

BHS in Clinical and Diagnostic Sciences with Emphasis in Diagnostic Medical Ultrasound

Degree Program Description

Sonographers (Ultrasound technologists) use high-frequency sound waves to produce dynamic visual images of organs, tissues, or blood flow in two, three, and four dimensions. Sonographers work in hospitals, clinics, private physician offices and other medical facilities performing examinations in their areas of specialization. Areas of specialization include: Abdomen, Obstetrics/Gynecology, Echocardiography, and Vascular technology. Sonographers function with a high degree of independence, using skill, judgment and knowledge to gather data required to reach a diagnosis. The DMU program includes two years of pre-requisite coursework and two years of professional coursework. Students graduate with a Bachelor of Health Science (BHS) degree in Clinical and Diagnostic Sciences with an emphasis in Diagnostic Medical Ultrasound from the University of Missouri. Graduates of the program are eligible to challenge the Abdomen, OB/GYN, Vascular and Adult Cardiac credentialing examination administered by the American Registry for Diagnostic Medical Sonography (ARDMS). The Commission on Accreditation of Allied Health Education Programs (CAAHEP) has accredited the Diagnostic Medical Sonography program upon the recommendation of the Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS). CAAHEP, 9355 - 113th St. N, #7709, Seminole, FL 33775, 727-210-2350, <https://www.caahep.org>

Major Program Requirements

To earn the BHS in Clinical and Diagnostic Sciences with an emphasis in Diagnostic Medical Ultrasound students must meet degree and University requirements (<https://catalog.missouri.edu/academicdegreerequirements/universityrequirements/>), including University general education requirement (<https://catalog.missouri.edu/academicdegreerequirements/generaleducationrequirements/>). In addition to the degree requirements below, the Diagnostic Medical Ultrasound program requires an application, including an interview, and students are encouraged to work with an advisor in order to best structure the pre-requisites and prepare for the program application. Students must complete Program Pre-requisite courses below with a grade of C- or higher to be eligible to apply to the BHS in Clinical and Diagnostic Sciences with an emphasis in Diagnostic Medical Ultrasound major. Major Core Requirements must be completed with a grade of C (2.0) or higher within the program, unless otherwise noted.

| Program Pre-requisites | | 34 |
|------------------------|--|----|
| ENGLSH 1000 | Writing and Rhetoric | 3 |
| MATH 1100 | College Algebra | 3 |
| PHYSCS 1210 | College Physics I | 4 |
| CHEM 1400 & CHEM 1401 | College Chemistry I and College Chemistry I Laboratory | 4 |
| or CHEM 1100 | Atoms and Molecules with Lab | |
| CDS 2190 | Medical Terminology | 3 |

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|--|--|-----------|
| PTH_AS 2201 & PTH_AS 2203 | Human Anatomy Lecture and Human Anatomy Laboratory | 5 |
| MPP 3202 or BIO_SC 3700 | Elements of Physiology Human Physiology | 5 |
| STAT 1200 or STAT 1300 or STAT 2500 or ESC_PS 4170 | Introductory Statistical Reasoning Elementary Statistics Introduction to Probability and Statistics I Introduction to Applied Statistics | 3 |
| DMU 1000 | Introduction to Diagnostic Medical Ultrasound | 1 |
| PHIL 2440 or PHIL 1100 or PHIL 1150 or HLTH_SCI 4480 or CDS 4480 | Medical Ethics The Difference Between Right and Wrong: An Introduction to Ethics Introductory Bioethics Clinical Ethics Clinical Ethics | 3 |
| Major Core Requirements | | 78 |
| DMU 3309 | Normal Ultrasound Clinical | 5 |
| DMU 3212 | Sectional Anatomy | 3 |
| DMU 3313 | Sonography Principles and Instrumentation I | 3 |
| DMU 3315 | Sonography Principles and Instrumentation II | 3 |
| DMU 3322 | Superficial Organs Ultrasound | 3 |
| DMU 4008W | Writing for Health Science - Writing Intensive (Capstone) | 3 |
| DMU 4015 | Ultrasound Professional Preparation | 3 |
| DMU 4234 | Clinical Pathophysiology | 3 |
| DMU 4314 | Abdominal Ultrasound | 5 |
| DMU 4318 | Gynecology Ultrasound | 3 |
| DMU 4320 | Obstetrics Ultrasound | 3 |
| DMU 4326 | Sonography Principles and Instrumentation III | 3 |
| DMU 4332 | Vascular Ultrasound | 4 |
| DMU 4342 | Adult Cardiac Ultrasound | 6 |
| DMU 4941 | Ultrasound Clinical I * | 7 |
| DMU 4944 | Vascular Ultrasound Clinical IV * | 7 |
| DMU 4945 | Cardiac Ultrasound Clinical V * | 6 |
| DMU 4993 | Ultrasound Clinical II * | 8 |

* Denotes courses in which a grade of B (3.0) or higher is required.

Professional Certification

Upon successfully completing the requirements of the program, graduates are eligible to apply to the American Registry of Diagnostic Medical Sonographers (ARDMS) for certification in Abdomen, Adult Cardiac, Obstetrics and Gynecology and Vascular Technology.

Semester Plan

Below is a sample plan of study, semester by semester. A student's actual plan may vary based on course choices where options are available.

| First Year | | | | | |
|---------------------------------|-----------|---|-----------|---------------|-----------|
| Fall | CR | Spring | CR | | |
| MATH 1100 | | 3 ENGLISH 1000 | 3 | | |
| HIST 1100, 1200, or POL_SC 1100 | | 3 PHYSICS 1210 | 4 | | |
| CHEM 1100 | | 4 STAT 1200 or ESC_PS 4170 | 3 | | |
| Social/Behavioral Science | | 3 Humanities/Fine Arts | 3 | | |
| | | 13 | 13 | | |
| Second Year | | | | | |
| Fall | CR | Spring | CR | Summer | CR |
| PHIL 2440, 1100, or 1150 | | 3 MPP 3202 | 5 | DMU 3212 | 3 |
| PTH_AS 2201 & PTH_AS 2203 | | 5 CDS 2190 | 3 | DMU 3313 | 3 |
| Humanities/Fine Arts | | 3 2000+ level Social/Behavioral Science | 3 | | |
| DMU 1000 | | 1 Elective | 1 | | |
| | | 12 | 12 | | 6 |
| Third Year | | | | | |
| Fall | CR | Spring | CR | Summer | CR |
| DMU 3309 | 5 | DMU 4314 | 5 | DMU 4941 | 7 |
| DMU 3315 | 3 | DMU 4318 | 3 | | |
| DMU 3322 | 3 | DMU 4320 | 3 | | |
| DMU 4234 | 3 | DMU 4326 | 3 | | |
| | | 14 | 14 | | 7 |
| Fourth Year | | | | | |
| Fall | CR | Spring | CR | Summer | CR |
| DMU 4008W | 3 | DMU 4015 (will become DMU 4015W and must be taken WI) | 3 | DMU 4945 | 6 |
| DMU 4332 | 4 | DMU 4342 | 6 | | |
| DMU 4993 | 8 | DMU 4944 | 7 | | |
| | | 15 | 16 | | 6 |
| Total Credits: 128 | | | | | |

** DMU 1000 Introduction to Diagnostic Medical Ultrasound is required for application to the DMU Program. Prospective students may enroll in the fall semester **or** the spring semester.