomes for your level of practice. Mentor and teach others	Develop negotiation and time management skills to advance knowledge, skills and clinical practice to a higher level. Mentor and teach learners, support staff and other professionals through the development of relevant learning materials
Critically reflect on the leadership roles needed within practice and personal contributions to leadership	Critically evaluate arguments and assumptions relating to the leadership roles needed within practice and develop leadership roles within the clinical setting and at a national level. Lead a team to ensure workload is delivered effectively
Have due regard to patients' health status and co-morbidities, promoting healthy living	Develop, implement and review pathways of care, having regard to patients' health status and co-morbidities, promoting healthy living
Critically evaluate the effectiveness of quality assurance procedures and engage in quality monitoring within the clinical setting	Critically evaluate the effectiveness of quality assurance procedures and quality management systems. Lead on local quality delivery management and implement change as required

Clinical Topic	
Identify, evaluate and interpret normal and abnormal anatomy and pathophysiology relevant to the level and scope of clinical practice	Identify, evaluate and interpret normal and abnormal anatomy and pathophysiology relevant to advanced clinical practice. Assess patients and make reasoned decisions to initiate, continue, modify, suspend or cease ultrasound imaging examinations
Synthesise and apply scientific, ergonomic and safety principles in order to identify, select and manipulate equipment	Critically synthesise and apply scientific, ergonomic and safety principles in order to identify, select and manipulate equipment
Show a systematic understanding of and utilise all information from various sources to ensure the most appropriate examination is undertaken	Critically appraise and utilise all information from various sources to ensure the most appropriate examination is undertaken
Analyse the needs of the patient to perform all aspects of the ultrasound examination safely and competently	Analyse the needs of the patient to perform all aspects of the ultrasound examination safely and competently, adapting to challenging circumstances
Competently carry out ultrasound examinations and provide a report according to the evidence base, demonstrating an awareness of limitations within scope of practice	Competently carry out and independently report ultrasound examinations according to the evidence base, demonstrating an awareness of limitations within scope of practice
Evaluate the ultrasound findings and, where necessary, arrange for a second opinion and/or arrange further investigations, following appropriate consultation, in line with local policies and practices	Critically evaluate the ultrasound findings and, where necessary, arrange, advise or undertake further investigations, following appropriate consultation, in line with local policies and practices. Provide support for less experienced staff
Actively demonstrate proficiency in the interpretation and analysis of ultrasound appearances of organs and structures to reflect the clinical question raised and show an awareness of the limitations of level of competence. Provide a report with appropriate supervision	Actively demonstrate proficiency in providing interpretative reports for ultrasound examinations to reflect the clinical question raised. Provide support for less experienced staff
Communicate clearly, effectively and appropriately with patients, carers and other healthcare professionals	Communicate clearly, effectively and appropriately with patients, carers and other healthcare professionals in challenging situations. Support on-going development of communication to improve service provision
Demonstrate an understanding of the principles of problem solving within the ultrasound profession in order to resolve issues in practice and service delivery	Demonstrate a comprehensive knowledge and application of the principles of problem solving within the ultrasound profession in order to resolve issues in practice and service delivery
Contribute to case management and service delivery by discussion and debate about patient diagnosis and prognosis	Contribute to case management and service delivery by discussion and debate at all levels in patient diagnosis, prognosis and management
Reflect on personal and professional practice in order to challenge, develop, maintain and enhance local professional standards in clinical ultrasound	Critically reflect on personal and professional practice in order to challenge, develop, maintain and enhance local and national professional standards in clinical ultrasound

Scope of Practice	
Demonstrate an awareness of how to take practitioner level skills to the next level, providing clear goals to work towards independent interpretative reporting practice	Demonstrate independent interpretative clinical reporting practice and show systematic and creative evidence of how the other domains of advanced practice are being used in the development of the profession
Apply methods and techniques to review, consolidate, extend and apply knowledge and understanding of ultrasound. Initiate and carry out projects to improve the service locally	Deal with complex ultrasound issues both systematically and creatively, make sound judgements and communicate conclusions clearly to specialist and non-specialist audiences
Synthesise, appraise and evaluate theory and research relevant to ultrasound practice in order to improve patient care. Judge the reliability, validity and significance of evidence to support conclusions and/or recommendations. Suggest reasons for contradictory data/results	Synthesise, appraise and critically evaluate complex theory and research relevant to advanced ultrasound practice in order to improve patient care and inform future practice and the profession. Judge the appropriateness of the methodologies used. Recognise and argue for alternative approaches
Develop and enhance skills in critical reflection and evaluation of theoretical concepts in order to inform and enhance personal learning and professional medical ultrasound practice	Show comprehensive understanding and critical reflection and evaluation of theoretical concepts in order to inform and enhance personal learning and professional medical ultrasound practice
Apply the methods and techniques learnt to assist with research projects and audit	Undertake research studies as part of a research team and present the findings locally and nationally. Autonomously plan and implement clinical audits
Plan, negotiate and manage own learning whilst developing a team approach in support of self-directed learning	Plan, negotiate and manage own learning whilst demonstrating a team approach in support of self-directed learning. Support and implement local and / or national level learning initiatives

App 2. Current CASE Definitions of Focused and Short Courses

Focused Course	The current CASE definition of a focused course recognises that these: • cover a specific, well-defined area of clinical practice • are developed to meet an identified service need • are designed to ensure competence in the defined area of practice • include relevant elements of theoretical science and professional issues • require trainees exiting the course to demonstrate the same level of competency as any other HCP carrying out that same examination.	*Historically, one of the key factors that have not always been addressed is the issue of **who** these courses are aimed at. This is reflected in the decision making tool by including consideration of prior learning / skills.*
Focused University Award	Current CASE accredited postgraduate programmes include a number of 40 credit focused awards. These are awards that: • require students to complete 40 credits of HEI validated **level 7** modules (including compulsory physics content) • require trainees to demonstrate theoretical knowledge and understanding of a focused / negotiated area of practice **to the same standard** as that achieved by students undertaking the module as part of a full PGCert / PGDip • lead to a focused award or validated stepping off point within an existing programme • require trainees to demonstrate the same level of competency as any other HCP carrying out that same examination.	*Students completing these HEI validated awards will exit with a **40 credit** University certificate of CPD (title may vary).* *The learning outcomes / level for each module are equivalent to those achieved within a PGCert / PGDip. However, the breadth of practice will normally be limited to a single focused area.*
Short Course	Terminology is confusing. A **short course** (as distinct from an accredited focused course) may be defined as one that: • Provides a theoretical and practical introduction to a defined area of DUI • Provides an expert-led opportunity for DUI skills development • includes **no formal end point assessment of clinical competence.**	*To date, CASE does **not** accredit (or endorse) short courses.*

App 3. Documentation Requirements for Focused Course Accreditation/Reaccreditation

Please complete and submit this form to highlight which document and which section to find the relevant information. Try to be as specific as possible, so that your documents can be reviewed in a timely manner. Missing information or lack of clarity may lead to delays in your accreditation.

Documentation required	**Provided (if not, justify why). N.B. may cause delay**		**Detail where the evidence is located (document / section / page)**
	Yes	**No**	
Focused Course Outline and Documentation			
Focused Course title includes the word 'ultrasound'	☐	☐	
Rationale for the development of the Focused Course	☐	☐	
Business Case / Viability of the Focused Course			
Minimum / maximum numbers on the course	☐	☐	
Senior management support	☐	☐	
Support from clinical partners	☐	☐	
Other facilities for clinical skills	☐	☐	
Focused Course Development			
Documentation of internal Quality & Standards course development meetings	☐	☐	

Focused Course Specification			
Focused Course academic level	☐	☐	
Part-time or full-time	☐	☐	
Minimum and maximum time for completion of Focused Course	☐	☐	
Target course attendants	☐	☐	
English language requirements	☐	☐	
Clinical placement requirements (applicants must have identified and secured a clinical placement prior to being accepted onto the programme/course)	☐	☐	
Number of credits (if any)	☐	☐	
Focused Course title and code	☐	☐	
Learning outcomes (LOs) *(must be relevant to CASE LOs)*	☐	☐	
Assessments and weighting	☐	☐	
Indicative content	☐	☐	
Student Handbook *Student-focused with clearly defined student journey*	☐	☐	
Mapping *(All Focused Courses must be mapped against the relevant standards in the CASE document 'Standards for Sonographic Education' and Skills for Health Occupational Standards).* These will be reviewed in detail and should show how CASE learning outcomes are met within the Focused Course.			
Learning Outcomes (LOs) mapped to CASE LOs for the academic level of the course	☐	☐	
Skills for Health Occupational Standards	☐	☐	
Quality Provision and Review			
External Examiner details *Must have recognised ultrasound qualification +*	☐	☐	Name: Email address:

current ultrasound education and / or clinical experience			Workplace:
Critical review of Focused Course and alignment with national trends in ultrasound education	☐	☐	
Focused Course Team Experience and Range of Expertise			
Number of academic staff	☐	☐	
Staff/student ratio	☐	☐	
HEA fellowship / teaching qualifications of staff	☐	☐	
Staff CVs	☐	☐	
Guest lecturer / associate lecturer / visiting lecturer use	☐	☐	
Monitoring of teaching quality	☐	☐	
Administrative support	☐	☐	
Admissions Process and Induction			
Entry criteria	☐	☐	
Selection process	☐	☐	
How are core skills identified? *e.g. values based recruitment, respect and dignity, team working, the 6Cs*	☐	☐	
Who is involved in the recruitment process?	☐	☐	
Are overseas applications accepted?	☐	☐	n/a ☐
How will occupational health clearance, DBS, etc be managed?	☐	☐	n/a ☐
Is it clear what students will be expected to pay for during the course? *e.g. DBS, uniforms, travel, books*	☐	☐	n/a ☐
Are extended days used?	☐	☐	

If so, how are applicants made aware of this?			
Is there a uniform policy?	☐	☐	n/a ☐
If a pre-application visit to a clinical department is required, documentation for clinical staff to provide feedback to the education provider.	☐	☐	n/a ☐
Focused Course induction	☐	☐	
Curriculum			
Focused Course delivery pattern	☐	☐	
Draft timetable	☐	☐	
Learning and teaching strategy	☐	☐	
Integration of academic education and clinical practice	☐	☐	
Curriculum content	☐	☐	
Assessment strategy and details *e.g. timing of assessments, range of assessments, formative assessments, feedback and feed-forward opportunities*	☐	☐	
Interprofessional learning opportunities	☐	☐	n/a ☐
Mechanisms for supporting students from diverse backgrounds / assessing initial learning needs *(dependent on student's background knowledge and experience)*	☐	☐	n/a ☐
Generic topics *e.g. library skills, academic skills, communication, cultural competence, equality and diversity, professionalism*	☐	☐	
Focused Course reading list	☐	☐	
Educational innovations or resources used	☐	☐	

Student Support			
Academic support mechanisms	☐	☐	
Support for additional learning needs	☐	☐	
Identification of failing students / cause for concern process	☐	☐	
Process for supporting students and dealing with fitness to practise, professionalism, placement issues, etc	☐	☐	
Appeals processes	☐	☐	
Clinical			
How clinical departments are selected	☐	☐	
Clinical placement requirements	☐	☐	
Minimum placement hours meet CASE requirements	☐	☐	
Is funding available for placements? *(placement tariff)*	☐	☐	n/a ☐
If overseas applicants are accepted, what processes are in place to ensure parity of provision / quality of clinical education?	☐	☐	n/a ☐
Formal relationship agreements between clinical site and education provider	☐	☐	
Student support on placement	☐	☐	
Simulation or other opportunities for students to learn basic clinical skills	☐	☐	

Practice educators: Selection, training, monitoring, communication	☐	☐	
Independent assessors: Selection, training, monitoring, communication	☐	☐	
How consistency of learning experience is monitored	☐	☐	
Proportion of time on clinical placements	☐	☐	
Minimum clinical attendance	☐	☐	n/a ☐
Formative monitoring of clinical progress	☐	☐	
How clinical skills development is achieved throughout the Focused Course	☐	☐	n/a ☐
Summative Clinical Assessments			
Assessment process *(including who, when, where and documentation used)*	☐	☐	
Number of cases examined?	☐	☐	
Range of cases examined?	☐	☐	
Moderation process	☐	☐	
Resit assessment process	☐	☐	

App 4. Course Mapping to National Occupational Standards

10.4.1 Ultrasound Imaging CI.C.2019

All focused course accreditations need to include mapping to the National Occupational Standards CI.C.2019, as these are the minimum standards of anyone performing ultrasound at all levels. If the course includes interventional procedures the mapping for CI.I (see section 10.4.2) is also required.

A word template is available for the CI.C mapping. The module headings should be replaced with the focused course title. If any aspects are not applicable to your focused course, justification should be provided.

CI.C.2019 - Perform, interpret and report on ultrasound examinations	**Mapping to Focused Course Aims & Learning Outcomes**
Knowledge and Understanding	
1. legal, organisational and policy requirements relevant to your role, the role of others in your organisation and the activities being carried out	
2. the relevant national and local standards, guidelines, policies and procedures that are available and how and when they should be accessed	
3. the importance of respecting individuals' culture, privacy, dignity, wishes, beliefs and decisions and how to do so	
4. the limitations of your own knowledge and experience and the importance of operating within your scope of practice	
5. preparation of the environment and equipment for ultrasound examinations	
6. local policy and protocol for arranging and working with a chaperone	
7. the physical processes involved in the production of an ultrasound image	
8. the biological effects and potential risks associated with the use of ultrasound	
9. the principles and applied knowledge of the Doppler effect and its clinical application in imaging and diagnosis	
10. artefacts on images - their causes, value, limitations and minimisation strategies	

11. the effect of sound propagation through different tissues	
12. techniques to optimise the ultrasound image including position and preparation of the individual	
13. the safe operation of ultrasound equipment	
14. the potential for work-related disorders and how to minimise the risk	
15. the importance of timely equipment fault recognition and local procedures for reporting these	
16. image capture and recording devices	
17. equipment age and capabilities, limitations and routine maintenance, including the quality control processes required by the operator	
18. the function, specification and performance characteristics of ultrasound equipment and transducers	
19. the clinical conditions appropriate for ultrasound examinations and the implications of other disease processes relevant to the area of study	
20. the clinical justification of the examination request and an understanding of limitations	
21. the contraindications associated with each investigation and the implications of proceeding with due consideration of related risks	
22. the clinical implications of any allergy relevant to the examination	
23. the importance of obtaining valid consent in line with national and local guidelines	
24. methods of communicating difficult and complex information to individuals and key people	
25. the importance of providing individuals and key people with opportunities to ask questions and increase their understanding	
26. the information that should be given to individuals before, during and on completion of the examination	
27. how to adapt communication styles, ask questions, and listen carefully in ways which are appropriate for the needs of the individual	
28. normal anatomy and physiology, normal variants and anatomical relationships demonstrable by ultrasound including knowledge of normal measurements and predisposing factors of the individual	

29. how to acquire the best possible diagnostic images for a range of type and size of individual	
30. recognition of abnormal anatomy and physiology demonstrable by ultrasound and the significance of such abnormality	
31. the pathological processes and their appearance on ultrasound, relevant to the examination undertaken	
32. manifestations of an individual's physical and emotional status	
33. the impact of equipment controls on image quality and production, and safety indices	
34. local procedures pertaining to the examination report	
35. report writing techniques including medical terminology and standard abbreviations relevant to the examination	
36. alternative imaging examinations, diagnostic and interventional techniques, and other relevant investigations	
37. referral pathways, follow-up procedures and support resources for the individual	
38. procedures relating to recording, collating and preparing appropriate information, documentation and images for transfer or storage according to local protocols	
39. how to keep full, accurate and clear records in line with organisational procedures	
Performance criteria	
1. apply standard precautions for infection prevention and control, and other appropriate health and safety measures	
2. ensure all necessary preparations have been made by the individual and staff before starting the procedure	
3. check and prepare the equipment required for the examination	
4. ensure the environment is conducive to maintaining the privacy and dignity of the individual	
5. check the identification and clinical history details before commencing the procedure in accordance with local policies and procedures	
6. introduce yourself and other members of staff present during the examination	

7. review any previous relevant imaging where available	
8. enter the identification details of the individual into the ultrasound machine or, if previously entered, check for accuracy	
9. obtain valid consent for the procedure in accordance with national and local guidelines	
10. respect the individual's privacy, dignity, beliefs and decisions	
11. confirm the appropriateness of key people before the examination in accordance with local guidelines	
12. communicate with the individual / key people to facilitate their understanding of and co-operation with the examination	
13. establish the individual's capacity to understand the procedure with the help of key people if necessary	
14. clearly explain the procedure and possible outcomes, including risk, benefits and limitations	
15. check for any contraindications for the proposed procedure and take appropriate action in response to identified risks	
16. ensure the individual is in an appropriate and comfortable position for the examination, ensuring clothing is suitably adjusted to facilitate the examination	
17. select and prepare the appropriate imaging technique, transducer and initial scanning parameters for the individual and the site under examination	
18. apply sufficient acoustic coupling gel to the area to be examined to ensure optimal sound transmission	
19. make adjustments to the equipment controls to optimise the image quality and recognise the appearance of ultrasound artefacts	
20. ensure power levels and insonation time are kept to a minimum in accordance with national and international safety guidelines	
21. acquire and interpret appropriate ultrasound images and produce a report in accordance with your scope of practice and in-line with national and local guidelines and protocols	
22. observe and be aware of the individual's condition and well-being at all times and take appropriate action in response to any signs of discomfort and/or distress	

23. take appropriate steps to minimise the risk of work-related disorders	
24. maintain communication with the individual / key people throughout the procedure	
25. record images with appropriate annotation and measurements according to national and local guidelines and protocols	
26. extend the procedure as appropriate to confirm or supplement any initial findings	
27. seek advice from appropriate others where you observe unexpected appearances or unusual findings that are outside your area of personal competence	
28. provide the individual with information relating to the procedure and aftercare where necessary	
29. explain the process for obtaining results	
30. advise a referral to the appropriate person if an abnormality is observed which is likely to require further investigation or treatment, following national and local guidelines and protocols	
31. record, collate and prepare appropriate information, documentation and images for transfer or storage according to local protocols	
32. verify that the images have arrived/been stored according to local protocols	

Perform Image-Guided Procedures and/or Interventions CI.I.2019

If the focused course includes interventional procedures, then this mapping for CI.I is also required.

A word template is available for the CI.I mapping. The headings should be replaced with the focused course title. If any aspects are not applicable to your focused course, justification should be provided.

CI.I.2019 – Perform image guided procedures and/or interventions	**Mapping to Focused Course Aims & Learning Outcomes**
Knowledge and Understanding	
1. legal, organisational and policy requirements relevant to your role, the role of others in your organisation and the activities being carried out	
2. the relevant national and local standards, guidelines, policies and procedures that are available and how and when they should be accessed	
3. the national and local guidelines for acceptance of requests for image guided interventional procedures in your area of practice	
4. the importance of obtaining valid consent in line with national and local guidelines	
5. the principles and role of image guidance in your area of practice	
6. the use of pre-intervention checklists and how they should be used according to local and national policies and procedures	
7. how to keep full, accurate and clear records in line with organisational procedures	
8. the limitations of your own knowledge and experience and the importance of operating within your scope of practice	
9. the benefits and limitations of image guided interventional procedures in your area of practice	
10. the role and importance of alternative, additional and complementary imaging techniques and investigations	
11. clinical appropriateness of the examination request and the action to take when the request is not appropriate	
12. how to undertake risk assessments for individuals prior to the procedure	

13. the contraindications associated with each investigation and the implications of proceeding with due consideration of related risks	
14. the preparation of the individual, environment and equipment for image guided interventional procedures in your area of practice	
15. the importance of respecting individuals' culture, privacy, dignity, wishes and beliefs and decisions and how to do so	
16. the roles and responsibilities of other team members	
17. how to adapt communication styles, ask questions, and listen carefully in ways which are appropriate for the needs of the individual	
18. methods of communicating difficult and complex information to individuals and key people	
19. the importance of providing individuals and key people with opportunities to ask questions and increase their understanding	
20. the information that should be given to individuals before, during and on completion of the examination	
21. debrief procedures and how these should be used to ensure that any problems encountered during the procedure are recorded to inform future interventions	
22. the anatomy, physiology and pathology of the anatomical structures under investigation	
23. the pathophysiology of relevant disease processes	
24. the clinical findings and imaging appearances associated with normal and abnormal anatomical structures	
25. the safe use of local anaesthesia and other medicines used during the procedure or intervention	
26. aseptic techniques and the potential consequences of poor practice	
27. the importance of minimising any unnecessary discomfort of individuals undergoing interventional procedures, and how to do so	

28. the management of emergency/acute complications that occur during the procedure	
29. the safe use and manipulation of non-imaging equipment used during the procedure	
30. the management, storage and transport of tissue samples where relevant	
31. local procedures for image acquisition, storage and retrieval	
32. the annotation and interpretation of relevant images and information to confirm the location of the region/structure(s) under investigation	
33. procedures relating to recording, collating and preparing appropriate documentation and images for transfer or storage according to local protocols	
34. how changes to image findings as a result of intervention may affect interpretation of future imaging procedures and decisions by others	
35. safe operation of imaging equipment in your area of practice	
36. the risks of work-related disorders and how to minimise the risks	
37. machine settings and methods available to optimise the image in your area of practice	
Performance criteria	
1. apply standard precautions for infection prevention and control, and other appropriate health and safety measures	
2. check and prepare the equipment required for the examination	
3. ensure all necessary preparations have been made by the individual and staff before starting the procedure	
4. ensure the environment is conducive to maintaining the privacy and dignity of the individual	
5. introduce yourself and other members of staff present during the examination	
6. check the identification details before commencing the interventional procedure in accordance with local policies and procedures	

7. obtain valid consent for the procedure in accordance with national and local guidelines	
8. communicate with the individual / key people to facilitate their understanding of and co-operation with the examination	
9. establish the individual's capacity to understand the procedure with the help of key people if necessary	
10. clearly explain the procedure and possible outcomes, including risk, benefits, limitations and alternatives	
11. respect the individual's privacy, dignity, beliefs and decisions	
12. review the clinical history for factors which might contraindicate the procedure	
13. assess the individual for contra-indications to any medicines to be used in the examination and for any relevant allergies, and take appropriate action	
14. ensure appropriate and recent imaging is available and assess relevant images and information prior to performing the procedure to confirm the location of the region/structure(s) of interest	
15. make an assessment of the individual's emotional needs and respond appropriately	
16. ensure that relevant checklists are completed prior to the procedure in line with local and national policies to highlight any potential problems before the procedure begins	
17. select the correct equipment for the procedure according to national and local guidelines and protocols	
18. take appropriate precautions to ensure a clean or aseptic technique as required	
19. ensure the individual is in an appropriate position and is as comfortable as possible for the procedure	
20. administer local anaesthetic if required according to local and national guidelines	
21. take appropriate steps to minimise the risk of work-related disorders	

22. ensure the procedure is carried out correctly and in accordance with local policies and procedures	
23. where required by the procedure, obtain any samples and label containers according to local guidelines and protocols	
24. ensure all images are acquired, stored and transferred in line with local guidelines and protocols	
25. ensure dressings are applied where appropriate after the procedure	
26. ensure immediate post-procedure observations are carried out according to national and local guidelines and protocols	
27. recognise and respond to a deterioration in the individual's clinical condition in line with relevant national and local guidelines and protocols	
28. provide the individual with information relating to the procedure and aftercare where necessary	
29. explain the process for obtaining results	
30. document the procedure according to national and local guidelines and protocols	

References:

1. Skills for Health (2019) CI.C.2019 - Perform, interpret and report on ultrasound examinations. [Online]. Available: https://tools.skillsforhealth.org.uk/competence/show/html/id/4302/

2. Skills for Health (2019) CI.I.2019 - Perform image guided procedures and/or interventions [Online]. Available: https://tools.skillsforhealth.org.uk/competence/show/html/id/4307/

App 5. Example Formative Clinical Assessment Form

CLINICAL COMPETENCY OBJECTIVES – ULTRASOUND MANAGEMENT

Student's Name:	**Registration Number:**
Patient 1 Clinical History:	
Patient 2 Clinical History:	
Patient 3 Clinical History:	
Patient 4 Clinical History:	
✓ **the appropriate box ONLY if the student CORRECTLY carries out the competency.** **Clinical competencies marked with an * will lead to an overall technical fail if not passed for all five patients.** **Students MUST achieve a ✓ in at least 60 of the non-* boxes, with no less than three ✓ per competency (row).**	

Clinical Competency Objective	P1	P2	P3	P4	P5	Comments
Prepared the room appropriately						
Collated all relevant information						
Understood the implications of the request						
Communicated and liaised, where necessary, with the appropriate personnel both before and after the examination						
Introduced themselves, and appropriate personnel, to the patient						
Checked the patient's identity and entered the patient's details correctly onto the equipment and computer system *						
Explained the procedure to the patient and obtained informed consent *						
Presented themselves in a professional and ethical manner during the examination						
Advised the patient of the correct information before leaving the department						
Worked and communicated effectively with the Clinical Supervisor						
On completion of the summative assessment, please mark as PASS or FAIL	PASS				FAIL	

CLINICAL COMPETENCY OBJECTIVES – ULTRASOUND EQUIPMENT

Clinical Competency Objective	P1	P2	P3	P4	P5	Comments
Correct identification of patient entered onto the ultrasound ID package *						
Demonstrated appropriate selection and use of equipment controls before and during the examination *						
Demonstrated understanding of the advantages and limitations of the equipment						
Proof of knowledge and understanding of local Quality Assurance programme with relevant documentation						
Demonstrated understanding and justification for use of equipment controls e.g. 1. Output power selection 2. Frequency selection 3. Time gain control 4. Overall gain control 5. Position of focal zone(s) 6. Magnification/zoom 7. Colour and power Doppler *						
Demonstrated appropriate and correct use of measurement package *						
Understood the ALARA principle; awareness of safety indices and how to use the equipment controls to reduce exposure to ultrasound *						
Correct anatomical identification and correct anatomical side identification (L and R) on images *						
Appropriate understanding and use of image recordings resulting in high quality images being stored as a record of the examination						
Demonstrated adequate care of the equipment with regard to physical damage						
On completion of the summative assessment, please mark as PASS or FAIL	PASS				FAIL	

CLINICAL COMPETENCY OBJECTIVES – ULTRASOUND TECHNIQUE

Clinical Competency Objective	P1	P2	P3	P4	P5	Comments
Checked that appropriate preparation has been carried out						
Followed departmental protocol when carrying out the examination						
Demonstrated an understanding of ergonomics by positioning themselves and the patient sensibly during the examination *						
Demonstrated and identified the relevant anatomy and pathology during the examination *						
Demonstrated correct use of the measurement calipers *						
Recorded relevant images at appropriate points throughout the examination						
Demonstrated the ability to acquire and record accurate colour or power Doppler images *						
Discussed differential diagnoses and took appropriate action as per departmental guidelines *						
Drew the correct conclusions from their observations *						
Constructed and recorded an accurate written clinical report *						
Gave care and attention to the patient's safety by following departmental health and safety and infection control guidelines/procedures						
On completion of the summative assessment, please mark as PASS or FAIL	**PASS**				**FAIL**	
COMMENTS:						
CLINICAL SUPERVISOR (PRINT NAME): **CLINICAL SUPERVISOR'S SIGNATURE:** **DATE:**						

App 6. Example Summative Clinical Assessment Form

To be completed jointly by the Clinical Supervisor and Independent Assessor

CLINICAL COMPETENCY OBJECTIVES – ULTRASOUND MANAGEMENT

Student's Name:	**Registration Number:**
Patient 1 Clinical History:	
Patient 2 Clinical History:	
Patient 3 Clinical History:	
Patient 4 Clinical History:	
Patient 5 Clinical History:	

✓ the appropriate box ONLY if the student CORRECTLY carries out the competency.
Clinical competencies marked with an * will lead to an overall technical fail if not passed for all five patients.
Students MUST achieve a ✓ in at least 60 of the non-* boxes, with no less than three ✓ per competency (row).

Clinical Competency Objective	P1	P2	P3	P4	P5	Comments
Prepared the room appropriately						
Collated all relevant information						
Understood the implications of the request						
Communicated and liaised, where necessary, with the appropriate personnel both before and after the examination						
Introduced themselves, and appropriate personnel, to the patient						
Checked the patient's identity and entered the patient's details correctly onto the equipment and computer system *						
Explained the procedure to the patient and obtained informed consent *						
Presented themselves in a professional and ethical manner during the examination						
Advised the patient of the correct information before leaving the department						
Worked and communicated effectively with the Clinical Supervisor						
On completion of the summative assessment, please discuss the outcome and mark as either a PASS or FAIL	PASS			FAIL		

CLINICAL COMPETENCY OBJECTIVES – ULTRASOUND EQUIPMENT

Clinical Competency Objective	P1	P2	P3	P4	P5	Comments
Correct identification of patient entered onto the ultrasound ID package *						
Demonstrated appropriate selection and use of equipment controls before and during the examination *						
Demonstrated understanding of the advantages and limitations of the equipment						
Proof of knowledge and understanding of local Quality Assurance programme with relevant documentation						
Demonstrated understanding and justification for use of equipment controls e.g. 1. Output power selection 2. Frequency selection 3. Time gain control 4. Overall gain control 5. Position of focal zone(s) 6. Magnification/zoom 7. Colour and power Doppler *						
Demonstrated appropriate and correct use of measurement package *						
Understood the ALARA principle; awareness of safety indices and how to use the equipment controls to reduce exposure to ultrasound *						
Correct anatomical identification and correct anatomical side identification (L and R) on images *						
Appropriate understanding and use of image recordings resulting in high quality images being stored as a record of the examination						
Demonstrated adequate care of the equipment with regard to physical damage						
On completion of the summative assessment, please discuss the outcome and mark as either a PASS or FAIL	PASS				FAIL	

CLINICAL COMPETENCY OBJECTIVES – ULTRASOUND TECHNIQUE

Clinical Competency Objective	P1	P2	P3	P4	P5	Comments
Checked that appropriate preparation has been carried out						
Followed departmental protocol when carrying out the examination						
Demonstrated an understanding of ergonomics by positioning themselves and the patient sensibly during the examination *						
Demonstrated and identified the relevant anatomy and pathology during the examination *						
Demonstrated correct use of the measurement calipers *						
Recorded relevant images at appropriate points throughout the examination						
Demonstrated the ability to acquire and record accurate colour or power Doppler images *						
Discussed differential diagnoses and took appropriate action as per departmental guidelines *						
Drew the correct conclusions from their observations *						
Constructed and recorded an accurate written clinical report *						
Gave care and attention to the patient's safety by following departmental health and safety and infection control guidelines/procedures						
On completion of the summative assessment, please discuss the outcome and mark as either a PASS or FAIL	PASS				FAIL	
CLINICAL SUPERVISOR (PRINT NAME): **CLINICAL SUPERVISOR'S SIGNATURE:** **DATE:**						
INDEPENDENT ASSESSOR (PRINT NAME): **INDEPENDENT ASSESSOR'S SIGNATURE:** **DATE:**						

App 7. Example of an Audit of Clinical Placement Form

AUDIT OF PROPOSED CLINICAL PLACEMENT	
Name of student:	**Focused Course Title:**
PRACTICE EDUCATOR / MENTOR / CLINICAL SUPERVISOR (CV must be included along with this form) In order to provide high quality experiential learning in the workplace, student scans must be directly supervised by an appropriate practice educator/mentor/clinical supervisor who has appropriate qualifications and experience (i.e. PgC qualification and a minimum of 2-year* post-qualification experience or level 2 Radiology), aligned with the student's breadth/remit of practice, as defined in their portfolio. *Where there is a significant shortage of available practice educators/mentors/clinical supervisors, qualified staff with a minimum of 1-year post-qualification experience may act as the local practice educator/mentor/clinical supervisor if at least one other member of the supervisory team meets the minimum requirement of 2 years' experience.	
Name: **Email:** **Phone:**	**Job / Role Title:** **Ultrasound Qualification(s) and date(s):**
EXTERNAL ASSESSOR / EXTERNAL MODERATOR / INDEPENDENT ASSESSOR (CV must be included along with this form) The person fulfilling this role should be a senior professional with extensive appropriate experience who is able to demonstrate on-going continual professional development (CPD) relevant to the area(s) of practice they are assessing. As the role involves ensuring appropriate standards are consistently met, it is advisable for the external assessor/moderator/independent assessor to have a minimum of three years current clinical experience.	
Name: **Email:** **Phone:**	**Job / Role Title:** **Ultrasound Qualification(s) and date(s):**
ULTRASOUND DEPARTMENT OR CLINICAL DEPARTMENT/UNIT PROVIDING THE CLINICAL PLACEMENT	
Name: **Address:** **Telephone Number:**	

Number of US rooms used for the Focused Course examinations:		
US equipment used for the Focused Course examinations:		
Number of dedicated Focused Course lists per week:		
Types of Focused Course examinations performed (e.g. different referral sources) (please list):		
Number of staff performing the Focused Course examinations:	**Radiologists:**	
	Sonographers:	
	Others (please identify):	
How stable is the Ultrasound Department/Unit in terms of staffing levels?		
Do you currently have any other ultrasound students and, if so, how many?		

AGREEMENT

I agree that the Department/Unit will provide the following:

- A minimum of 4 dedicated sessions per week of supervised clinical practice covering an appropriate range of relevant Focused Course ultrasound examinations;
- A Practice Educator/Mentor/Clinical Supervisor for the student for the duration of the Focused Course and to assess the student's clinical competence at the end of the Focused Course;
- An External Assessor/External Moderator/Independent Assessor to assess the student's clinical competence at the end of the Focused Course.

LINE MANAGER

Name: **Signature:** **Date:**	**Email:** **Phone:**

App 8. Contributors and Acknowledgements

Authors:

This document was written by Gill Dolbear (CASE Education Officer) and Crispian Oates (CASE Committee).

Contributors:

The authors are grateful for the contributions and review from the following:

CASE
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Gareth Bolton (Chair)
Sally Hawking (CASE Co-Ordinator)
Gill Harrison (SCoR Representative on CASE Committee)
Tanyah Ewen (SVT Representative on CASE Committee)

CASE MEMBER ORGANISATIONS
British Medical Ultrasound Society (BMUS)
British Society of Echocardiography (BSE)
Chartered Society of Physiotherapy (CSP)
Institute of Physics and Engineering in Medicine (IPEM)
Royal College of Podiatrists (RCPod)
Society and College of Radiographers (SCoR)
Society for Vascular Technology of Great Britain and Northern Ireland (SVT)