10 Programme Aims

The aim of the programme is to provide students with:

A systematic understanding of the theoretical principles that underpin cardiac ultrasound (echocardiography) investigations in the clinical setting.

11 Learning Outcomes

The programme provides opportunities for students to develop and demonstrate knowledge and understanding, qualities, skills and other attributes in the following areas.

**Knowledge and Understanding**

On completing the PG Certificate students should have:

A1: A systematic understanding of clinical echocardiography

A2: An in-depth understanding of the knowledge required to support clinical echocardiography as delivered in the workplace setting.

A3: A critical awareness of current issues and/or new insights into clinical echocardiography

A4: A detailed understanding of applicable techniques for advanced academic enquiry.

**Teaching and Learning Methods**

A1–A4 are addressed through a mixture of lectures and workshops augmented by independent study and directed by the provision of reading lists and support by academic staff.

A1–A4 are achieved by lectures and workshops. A2 will be supported by an intensive teaching programme of lectures and workshops at Newcastle delivered prior to work based training delivered in accredited training centres.
For A1 and A2 lectures and workshops are also accompanied by practical sessions.

The teaching strategy for A4 includes lectures to set out baseline knowledge, principles and standards. Group exercises and workshops will be used where current knowledge will be presented and examined from a range of perspectives.

Students will acquire knowledge through group work, case studies, presentations, and independent study. Short problem solving exercises will be a key feature of the workshops.

**Assessment Strategy**

Formative assessment of knowledge and understanding occurs during classroom activities. Summative assessment of knowledge, understanding and application is undertaken at the end of each module by the completion of both examination and coursework.

Intended learning outcomes regarding knowledge and understanding are assessed based on coursework involving both written and oral communications. This will include critical analysis and self-reflection within both formative and summative assessments. The virtual learning environment will be used for both formative and summative assessments. The examinations will be closed book, invigilated computer based assessments as a means of assessing factual knowledge.

**Intellectual Skills**

On completing the programme students should be able to:

B1: Synthesise key findings and knowledge from across the field of clinical echocardiography to enhance patient outcomes and welfare

B2: Critically evaluate the quality of data and information offered from different sources

B3: Make informed judgements on complex issues within clinical echocardiography, often in the absence of complete data, and communicate their ideas and conclusions directly clearly and effectively to specialist and non-specialist audiences including patients

**Teaching and Learning Methods**

B1-B3 are developed though the teaching and learning strategies as described above.

Intellectual skills are developed progressively throughout the programme in modules containing lectures and workshops and as part of their work-based learning.

Independent study and completion of critical written assignments requiring critical evaluation are particularly important.

Throughout the programme, students will develop intellectual skills by participating in group discussions, case studies and in their workplace to enhance their (a) analytical and interpretative faculties and (b) ability to formulate objective and coherent arguments. Work based training and associated team problem solving exercises are the main method used to enhance intellectual skills related to applying best practice in research and in making judgements to enhance patient welfare and outcomes.

**Assessment Strategy**

These Intellectual Skills are assessed summatively through both examination and critical essays.

B1 is assessed through the written assignments and oral presentations.
B2 is assessed through the summative examination and written assignments.
B3 is assessed through the written assignments and oral presentations.

**Practical Skills**

On completing the programme students should be able to:
C1 prepare and present information, in both written and verbal formats, to stakeholders (e.g. patients, clinical colleagues, other Healthcare Professionals and the public) with contrasting levels of knowledge and understanding
C2 work within a team environment to maximise patient care and outcomes.

**Teaching and Learning Methods**

Practical Skills (C1-C2) are primarily obtained through preparation of coursework and developed within the workplace setting.

**Assessment Strategy**

The assessment of practical skills (C1-C2) will be based on:
(a) the coursework assignments and oral presentation.
(b) data handling and analyses carried out as part of problem solving exercises during the workshops
(c) presentations to academic staff and peers

**Transferable/Key Skills**

On completing the PG Certificate students should be able to:
D1 exercise initiative and personal responsibility for their own learning as is required for continuing professional development
D2 make decisions in complex and unpredictable situations
D3 use information resources skilfully and appropriately
D4 communicate effectively in writing by means of well-presented written essays
D5 plan, organise and prioritise work activities in order to meet deadlines
D6 learn how to solve problems independently
D7 undertake effective oral communication with others (including patients, clinical colleagues, supervisors and peers)
D8 work effectively as a member of a team

**Teaching and Learning Methods**

Transferable/Key skills D1-D8 are developed throughout the programme through workshops, practical sessions and coursework.

**Assessment Strategy**

Transferable skills are summatively assessed from the completion of written essays and the oral presentation. Key skills are indirectly assessed through formative coursework, team and individual presentations.

12 **Programme Curriculum, Structure and Features**

**Basic structure of the programme**

The Post Graduate Certificate programme, which is part time, extends over 9 months and consists of 60 credits comprising two 30 credit modules. It consists of a formal taught component, directed self-study and supervised clinical practice. The curriculum is taught using a range of methods including lectures, workshops, practical sessions and a substantial amount of self-directed learning.

**Key features of the programme (including what makes the programme distinctive)**
This commissioned programme is one of two in the UK that provides Level 7 PG Certificate training for the national Echocardiographer Training Programme. The PG Certificate provides students with the key knowledge base required to practice clinical echocardiography as an independent practitioner.

**Programme regulations (link to on-line version)**

[https://teaching.ncl.ac.uk/docs/regsdocs2021/documents/-R3183P_vFinal.pdf](https://teaching.ncl.ac.uk/docs/regsdocs2021/documents/-R3183P_vFinal.pdf)

### 13 Support for Student Learning

Generic information regarding University provision is available at the following link.

[https://www.ncl.ac.uk/ltds/assets/documents/qsh_progspec_generic_info.pdf](https://www.ncl.ac.uk/ltds/assets/documents/qsh_progspec_generic_info.pdf)

### 14 Methods for evaluating and improving the quality and standards of teaching and learning

Generic information regarding University provision is available at the following link.

[https://www.ncl.ac.uk/ltds/assets/documents/qsh_progspec_generic_info.pdf](https://www.ncl.ac.uk/ltds/assets/documents/qsh_progspec_generic_info.pdf)

**Accreditation reports**

**Additional mechanisms**

### 15 Regulation of assessment

Generic information regarding University provision is available at the following link.

[https://www.ncl.ac.uk/ltds/assets/documents/qsh_progspec_generic_info.pdf](https://www.ncl.ac.uk/ltds/assets/documents/qsh_progspec_generic_info.pdf)

In addition, information relating to the programme is provided in:

The University Prospectus:  [http://www.ncl.ac.uk/postgraduate/courses/](http://www.ncl.ac.uk/postgraduate/courses/)

Degree Programme and University Regulations: [http://www.ncl.ac.uk/regulations/docs/](http://www.ncl.ac.uk/regulations/docs/)

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