



**QUEENSLAND UNIVERSITY OF TECHNOLOGY**  
**DISCIPLINE OF MEDICAL RADIATION SCIENCES**

To Whom This May Concern,

You have been nominated as the Principal Clinical Supervisor for a student who has applied for entry into the Graduate Diploma in Cardiac Ultrasound (CS61).

As the Principal Clinical Supervisor, you will be required to act as a mentor for the student and to fulfil the roles and responsibilities of a Clinical Supervisor as outlined in subsequent pages. Other individuals (if appropriately qualified – see below) may also act as Assistant Clinical Supervisors; for example, when the Principal Supervisor is away from the clinical practice or when the student visits alternate clinical sites.

If you feel that you are unable to fulfil these responsibilities, you may pass this on to another suitably qualified individual within your practice. Please note that all clinical supervisors must be either:

- An Accredited Medical Sonographer (Cardiac) as recognised by the ASAR with a minimum of 2 years post-graduate experience **or**
- A Cardiologist with extensive experience and interest in cardiac ultrasound **or**
- A Radiologist or Specialist Physician with extensive experience, and demonstrated continuing education, in the field of cardiac ultrasound.

Please complete the Principal Clinical Supervisors form at your earliest convenience. The student should include the completed form with their application for admission. If there are any questions in relation to this, please do not hesitate to contact me directly.

Yours sincerely,

*Chrissy*

**Chrissy Thomson**

Course Coordinator – CS61 Grad Dip in Cardiac Ultrasound

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## Requirements of Clinical Departments and Clinical Supervisors

### 1. Criteria for Clinical Departments:

#### • **Equipment:**

- **Mandatory:** ultrasound equipment must have the following:
  - Phased array transducer (s) with multifrequency capability
  - Non-imaging continuous-wave Doppler transducer
  - High, 2D image resolution capability
  - M-mode
  - Spectral and colour flow Doppler capability
  - Harmonic imaging
  - Doppler tissue imaging capability
  - ECG monitoring capability
- **Desirable:** it is desirable that ultrasound equipment have the following:
  - Respirometer monitoring capability
- **Additional:** Students are required to submit their case studies as digital studies. Therefore, a mechanism for copying digital studies (DICOM format) is also necessary. It should be noted that images submitted may potentially be used for teaching purposes within QUT and at other educational echocardiographic meetings. This would only relate to measurement technique and image optimisation (not pathologies). If images from this study are used for this purpose, all images will be de-identified and no indication of the origin of the images [student who performed the study or practice where the study was performed] will be discernible

#### • **Workload:**

- **Mandatory:** For students to be able to meet the clinical requirements of this program (conducted over a 2-year time frame), students are required to be working in clinical cardiac ultrasound for about **3 days per week (38hrs per fortnight)** (minus standard leave privileges) throughout the duration of the course. Students are required to perform (independently) a minimum of **20 echo examinations per week. Entry into the course is conditional on this requirement.**
- In order for the student to satisfactorily complete the Clinical Attachment units, they must achieve a satisfactory level of clinical competence; hence, clinical experience of the student **MUST** be hands-on and not just observation.
- **Desirable:** To allow continuity of experience, it is desirable that the student be working in one department for the majority of clinical experience. It is also desirable that the student is working in a practice which is exposed to a wide variety of cardiac disease processes
- **Specialised Echocardiographic Techniques:** Students are required to observe or perform a specified number of specialised echocardiographic examinations: congenital heart disease, transoesophageal echocardiography and stress echocardiography. Students who work in a practice that do not perform some or all of these specialised examinations, will be required to visit an institution (for example, cardiac tertiary referral centers, cardiology practices, etc) where the student can observe these examinations. Students will be required to organise visits to these institutions themselves.

## 2. **Criteria for Clinical Supervisors:**

- The clinical supervisor must be either:
  - An Accredited Medical Sonographer (Cardiac) as recognized by the ASAR with a minimum of 2 years post-graduate experience **or**
  - A Cardiologist with extensive experience and interest in cardiac ultrasound **or**
  - A Radiologist or Specialist Physician with extensive experience, and demonstrated continuing education, in the field of cardiac ultrasound
  
- The primary role of the clinical supervisor is to act as a mentor of the student; hence, it is crucial that the supervisor be on-site for the majority of the student's clinical experience.
  
- For students in remote areas, it is recognised that on-site supervision is not always possible. In this circumstance, the clinical supervisor must be easily contactable to discuss examinations with the student. In addition, these students are encouraged to spend 1-2 weeks at the institution where the clinical supervisor is on-site in order to receive one-on-one, face-to-face feedback and support.
  
- The roles and responsibilities of the clinical supervisor include:
  - To ensure that the student has adequate clinical experience and exposure to a variety of clinical cases
  - To ensure that the student maintains an adequate standard of scanning \*
  - To be available to assist the student when confronted with technical difficulties
  - To be available to instruct the student regarding more complex haemodynamic calculations
  - To provide feedback regarding the completeness of the examination, accuracy of measurements and calculations, and the diagnostic value of the examination
  - To encourage and help develop students' communications skills, both written and verbal
  - To ensure that the student is aware of the patients' needs and provides appropriate patient care
  - To ensure that the student is aware of, and practices, universal infection control practices
  - The ability to verify records presented in the students' Clinical Portfolio
  - Providing written assessments of the students' performance\*

\* Students are required to perform various echo measurements as part of this course. In particular, students may be required to perform some measurements that may not be performed routinely at your institution (for example, biplane left atrial volumes, Simpson's ejection fraction, DTI of the septal and medial annulus, RV measurements). As the clinical supervisor, you will be required to assess the performance accuracy of these measurements. For further information about these measurements and techniques, please refer to the following ASE articles which can be downloaded for free from the following web site:

<http://asecho.org/ase-guidelines-by-publication-date/>

<http://www.asefiles.org/ChamberQuantification.pdf>

**Student Name:** .....

**Principal Clinical Supervisor Details:**

Name: .....

Email: .....

Relevant Qualifications:.....

If Principle Clinical Supervisor is a sonographer, please provide

- ASAR Registry No.: .....
- Year cardiac ultrasound qualification obtained: .....

Continuing Professional Educational Programs/Conferences relating to cardiac ultrasound attended in the **past 2 years** (including date(s) of attendance):

.....  
.....

**Assistant Clinical Supervisor Details:**

Name: .....

Email: .....

Relevant Qualifications:.....

If assistant clinical supervisor is a sonographer, please provide

- ASAR Registry No. : .....
- Year cardiac ultrasound qualification obtained: .....

Continuing Professional Educational Programs/Conferences relating to cardiac ultrasound attended **past 2 years** (including date(s) of attendance):

.....  
.....

**Name and Address of Clinical Practice:**

.....  
.....  
.....Postcode code: .....

**Ultrasound Equipment:**

Ultrasound Machine Make: ..... Model: .....

This ultrasound equipment **must** include the following capabilities (please tick appropriate boxes):

Multifrequency Phased array transducers	<input type="checkbox"/>	Harmonic imaging	<input type="checkbox"/>	Doppler tissue imaging	<input type="checkbox"/>
ECG monitoring	<input type="checkbox"/>	Digital storage	<input type="checkbox"/>	Dedicated non-imaging CW Doppler (PEDOF) transducer	<input type="checkbox"/>

**Principal Clinical Supervisor Roles and Responsibilities: (please tick)**

<input type="checkbox"/>	I hereby verify that the student has completed / will complete 450 hours of supervised, hands-on experience in cardiac ultrasound prior to the commencement of the course.
<input type="checkbox"/>	I have read the roles and responsibilities of the Clinical Supervisor and I am willing to comply with these roles and responsibilities.
<input type="checkbox"/>	Every reasonable attempt will be made to ensure that the student is rostered in cardiac ultrasound for a <b>minimum of 3 days per week</b> (minus standard leave privileges) so that they can complete a <b>minimum of 20 echo studies per week. (NB: entry into the course is conditional on this requirement being met).</b>
<input type="checkbox"/>	I agree to allow the potential use of de-identified images submitted by students for their assignments to be used for the express purpose of teaching within QUT and at other educational echocardiographic meetings. (NB: does not include pathological images, only images related to measurements and image optimisation).

Principal Supervisor's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assistant Supervisor's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Student's Signature: \_\_\_\_\_