

DIAGNOSTIC MEDICAL SONOGRAPHY (A)

Diagnostic Medical Sonography (DMS) is a multi-specialty profession which utilizes high frequency sound waves to image the human body. Sonographers use their knowledge of anatomy, physiology and applied critical thinking to assess function and the presence of disease processes. Sonographers work under the guidance of an interpreting physician in a variety of health care settings. Concordia University Ann Arbor (CUAA) offers a Bachelor of Science Degree in Diagnostic Medical Sonography. The degree includes four or more semesters of pre-professional course work to prepare and qualify the student to apply for the two-year professional DMS didactic (academic) and clinical education (training).

DMS students who successfully meet DMS program requirements will graduate with a Bachelor of Science degree from Concordia University and are qualified to apply for national certification exams. Within the DMS program, students obtain the necessary preparation for their career through academic coursework and professional experience in a hospital and clinic settings.

Accreditation

The professional Diagnostic Medical Sonography programs affiliated with CUAA are accredited, upon recommendation of the Joint Review Committee on education in Diagnostic Medical Sonography (JRC-DMS (<http://www.jrcdms.org/>)), by the Commission on Accreditation of Allied Health Education Programs (CAAHEP (<https://www.caahep.org/>)).

Admission Requirement

Diagnostic Medical Sonography (DMS) students are accepted at CUAA under the general admissions requirement for the pre-professional/pre-requisite coursework in preparation for applying to the DMS program. DMS program placement is not guaranteed. Since the requirements are rigorous, students interested in the DMS program are strongly encouraged to meet with advising to outline a completion plan.

Pre-Professional Requirements

Diagnostic Medical Sonography (DMS) students complete the general core courses and pre-requisite courses for the major (see required course list). **Students must maintain a 2.8 pre-requisite course GPA to apply to the DMS program(s).** Students must maintain a C or higher grade in the following courses:

- **Two semesters** of college math (algebra and trigonometry)
- Anatomy and Physiology 1
- Anatomy and Physiology 2
- Pathophysiology
- Physics (non-astronomy)
- Medical Terminology
- Medical law and ethics
- Communication

Henry Ford: Pre-requisite courses can be in progress, offers will be contingent on completion by August

Ascension Providence: Course pre-requisites must be completed prior to January 1

Students will only be allowed to retake each required courses one time.

• Patient Care

- Henry Ford: Minimum 40 hours (20 hours at Henry Ford) observing sonographic examinations. *HOURS MUST BE IN ULTRASOUND
- Ascension Providence: Minimum 80 hours of clinical experience through volunteer observation or employment (must be completed within 12 months prior to application deadline)

DMS Program Acceptance - Student Selection

The Diagnostic Medical Sonography (DMS) programs are competitive and students are not guaranteed acceptance into the program(s). Students are strongly encouraged to familiarize themselves each programs specific entrance requirements as they decide on the DMS major.

Students who satisfactorily complete their pre-professional requirements will apply for DMS program placement. Placement into the program is based on but not limited to the following: pre-professional course GPA, specific course grades (see pre-professional requirements above), interview, previous work experience, letters of recommendations, aptitude test, and documentation of required patient care and shadowing experiences. Applicant requirements are determined by each respective accredited DMS program. Applications will be reviewed by the programs to determine if candidates are selected to interview. Interview preparation is strongly encouraged as the interviews, along with academic performance, comprise a significant portion of the candidate's application score. If accepted, the professional component of the program(s) is full time and up to 24 consecutive months in length.

Other Program Requirements

Health Status

Accepted students must demonstrate compliance of all the following:

- Annual physical examination and updated health history
- Negative test for tuberculosis, as shown by a negative Mantoux test, a negative QuantiFERON-TB test (annually)
- Immunity to rubeola, mumps and rubella as shown by a positive titer or documented vaccine
- Immunity to varicella as shown by a positive titer, or evidence of two vaccinations
- Seasonal influenza vaccine
- Covid-19 vaccine *please check with department chair of imaging for the most up to date information on this

Medical Insurance

Background Check & Drug Screen

Technical Standards

All applicants to the School of Diagnostic Medical Sonography are notified of the minimum requirements appropriate to the profession of sonography. The Americans with Disabilities Act (ADA) technical standards for the profession of diagnostic medical sonography include the ability to perform all of the following with reasonable accommodations:

- Lift more than 50 pound routinely
- Push and pull routinely
- Bend and stoop routinely

- Have full use of both hands, wrists and shoulders
- Distinguish audible sounds
- Adequately view sonograms, including color distinctions
- Work standing on their feet 80% of the time
- Interact compassionately and effectively with the sick or injured
- Assist patients on and off examining tables
- Organize and accurately perform the individual steps in a sonographic procedure in the proper sequence

Students must be able to perform the essential functions of the profession and meet the academic and clinical standards of the curriculum. To seek exceptions to these standards or reasonable accommodations, students should initiate a request with the program.

Tuition

Students in the Diagnostic Medical Sonography program will pay CU tuition during the pre-professional and professional aspects of the major. Students in the professional aspect of the major pay for 4 semesters and do not pay for summer, or any overload tuition charges. If the student is attending an affiliate hospital-based program, a percentage of the tuition will be given to that program. Students will be charged CU undergraduate tuition for the full program and receive all eligible institutional aid as long as the student is in enrolled in 12 or more credits. Only one student per year will be eligible to utilize the Concordia tuition waiver or tuition exchange. No more than one student per site may be on tuition waiver and/or tuition exchange at a time. Students receiving tuition benefits who are interested in the CU DMS program are encouraged to discuss options with advising and the imaging department chair.

Program Learning Outcomes

Concordia University (CU) students will apply to affiliated accredited programs in Diagnostic Medical Sonography (DMS). Students attending an accredited DMS program will receive academic coursework and clinical education from instructors employed by the program and will participate in clinical rotations through their affiliated hospitals and clinics. The following affiliated DMS programs are accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP (<https://www.caahep.org/>)) in cooperation with the Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS (<http://www.jrcdms.org/>)):

Henry Ford Health System DMS Program

This is a 24-month accredited program in a hospital setting, specializing in Abdomen Extended, Obstetrics & Gynecology and Musculoskeletal Sonography.

Program information, goals, curriculum and outcomes

Ascension | Providence Hospital (Southfield Campus) DMS Program

This is a 21-month accredited program in a hospital setting, specializing in Abdomen Extended, Obstetrics & Gynecology, and Vascular Sonography.

Program information, goals, curriculum and outcomes (<https://medicaleducationsjp.com/medical-education-at-ascension-providence-hospital/ascension-providence-hospital-school-of-diagnostic-medical-sonography/>)

Pre-Professional Course Curriculum - DMS Major

Code	Title	Hours
Core Requirements (https://catalog.cuw.edu/undergraduate/university/acad-prog/trad/core/)¹		45
Major Requirements (Pre-Professional)		26
Electives		
Minor: Optional		
Program Specific: (see professional curriculum)		60
Henry Ford Health DMS Program		
Ascension Providence Southfield Campus DMS Program		
Total Hours		131

¹ For transfer students, please see the Advanced Transfer Core (<https://catalog.cuw.edu/undergraduate/university/acad-prog/trad/transfer-core/>).

Code	Title	Hours
Concordia Common Core (18 credits needed)		
REL 1000	The Bible	3
REL 1100	Christian Faith	3
CCE 1020	Western Culture & Worldview	3
CCE 1030	Western Thought & Worldview	3
CCE 1010	Christian Citizen	3
CCE 1040	Science & Humanity	3
Liberal Arts Dimensions (27 credits required)		
<i>Faith & Life (3 credits)</i>		
Religion Elective REL above 2030		3
<i>Society & Culture (3 credits)</i>		
COMM 4100	Cross-Cultural Communication	3
or GEOG 2200 Cultural Geography		
or HIST 1600 Non-Western World		
<i>Natural World (7 credits)</i>		
BIO 1501	Functional Human Biology I	4
MATH 1280	College Algebra ¹	3
<i>Communication & Language (6 credits)</i>		
COMM 1100	Public Speaking ¹	3
or COMM 2100 Interpersonal Communication		
ENG 1040	Introduction to Writing	3
<i>Human Beings & Being Human (5 credits)</i>		
HHP 1100	Stewardship of the Body	1
HHP Activity (range 104-169)		1
PSY 1010	General Psychology	3
<i>Human Creativity & Expression (3 credits)</i>		
Choice of Core elective (see Core Options)		
Required Courses for Major (26 credits)		
PHYS 1514	General Physics I ¹	4
BIO 1502	Functional Human Biology II	4
BIO 2800	Pathophysiology ¹	3
BIO 1801	Human Anatomy and Physiology I ¹	4
BIO 1802	Human Anatomy and Physiology II ¹	4
DMS 2000	Medical Law & Ethics ¹	3
RT 3120	Medical Terminology ¹	1

Math elective - any Math above 128 ¹	3
Total Hours	71

¹ A grade of B (3.0) or above is required

Additional Requirements

- GPA 2.8 for program pre-requisite courses
- Minimum grade of B (3.0) in following courses: Communications, Math x2, Anatomy & Physiology x2, Medical Law & Ethics, Medical Terminology, Physics and Pathophysiology (*see footnotes*). Students only allowed to retake each course one time.
- **Henry Ford:** 40 hours of signed documented sonography observation, at least 20 of those hours done in Henry Ford Hospital.
- **Ascension Providence:** 80 hours clinical medical experience (volunteer observation or employment) completed within 12 months prior to application deadline.
- CPR for Healthcare Providers before the start of the DMS program.
- Students are encouraged to review requirements on affiliated program websites for additional information.
- Patient care or customer service experience is a plus.

Professional Curriculum - DMS

CU students attending an affiliate accredited diagnostic medical sonography program will receive academic coursework and lab instruction by the respective program’s employed instructors and participate in clinical rotations through affiliated hospitals and clinics. Students attending affiliate DMS programs will remain CUAA students and pay CU tuition for 2 fall and 2 spring semesters. The program director and instructors within the respective affiliate program will determine assessments, standards and grades for students enrolled in their program. **CUAA students successfully completing all requirements for the semester will be identified as passing on the CU transcript and issued a pre-determined amount of credits per semester, 60 credits in total for the program.** Students who do not successfully complete all requirements as indicated by the program will be issued "no credit" on their CU transcript. Students are encouraged to work with advising to outline their academic roadmap and review credit distribution.

Course Descriptions by program

Henry Ford Health System DMS program

The Henry Ford Health System Diagnostic Medical Sonography (DMS) Program is a Commission on Accreditation of Allied Health Education Programs (CAAHEP (<https://www.caahep.org/>)) accredited program at the approval of the Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS (<http://www.jrcdms.org/>)). This is a 24-month program in a hospital setting, specializing in Abdomen Extended, Obstetrics & Gynecology and Musculoskeletal Sonography.

Course Curriculum (<https://www.henryford.com/hcp/med-ed/allied/sonography/>)

Ascension | Providence Hospital (Southfield Campus) DMS Program

The Ascension Providence Southfield Campus Diagnostic Medical Sonography (DMS) Program is a Commission on Accreditation of Allied Health Education Programs (CAAHEP (<https://www.caahep.org/>)) accredited program at the approval of the Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS (<http://www.jrcdms.org/>)). This is a 21-month accredited program in a hospital

setting, specializing in Abdomen Extended, Obstetrics & Gynecology and Vascular Sonography.

Course Curriculum (<https://medicaleducationsjp.com/en/medical-education-at-ascension-providence-hospital/ascension-providence-hospital-school-of-diagnostic-medical-sonography/program-booklet/>)

Plan

Course	Title	Hours
Semester 1		
ENG 1040	Introduction to Writing	3
BIO 1801	Human Anatomy and Physiology I	4
MATH 1280	College Algebra	3
REL 1000	The Bible	3
COMM 1100 or COMM 2100	Public Speaking or Interpersonal Communication	3
CCE 1010	Christian Citizen	3
Hours		19
Semester 2		
BIO 1802	Human Anatomy and Physiology II	4
MATH COURSE ABOVE 1280		3
CCE 1040	Science & Humanity	3
REL 1100	Christian Faith	3
PSY 1010	General Psychology	3
HUMAN ACTIVITY COURSE		1
Hours		17
Semester 3		
PHYS 1514	General Physics I	4
DMS 2000	Medical Law & Ethics	3
BIO 1501	Functional Human Biology I	4
CCE 1030	Western Thought & Worldview	3
BIO 2800	Pathophysiology	3
Hours		17
Semester 4		
HHP 1100	Stewardship of the Body	1
BIO 1502	Functional Human Biology II	4
SOCIETY & CULTURE		3
RELIGION ELECTIVE		3
HUMAN CREATIVITY & EXPRESSION		3
RT 3120	Medical Terminology	1
CCE 1020	Western Culture & Worldview	3
Hours		18
Semester 5		
COOP 3000		15
Hours		15
Semester 6		
COOP 3000		15
Hours		15
Semester 7		
COOP 3000		15
Hours		15
Semester 8		
COOP 3000		15
Hours		15
Total Hours		131

Course options and schedule are subject to change.