



**DIAGNOSTIC MEDICAL SONOGRAPHY  
PROGRAM**

**CLINICAL EDUCATION MANUAL**

December 2022

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### SECTION 1 INTRODUCTION

This manual contains important information about the Camosun College Diagnostic Medical Sonography (SONO) clinical education program. Policies and procedures outlined in the manual pertain to all clinical facilities attended by Camosun College students. For more program information, including academic policies and procedures, please visit <http://camosun.ca>.

These policies and procedures are established by Camosun, with references from Island Health (VIHA) resources. This information is designed to assist Clinical Preceptors (CPs) in mentoring SONO students by:

- promoting standardization of clinical education
- informing CPs of clinical policies and responsibilities
- informing CPs of the student's clinical objectives and expectations
- ensuring continuity between practical learning at VIHA and didactic learning at Camosun College while maintaining a nationally recognized standard of education

Overarching responsibilities of the Clinical Preceptor include:

- Collaborating with Camosun College Clinical Liaisons (CLs) for ongoing clinical education improvement and cohesion of learning between the two organizations
- Promoting a welcoming environment that supports the student to meet the program's clinical skills labs and practicum objectives and competencies
- Encouraging the student to ask questions to seek clarifications and engage in critical thinking opportunities
- Supervising student to ensure learning procedures are conducted in a safe manner for the student, staff and patients
- Imparting knowledge and demonstrating skills in a professional and positive manner
- Regularly evaluating and providing timely feedback to student
- Identifying, documenting and communicating in an objective manner any student practice concerns to the CL and/or site Leader or Manager
- Continually seeking to improve instruction strategies by participating in annual education opportunities

*Adapted from "A Preceptor's Guide for Success" (Island Health, 2017)*

Clinical education in SONO is supported by medical imaging staff in two ways:

1. Student is assigned with a Sonography Canada and/or ARDMS certified staff technologist, who does not hold a formal preceptor role.
2. Student is assigned with a Sonography Canada and/or ARDMS Clinical Preceptor who is formally appointed by the department. The CP is responsible for additional duties with respect to clinical education.

Note: Clinical Preceptor is the preferred term for this role, though it is recognized this role may have other common names, such as Clinical Instructor.

### ROLES AND DUTIES OF THE CLINICAL PRECEPTOR

Clinical Preceptors play an integral role in the development of each SONO student. Each activity and interaction between Preceptor and student should have the underlying goals of progressing the student towards

competence as a sonographer and enhancing the professional relationship between CP and student.

Duties of the CP to achieve these goals include, but are not limited to:

- Leading or delegating orientation to each new facility, department or modality, including workflow, layout, imaging equipment and staff introductions
- Working collaboratively with the student to set immediate and long-term learning objectives
- Identifying specific examples where a student shows a need for improvement
- Observing and demonstrating techniques for correction as needed
- Managing the clinical schedule during the term and adjusting as needed, within the schedule guidelines, to enable students to meet requirements
- Collaborating with CL to create, execute, and monitor learning contracts

The Clinical Preceptor and student schedules should be aligned so that there is protected weekly time to complete some of these activities without distractions.

Other activities are performed more infrequently, depending on student need, where they are scheduled, and how they are progressing. In addition, some activities are needed more frequently during the clinical skills labs than during the final practicum.

### ROLES AND DUTIES OF THE CLINICAL LIAISON

Each term, there is one Camosun College instructor supporting each clinical skills course and/or practicum in their roles as Clinical Liaison (CL). Liaisons are responsible for the preparation, maintenance and support of clinical skills labs and practicum courses: MIDS 151, MIDS 181, MIDS 231, MIDS 281 & PRAC 295, PRAC 296 and PRAC 299.

Duties of the Clinical Liaison include but are not limited to:

- Before the clinical term
  - Reviewing Island Health and Camosun College policies and collaborating to ensure alignment with the clinical course
  - Collaborating with CPs and other site staff to educate or train regarding clinical education
  - Collaborating with CPs and site supervisors to finalize clinical schedules
  - Ensuring students have completed pre-placement requirements prior to practicum start
  - Revising and printing clinical documents
  - Providing students' clinical items to receiving sites (clinical books, IDs and access cards)
- During the clinical term
  - Supporting CIs/CPs (course requirements, evaluation or teaching strategies, if a student is struggling, regular check-ins, etc.)
  - Supporting students (extra help if they are struggling or feeling like they may not meet course requirements, conflict resolution between students/preceptors/other technologists, regular check-ins, etc.)
  - Marking course assignments and assigning final course grade

**SECTION 2 CLINICAL EDUCATION GUIDELINES**

**SUPERVISION**

The level of clinical supervision is based on student progress, which is recorded in the Clinical Portfolio which is maintained at the College. Students must be fully and directly supervised until competency for an exam type or work area is achieved and documented at the College. Competence is assessed and recorded using Competency Assessment forms. Once competency has been documented, students may perform procedures within those exam types or work areas under direct supervision at a clinical site. However, this may be reverted if a student later shows they are not meeting the standards of competency for that procedure.

All procedures in which a student participates must have images checked prior to dismissing the patient. In addition, when completing procedures in the Radiology Information System (RIS), there must be a technologist included as the primary responsible person.

Direct supervision indicates that a sonographer is in attendance to observe and correct all aspects of the procedure as needed. To accept this responsibility, the sonographer must be in the procedure room. The technologist will be named the primary responsible party on RIS, verify the correct images are sent to PACS and oversee input of information into the RIS system.

Indirect supervision indicates that students may independently carry out the procedure with a technologist in the vicinity and available for immediate assistance. Indirect supervision should only occur during Practicum courses (PRAC 290 + 295, 296 & 299) provided the student has previously been deemed competent for the exams to be performed. To ensure that students are working within their scope of documented competence, requisitions should be assessed to determine that students have the capability to independently perform the procedure with reasonable success. Images must still be reviewed with a sonographer prior to dismissing the patient.

It is the responsibility of the student to ensure appropriate supervision is in place for each procedure. The student should discuss the case with the technologist to clarify the level of supervision required. If students are found to be working without proper supervision on repeated occasions a learning contract will be put in place.

**LEVELS OF PARTICIPATION**

**Unassisted**

The student is deemed to have completed a procedure at an unassisted level by performing the listed aspects of the procedure independently.

These criteria are found on the “Unassisted Case Validation” form within the student Pocketbook.

Students will more likely succeed in completing these steps independently when a similar examination type has already been performed at the assisted level or the patient complexity/acuity is low.

**Assisted**

The student is deemed to have complete a procedure at the assisted level if some criteria on the above list were performed independently. They are expected to observe or assist the technologist with steps of the procedure not performed independently.

Assisted cases will most likely to occur when experience with the examination type is limited or there is a

sudden change in patient status or an unexpected complication.

### Observed

When a student participates in an examination at the “observed” level, they are expected to engage in all steps of the procedure and there likely will be minimal patient interaction. The student should still seek to assist with simple tasks such as room set up and clean up, opening patient file at the workstation, completing paperwork, etc.

Observed cases will most likely occur when a new examination type is encountered or when the patient complexity and/or acuity are too high.

Participating at the “observed” level should be kept to a minimum. Students should have a hands-on approach to participation as much as safely possible.

## CLINICAL SCHEDULES AND ABSENCES

During each Clinical Skills Course, students must attend clinical for 4-8 clinical hours per week for 14-16 weeks. CLs must record absences in D2L. Students must ensure that any schedule changes are recorded on the posted schedule prior to submission to the CL. There is risk of the student receiving an incomplete grade for the course if attendance requirements are not met.

Weeks 15 & 16 (flex weeks) occur at the end of term and attendance may be elective or required. Students are strongly encouraged to electively stay for extra practice. However, attendance of flex week may be required if the student:

- misses more than 2 clinical days during the entire term
- does not complete course requirements by the end of week 14
- for any reason the CL or CP deem adequate

Attendance is a course requirement that is evaluated on each formative evaluation. All criteria must be met on each formative evaluation to receive a passing rating.

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## SCHEDULE GUIDELINES

Technologists and/or CPs are provided with a base schedule that includes all the required shifts for each student. Each schedule considers consistency and equality of shifts and student/technologist/CP time. The CP and CL should work collaboratively to develop a schedule that considers both the department’s and the program’s needs.

Schedule changes will be at the discretion of the CP and CL +/- input from site leadership as required and must meet the following clinical schedule parameters:

- 14 total weeks of clinical practicum
- Students should not be scheduled for stat days, unless requested by the student
- Students should be scheduled to have approximately one day of non-clinical academic time per week in their Practicum semester (Term 6)
- Changes to the base schedule must be noted on the schedule
  - the schedule, with any changes including missed shifts, is submitted by the student to D2L weekly (the CL or Program Leader/CP can designate a student to be responsible for this – it may be the same student the entire term, or rotating)

If a student requests a schedule change, these guidelines may be taken into consideration:

## **SONO CLINICAL EDUCATION**

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- The Program Leader/CP should set the expectation with the student on how much notice is given for any schedule change requests
- Switches that result in interfering pre-scheduled CL/CP time with other students should be avoided
- Requests to perform procedures at another site during weeks 1-15 are generally not approved
- Cross site requests during flex weeks 15-16 may be approved, as long as all professional and portfolio requirements are met, site is able to take student, and no other students at that site will be negatively impacted
- All cross-site requests must go through the CL
- CPs and CLs should not agree to a switch that may be perceived by fellow students as a potential advantage that cannot also be offered to them
- Personal reasons generally should not be acceptable as a reason for request

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### **ABSENCES**

Students must inform their CL and CP/site if they are unable to report for a scheduled clinical day. This must be done prior to the beginning of the clinical day. Chronic failure to notify appropriate personnel absence may trigger the need for a learning contract to be put in place.

Clinical days missed for appointments, illness, and other circumstances will be recorded as days absent. Disclosure of the nature of missed clinical time is not necessary. Missed clinical time can be made up any day, provided that the student does not work more than 30 hours that week in a clinical setting and the site, CP and CL are able to accommodate the requested make-up date(s).

Extenuating circumstances involving prolonged absences may require additional clinical hours but will be assessed on an individual basis. A doctor's note validating ability to return to clinical is required when returning after a prolonged absence due to health or injury issues.

Casts are not acceptable at any of the clinical facilities; however, individual cases will be considered as to students' ability to perform without injury to self or patients.

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### **WEATHER CANCELLATIONS**

Closures of the college due to inclement weather may result in cancellation of clinical activities. However, due to the geographical spread of the clinical practicum facilities, students and CPs may use their discretion regarding commuting safety. Factors that influence this decision include road conditions, transit availability, official recommendations, and weather predictions. Missed days due to weather may be required to be made up.



### CONFIDENTIALITY OF PATIENT INFORMATION

It is understood that Sonographers, Clinical Preceptors, Clinical Liaisons and students will discuss and reflect on details of specific procedures. All information related to patients must be treated as confidential. This information may be in written, verbal, electronic, or other form.

Confidentiality applies to everything hospital personnel and students learn in the exercise of their duties and refer to both important and seemingly unimportant information. This includes, but is not limited to, the nature of the patient's illness and its cause, the treatment the patient is receiving, and everything the patient discloses with a view to giving a better understanding of their health condition. Confidentiality also extends to everything learned during the course of the patient examination, e.g., patient reactions and all aspects of their condition. Even the knowledge that an individual is in the hospital must not be volunteered. Patient information disclosed in conversation or during an altered state of consciousness, such as the patient's financial state, home conditions, domestic difficulties, etc. are also considered confidential.

Patient confidentiality also applies to the transmission, use, and management of patient digital x-ray images. All images to be used for off-site student assessment purposes must have all patient and clinical site demographics removed.

All students and Island Health employees are required to successfully complete the Island Confidential Information Management course. This confirms that the individual has read the policy and fully understands the expectations and consequences of non-compliance of this policy.

[VIHA Confidentiality Policy](#)

### PATIENT SAFETY

Patient safety is paramount and any concerns or allegations related to patient safety (physical and emotional) will be investigated by the appropriate authorities (hospital administration, Camosun College administration, and law enforcement). During the period of investigation, students may be withdrawn from clinical education until a decision regarding continuation in the program is determined. Students have the right to be informed in a timely, confidential manner of relevant practice issues (PEG, Student Practice Issues, 2013).

### STUDENT SAFETY

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#### STUDENT INJURIES

WorkSafeBC coverage is extended to all students in practice education. A practicum is defined as an integral component of a program which is required for program completion and certification. It is an unpaid and supervised work experience which takes place at the host employer's premises or place of business. Out-of-province clinical practicums are not covered by WorkSafeBC.

1. The student must report the injury to the CP and the CL. The CL will submit a report to the school.
2. The student is strongly encouraged to medical treatment as appropriate.
3. The student must complete a Form 6A "Worker's Report of injury or Occupational disease to Employer".  
<https://www.worksafebc.com/en/resources/claims/forms/workers-report-of-injury-or-occupational-disease-to-employer-form-6a?lang=en>
4. The Form 6A must be faxed to the Camosun Occupational Safety & Health Coordinator, at 250-370-3664. The process must be started as soon as possible.

### LEARNING CONTRACTS

Clinical education is considered a learning environment. In collaboration between the CL, CP and Professional Practice, a learning contract may be developed, with specific expectations, if the student is considered to be at risk during clinical education.

Some learning needs/behaviours which may trigger a learning contract include but are not limited to:

- practice that risks the safety of patients, staff, or other students
- unsatisfactory or inconsistent progress in achieving clinical requirements
- performing procedures outside of documented competency
- unprofessional or unethical behavior and/or practice
- breach of confidentiality
- unsanctioned or excessive absence from clinical
- chronic tardiness
- non-compliance with hospital/department policies
- non-compliance with Camosun/student policies

The learning contract outlining the problem and improvement plan will be monitored by the CL, with feedback from the CP. The plan will include:

- specifics of the learning need or behaviour
- plan for improvement – what must be accomplished, resources available, evidence of success
- time limits and the consequences if the learning need/behaviour is not resolved
- responsibilities of the student, CP, and CL in the execution and monitoring of the learning plan

Follow-up documentation of student progress/success will be completed by the CL, with feedback from the CP, at the end date of the learning contract.

*Adapted from "Student Practice Issues" (Practice Education Guidelines for BC, 2013)*

### STUDENT MISCONDUCT

Students are expected to meet Camosun College Student Conduct standards while in clinical education. Students may be dismissed for activities such as verbal abuse, dishonesty, theft. See full policy below.

[Camosun College Student Misconduct Policy](#)

### STUDENT/TECHNOLOGIST/PRECEPTOR RELATIONSHIPS

As students in a program that leads to a professional career, conduct which consistently demonstrates courtesy and respect is anticipated and expected. All students have the right to expect this of their peers, instructors, and clinical staff and it must be reciprocated by the student. While students may socialize with staff from the clinical facility, a professional relationship must be maintained at all times.

It is intended that students are responsible for their clinical education with Clinical Preceptors providing the resources for students to reach their goals. Resources can include but are not limited to extra demonstrations, learning objective suggestions, schedule alterations, and formative feedback. Students are expected to be continually aware of their own requirements and seek the necessary experiences to meet the required objectives.

## SECTION 3 STUDENT PREPARATION AND EXPECTATIONS

### INTERMEDIATE SONOGRAPHY SCANNING SKILLS PREPARATION AND EXPECTATIONS

#### MIDS 151 INTERMEDIATE SCANNING SKILLS 1

Students complete the following didactic and lab components in Term 1 in preparation for MIDS 151 Intermediate Sonography Scanning Skills 1:

- [AHLT 112 Patient Management for Allied Health](#)
- [AHLT 266 Introduction to Cross Sectional Anatomy](#)
- [MIDS 121 Introduction to Sonography Scanning Skills](#)
- [MIDS 127 Abdominal Sonography Procedures & Scanning Basics](#)
- [MIDS 139 Sonography Principles & Instrumentation 1](#)

Students complete the following didactic and lab components in Term 2 during MIDS 151 Intermediate Sonography Scanning Skills 1 and in preparation for Intermediate Sonography Scanning Skills 2 that occurs in Term 3:

- [AHLT 104 Professional Communication for Allied Health](#)
- [AHLT 134 Legal and Professional Ethics for Allied Health](#)
- [MIDS 137 Pelvic Sonography Procedures](#)
- [MIDS 147 OBGYN Sonography Procedures 1](#)
- [MIDS 167 Basics of Electrocardiography](#)

**Upon entry into Intermediate Sonography Scanning Skills 1, students are expected to be able to do the following:**

- Communicate and interact with staff, patients and other students in a professional manner
- Explain ultrasound procedures to patients
- Review requisitions with technologists and predict appropriate exam protocol
- Complete 5-7 minute anatomical segments of an abdominal exam

**In Intermediate Sonography Scanning Skills 1, the emphasis is on becoming comfortable and proficient with patient interactions and department workflow. With practice, students should reach proficiency in the following by the end of term:**

- Apply theory learned in Term 1 and Term 2 in the workplace
- Perform all abdominal exam components on ambulatory and inpatients
- Perform some Pelvic, Scrotal and First Trimester Obstetrical exam components on ambulatory and inpatients
- Use correct relevant scientific terminology
- Identify pathologies for the exams types they attempt
- Entry of relevant HIS/RIS data – exam start, exam completion, patient portering, etc.
- PACS usage – retrieve previous images, confirm image archival
- Assist in patient transfers and basic patient care
- Choose correct sonographic techniques and settings
- Observe Interventional, Obstetrical and other exam areas to build context for learning next term

**During Intermediate Sonography Scanning Skills 1, students are NOT expected to be proficient in the following:**

- Cardiac, MSK, Interventional, Vascular, Small Parts, Second and Third Trimester pregnancies, some Pelvic and some First Trimester exam components

Intermediate Sonography Scanning Skills 1 is the foundation upon which to further develop in some of these areas. Students are not expected to be proficient in the full range of competencies expected of the entry-level technologist at the end of Intermediate Sonography Scanning Skills 1. However, with adequate supervision and careful guidance, students can benefit greatly from being involved in more challenging cases and are encouraged to participate within their own limitations.

## MIDS 181 INTERMEDIATE SCANNING SKILLS 2

Students complete the following didactic and lab components in Term 2 in preparation for MIDS 181 Intermediate Sonography Scanning Skills 2:

- [AHLT 104 Professional Communication for Allied Health](#)
- [AHLT 134 Legal and Professional Ethics for Allied Health](#)
- [MIDS 137 Pelvic Sonography Procedures](#)
- [MIDS 147 OBGYN Sonography Procedures 1](#)
- [MIDS 167 Basics of Electrocardiography](#)

Students complete the following didactic and lab components in Term 3 during MIDS 181 Intermediate Sonography Scanning Skills 2 and in preparation for Intermediate Sonography Scanning Skills 3 that occurs in Term 4:

- [IST 120 Introduction to Indigenous Peoples](#)
- [MIDS 187 OBGYN Sonography Procedures 2](#)
- [MIDS 197 Cardiac Sonography Procedures 1](#)
- [MIDS 199 Sonography Principles & Instrumentation 2](#)

**Upon entry into Intermediate Scanning Skills 2, students are expected to be able to do the following:**

- Communicate and interact with staff, patients and other students in a professional manner
- Explain ultrasound procedures to patients
- Review requisitions with technologists and predict appropriate exam protocol
- Complete 5-7 minute anatomical segments of abdominal, pelvic, scrotal, first trimester obstetrical and cardiac exams

**In Intermediate Scanning Skills 2, the emphasis is on building on skills, multitasking, and becoming integrated within the department workflow in a timely manner. With practice, students should reach proficiency in the following by the end of term:**

- Apply theory learned in Terms 2 and 3 in the workplace
- Properly disinfect ultrasound transducers as required
- Assist in patient transfers and all required patient care (e.g. safely handling lines and tubes)
- Choose correct sonographic technique and settings
- Recognize images that contain abnormalities and identify pathologies
- Observe Interventional, Vascular and Small Part exams to build context for learning next term

**During Intermediate Sonography Scanning Skills 2, students are NOT expected to perform the following:**

- Advanced Cardiac, some Second and Third Trimester exam components, Vascular and Small Parts

## **MIDS 231 INTERMEDIATE SCANNING SKILLS 3**

Students complete the following didactic and lab components in Term 3 in preparation for MIDS 231 Intermediate Sonography Scanning Skills 3:

- [IST 120 Introduction to Indigenous Peoples](#)
- [MIDS 187 OBGYN Sonography Procedures 2](#)
- [MIDS 197 Cardiac Sonography Procedures 1](#)
- [MIDS 199 Sonography Principles & Instrumentation 2](#)

Students complete the following didactic and lab components in Term 4 during MIDS 231 Intermediate Sonography Scanning Skills 3 and in preparation for Advanced Sonography Scanning Skills that occurs in Term 5:

- [268 Professional Preparation for Allied Health](#)
- [MIDS 227 Superficial Structures in Sonography Procedures 3](#)
- [MIDS 231 Intermediate Sonography Scanning Skills 3](#)
- [MIDS 237 Vascular Sonography Procedures](#)
- [MIDS 247 Cardiac Sonography Procedures 2](#)

**Upon entry into Intermediate Scanning Skills 3, students are expected to be able to do the following:**

- Communicate and interact with staff, patients and other students in a professional manner
- Explain ultrasound procedures to patients
- Review requisitions with technologists and predict appropriate exam protocol
- Complete 5-7 minute anatomical segments of cardiac and second and third trimester obstetrical

**In Intermediate Scanning Skills 3, the emphasis is on building on skills, multitasking, and becoming integrated within the department workflow in a timely manner. With practice, students should reach proficiency in the following by the end of term:**

- Apply theory learned in Terms 3 and 4 in the workplace
- Assist in patient transfers and all required patient care (e.g. safely handling lines and tubes)
- Choose correct sonographic technique and settings
- Recognize images that contain abnormalities and identify pathologies
- Observe MSK and Interventional exams to build context for learning next term

**During Intermediate Sonography Scanning Skills 3, students are NOT expected to perform the following:**

- Advanced Cardiac, some Second and Third Trimester exam components, Vascular and Small Parts

## **ADVANCED SONOGRAPHY SCANNING SKILLS PREPARATION AND EXPECTATIONS**

Students complete the following didactic and lab components in Term 4 in preparation for MIDS 281 Advanced Sonography Scanning Skills:

- [268 Professional Preparation for Allied Health](#)
- [MIDS 227 Superficial Structures in Sonography Procedures 3](#)
- [MIDS 231 Intermediate Sonography Scanning Skills 3](#)
- [MIDS 237 Vascular Sonography Procedures](#)
- [MIDS 247 Cardiac Sonography Procedures 2](#)

Students complete the following didactic and lab components in Term 5 during MIDS 281 Advanced Sonography Scanning Skills and in preparation for Final Practicum that occurs in Term 6:

- [HLSC 264 Interprofessional Practices in Health Care](#)
- [MIDS 267 Musculoskeletal Sonography Procedures](#)
- [MIDS 287 Interventional Sonography Procedures](#)
- [MIDS 297 Cardiac Sonography Procedures 3](#)

**Upon entry into Advanced Scanning Skills, students are expected to be able to do the following:**

- Communicate and interact with staff, patients and other students in a professional manner
- Explain ultrasound procedures to patients
- Review requisitions with technologists and predict appropriate exam protocol
- Complete 5-7 minute anatomical segments of Small Part, Vascular and some Advanced Cardiac exams.

**In Advanced Scanning Skills, the emphasis is on building on skills, multitasking, and becoming integrated within the department workflow in a timely manner. With practice, students should reach proficiency in the following by the end of term:**

- Apply theory learned in Terms 4 and 5 in the workplace
- Assist in patient transfers and all required patient care (e.g. safely handling lines and tubes)
- Choose correct sonographic technique and settings
- Recognize images that contain abnormalities and identify pathologies
- Participate in a variety of all exams to build context for learning next term

**During Advanced Sonography Scanning Skills, students are NOT expected to perform the following:**

- Any exam components for which they have previously successfully demonstrated in a clinical setting; all efforts should be placed on completing any missing components as noted in the student's Pocket Book and Portfolio.

## FINAL PRACTICUM PREPARATION AND EXPECTATIONS

Students in the Diagnostic Medical Sonography Program can choose one of three clinical paths for their final practicum placement:

- General/OB Sonography
- Cardiac Sonography
- Vascular Sonography

Students will have previously completed all of the didactic learning and clinical skills labs in Terms 1-5 in preparation for any one of the specialty areas. Students will be assigned to a site and rotation that best matches their previously requested site/placement preferences.

During the Final Practicum in Term 6, students will be enrolled in the following courses:

- [AHLT 288 Capstone Projects for Allied Health](#)
- [PRAC 290 CORE Sonography Competency](#)

And one of:

- [PRAC 295 General/OB Sonography Competency](#)
- [PRAC 296 Cardiac Sonography Competency](#)
- [PRAC 299 Vascular Sonography Competency](#)

### **Upon entry into Final Practicum, students are expected to be able to do the following:**

- Review requisition, offer predicted exam protocol, and confirm with sonographer
- Answer common questions from patients
- Begin to perform full exams in their chosen specialty, unassisted
- Identify and document pathology and findings in accordance with site protocols and Sonography Canada Guidelines
- Enter information into the RIS and PACS under the supervision of a sonographer
- Complete sonographer technical impressions under the supervision of a sonographer

### **In Final Practicum, the emphasis is on demonstrating routine in their practice, while making procedure-related decisions independently and with confidence. Students will focus on competing their Canadian Clinical Skills Assessments for their chosen specialty. With practice, students should reach entry-level proficiency in the following by the end of term:**

- Apply theory learned in Terms 1-5 in the workplace
- Seamlessly embedding their practice within the department workflow
- Perform unassisted procedures and exams under the supervision of a sonographer
- Troubleshoot technical errors relating to PACS, RIS, and HIS
- Predict patient transfer and care needs and integrate predictions into planning the procedure
- Choose acceptable technical factors for all exams
- Identify and document pathology and findings in accordance with site protocols and Sonography Canada Guidelines
- Complete sonographer technical impressions under the supervision of a sonographer

### **During Final Practicum, students are NOT expected to perform the following:**

- Exams in sub-specialties outside of their selected clinical path

## ORIENTATION PERIOD – ALL SONOGRAPHY CLINICAL SKILLS AND PRACTICUM LEVELS

Clinical Preceptors should use the student's "General Orientation Worksheet" to help guide student orientation. If the CP is unavailable to orient the students during any of their regularly scheduled preceptor days, a designate should be appointed. Orientation periods are scheduled for the first one or two shifts of the clinical skills labs.

Clinical supplies provided by the Clinical Liaison will be given to the students immediately ahead of the start of each clinical and practicum placement:

- VIHA student ID
- VIHA security access cards
- Clinical Pocketbook
- Clinical Portfolio

A comprehensive orientation is vital to ensure students can start integrating into the daily workflow of the department in a timely manner. Please see the "General Orientation Worksheet" for orientation activities.

Other preparatory activities prior to clinical practicums include:

- PHSA Learning Hub courses:



- SPECO Curriculum
- VIHA Student Practice Curriculum
- Maskfit Test
- TB Test
- Criminal Record Check
- First Aid and CPR
- Current immunizations (strongly recommended)

Clinical sites may request proof of immunization in the case of an outbreak. If the student cannot produce proof, they may be asked to leave the clinical facility/department until the outbreak is declared over. This absence may impact the student's ability to complete clinical requirements, and may require additional clinical hours, or could result in non-completion of the clinical course and a failing grade.

## SECTION 4 CLINICAL PORTFOLIO AND POCKETBOOK

The Clinical Portfolio of Clinical Experience and Competence is a record of the student's competency and progression of skills. The portfolio requirements must be completed each term in order to meet course outcomes and receive course completion.

The Student Pocketbook is to be used by the student to record procedures completed to later present to the Clinical Liaison. If accepted by the CL, the procedure information can then be transferred to the portfolio. Only the CP and CL should enter updates in the portfolio.

Because of the sensitive information included within the Clinical Portfolio and Pocketbook, these clinical books must remain at hospital sites in a secure location at all times.

If a student is not able to obtain a required specific body part for the pocketbook or portfolio, a discussion with the CP and Clinical Liaison should take place so that a similar alternate procedure or a simulation can be performed or the requirement held over until such time as the procedure can be attempted.

## MIDS 151, 181, 231 - NOVICE

There are 2 levels of knowledge and skill that Novice students are required to successfully complete:

1. Unassisted Case Image Reviews
2. Clinical Competency Requirements

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### UNASSISTED CASE IMAGE REVIEWS

Using the validation form found in the pocketbook, a CP must validate the successful performance of an unassisted case on the same day the examination was performed.

Images for Image Reviews should be optimal, or very close to. The student will submit the images to the CL at end of term, who assess the images to ensure they meet the "Criteria for Acceptability" as outlined in the portfolio (also found in the appendix at the end of this document). If the image is sub-optimal, the student must provide a rationale that is accepted by the CL. Once accepted by the CL, a completion mark will be assigned.

### CLINICAL COMPETENCY REQUIREMENTS

Students are required to demonstrate specific Sonography Canada skills as laid out in their pocketbooks. There will be one pocketbook per clinical skills course. It is understood that students may need to carry these specific skills forward into the next clinical skills course. Acceptable reasons for doing so would be lack of clinical exposure at their current site or having learned a skill too late in the term to have had time to demonstrate it clinically in the same term. Any skills that are required to be carried over must be approved by the CL. All skills must be completed by the end of MIDS 281 and cannot be carried over into the PRAC level clinical courses.

Students should focus on completing groups of clinical skills together (ie. more than one skill per patient) in order to maximize opportunity to attempt unassisted skills.

### MIDS 281 AND PRAC 295, 296, 299 – ADVANCED BEGINNER

Students entering MIDS 151 will receive a portfolio that is cumulative between MIDS 151, 181, 231 and MIDS 281. For Practicum level courses, students will receive an additional portfolio specific to their chosen specialty (General, Cardiac or Vascular). The portfolio contains formative evaluations, daily case logs, and biweekly student reflections.

In addition to the portfolio, students are given a Sonography Canada CCSA Manual where they record their CCSA completion.

### SONOGRAPHY COMPETENCY ASSESSMENTS (CCSA)

Competency assessments during Final Practicum in Term 6 will focus on how students manage and adapt to procedures in various scenarios. Students will perform entire exams unassisted and will work to achieving the [CCSA requirements](#) as outlined by Sonography Canada.

Students must complete all CCSA requirements in order to receive a complete (COM) in their PRAC 290 + 295, 296 or 299 courses and to be eligible to sit for the National Exams.

### FORMATIVE EVALUATIONS

Formative evaluations provide ongoing formal feedback on student professionalism, knowledge development and technical skills. This feedback is completed by the Clinical Liaison in Clinical Skills Labs and by the Preceptor in Practicum. These feedback forms are submitted online by the student.

The rating scale found in the portfolio (and in the appendix at the end of this document) can be referenced for completing the evaluation. Students must maintain a level of at least “Meets Expectations” on each evaluation (score of 5 or more). If a student is not meeting expectations, CPs and CLs should provide specific examples of why and/or when this occurred and specific actions for improvement.

If a student is consistently not meeting expectations, a discussion between the CP, CL and student will determine causes. A learning plan may be implemented by the CL, in collaboration with the CP and Professional Practice, to set goals for success.

The frequency of formative evaluations changes at each practicum level. Please refer to the Clinical Portfolio for the number of evaluations needed at each level.

**SECTION 5 ASSOCIATIONS & ACCREDITATION**

**PROFESSIONAL ASSOCIATIONS**

**Sonography Canada**

201-1150 Morrison Drive  
Ottawa, ON  
K2H 8S9  
Canada

Telephone: 613-258-0855 General Inquiries: Ext. 100  
Toll-free fax: 1-888-743-2952 Toll-free telephone: 1-888-273-6746

[www.sonographycanada.ca](http://www.sonographycanada.ca)

**British Columbia Ultrasound Society  
(BCUS)**

Contact: <http://www.bcus.org/contact.php>  
[www.bcus.org](http://www.bcus.org)

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**OVERVIEW OF SONOGRAPHY CANADA**

Sonography Canada is the national professional association for sonographers in Canada. Sonography Canada supports members by delivering essential association services, such as advocacy, education and networking opportunities, outreach and communications, and more.

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**BRITISH COLUMBIA ULTRASOUND SOCIETY**

The purpose of BCUS is to:

1. The purpose of the Society is best described by the following excerpts from the Constitution:
2. To promote, encourage, and advance the science and art of Diagnostic Medical Sonography and the profession of Diagnostic Medical Sonographer (Sonographer).
3. To represent Sonographers and the profession of Diagnostic Medical Sonography to external parties such as governments, the public, news media, educational institutions, unions, health care professions, and the health care industry.
4. To provide programs and services to Sonographers and the profession of Diagnostic Medical Sonography
5. To provide a forum to promote the consideration and discussion of matters affecting Diagnostic Medical Sonography.
6. To collect and disseminate information pertinent to professional growth.
7. To support and encourage research related to Diagnostic Medical Sonography.
8. To provide, support and encourage educational opportunities for Diagnostic Medical Sonographers.
9. To co-operate with professional external organizations, agencies, individuals, corporations, and others, in furtherance of these purposes.

## SONO CLINICAL EDUCATION

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10. To associate, affiliate, or federate with any association, society, or organization with objectives the same as or similar to those of this Society.
11. To do all such things as may be necessary and conducive to the attainment of these purposes.

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### STUDENT MEMBERSHIP

Students are encouraged to join their professional associations. Students can register for free and gain many of the benefits of full practice membership, such as access to journals, volunteer opportunities, and more. (Note that students are not covered by Sonography Canada's Professional Liability Insurance Policy).

## SONOGRAPHY CANADA COMPETENCY PROFILE AND CERTIFICATION

Certification with Sonography Canada requires that students are clinically competent and have successfully written the certification examination.

As the certifying body, Sonography Canada develops the National Competency Profile for sonographers in Canada. The profile describes the practice requirements of sonographers at entry-to-practice, to provide safe, effective, compassionate and ethical patient care in a variety of work environments.

The competency profile establishes a standard for entry to the profession, and a foundation upon which to build additional competencies, efficiency and higher levels of practice. The primary uses are to:

- Develop a blueprint for the Sonography Canada certification examinations
- Provide a guide for the curriculum of accredited education programs
- Provide a standard for the accreditation of education programs.
- Additionally, students may use the profile as a tool to help benchmark and reflect on their learning progress.

Access the Competency Profile at <https://sonographycanada.ca/resources/competencies-standards>

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### ELIGIBILITY FOR EXAMINATION

To be eligible to write the Sonography Canada certification examination, candidates must meet the eligibility requirements set forth by Sonography Canada, found here:

<https://sonographycanada.ca/app/uploads/2019/03/Exam-Eligibility-Policy-1-Feb-2018.pdf>

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### APPLICATION

All certification exam information is available through the Sonography Canada website:

<http://www.sonographycanada.ca>

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### CERTIFICATION EXAM DATE

The certification examinations are written in January, May, and September. Dates of exams are posted on the website well in advance: <https://sonographycanada.ca/certification/entry-to-practice-exams/dates-schedules>

### EXAM PREPARATION

Sonography Canada provides Entry-to Practice Exam materials that may be of benefit to students to review:

<https://sonographycanada.ca/certification/entry-to-practice-exams>

### REFERENCES

Camosun College. (2020, September 21). *Student Misconduct Policy*. Camosun Policy.

<http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.5.pdf>

Island Health. (2017, June). *A Preceptor's Guide for Success*.

<https://intranet.viha.ca/education/preceptor/Documents/preceptors-guide-success.pdf>

Island Health. (n.d.) *Your Privacy and Confidentiality*. [https://www.islandhealth.ca/about-](https://www.islandhealth.ca/about-us/accountability/information-stewardship-access-privacy/privacy-confidentiality)

[us/accountability/information-stewardship-access-privacy/privacy-confidentiality](https://www.islandhealth.ca/about-us/accountability/information-stewardship-access-privacy/privacy-confidentiality)

Practice Education Guidelines for BC. (2013, May). *Student Practice Issues*. HSPnet.

[http://www.hspscanada.net/docs/PEG/2\\_10\\_Student\\_Practice\\_Issues.pdf](http://www.hspscanada.net/docs/PEG/2_10_Student_Practice_Issues.pdf)

Practice Education Guidelines for BC. (2013, May). *Student Scope of Practice*. HSPnet.

[http://hspscanada.net/docs/PEG/4\\_3\\_Student\\_Scope\\_Practice.pdf](http://hspscanada.net/docs/PEG/4_3_Student_Scope_Practice.pdf)

VIHA Student Practice – Post Secondary Students [https://intranet.viha.ca/pnp/pnpdocs/student-practice-post-](https://intranet.viha.ca/pnp/pnpdocs/student-practice-post-secondary.pdf)

[secondary.pdf](https://intranet.viha.ca/pnp/pnpdocs/student-practice-post-secondary.pdf)

Contents of this manual have been written and reviewed by the following Camosun College faculty:

Dustin Pendergast, RDMS, CRGS

Matthew Barbas, BSc, RDCS, CRGS

Bridget Mavety, BMRS, CRGS

Please direct inquiries regarding the content of this manual to [pendergastdustin@camosun.ca](mailto:pendergastdustin@camosun.ca)

**APPENDICES**

**CRITERIA OF ACCEPTABILITY – FOR IMAGE REVIEWS**

|                             | Image sub-optimal, not diagnostic<br>(not usually sent to PACS)   | Image sub-optimal, but diagnostic |                            | Image optimal      |
|-----------------------------|---|-----------------------------------|----------------------------|--------------------|
| Rating of Criteria          | Not Demonstrated  | Minimally Demonstrated            | Mostly Demonstrated        | Fully Demonstrated |
| Criteria                    | Reject  | May Accept, with rationale        | May Accept, with rationale | Accept             |
| <b>Required Structures*</b> | Structures imaged should be centred and zoom should be utilized as appropriate.   |                                   |                            |                    |
| <b>Annotation*</b>          | Site-specific annotation must be present as required. This includes the annotation or user initials of "USS" to indicate that the student took that image.                                      |                                   |                            |                    |
| <b>Measurements*</b>        | Are measurements accurate, with proper caliper placements?  |                                   |                            |                    |
| Frequency                   | Correct frequency selected. Should be highest possible frequency  |                                   |                            |                    |
| Gain, Focus, Depth          | Gain should be optimal for part being imaged, focus should be at or slightly below part (when applicable) and depth should not be excessive or too shallow.                                     |                                   |                            |                    |
| Pathology                   | Image is of diagnostic quality; any pathology, such as a cyst, or mass seen in its entirety and study expanded as required—ie) additional images utilized to document pathologies or free fluid |                                   |                            |                    |
| Images in PACS              | Displayed in the correct order as per site protocol   |                                   |                            |                    |
| Image Quantity              | Enough images of each anatomical part are included to make an accurate assessment. Excessive imaging is not present.  |                                   |                            |                    |
| Colour Doppler              | Is colour gain appropriate, without evidence of bleeding or aliasing?   |                                   |                            |                    |
| Pulsed Wave Doppler         | Waveforms are free of excessive noise, with proper caliper placement and sweep speed  |                                   |                            |                    |
| M-mode                      | Appropriate sweep speed, caliper placement and Heart Rate Assessment  |                                   |                            |                    |
| Continuous Wave Doppler     | Waveforms are free of excessive noise, with proper caliper placement and sweep speed  |                                   |                            |                    |
| Tissue Doppler Assessment   | Waveforms are free of excessive noise, with proper caliper placement and sweep speed  |                                   |                            |                    |

**FORMATIVE EVALUATION RATING GUIDE**

| <b>Below Expectations</b>   | <b>Needs Improvement</b>   | <b>Meets Expectations</b>   | <b>Exceeds Expectations or Advanced Beginner</b>  |
|---|--|---|---|
| <b>1-2</b>  | <b>3-4</b>   | <b>5-8</b>  | <b>9-10</b>   |
| <p>Unsafe or unprepared to resume next rotation.</p>  | <p>Minimal or inconsistent progression toward the next level.</p>  | <p>Steady progression toward the next level.</p> <p><b>Emerging: 5-6</b><br/><b>Consistent: 7-8</b></p>   | <p>Consistently working at the advanced beginner level.</p>   |
| <p><i>Indicators/examples:</i></p> <ul style="list-style-type: none"> <li>• Does not follow instructions, policies, or guidelines</li> <li>• Caused a safety incident</li> <li>• Does not seek appropriate supervision</li> <li>• Unprofessional</li> </ul>   | <p><i>Indicators/examples:</i></p> <ul style="list-style-type: none"> <li>• Struggling to maintain reasonable level of achievement</li> <li>• Needs a lot of prompting to seek appropriate learning opportunities</li> </ul>   | <p><i>Indicators/examples:</i></p> <ul style="list-style-type: none"> <li>• Regularly presents new cases for image critique or image audit</li> <li>• Continuously strives for personal improvement and seeks out learning opportunities</li> <li>• Appropriately prepares for each learning activity, new modality, competency assessment, or other as relevant</li> </ul> | <p><i>Indicators/examples:</i></p> <ul style="list-style-type: none"> <li>• Completed all portfolio requirements early</li> <li>• Able to function independently in all/most routine situations</li> <li>• Demonstrates highly efficient workflow</li> <li>• Makes effective decisions and is ready to take on more challenging situations</li> </ul> |
| <p><i>Action Needed:</i></p> <ul style="list-style-type: none"> <li>• Should be removed from clinical site until plan for remediation has been laid out.</li> <li>• Any safety incident or other serious incident must be reported to Clinical Liaison right away; even if evaluation form is not yet due.</li> </ul> | <p><i>Action Needed:</i></p> <ul style="list-style-type: none"> <li>• May continue to next rotation; however, plan for remediation must be laid out in a timely manner to demonstrate improvement on next formative evaluation.</li> <li>• Written feedback may be requested.</li> </ul> |   |   |
| <b>NC</b>   |  | <p>Must at least meet expectations on final formative evaluation to receive grade in MIDS 151, 181 &amp; 231</p>  |   |

**FORMATIVE EVALUATION FORM – CLINICAL SKILLS LABS**

|  |                        |
|--|------------------------|
| <p><b>Professionalism and Responsibility</b><br/> <i>Expectations:</i></p> <ul style="list-style-type: none"> <li>• <i>demonstrates punctuality according to posted schedule and communicates whereabouts</i></li> <li>• <i>makes productive use of time and takes initiative to participate in procedures</i></li> <li>• <i>works cooperatively as member of team and openly receives feedback and suggestions for improvement</i></li> <li>• <i>demonstrates accountability for actions and takes personal responsibility for learning</i></li> <li>• <i>adheres to program and clinical site policies and guidelines</i></li> </ul> |                        |
| <p><b>Rating 0-10:</b></p>   | <p><b>Comments</b></p> |
| <p><b>Overall Clinical Competence (Knowledge, Skills, and Judgement)</b><br/> <i>Expectations:</i></p> <ul style="list-style-type: none"> <li>• <i>demonstrates increasing knowledge and applies knowledge to practice situations</i></li> <li>• <i>shows improvement from one shift, one case, or one rotation to the next</i></li> <li>• <i>maintains appropriate level of completion of portfolio requirements</i></li> <li>• <i>communicates effectively with patients and staff</i></li> </ul>  |                        |
| <p><b>Rating 0-10:</b></p>   | <p><b>Comments</b></p> |

**Status of Completion of Course Requirements:**

|   |   |
|---|---|
| <p><b>Attendance</b></p>                | <p><i>Days attended this evaluation period: _____</i></p>                     |
| <p><b>Clinical Skills Completed</b></p> | <p><i>Number of clinical skills completed to date (Pocketbook): _____</i></p> |

**Result:**

- At least **Meets Expectations**
- Remediation plan required (4 or less on any criteria); please notify Clinical Liaison; written feedback may be requested



**FORMATIVE EVALUATION FORM – PRACTICUM**

|  |                        |
|--|------------------------|
| <p><b>Professionalism and Responsibility</b><br/> <i>Expectations:</i></p> <ul style="list-style-type: none"> <li>• <i>demonstrates punctuality according to posted schedule and communicates whereabouts</i></li> <li>• <i>makes productive use of time and takes initiative to participate in procedures</i></li> <li>• <i>works cooperatively as member of team and openly receives feedback and suggestions for improvement</i></li> <li>• <i>demonstrates accountability for actions and takes personal responsibility for learning</i></li> <li>• <i>adheres to program and clinical site policies and guidelines</i></li> </ul> |                        |
| <p><b>Rating 0-10:</b></p>   | <p><b>Comments</b></p> |
| <p><b>Overall Clinical Competence (Knowledge, Skills, and Judgement)</b><br/> <i>Expectations:</i></p> <ul style="list-style-type: none"> <li>• <i>demonstrates increasing knowledge and applies knowledge to practice situations</i></li> <li>• <i>shows improvement from one shift, one case, or one rotation to the next</i></li> <li>• <i>maintains appropriate level of completion of portfolio requirements</i></li> <li>• <i>communicates effectively with patients and staff</i></li> </ul>  |                        |
| <p><b>Rating 0-10:</b></p>   | <p><b>Comments</b></p> |

**Attendance:** *days missed this evaluation period:* \_\_\_\_\_

**Number of Course Requirements Completed:**

|              | GENERAL | CARDIAC | VASCULAR | OTHER |
|--------------|---------|---------|----------|-------|
| Case Reviews |         |         |          |       |
| Unassisted   |         |         |          |       |
| CCSAs        |         |         |          |       |

**Result:**

- At least **Meets Expectations**
- Remediation plan required (4 or less on any criteria); please provide comments and notify Clinical Liaison

Student Signature \_\_\_\_\_ CI or Designate Signature \_\_\_\_\_

Date Reviewed \_\_\_\_\_

