



Programme Specification

Echocardiography in Congenital Heart Disease [Frenchay]

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Section 1: Key Programme Details

Part A: Programme Information

Programme title: Echocardiography in Congenital Heart Disease [Frenchay]

Highest award: PGCert Echocardiography in Congenital Heart Disease

Awarding institution: UWE Bristol

Teaching institutions: UWE Bristol

Study abroad: No

Year abroad: No

Sandwich year: No

Credit recognition: No

School responsible for the programme: CHSS School of Applied Sciences,
College of Health, Science & Society

Professional, statutory or regulatory bodies: Not applicable

Modes of delivery: Full-time

Entry requirements: See the UWE website for entry requirements.

For implementation from: 01 March 2026

Programme code: B81J10

Section 2: Programme Overview, Aims and Learning Outcomes

Part A: Programme Overview, Aims and Learning Outcomes

Overview: The postgraduate programme in congenital echocardiography has been designed to meet the evolving needs of contemporary cardiac services and to equip learners with the specialist skills required for high-quality congenital imaging

practice. Echocardiography is an increasingly complex field, shaped by advances in technology, modern clinical expectations, and the growing acuity of cardiac patients. Practitioners now require a deeper scientific understanding, enhanced clinical reasoning, and refined practical scanning expertise, particularly within congenital heart disease, where diagnostic accuracy and specialist knowledge are essential.

Drawing on the University of the West of England's established strength in echocardiography education, this programme offers a comprehensive and practice focused pathway for developing competent and reflective congenital echocardiographers. The curriculum integrates advanced theoretical learning with structured workplace-based experience, enabling students to build confidence, apply knowledge in clinical settings, and develop the breadth of skills needed for safe and effective congenital echocardiography practice.

Learning is delivered through a blended model, combining online teaching, in-person sessions, specialist workshops, and supervised clinical practice which supports accessibility while maintaining high academic and clinical standards. Students are taught and mentored by experienced academics, clinical scientists, echocardiographers, cardiologists, and practice educators, ensuring exposure to a wide range of professional perspectives and real-world clinical scenarios.

Graduates of the programme will be equipped to:

Perform high-quality congenital echocardiographic assessments with confidence and accuracy.

Contribute effectively to multidisciplinary clinical decision making in congenital heart disease.

Progress within defined career pathways for advanced echocardiography practice.

Enhance patient care by delivering timely, high quality, and scientifically informed diagnostic services.

While the programme aligns with wider professional expectations and supports ongoing developments within cardiac diagnostics, its primary purpose is to offer a robust educational experience that prepares learners for specialist congenital echocardiography practice and supports their long-term professional growth.

Features of the programme: Specialist Postgraduate Focus:

A concentrated, clinically driven programme providing advanced theoretical and practical training in congenital echocardiography, designed to meet national workforce needs and support the development of highly skilled cardiac imaging practitioners.

Blended Learning Delivery:

Combines online teaching, asynchronous digital content, and focused in-person skills sessions. This flexible structure supports accessibility for working professionals while maintaining structured academic progression.

Integrated Work-Based Learning:

Students undertake supervised clinical practice at specialist congenital cardiac centres, supported by skilled Practice Educators who guide scanning development, workplace assessments, and professional growth.

Authentic, Professionally Aligned Assessment:

Assessment methods mirror national expectations, including Multiple Choice Question (MCQ) examinations aligned with the British Society of Echocardiography format, workplace-based assessments (DOPs, OCEs), case-based discussions, and a clinical logbook.

Strong Clinical and Academic Partnerships:

Programme delivery leverages UWE's collaborations with NHS congenital heart disease services, ensuring students benefit from specialist expertise, contemporary practice, and high-quality training environments.

Development of Technical, Analytical and Professional Competence:

Students gain the skills to perform congenital echocardiography safely and effectively, interpret complex pathology, communicate findings professionally, and work confidently within multidisciplinary teams.

Supportive Learning Environment:

Students receive comprehensive academic, pastoral, and clinical support through the programme lead, digital learning resources, Practice Educator supervision, and access to UWE's full wellbeing and learning support services.

Educational Aims: This programme aims to deliver a rigorous, flexible, and professionally relevant postgraduate qualification that equips students with the advanced knowledge, clinical skills, and professional behaviours required for independent congenital echocardiography practice.

The programme aims to:

Develop a deep, critical understanding of normal cardiac anatomy, thoracic relationships, cardiac embryology, and the pathophysiological mechanisms underpinning congenital and acquired cardiac abnormalities.

Provide students with advanced theoretical and practical understanding of ultrasound science, including wave propagation, transducer technology, image optimisation and instrumentation, enabling confident adaptation of techniques for congenital imaging.

Enable students to acquire, refine, and apply the practical skills required for competent congenital echocardiography, including the assessment of ventricular function and the modification of standard techniques for complex congenital presentations.

Promote high level clinical reasoning through the interpretation of congenital echocardiographic findings, integration of clinical data, and understanding of the full spectrum of congenital cardiac pathologies and their presentation.

Develop students' understanding of congenital heart disease care pathways, including medical management, catheter-based interventions, and surgical options, supporting effective contribution to multidisciplinary decision making.

Foster professional autonomy, ethical practice, and reflective capability, preparing graduates to work confidently within congenital echocardiography services and to contribute to departmental quality improvement, patient safety, and ongoing service development.

Strengthen communication skills, patient-centred care, and interprofessional collaboration, ensuring graduates can interact effectively with patients, families, colleagues, and wider clinical teams.

These aims reflect UWE Bristol's commitment to preparing graduates for safe, effective, and forward-looking clinical practice within the modern congenital echocardiography workforce.

Programme Learning Outcomes:

On successful completion of this programme graduates will achieve the following learning outcomes.

Programme Learning Outcomes

- PO1. Apply a critical understanding of the normal anatomy of the heart in relation to the thorax, cardiac embryology and pathophysiology related to the heart and its valves in order to identify and accurately quantify the severity of congenital heart disease.
- PO2. Utilise a critical understanding of ultrasound, propagation through tissue, ultrasound transducers and instrumentation optimisation to generate high quality transthoracic imaging in patients with congenital heart disease.
- PO3. Demonstrate a critical understanding of ventricular function assessment and how to adapt these modalities for congenital heart disease.
- PO4. Generate professional echocardiography reports and case presentations which evidence critical understanding of congenital cardiac pathologies and their clinical presentation.
- PO5. Justify care pathways for congenital heart disease patients including medical management, catheter interventions and surgical procedures.

Assessment strategy: 1. Theoretical Underpinning of Congenital Echocardiography

This module assesses students' scientific knowledge, understanding of cardiac anatomy and physiology, congenital pathology, and the physics of ultrasound.

Assessment methods mirror national professional standards to ensure students are prepared for external accreditation processes. Students will undertake a two-part written examination consisting of multiple-choice questions. The format reflects the British Society of Echocardiography (BSEcho) Congenital Accreditation examination, including a dedicated physics component.

2. Practical Application of Congenital Echocardiography

The practical module evaluates students' ability to perform congenital echocardiography examinations, interpret findings, and demonstrate professionalism and safe practice. Assessment within this component is undertaken through a structured set of workplace-based and academic evaluations.

a. Directly Observed Procedures (DOPs)

Students must complete two DOPs, each assessing competence in specific scanning tasks relevant to congenital echocardiography.

DOPs evaluate technical skills, imaging technique, patient interaction, and the ability to optimise views and modalities relevant to congenital assessment.

b. Observed Clinical Events (OCEs)

Students must complete two OCEs, which assess broader elements of clinical conduct and practice.

OCEs evaluate professionalism, communication, infection control, case preparation, review of referrals, and overall safe application of the echocardiography procedure.

c. Case-Based Discussions (CBDs)

Students must complete two case-based discussions, enabling assessment of clinical reasoning, interpretation of congenital echocardiography findings, and understanding of patient pathways.

These are structured as follows:

One CBD assessed by a local Practice Educator, focusing on workplace performance and integration of clinical knowledge.

One CBD delivered to the student group and selected members of the lecturing team, with students providing peer feedback. This session is overseen by the lecturing team and programme lead to ensure consistency and academic rigour.

d. Echocardiography Report Logbook

Students must complete a logbook containing 25 congenital echocardiography cases, including:

Five full, comprehensive reports, demonstrating accurate interpretation and professional communication.

A diverse range of congenital pathologies, with no more than five normal studies (of which only one may be a normal full report).

Student support: Students on this programme will be supported through a comprehensive framework of academic, pastoral, and workplace-based support mechanisms that reflect UWE's standards. The support model is designed to ensure students are effectively guided through both the academic and clinical components of the programme, and that they are equipped to succeed in a demanding postgraduate learning environment.

1. Programme Team Support

Programme Leader and Module Leaders:

Oversee academic quality, student progression, and learning experience.

Provide structured guidance on assessments, curriculum content, and expectations.

Offer regular opportunities for student consultation during block teaching, online sessions, and via virtual office hours.

Teaching and Academic Staff

Deliver lectures and workshops.

Provide formative and summative feedback aligned with UWE standards.

Support academic development through structured learning activities, case-based discussions, and skills teaching.

2. Practice Educator Support in the Workplace

Practice Educators (PEs) play a central role in supporting clinical learning. Students will receive:

Regular supervised scanning opportunities with direct coaching and feedback.

Ongoing formative assessment to identify strengths and development needs.

Support in completing workplace-based assessments including DOPs, OCEs, CBDs, and logbook cases.

Guidance on professional conduct, patient interaction, service expectations, and safety.

PEs collaborate with the UWE programme team to ensure consistent support and timely intervention where needed.

3. Academic Skills and Learning Support

Students will have access to UWE's full range of academic support services, including:

Library Services: specialist librarians, study skills resources, subject-specific databases, and embedded academic skills development.

Study Skills (Library Learning Hub): workshops and 1:1 support for academic writing, critical thinking, referencing, and exam preparation.

Peer Assisted Learning (PAL) where available, providing student-led support and shared learning.

These resources ensure students can develop the academic capabilities required for postgraduate study.

4. Digital and Technical Support

Given the blended delivery model, students are supported in all digital aspects of their learning through:

Blackboard, providing access to recordings, lecture materials, assessment guides, discussion spaces, and announcements.

UWE IT Helpdesk for technical issues, software support, and digital access queries.

Induction sessions covering digital navigation, online etiquette, and accessing course materials.

This ensures all students, regardless of prior experience, are confident accessing learning online.

5. Pastoral and Wellbeing Support

UWE provides a strong network of wellbeing resources, including:

Student Wellbeing Service offering counselling, mental health support, and wellbeing practitioners.

Disability Service, which creates Individual Support Plans (ISPs) for students requiring reasonable adjustments.

24/7 support via the UWE Wellbeing Support App and online resources.

Signposting from programme staff for early intervention and tailored support.

The programme promotes a supportive environment in recognition of the demanding academic and clinical workload.

6. Feedback and Student Voice

Students are supported through active involvement in programme quality processes: Regular feedback opportunities, including module evaluations, mid-module check-ins, and practice placement feedback.

Student representatives sit on Programme and School Committees.

The programme team provides You Said, We Did updates to close the feedback loop.

This ensures students feel heard, valued, and able to contribute to programme development.

7. Inclusive and Accessible Learning Environment

In line with UWE's commitment to inclusivity:

Materials are designed to be accessible, with captions, transcripts, and inclusive formats.

Teaching, assessment, and support respond to the needs of students from diverse backgrounds and learning profiles.

Adjustments are implemented consistently across academic and clinical settings.

Part B: Programme Structure

Year 1

Students must take 60 credits from the modules in Year 1.

Year 1 Compulsory Modules

Students must take 60 credits from the modules in Compulsory Modules.

Module Code	Module Title	Credit
USSYXS-30-M	Practical Application of Congenital Echocardiography 2025-26	30
USSYXR-30-M	Theoretical Underpinning of Congenital Echocardiography 2025-26	30

Part C: Higher Education Achievement Record (HEAR) Synopsis

Successful graduates will have developed an in-depth knowledge of congenital echocardiography, set within the context of current regulatory frameworks, existing practise and real-world healthcare challenges. Graduates will have benefitted from working with both academic and practice-based leaders in the field. The nature of the course will have enabled analytical and critical evaluation skills to be developed, crucial for a range of careers. Development of transferrable and leadership skills will have equipped students with a skill set critical for many advanced echocardiography roles, fostering leaders of the future in this field.

Part D: External Reference Points and Benchmarks

The learning outcomes for this programme have been designed according to the UWE Enhancement Framework, QAA Framework for Higher Education Qualifications (FHEQ). In addition, the following have also been carefully considered:

HCPC Standards of Education and Training (June 2017)

QAA subject Benchmark Statement for Health Studies (November 2019)

NSHCS Guidelines for Higher Education Institutions in England Commissioned to Provide New MSc Degree Programmes in Clinical Science (January 2016)

UK Quality Code for Higher Education (October 2019)

AHCS Good Scientific Practice Standards (April 2021)

AHCS Standards of Education and Training for Undergraduate and Postgraduate Training Programmes (January 2023)

BSE Guideline for Performing a Comprehensive Transthoracic Echocardiogram in Adults (2021)

Guidelines for Performing a Comprehensive Paediatric Transthoracic Echocardiogram: Recommendations From the American Society of Echocardiography (2024)

A practical guideline for performing a comprehensive transthoracic echocardiogram in the congenital heart disease patient: consensus recommendations from the British Society of Echocardiography (2022)

UWE Bristol Strategy 2030, aligning particularly with the inclusivity and collaborative focus, with this programme contributing to the key priority areas for course

development in 'health and wellbeing'.

We worked closely with stakeholders (Health Education England, the National School of Healthcare Science and British Society of Echocardiography) to ensure that the course provides students with the skills that employers are seeking.

Part E: Regulations

Approved to University Regulations and Procedures: Academic regulations and procedures - Academic information | UWE Bristol