

DIAGNOSTIC MEDICAL SONOGRAPHY - ASSOCIATE IN APPLIED SCIENCE



DMSD, DMSE, DMSV

Occupational Title: Diagnostic Medical Sonographer
Flanagan Campus, Lincoln only

The Diagnostic Medical Sonography program is accredited by the Commission on Accreditation of Allied Health Education Programs (<https://www.caahep.org/>), 25400 US Highway 19 North, Suite 158, Clearwater, FL, 33763; 727-210-2350, upon recommendation of the Joint Review Committee on Education in Diagnostic Medical Sonography, 6021 University Blvd., Suite 500, Ellicott City, MD, 21043; 443-973-3251.

Diagnostic medical sonography is a rapidly growing technology used to locate, evaluate and record pertinent anatomical, pathological and functional data to aid the physician in the diagnosis and prevention of disease. The Diagnostic Medical Sonography associate degree program is a 24-month program that begins in September. Students participate in five semesters of classroom instruction at CCRI and associated clinical education facilities to learn a wide variety of imaging techniques.

Students must select a concentration in either **general ultrasound**, **vascular** or **echocardiography**.

For concentration information see:

- General – Society of Diagnostic Medical Sonographers (SDMS)
- Vascular – Society of Vascular Ultrasound (SVU), www.svu.org
- Echocardiography – American Society of Echocardiography (ASE), The American Society of Echocardiography website (<http://asecho.org/>) or contact Paula Cardillo, CCRI DMSD program director, pcardillo@ccri.edu

Students successfully completing the program are eligible to take the American Registry of Diagnostic Medical Sonographers (ARDMS) registry examination. Graduates of this program are prepared for entry-level employment as sonographers (ultrasonographers) in hospitals, clinics, and private offices and/or for transfer to bachelor's degree programs.

Technical Standards: The physical activity (strength) level for sonographers (078.364.010) is classified as "light" by the Department of Labor in the Dictionary of Occupational Titles

Note: Many courses require prerequisites, corequisites and/or testing. See course descriptions for details (<https://catalog.ccri.edu/course-descriptions/>).

General Policies

See important general policies in the beginning of this section on the performance-based Health Sciences application process, academic progress, advanced placement, background check, CPR certification, health insurance, health records, reinstatement, transportation, uniforms, and equipment.

Minimum Requirements to Apply to the Diagnostic Medical Sonography Program

1. **CCRI application** – Complete and submit an Application for Enrollment to CCRI. General Studies should be the first choice; DMSD should be the second choice
2. **High school transcript** – An official copy of a high school or GED® transcript, including date of graduation, must be provided. If the applicant holds a baccalaureate degree from an accredited college or university, the high school transcript may be waived; a college transcript must indicate completion and degree awarded
3. **Placement testing** – Complete a standardized test (ACCUPLACER) issued by CCRI's Department of Advising and Counseling. Students may NOT retake the ACCUPLACER test before completing the remedial course/courses. Note: For application purposes, ACCUPLACER testing can be waived for students who provide documentation of a bachelor's degree or higher. Students are advised that individual departments may still require ACCUPLACER testing as a prerequisite for their courses. **Reading comprehension test** must show competency of 80 or above in the Classic ACCUPLACER or a score of 253 or above in the Next Generation ACCUPLACER or students must complete Critical Reading for College Success (ENGL 0890) with a grade of B- or better.
4. **Complete courses required** for admission with a grade of C or better.
 - Composition I (ENGL 1010). Composition I for Speakers of English as a Second Language (ENGL 1300) will not substitute for Composition I (ENGL 1010).
 - College Algebra (MATH 1200). Pre-Calculus Mathematics (MATH 2111) and Calculus I (MATH 2141) also meet this requirement.
 - Conceptual Physics/Physical Science (PHYS 1000). General Physics I (PHYS 1030) also meets this requirement.
5. **Complete courses required** for admission with a grade of B- or better.
 - Human Anatomy and Physiology (BIOL 1070)
6. **Aptitude Examination** – Take the PSB Health Occupations Aptitude Examination administered through Advising and Counseling. The exam may be taken no more than three times. See the Psychological Services Bureau website (<http://psbtests.com/>).
7. **GPA** – A grade point average of 2.0 or better for all college courses taken.
8. **Health Sciences application** – Complete and submit performance-based Health Sciences application including a preadmission degree evaluation during the open enrollment period.
 - **Important:** Submission of a performance-based Health Sciences application does not guarantee acceptance to the program. Acceptance is based on points earned as listed in the program acceptance criteria point system. (See CCRI's Dean of Health & Rehabilitative Sciences (<https://www.ccri.edu/dean-hrs/>.) At the time of admission, students must meet the current admission requirements. Students declining acceptance into the program for the semester offered must resubmit a performance-based Health Sciences application and meet the current admission requirements. Once accepted, students must attend a mandatory orientation conducted by the Allied Health Department.
9. **Background check** – Students are required to submit a background check when directed by notification from Enrollment Services.

Program Requirements

- The major requirements for this program must be taken in sequence. They are open only to students who are formally accepted into the program.
- Students must complete all courses in the program with a cumulative index of 2.0 to qualify for a certificate.
- No grade less than a C** is acceptable in any of the technical courses (DMSD). Students receiving less than a C will be dismissed from the program.
- Program faculty reserve the right to require withdrawal of any student from the program or refuse reinstatement based on the student's academic, clinical or professional performance.

Requirements

Code	Title	Hours
Preadmission General Education Requirements - All Concentrations		
Courses must be taken prior to program admission:		
ENGL 1010	Composition I	3
Select one of the following:		3-4
MATH 1200	College Algebra	
MATH 2111	Pre-Calculus Mathematics	
MATH 2141	Calculus I	
BIOL 1070	Human Anatomy and Physiology	3
PHYS 1000	Conceptual Physics/Physical Science	4
Subtotal		13-14
General Education Requirements - All Tracks		
PSYC 2010	General Psychology	4
COMM 1100	Public Speaking	3
PSYC 2030	Developmental Psychology	3
Literature Elective (https://catalog.ccri.edu/academic-information/general-education/course-attributes/#litr/)		3
Humanities OR Social Science Elective (https://catalog.ccri.edu/academic-information/general-education/courses-approved-general-education-credits/)		3
Subtotal		16
Concentration Requirements		
Select one of the following concentrations:		37
Echocardiography Concentration (DMSE)		
General Ultrasound Concentration (DMSD)		
Vascular Concentration (DMSV)		
Subtotal		37
Total Hours		66-67

¹ See this page for a complete list of courses that fulfill the SSCI attribute. (https://bannerweb.ccri.edu/pls/DORA/bzckgens.p_attr?t=999999&a=SSCI)

Echocardiography Concentration (DMSE)

Code	Title	Hours
Major Requirements (DMSE)		
DMSD 2100	Patient Care in Sonography	3
DMSD 2210	Sonographic Physics	4
DMSD 2220	Sonographic Imaging	3
DMSD 2245	Sonographic Anatomy	3

DMSD 2260	Echocardiography I	4
DMSD 2261	Echocardiography II	4
DMSD 2262	Advanced Echocardiography	4
DMSD 2263	Echocardiography Practicum I	3
DMSD 2264	Echocardiography Practicum II	3
DMSD 2265	Echocardiography Practicum III	3
DMSD 2500	Diagnostic Medical Sonography Seminar	3
Subtotal		37
Total Hours		37

Total DMSE Program Credits 66-67

General Ultrasound Concentration (DMSD)

Code	Title	Hours
Major Requirements (DMSD)		
DMSD 2100	Patient Care in Sonography	3
DMSD 2210	Sonographic Physics	4
DMSD 2220	Sonographic Imaging	3
DMSD 2230	Abdominal Ultrasound	4
DMSD 2235	Ultrasound for Small Parts, Gynecology and Male Pelvis	4
DMSD 2240	Obstetrical Ultrasound	4
DMSD 2241	General Ultrasound Practicum I	3
DMSD 2242	General Ultrasound Practicum II	3
DMSD 2243	General Ultrasound Practicum III	3
DMSD 2245	Sonographic Anatomy	3
DMSD 2500	Diagnostic Medical Sonography Seminar	3
Subtotal		37
Total Hours		37

Total DMSD Program Credits 66-67

Vascular Concentration (DMSV)

Code	Title	Hours
Major Requirements (DMSV)		
DMSD 2100	Patient Care in Sonography	3
DMSD 2210	Sonographic Physics	4
DMSD 2220	Sonographic Imaging	3
DMSD 2245	Sonographic Anatomy	3
DMSD 2250	Vascular Ultrasound I	4
DMSD 2251	Vascular Ultrasound II	4
DMSD 2252	Advanced Vascular Ultrasound	4
DMSD 2253	Vascular Practicum I	3
DMSD 2254	Vascular Practicum II	3
DMSD 2255	Vascular Practicum III	3
DMSD 2500	Diagnostic Medical Sonography Seminar	3
Subtotal		37
Total Hours		37

Total DMSV Program Credits 66-67

Recommended Course Sequence - Echo

Course	Title	Hours
Prerequisites		
ENGL 1010	Composition I	3
Select one of the following:		3-4
MATH 1200	College Algebra	
MATH 2111	Pre-Calculus Mathematics	
MATH 2141	Calculus I	
PHYS 1000 or PHYS 1030	Conceptual Physics/Physical Science or General Physics I	4
BIOL 1070	Human Anatomy and Physiology	3
Hours		13-14
Year 1		
Semester 1		
DMSD 2210	Sonographic Physics	4
DMSD 2220	Sonographic Imaging	3
DMSD 2245	Sonographic Anatomy	3
PSYC 2010	General Psychology	4
Hours		14
Semester 2		
DMSD 2100	Patient Care in Sonography	3
DMSD 2260	Echocardiography I	4
COMM 1100	Public Speaking	3
Hours		10
Summer Session		
DMSD 2261	Echocardiography II	4
DMSD 2263	Echocardiography Practicum I	3
Hours		7
Year 2		
Semester 1		
DMSD 2262	Advanced Echocardiography	4
DMSD 2264	Echocardiography Practicum II	3
PSYC 2030	Developmental Psychology	3
Hours		10
Semester 2		
DMSD 2265	Echocardiography Practicum III	3
DMSD 2500	Diagnostic Medical Sonography Seminar	3
Literature Elective (https://catalog.ccri.edu/academic-information/general-education/course-attributes/#litr/)		3
Humanities OR Social Science Elective (https://catalog.ccri.edu/academic-information/general-education/courses-approved-general-education-credits/)		3
Hours		12
Total Hours		66-67

Recommended Course Sequence - General Ultrasound

Course	Title	Hours
Prerequisites		
ENGL 1010	Composition I	3
Select one of the following:		3-4
MATH 1200	College Algebra	

MATH 2111	Pre-Calculus Mathematics	
MATH 2141	Calculus I	
PHYS 1000 or PHYS 1030	Conceptual Physics/Physical Science or General Physics I	4
BIOL 1070	Human Anatomy and Physiology	3
Hours		13-14
Year 1		
Semester 1		
DMSD 2210	Sonographic Physics	4
DMSD 2220	Sonographic Imaging	3
DMSD 2245	Sonographic Anatomy	3
PSYC 2010	General Psychology	4
Hours		14
Semester 2		
DMSD 2100	Patient Care in Sonography	3
DMSD 2230	Abdominal Ultrasound	4
COMM 1100	Public Speaking	3
Hours		10
Summer Session		
DMSD 2235	Ultrasound for Small Parts, Gynecology and Male Pelvis	4
DMSD 2241	General Ultrasound Practicum I	3
Hours		7
Year 2		
Semester 1		
DMSD 2240	Obstetrical Ultrasound	4
DMSD 2242	General Ultrasound Practicum II	3
PSYC 2030	Developmental Psychology	3
Hours		10
Semester 2		
DMSD 2243	General Ultrasound Practicum III	3
DMSD 2500	Diagnostic Medical Sonography Seminar	3
Literature Elective (https://catalog.ccri.edu/academic-information/general-education/course-attributes/#litr/)		3
Humanities OR Social Science Elective (https://catalog.ccri.edu/academic-information/general-education/courses-approved-general-education-credits/)		3
Hours		12
Total Hours		66-67

Recommended Course Sequence - Vascular

Course	Title	Hours
Prerequisites		
ENGL 1010	Composition I	3
Select one of the following:		3-4
MATH 1200	College Algebra	
MATH 2111	Pre-Calculus Mathematics	
MATH 2141	Calculus I	
PHYS 1000 or PHYS 1030	Conceptual Physics/Physical Science or General Physics I	4

BIOL 1070	Human Anatomy and Physiology	3
	Hours	13-14
Year 1		
Semester 1		
DMSD 2210	Sonographic Physics	4
DMSD 2220	Sonographic Imaging	3
DMSD 2245	Sonographic Anatomy	3
PSYC 2010	General Psychology	4
	Hours	14
Semester 2		
DMSD 2100	Patient Care in Sonography	3
DMSD 2250	Vascular Ultrasound I	4
COMM 1100	Public Speaking	3
	Hours	10
Summer Session		
DMSD 2251	Vascular Ultrasound II	4
DMSD 2253	Vascular Practicum I	3
	Hours	7
Year 2		
Semester 1		
DMSD 2252	Advanced Vascular Ultrasound	4
DMSD 2254	Vascular Practicum II	3
PSYC 2030	Developmental Psychology	3
	Hours	10
Semester 2		
DMSD 2255	Vascular Practicum III	3
DMSD 2500	Diagnostic Medical Sonography Seminar	3
	Humanities OR Social Science Elective (https://catalog.ccri.edu/academic-information/general-education/courses-approved-general-education-credits/)	3
	Literature Elective (https://catalog.ccri.edu/academic-information/general-education/course-attributes/#litr/)	3
	Hours	12
	Total Hours	66-67

Transfer

If you are interested in earning a bachelor's degree, please meet with an Academic Advisor (https://www.ccri.edu/advising/transfer_information/) who can help you select the courses that best prepare you for transfer to a four-year college or university. For more information, you can also visit [ritransfers.org](http://www.ritransfers.org/) (<http://www.ritransfers.org/>) with resources on course and program transfer to Rhode Island College and the University of Rhode Island, or visit CCRI's Transfer Articulation (<https://www.ccri.edu/oes/records/transfers/traagree.html>) page for information on articulation agreements with colleges and universities throughout New England.