

Diagnostic Medical Sonography

College of New Caledonia
CNC

Information Session

Welcome!

In this information session, we'll explore:

- **What it's like to be a Diagnostic Medical Sonographer** specializing in ultrasound
- **What to expect from the program**, including program structure and costs
- **How to apply**, including admission requirements and the application process

Our goal is to give you a better understanding of the program, the profession, and what you can expect as a student.



Diagnostic Medical Sonography

- Sonographers, or ultrasound technologists, use high frequency sound waves to examine tissues and organs
  - Ultrasound is a safe, non-ionizing radiation technology
  - Is a diagnostic field, use camera (probe) and machine to assess the structures of the body to detect any abnormalities
- Highly user-dependent and takes skill and hand-eye coordination to create diagnostic images
- Work closely with physicians such as Radiologists, Perinatologists and Cardiologists

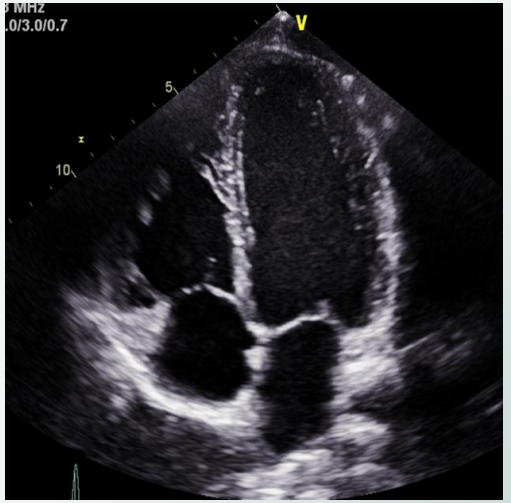


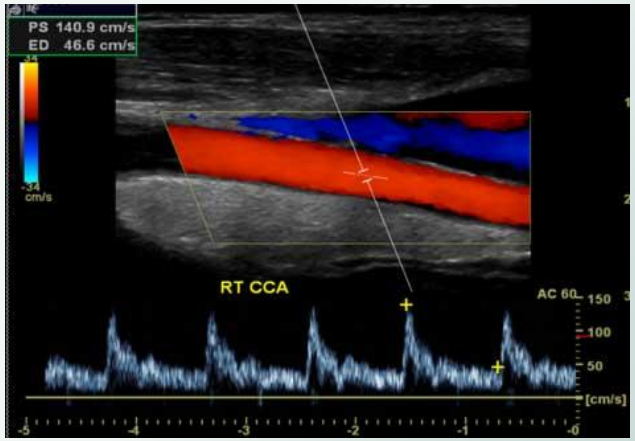
Diagnostic Medical Sonography

Ultrasound is not just about babies - we assess many different parts of the body:

- **Abdomen** - liver, gallbladder, kidneys, pancreas
- **Pelvis** - uterus, ovaries, testicles
- **Neck** - thyroid, carotid arteries, lymph nodes
- **Breast**
- **Arm and Leg Veins**
- **Superficial Tissues -** lumps and bumps under the skin
- **Obstetrics -** embryo, fetus
- **Echocardiography** – heart
- **Musculoskeletal -** muscles, tendons, joints







Day in the life as a Sonographer

- Sonographers receive orders for an ultrasound exam from physicians
- Ultrasound exams take from 30 – 60 minutes per patient, and Sonographers average from 8 – 14 exams per work day
- Scan a variety of patient types:
  - Out-patients (members of the public)
  - In-patients (patients in the hospital ward, ICU etc)
  - Emergency Room patients
- For each exam, carefully assesses all the required organs
  - Save images and video clips of anatomy
  - Write technical impression, and Radiologist will review

See a sonographer in action – here!



Scope of a Sonographer

More than just “taking pictures”!

- Sonographers are **detectives,** it is our job to assess the patient to find the answer to the clinical question
- We are the “eyes of Radiologist”
- Work directly with patients, sometimes on their worst day
- Requires dedication, responsibility, empathy, and a passion for helping people



Sonography a Good Fit for You?

Sonographers combine technical skills with strong people skills.

- **Strong Hand-eye Coordination & Spatial Awareness** envision the human body in 3D, to understand what they are looking at on 2D screen. Require good hand-eye coordination to manipulate probe.
- **Attention to Detail** assess each organ for subtle changes in the texture and colour. Your eyes need to be able to pick out pathology
- **Adaptability & Resilience** Remain calm, compassionate and professional in stressful or emotionally challenging situations.
- **Physical Stamina Perform** repetitive tasks and awkward postures, sit/stand for extended periods, move equipment and assist with patient positioning and transfers.
- **Comfort with Clinical Environments** Be prepared to work with bodily fluids, infectious conditions, needles and assist with interventional procedures.
- **Communication, & Teamwork** Listen actively, communicate clearly and work effectively with patients and healthcare teams.
- **Critical Thinking** Problem-solve, prioritize and adapt scan based on what you see on the screen

Career Suitability - Physical Fitness

Sonographers work predominantly in environments where they spend long periods of time standing or sitting, as well as performing repetitive tasks.

Physical demands of the Sonographer role include:

- Using your hand, wrist, and arm for prolonged periods
- Assisting in transporting, lifting, and positioning of patients as well as equipment
- Upper body, shoulder and arm strength capable of performing repetitive tasks with the shoulder, arms and hands

Note: Individuals with previous or existing chronic or repetitive strain injuries have experienced re-injury or aggravation in this program and/or as a practicing sonographer.



We highly encourage our students to be physically fit, and incorporate resistance training and exercise into their daily routine

Benefits of Being a Sonographer



- You are helping identify a cause of patients' symptoms
- Good job prospects due to ongoing shortage of Sonographers in Canada
- Room to specialize and further knowledge
- You can work in a hospital, private clinic, sales, teaching or research
- Good work-life balance
- Typically, 8 hr daytime shifts
- May have to do evening/weekends shifts and on-call (hospital)

Employability & Wages

A career with strong employment opportunities and competitive wages

Projected job openings in BC (2025-2035)	BC job outlook (2025-2027)	Annual Income	BC hourly wage range
610	High Opportunity Occupation	$71,933	$35 - $50 / hour

Data accessed October 2026. Job openings: Work BC (2025–2035). Wages and job outlook: Government of Canada Job Bank. Actual employment opportunities and wages vary. Projected job openings in BC (2025-2035) BC job outlook

CNC Sonography Program



What to Expect

- **No summer break –** six consecutive terms
- Clinical practicums take place at **hospitals/clinics throughout BC**
- **Fast-paced and intensive –** a substantial academic and clinical workload
- **Physically and mentally demanding –** students need strong time-management, organization, and self-care skills
- **Dedication to independent lab practice** – students expected to be patients for each other, and spend a minimum of 6 hours of independent practice on top of class and labs



The program is condensed into 24 consecutive months, making for an intensive academic and clinical experience.

CNC Sonography Program Overview

Program length:

- Prince George Campus
- 24 months full time
- 6 terms

Dual Program:

- General and Cardiac designations upon graduation

Accredited:

- The CNC DMS program is fully accredited by EQual Canada

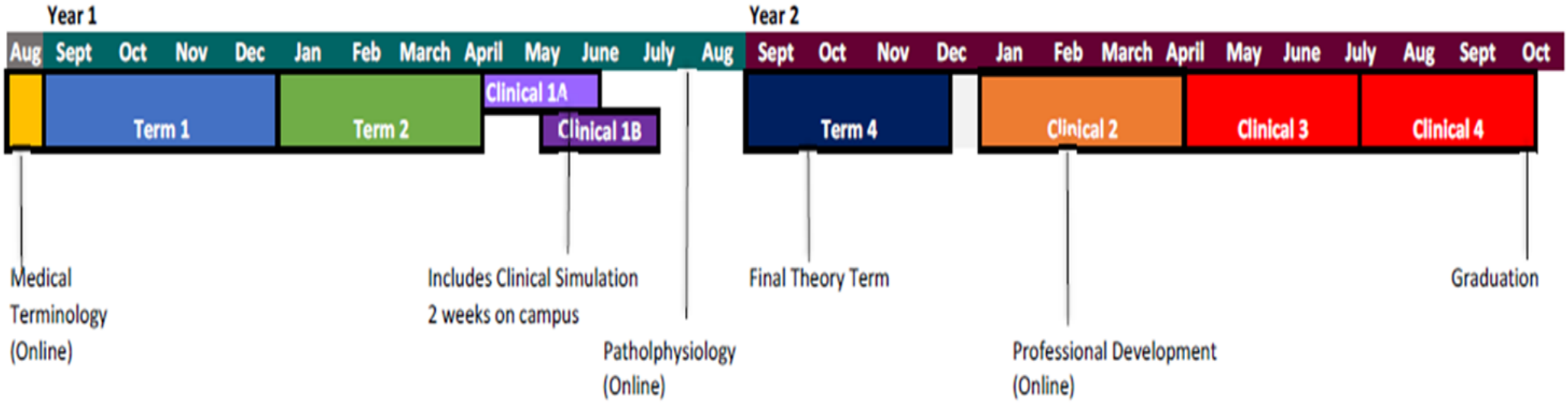
Theory:

- Full course load
- Primarily in-person delivery, with some online
- Hands-on skills labs scanning fellow students and phantoms

Clinical:

- Full-time practicum at hospital/clinic
- Apply skills from theory courses on patients, under supervision of department sonographer
- Complete competencies to graduate

CNC DMS Program



College of New Caledonia

Year 1| Term 1

September – December • 15 weeks • CNC PG Campus

Your introduction to sonography

Students begin with foundational knowledge focusing on normal anatomy and basic hands-on skills in the lab

Courses:

- General Sonography I
- Women's Sonography I
- Cardiac Sonography I
- Patient Care for Sonography
- Relational Practice I
- Anatomy and Physiology
- Physics for Sonography I

What to expect

- Full-time, intensive course load
- 3 lab-based courses
- To scan and be scanned as a patient for fellow students
- A fast-paced introduction to new concepts and skills

Year 1 | Term 2

January – April • 15 weeks • CNC PG Campus

Continuation of theory

Students progress to pathology and abnormalities, and work on mastery of hands-on skills in the lab

Courses:

- General Sonography II
- Women's Sonography II
- Cardiac Sonography II
- Vascular Sonography I
- Relational Practice II
- Physics for Sonography II

What to expect:

- Full-time, intensive course load, generally thought to be the heaviest academic term
- 3 lab-based courses
- A fast-paced introduction to new concepts and skills
- Knowledge and skills that directly support your first clinical practicum

Take a Look Inside the Lab

The CNC sonography lab has 8 scanning bays, equipped with real ultrasound machines.

- From the very beginning of the program, students both scan and act as patients for one another!
- Each bay is meant to replicate a hospital scanning room – inspired by our local department at UHNBC.
- Contains:
  - Ultrasound machine and probes
  - Stretcher
  - Ergonomic chair
  - Console table with supplies, linens, gel



Take a Look Inside the Lab



The lab also has various ultrasound phantoms, allowing students to practice various skills such as:

- Obstetrics (pregnant patients are not scanned at the lab)
- Sensitive/invasive scan types, such as breast, endovaginal or scrotal
- Pathologies
- IV arms for simulating intravenous line placement

  *Please note: students are **not** required to practice IV placement on real patients*

Year 1| Term 3

April – July • 12 weeks • CNC PG Campus / On-site Clinical Education

Take your skills to the clinical environment

Students take skills and scan real-life patients in a hospital or clinic, under the supervision of a diagnostic medical sonographer

Courses:

- Clinical Orientation (2 weeks)
- Sonography Clinical I (6 weeks)
  - On-campus clinical simulation
  - On-site introductory clinical rotation
- Pathophysiology for Sonography (12 weeks – online)

What to expect:

- Clinical orientation, reviewing pre-clinical requirements and expectations
- On-campus mock clinic, scanning volunteer patients in preparation for your first clinical rotation
- Introductory clinical rotation, your first experience working with real patients in a hospital environment, alongside experienced sonographers.
- Co-current online theory course

Clinical Practicums

Students can be placed in **any site across the province**

- Can also include territories such as the Yukon and NWT
- This includes Hospitals as well as Community Imaging Clinics (CICs)

- Clinical Practicums are unpaid, full time (5 days per week, 37.5 hrs/wk)
- Students will be responsible for all costs associated with travel, living expenses and accommodation during clinical practicums
- Students will be expected to travel to a new location for each clinical placement
- Students will be notified of the clinical practicum schedule 3 months prior to rotation start

Student preference for practicums cannot be guaranteed, and learning needs will be top priority.

Clinical Practicums

Where can I go for Clinical in BC?

5 Main Health Authorities:

- **Fraser Health (FHA)**
- **Vancouver Coastal Health (VCHA)**
- **Vancouver Island Health (VIHA)**
- **Interior Health (IHA)**
- **Northern Health (NHA)**

**There may be limited access to FHA and VCHA*



Year 2| Term 4

September – December • 13 weeks • CNC PG Campus

Final term of theory

Students progress to advanced techniques, complex pathology and abnormalities and work on mastery of hands-on skills in the lab

Courses:

- General Sonography III
- Women's Sonography III
- Cardiac Sonography III
- Vascular Sonography II
- Physics for Sonography III

What to expect:

- Full-time, intensive course load
- 3 lab-based courses
- A fast-paced introduction to new concepts and skills
- Mastery of skills required for clinical
- Focus on integrating knowledge with the ultrasound examination, tailoring protocols for pathologies

Year 2| Term 5 & 6

January – April/ May - September • 15 and 20 weeks • On-site Clinical Education

Continuation of clinical skills

Students develop hands-on scanning and patient care skills

Courses:

- Clinical Practicum II *(Jan – April,15 weeks)*
- Professional Development *(Jan – April, 15 weeks, online)*
- Clinical Practicum III *(April – July, 10 weeks)*
- Clinical Practicum IV *(July – September, 10 weeks)*

What to expect:

- Students progress from scanning uncomplicated exams with assistance to scanning complex abnormal scans independently
- Co-current online theory course
- Students are required to review theory and write regular online midterm exams
- At the end of training, will complete Sonography Canada competency scanning assessments to graduate

Graduation Requirements

1. Successful completion of all courses in the CNC DMS program, including clinical practicums
2. Canadian Clinical Skills Assessments (competencies)
   - Done in last clinical rotation
   - Available to programs with Accredited Status
3. Board Examinations
   - Exams include:
     - Generalist
     - Cardiac

     **Both exams include questions about patient care, instrumentation and physics

Provided through **Sonography Canada**, the national organization for DMS in Canada



Want to know more? Check out:
https://sonographycanada.ca/about-sonography/becoming-sonographer

What Helps Students Succeed?



Stay organized

- Manage your time and keep up with a demanding schedule. Prioritize studying and time management.

Take care of yourself

- Develop strategies to manage stress and maintain balance.

Ask for support

- Connect with peers, instructors, and campus resources when you need help.

Plan for accommodations

- If you require accommodations, connect with CNC Accessibility Support Services early.

Estimated Program Costs

Tuition	$24,677
Student Fees	$2432
Application Fee	$40
Registry Exams (Dual Certification) - Sonography Canada	$2400
Textbooks (New)	$1815
Computer	$1000
Expendable Supplies	$1000
Uniform & Shoes- Scrub tops must be purchased at CNC Bookstore	$321
Program Requirements (i.e. First Aid, CRC, TB test, N95 Fit test)	$338
Total:	**$34, 023**

Note: Costs are estimates (2026-27) and may change without notice. See fee schedule for most up-to date info

CNC DMS Program - Entry Requirements

1. B.C. Certificate of Graduation or equivalent (see General Admission)
2. The following courses, with no grade lower than a "B":
   - Anatomy & Physiology 12, or Biology 12, or BIO050 or equivalent
   - English Studies 12, or English First Peoples 12, or ENGL 050 or equivalent
   - Foundations Math 12, or equivalent
   - Physics 12, or PHYS 050, or equivalent

Recommended:

- Minimum of 1 year post secondary education – especially in human anatomy/physiology, biology and/or health sciences.
- Healthcare experience (work/volunteering, shadowing)
- Demonstrated interest in the field
- Completion of course **Introduction to Ultrasound** – The Burwin Institute
- Attendance of CNC's Open House
- Volunteer to be a patient during our annual Clinical Simulation Clinic

English Language Proficiency

Applicants whose **first language is not English** must also meet CNC's English language proficiency requirements.

One of the following is required:

- **TOEFL iBT88 overall** No section below 20 *Taken within the last 2 years*

OR

- **IELTS Academic 6.5 overall** No band below 6.0 *Taken within the last 2 years*

OR

- **Post-secondary English 6 credits** of English studies at a recognized college or university in an English-speaking country

English proficiency is important for effective communication with patients, healthcare teams, and clinical instructors in the clinical environment.

CNC DMS Program - Admission Criteria

Competitive entry program, applicants meeting admission requirements are ranked for acceptance according to their competitive entry selection score.

Scoring Criteria:

1. Cumulative grade point average of the required courses … up to 15 points
2. Post-secondary courses (30 credits or more) … up to 20 points
3. Residency in the two years prior to the date of application … up to 20 points
   - BC/Yukon/NWT (10 points)/ Northern Health Authority (20 points)
4. Critical Analysis of Program Readiness Essay … up to 45 points

For more details see CNC DMS Entry Requirements website

CNC DMS Program - Essay

Given your understanding of the role and responsibilities of the Diagnostic Medical Sonographer:

1. What do you feel will be the most challenging aspect of your training program and how will you overcome this challenge?
2. What will be the most challenging aspect of the profession and how will you overcome this challenge?
3. What character traits do you possess and how do they relate to you being successful in this training program and profession?
4. What experiences have you had that will help you succeed in your career training and as a professional?

To gain a thorough understanding of the DMS profession, you should fully investigate this career choice.

You may conduct your research by conversing with people in the profession, attending DMS info sessions like this one, and searching the internet.

This research will help you to determine your readiness to enter the DMS program.

CNC DMS Program - Essay

What are we looking for?

Share specific examples about YOU, why you are the ideal candidate. Include your life experiences, characteristics, strengths and investigational activities that will set you up for success in the DMS program.

Evaluators are also especially looking for an understanding of:

- **The heavy academic workload**, strong study skills, time management, post-secondary experience etc.
- **The risk of injury and your personal strategies to prevent this** - life experience like sports, workout routines
- **Outline clear examples of the investigations** you have done and your understanding of the profession
- **Awareness that you will have to travel outside of PG for clinical** and how you will prepare for that.

Also, there are points for grammar, following the instructions and format - this shows that you have experience writing academic papers and have strong written communication skills. Don't overlook this!

Application Deadlines

- Apply through the “Apply Now” button on the Diagnostic Medical Sonography Program page on the CNC website, by **March 1.**
- All accompanying documentation must be submitted no later than **March 31** for consideration for the September intake.
- Applicants must submit the entry selection documents by the deadline to be included in the competitive entry selection process.

More Info at: https://cnc.bc.ca/programs-courses/programs/detail/diagnostic-medical-sonography-diploma

Program Requirements – prior to program start

Before starting the program, you must complete:

1. SONO 100: Medical Terminology for Sonography

- Successfully complete **SONO 100** before starting Term 1.
- *Access to SONO 100 will be provided during the summer before the program begins.*

2. Personal data and release of information form



Program Requirements - Clinical

Before Starting Clinical

Students must complete and maintain the following requirements throughout the program:

- **Immunization requirements**
  - In accordance with the BC Centre for Disease Control and BC Student Practice Education Guidelines
- **CPR Level C or Basic Life Support (BLS)**
  - Online courses must include an in-person skills component
- **N95 mask fit testing**
  - Qualitative fit test; renewed annually
- **Criminal Record Check- Schedule B**
  - Required because students work with vulnerable people

Important to Know

- Students are responsible for the costs of required certifications, testing and documentation.
- All requirements must remain current throughout the program. Students may not begin a clinical placement until all required documentation and certifications are complete.
- Successful completion of clinical education is required for graduation.

Ready to Learn More?

Explore the program and take the next step.

Diagnostic Medical Sonography Diploma

Explore the CNC DMS Program

Apply to CNC

Start your application

Questions? We're happy to help.

DMS Faculty

sonography@cnc.bc.ca



We look forward to hearing from you-and hopefully welcoming you to CNC Sonography!

Helpful Links!

- Sonography Canada https://sonographycanada.ca/
- The Burwin Institute https://www.burwin.com/
- CNC Admissions https://cnc.bc.ca/admissions
- How to apply video: https://www.youtube.com/watch?v=ZRGhFSR4fJY
- Financial Aid https://cnc.bc.ca/services/financial-aid
- Aboriginal Resources Centre https://cnc.bc.ca/services/prince-george/aboriginal-resources
- Health and Wellness Centre https://cnc.bc.ca/current-students/health-wellness
- Campus Housing https://cnc.bc.ca/services/prince-george/housing