

BACHELOR OF SCIENCE IN MEDICAL IMAGING & THERAPEUTIC SCIENCES DAO

The BSMITS Degree Advancement Option (DAO) is offered through the University of Nebraska Medical Center (UNMC) campus and provides working medical imaging and therapeutic science professionals the opportunity to earn an advanced degree while continuing to work in their professions.

Qualified candidates are mentored by a faculty advisor who works with students to develop an Individual Plan of Study for degree completion.

A minimum of 20 semester hours of coursework from UNMC must be completed to qualify for degree completion. Students must be awarded a minimum of 120 total semester hours of college credit to be eligible to graduate from UNMC; therefore, additional coursework may be required. Students are allowed up to five years to complete the degree advancement option; however, it is possible to complete the program in three semesters.

Students are required to write papers, complete projects, conduct research, communicate with professors and students online, work independently on assignments and with coworkers on group projects, do case presentations and take quizzes and exams.

The University of Nebraska Medical Center, College of Allied Health Professions (CAHP) is accredited by the North Central Association of Colleges and Colleges. The BSMITS option is considered a degree advancement program and does not include a professional clinical education component; therefore, it is not under the purview of the Joint Review Commission on Education in Radiologic Technology (JRCERT).

Degree Completion

Upon successful completion of BSMITS curriculum, students will receive diploma and graduation information from UNMC Student Services.

Students must be awarded a minimum of 120 total semester hours of college credit (UNMC courses + transfer credit + professional certification credit) by the UNMC Office of Academic Records in order to be eligible to graduate from UNMC.

BSMITS DAO Website (<https://www.unmc.edu/alliedhealth/academics/programs/rt/bsmits/>)

Handbook Introduction

The contents of this handbook are intended to help current and prospective students understand the structural and procedural operations for the Bachelor of Science in Medical Imaging & Therapeutic Sciences Degree Advancement Option. The academic offerings under BSMITS DAO are administered by the College of Allied Health Professions (CAHP) at the University of Nebraska Medical Center (UNMC).

It is expected that students will be familiar with the contents of this handbook as well as the policies and procedures found within the College of Allied Health Professions using the link below:

CAHP Student Handbook & Policies (<https://www.unmc.edu/alliedhealth/currentstudents/policies.html>)

Handbook Links

- Academic Expectations (<http://catalog.unmc.edu/allied-health-professions/bsmitsdaoacademicexpectations/>)
- Admission Policies & Requirements (<http://catalog.unmc.edu/allied-health-professions/bsmitsdaoadmission/>)
- Background Checks (<http://catalog.unmc.edu/allied-health-professions/bsmitsdaobackgroundcheck/>)
- Code of Conduct (<https://catalog.unmc.edu/general-information/student-policies-procedures/code-of-conduct/code-of-conduct.pdf>)
- Competencies & Objectives (<http://catalog.unmc.edu/allied-health-professions/bsmitsdaocompetencies/>)
- Counseling, Psychological, & Disability Services (<http://catalog.unmc.edu/allied-health-professions/bsmitsdaocounseling/>)
- Degree Requirements (<http://catalog.unmc.edu/allied-health-professions/bsmitsdaodegreereq/>)
- Graduation Policies (<http://catalog.unmc.edu/allied-health-professions/bsmitsdaograduation/>)
- Program Advisement & Faculty (<http://catalog.unmc.edu/allied-health-professions/bsmitsdaoadvisement/>)
- Program Course Sequence (<http://catalog.unmc.edu/allied-health-professions/bsmitsdaoprogramsequence/>)
- Program Mission & Description (<http://catalog.unmc.edu/allied-health-professions/bsmitsdaomission/>)
- Transfer of Credit (<http://catalog.unmc.edu/allied-health-professions/bsmitsdaotransferofcredit/>)
- Time Limit for Degree (<http://catalog.unmc.edu/allied-health-professions/bsmitsdaotimelimit/>)

Curriculum

Code	Title	Credit Hours
BSMITS Required Courses		
CAHP 423	PRINCIPLES OF CRITICAL INQUIRY	2
MITS 440R	CASE STUDIES & JOURNAL REVIEW	2
CAHP 430	SCANNING HEALTH CARE ENVIRONMENT	3
CAHP 431	MANAGEMENT IN HEALTH CARE	3
Total Credit Hours		10

A minimum of 20 semester credit hours must be completed at UNMC. BSMITS elective course offerings are listed below. All courses are subject to change based on instructor availability, enrollment, and technology. All DAO courses are offered at least once each academic year (August–August).

Code	Title	Credit Hours
BSMITS Elective Course Options		
MITS 407S	ADVANCED OBSTETRICAL ULTRASOUND	2
MITS 408S	GYNECOLOGICAL ULTRASOUND	1
MITS 409S	GENITOURINARY ULTRASOUND	1
MITS 410R	SECTIONAL ANATOMY & PATHOLOGY I	4
MITS 411R	SECTIONAL ANATOMY & PATHOLOGY II	4

MITS 414S	INTRODUCTION TO SONOGRAPHY	2
MITS 413R	RADIOLOGIC CONTRAST AGENTS	2
MITS 414T	ONCOLOGY SECTIONAL ANATOMY & PATHOLOGY I	2
MITS 415T	ONCOLOGY SECTIONAL ANATOMY & PATHOLOGY II	2
MITS 419R	MRI PHYSICS & SYSTEMS I	2
MITS 420R	MRI PHYSICS & SYSTEMS II	2
MITS 422S	VASCULAR ANATOMY AND PHYSIOLOGY	3
MITS 423S	PATHOLOGY FOR THE HEALTH CARE PROFESSIONAL	2
MITS 425R	MRI POSITION & PROTOCOL I	2
MITS 424S	BREAST SONOGRAPHY	2
MITS 432S	ABDOMINAL ULTRASOUND	3
MITS 437S	CARDIAC ANATOMY AND PHYSIOLOGY	3
MITS 438S	CARDIAC PATHOLOGY AND HEMODYNAMICS	4
MITS 438N	ADVANCED RADIATION BIOLOGY	3
MITS 441R	MRI POSITIONING & PROTOCOLS II	2
MITS 443S	FETAL ECHOCARDIOGRAPHY	2
MITS 451R	MRI SAFETY	1
MITS 455S	HIGH RESOLUTION SONOGRAPHY	1
MITS 456S	NEUROSONOGRAPHY	2
MITS 457S	PEDIATRIC SONOGRAPHY	2
MITS 457R	CARDIOVASCULAR INTERVENTIONAL TECHNOLOGY I	3
MITS 458S	MUSCULOSKELETAL SONOGRAPHY	2
MITS 458R	CARDIOVASCULAR INTERVENTIONAL TECHNOLOGY II	3
MITS 460R	CT PROTOCOLS AND CROSS SECTIONAL ANATOMY	2
MITS 461R	CT PHYSICS	1
MITS 462S	VASCULAR PATHOLOGY AND HEMODYNAMICS	2
CAHP 415	COMMUNICATION AND CULTURE IN HEALTHCARE	3
CAHP 420	FOUNDATIONS OF INFORMATION TECHNOLOGY IN HEALTHCARE	2
CAHP 422	PRINCIPLES OF EDUCATION FOR HEALTH CARE PROFESSIONALS	2
CAHP 426	HEALTH CARE ETHICS AND CRITICAL THINKING	3
MLS 310	INTRODUCTION TO PATHOGENIC MICROORGANISMS IN INFECTIOUS DISEASE	4
MLS 404	IMMUNOLOGY	3

BSMITS DAO Website (<https://www.unmc.edu/alliedhealth/academics/programs/rt/bsmits/>)

Fall Courses

Fall

General CAHP Courses

Code	Title	Credit Hours
CAHP 310	MEDICAL TERMINOLOGY	2
CAHP 360	PATHOGENIC MEDICAL MICROBIOLOGY	4
CAHP 400	BIOCHEMISTRY FOR HEALTH PROFESSIONALS	3
CAHP 420	FOUNDATIONS OF INFORMATION TECHNOLOGY IN HEALTHCARE	2
CAHP 423	PRINCIPLES OF CRITICAL INQUIRY	2
CAHP 723	PRINCIPLES OF CRITICAL INQUIRY	2
CAHP 426	HEALTH CARE ETHICS AND CRITICAL THINKING	3
CAHP 626	HEALTH CARE ETHICS AND CRITICAL THINKING	3
CAHP 430	SCANNING HEALTH CARE ENVIRONMENT	3
CAHP 630	SCANNING HEALTH CARE ENVIRONMENT	3

General Medical Imaging & Therapeutic Science Courses

Code	Title	Credit Hours
MITS 410R	SECTIONAL ANATOMY & PATHOLOGY I (Proctor Required)	4
MITS 610R	SECTIONAL ANATOMY & PATHOLOGY I (Proctor Required)	4
MITS 414T	ONCOLOGY SECTIONAL ANATOMY & PATHOLOGY I (Proctor Required)	2
MITS 614T	ONCOLOGY SECTIONAL ANATOMY & PATHOLOGY I (Proctor Required)	2
MITS 423S	PATHOLOGY FOR THE HEALTH CARE PROFESSIONAL	2
MITS 623S	PATHOLOGY FOR THE HEALTH CARE PROFESSIONAL	2
MITS 451R	MRI SAFETY	1*
MITS 651R	MRI SAFETY	1*

Cardiovascular Interventional Technology Courses

Code	Title	Credit Hours
MITS 457R	CARDIOVASCULAR INTERVENTIONAL TECHNOLOGY I (Proctor Required)	3
MITS 657R	CARDIOVASCULAR INTERVENTIONAL TECHNOLOGY I (Proctor Required)	3

Computed Tomography Courses

Code	Title	Credit Hours
MITS 460R	CT PROTOCOLS AND CROSS-SECTIONAL ANATOMY	2
MITS 660R	CT PROTOCOLS AND CROSS-SECTIONAL ANATOMY	2

MITS 461R	CT PHYSICS	1
MITS 661R	CT PHYSICS	

Diagnostic Medical Sonography Courses

Code	Title	Credit Hours
MITS 414S	INTRODUCTION TO SONOGRAPHY	2
MITS 614S	INTRODUCTION TO SONOGRAPHY	
MITS 422S	VASCULAR ANATOMY AND PHYSIOLOGY	3
MITS 622S	VASCULAR ANATOMY AND PHYSIOLOGY	
MITS 424S	BREAST SONOGRAPHY	2
MITS 624S	BREAST SONOGRAPHY	
MITS 432S	ABDOMINAL ULTRASOUND	3
MITS 632S	ABDOMINAL ULTRASOUND	
MITS 437S	CARDIAC ANATOMY AND PHYSIOLOGY	3
MITS 637S	CARDIAC ANATOMY AND PHYSIOLOGY	
MITS 443S	FETAL ECHOCARDIOGRAPHY	2
MITS 643S	FETAL ECHOCARDIOGRAPHY	
MITS 457S	PEDIATRIC SONOGRAPHY	2
MITS 657S	PEDIATRIC SONOGRAPHY	
MITS 458R	CARDIOVASCULAR INTERVENTIONAL TECHNOLOGY II	3
MITS 658R	CARDIOVASCULAR INTERVENTIONAL TECHNOLOGY II	
MITS 462S	VASCULAR PATHOLOGY AND HEMODYNAMICS	2
MITS 662S	VASCULAR PATHOLOGY AND HEMODYNAMICS	

Magnetic Resonance Imaging Courses

Code	Title	Credit Hours
MITS 419R	MRI PHYSICS & SYSTEMS I (Proctor Required)	2
MITS 619R	MRI PHYSICS & SYSTEMS I (Proctor Required)	
MITS 425R	MRI POSITION & PROTOCOL I (Proctor Required)	2*
MITS 625R	MRI POSITION & PROTOCOL I (Proctor Required)	

Medical Laboratory Science Courses

Code	Title	Credit Hours
MLS 300	INTRODUCTION TO MEDICAL LABORATORY SCIENCE	1
MLS 302	INTRODUCTION TO HEMATOLOGY	3
MLS 404	IMMUNOLOGY	3

*Denotes experiential learning component and must have access to specialized equipment. For example, MRI Scanner.

Spring Courses

General CAHP Courses

Code	Title	Credit Hours
CAHP 360	PATHOGENIC MEDICAL MICROBIOLOGY	4
CAHP 400	BIOCHEMISTRY FOR HEALTH PROFESSIONALS	3
CAHP 422	PRINCIPLES OF EDUCATION FOR HEALTH CARE PROFESSIONALS	2
CAHP 423	PRINCIPLES OF CRITICAL INQUIRY	2
CAHP 426	HEALTH CARE ETHICS AND CRITICAL THINKING	3
CAHP 626	HEALTH CARE ETHICS AND CRITICAL THINKING	
CAHP 431	MANAGEMENT IN HEALTH CARE	3
CAHP 631	MANAGEMENT IN HEALTH CARE	

General Medical Imaging & Therapeutic Science Courses

Code	Title	Credit Hours
MITS 411R	SECTIONAL ANATOMY & PATHOLOGY II (Proctor Required)	4
MITS 611R	SECTIONAL ANATOMY & PATHOLOGY II	
MITS 415T	ONCOLOGY SECTIONAL ANATOMY & PATHOLOGY II (Proctor Required)	2
MITS 615T	ONCOLOGY SECTIONAL ANATOMY & PATHOLOGY II (Proctor Required)	
MITS 423S	PATHOLOGY FOR THE HEALTH CARE PROFESSIONAL	2
MITS 623S	PATHOLOGY FOR THE HEALTH CARE PROFESSIONAL	
MITS 438N	ADVANCED RADIATION BIOLOGY (Proctor Required)	3
MITS 638N	ADVANCED RADIATION BIOLOGY (Proctor Required)	
MITS 451R	MRI SAFETY	1
MITS 651R	MRI SAFETY	

Cardiovascular Interventional Technology Courses

Code	Title	Credit Hours
MITS 458R	CARDIOVASCULAR INTERVENTIONAL TECHNOLOGY II (Proctor Required)	3
MITS 658R	CARDIOVASCULAR INTERVENTIONAL TECHNOLOGY II (Proctor Required)	

Computed Tomography Courses

Code	Title	Credit Hours
MITS 460R	CT PROTOCOLS AND CROSS-SECTIONAL ANATOMY	2
MITS 660R	CT PROTOCOLS AND CROSS-SECTIONAL ANATOMY	

MITS 461R	CT PHYSICS	1
MITS 661R	CT PHYSICS	

Diagnostic Medical Sonography Courses

Code	Title	Credit Hours
MITS 407S	ADVANCED OBSTETRICAL ULTRASOUND	2
MITS 607S	ADVANCED OBSTETRICAL ULTRASOUND	
MITS 408S	GYNECOLOGICAL ULTRASOUND	1
MITS 608S	GYNECOLOGICAL ULTRASOUND	
MITS 409S	GENITOURINARY ULTRASOUND	1
MITS 609S	GENITOURINARY ULTRASOUND	
MITS 414S	INTRODUCTION TO SONOGRAPHY	2
MITS 422S	VASCULAR ANATOMY AND PHYSIOLOGY	3
MITS 622S	VASCULAR ANATOMY AND PHYSIOLOGY	
MITS 424S	BREAST SONOGRAPHY	2
MITS 624S	BREAST SONOGRAPHY	
MITS 432S	ABDOMINAL ULTRASOUND	3
MITS 632S	ABDOMINAL ULTRASOUND	
MITS 437S	CARDIAC ANATOMY AND PHYSIOLOGY	3
MITS 637S	CARDIAC ANATOMY AND PHYSIOLOGY	
MITS 438S	CARDIAC PATHOLOGY AND HEMODYNAMICS	3
MITS 638S	CARDIAC PATHOLOGY AND HEMODYNAMICS	
MITS 443S	FETAL ECHOCARDIOGRAPHY	2
MITS 643S	FETAL ECHOCARDIOGRAPHY	
MITS 451S	ULTRASOUND PHYSICS II	2
MITS 651S	ULTRASOUND PHYSICS II	
MITS 457S	PEDIATRIC SONOGRAPHY	2
MITS 657S	PEDIATRIC SONOGRAPHY	
MITS 458S	MUSCULOSKELETAL SONOGRAPHY	2
MITS 658S	MUSCULOSKELETAL SONOGRAPHY	
MITS 462S	VASCULAR PATHOLOGY AND HEMODYNAMICS	2
MITS 662S	VASCULAR PATHOLOGY AND HEMODYNAMICS	

Magnetic Resonance Imaging Courses

Code	Title	Credit Hours
MITS 420R	MRI PHYSICS & SYSTEMS II (Proctor Required)	2*
MITS 620R	MRI PHYSICS & SYSTEMS II (Proctor Required)	
MITS 441R	MRI POSITIONING & PROTOCOLS II (Proctor Required)	2*
MITS 641R	MRI POSITIONING & PROTOCOLS II (Proctor Required)	

Medical Laboratory Science Courses

Code	Title	Credit Hours
MLS 300	INTRODUCTION TO MEDICAL LABORATORY SCIENCE	1

MLS 302	INTRODUCTION TO HEMATOLOGY	3
MLS 404	IMMUNOLOGY	3

Medical Nutrition Courses

Code	Title	Credit Hours
MNED 477	NUTRITION IN THE MANAGEMENT OF CHRONIC DISEASES (MEDICAL NUTRITION THERAPY)	3

*Denotes experiential learning component and must have access to specialized equipment. For example, MRI Scanner.

Summer Courses**Summer****General CAHP Courses**

Code	Title	Credit Hours
CAHP 360	PATHOGENIC MEDICAL MICROBIOLOGY	4
CAHP 415	COMMUNICATION AND CULTURE IN HEALTHCARE	3
CAHP 615	COMMUNICATION AND CULTURE IN HEALTHCARE	

General Medical Imaging & Therapeutic Science Courses

Code	Title	Credit Hours
MITS 413R	RADIOLOGIC CONTRAST AGENTS	2
MITS 423S	PATHOLOGY FOR THE HEALTH CARE PROFESSIONAL	2
MITS 623S	PATHOLOGY FOR THE HEALTH CARE PROFESSIONAL	
MITS 440R	CASE STUDIES & JOURNAL REVIEW	2
MITS 451R	MRI SAFETY	1
MITS 651R	MRI SAFETY	

Computed Tomography Courses

Code	Title	Credit Hours
MITS 460R	CT PROTOCOLS AND CROSS-SECTIONAL ANATOMY	2
MITS 660R	CT PROTOCOLS AND CROSS-SECTIONAL ANATOMY	
MITS 461R	CT PHYSICS	1
MITS 661R	CT PHYSICS	

Diagnostic Medical Sonography Courses

Code	Title	Credit Hours
MITS 414S	INTRODUCTION TO SONOGRAPHY	2
MITS 422S	VASCULAR ANATOMY AND PHYSIOLOGY	3
MITS 622S	VASCULAR ANATOMY AND PHYSIOLOGY	
MITS 424S	BREAST SONOGRAPHY	2
MITS 624S	BREAST SONOGRAPHY	
MITS 455S	HIGH RESOLUTION SONOGRAPHY	1
MITS 655S	HIGH RESOLUTION SONOGRAPHY	
MITS 456S	NEUROSONOGRAPHY	2

MITS 656S	NEUROSONOGRAPHY	
MITS 457S	PEDIATRIC SONOGRAPHY	2
MITS 657S	PEDIATRIC SONOGRAPHY	
MITS 458S	MUSCULOSKELETAL SONOGRAPHY	2
MITS 658S	MUSCULOSKELETAL SONOGRAPHY	

Medical Laboratory Science Courses

Code	Title	Credit Hours
MLS 300	INTRODUCTION TO MEDICAL LABORATORY SCIENCE	1