

DIAGNOSTIC IMAGING (DMI)

DMI 101 Introduction to Medical Imaging

1 cr. Undergraduate.

Introduction to Diagnostic Medical Imaging modalities with a special emphasis on Radiologic Technology and Diagnostic Medical Sonography.

Prerequisites: none.

Course Rules: Counts as repeat of BMS 290 with similar topic.

Last Taught: Spring 2022, Fall 2021, Spring 2021, Fall 2020.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 300 Diagnostic Medical Imaging Fundamentals

2 cr. Undergraduate.

Introduction to physics as it relates to Diagnostic Medical Imaging. Students will explore the fundamental principles of physics and its application to Medical Imaging equipment and instrumentation.

Prerequisites: Radiography or Diagnostic Medical Sonography intended student or consent of instructor.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 306 Imaging Procedures I

5 cr. Undergraduate.

Radiographic anatomy and procedures related to upper and lower extremities, chest, abdomen, and barium studies. Pediatric imaging is discussed.

Prerequisites: jr st; BioMed Sci prog or cons instr.

Last Taught: Fall 2021, Summer 2021, Fall 2020, Summer 2020.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 307 Seminar in Radiography I

3 cr. Undergraduate.

Basic concepts of patient care, including consideration for the cultural, physical and psychological needs of the patient and family.

Prerequisites: jr st; BioMed Sci prog or cons instr.

Last Taught: Spring 2022, Spring 2021, Fall 2020, Spring 2020.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 308 Imaging Procedures II

5 cr. Undergraduate.

Radiographic anatomy and procedures for the bony thorax, vertebral column, and iodinated studies will be covered. Pediatric imaging for each procedure will be discussed.

Prerequisites: jr st; BioMed Sci prog or cons instr.

Last Taught: Spring 2022, Fall 2021, Spring 2021, Fall 2020.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 309 Imaging Procedures III

3 cr. Undergraduate.

Radiographic anatomy and procedures for the cranium and facial bones; pediatric imaging for each procedure will be discussed.

Prerequisites: none.

Last Taught: Spring 2022, Summer 2021, Spring 2021, Summer 2020.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 310 Introduction to Sonography

3 cr. Undergraduate.

Introduction to Diagnostic Medical Sonography with an overview of basic terminology, techniques, and equipment.

Prerequisites: jr st; BioMed Sci prog or cons instr.

Last Taught: Fall 2021, Fall 2020, Fall 2019, Fall 2018.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 311 Abdominal Sonography-I

3 cr. Undergraduate.

Anatomy, physiology, pathology, and pathophysiology of the abdominal vessels and organs as they relate to sonography.

Prerequisites: jr st in BioMed Sci prog or cons instr.

Last Taught: Fall 2021, Fall 2020, Fall 2019, Fall 2018.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 312 Abdominal Sonography-II

3 cr. Undergraduate.

Anatomy, physiology, pathology, and pathophysiology of the kidneys and abdominal organs as they relate to sonography.

Prerequisites: jr st BioMed Sci prog or cons instr.

Last Taught: Spring 2022, Spring 2021, Spring 2020, Spring 2019.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 313 Sonography Clinical Education I

3 cr. Undergraduate.

Introduction to sonography scanning and development of clinical skills.

Prerequisites: jr st in BioMed Sci prog or cons instr.

Last Taught: Fall 2021, Fall 2020, Fall 2019, Fall 2018.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 319 Abdominal Sonography III

2 cr. Undergraduate.

Anatomy, physiology, pathology, and pathophysiology of the male pelvis, intraoperative, and pediatric specialty exams as they relate to sonography.

Prerequisites: jr st in BioMed Sci prog or cons instr.

Last Taught: Fall 2021, Fall 2020, Fall 2019, Fall 2018.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 320 Obstetrics/Gynecology Sonography I

3 cr. Undergraduate.

Normal gross, relational and sonographic anatomy of the female pelvic region. Physiology and related laboratory and clinical findings for disease processes are discussed.

Prerequisites: jr st in BioMed Sci prog or cons instr.

Last Taught: Fall 2021, Fall 2020, Fall 2019, Fall 2018.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 321 Obstetrics/Gynecology Sonography II

3 cr. Undergraduate.

Gravid uterus and fetal development. Gestational dating methods, embryology, and maternal and fetal anatomy.

Prerequisites: jr st in BioMed Sci prog or cons instr.

Last Taught: Spring 2022, Spring 2021, Spring 2020, Spring 2019.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 322 Obstetrics/Gynecology Sonography III

3 cr. Undergraduate.

Fetal anomalies, disease processes, and pathologies. Various fetal and maternal pathologies explained in sonographic terms.

Prerequisites: jr st in Bio Med Sci prog or cons instr.

Last Taught: Summer 2021, Summer 2020, Summer 2019, Fall 2018.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 323 Sonographic Principles and Instrumentation

3 cr. Undergraduate.

Characteristics of sound and mechanism of sonographic image production and display. Potential biological effects. Safety and mathematical principles.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Spring 2022, Spring 2021, Spring 2020, Spring 2019.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 324 Sonography Clinical Education II**

3 cr. Undergraduate.

Clinical practicum rotations including abdominal and OB/GYN imaging, and vascular technology.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Spring 2022, Spring 2021, Spring 2020, Spring 2019.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 325 Specialized Sonography**

2 cr. Undergraduate.

Embryology, structure, physiology, and pathology of the thyroid, breast, and testicle. Normal and abnormal gross, cross-sectional, and relational sonographic anatomy.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Summer 2021, Summer 2020, Summer 2019, Summer 2018.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 326 Sonography Clinical Education III**

3 cr. Undergraduate.

Clinical practicum rotations including abdominal and OB/GYN imaging, and vascular technology.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Summer 2021, Summer 2020, Summer 2019, Summer 2018.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 327 Foundations of Sonography I**

2 cr. Undergraduate.

Initial introduction to diagnostic medical sonography with an overview of basic terminology, techniques, and equipment.

Prerequisites: jr st; BioMed Sci prog or cons instr.**Last Taught:** Summer 2020, Summer 2019, Summer 2017, Summer 2016.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 328 Foundations of Sonography II**

1 cr. Undergraduate.

Introduction to diagnostic medical sonography with an overview of basic techniques and equipment.

Prerequisites: DMI 327(P); jr st; BioMed Sci prog or cons instr.**Last Taught:** Fall 2020, Fall 2019, Fall 2017, Fall 2016.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 336 Cardiovascular Principles I**

4 cr. Undergraduate.

Introduction to cardiac physiology, mechanical events, left ventricle function indicators, timing of mitral and aortic flow, auscultation, phonocardiography, hemodynamics and Doppler applications of echocardiography.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Fall 2021, Fall 2020, Fall 2019, Fall 2018.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 337 Clinical Education I - Echocardiography**

3 cr. Undergraduate.

Clinical practicum rotations including adult echocardiography.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Fall 2021, Fall 2020, Fall 2019, Fall 2018.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 340 Embryology of the Cardiovascular System**

2 cr. Undergraduate.

Development and developmental anomalies of the cardiovascular system.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Spring 2021, Spring 2020, Spring 2019, Spring 2018.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 341 Adult Echocardiography - Valvular Pathology**

3 cr. Undergraduate.

Introduction to cardiac pathology seen on echocardiograms in the adult population.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Spring 2022, Spring 2021, Spring 2020, Spring 2019.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 342 Clinical Education II - Echocardiography**

3 cr. Undergraduate.

Clinical practicum rotations including adult and pediatric echocardiography.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Spring 2022, Spring 2021, Spring 2020, Spring 2019.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 345 Pediatric Echocardiography I**

3 cr. Undergraduate.

Introduction to various types of congenital heart disease and pediatric cardiac procedures.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Summer 2021, Summer 2020, Summer 2019, Summer 2018.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 346 Adult Echocardiography - Cardiomyopathies**

2 cr. Undergraduate.

Cardiovascular disease and diagnostic cardiac procedures in the adult population.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Summer 2021, Summer 2020, Summer 2019, Summer 2018.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 347 Clinical Education III - Echocardiography**

3 cr. Undergraduate.

Clinical practicum which includes adult and pediatric echocardiography clinical rotations with focus on advanced adult competencies.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Summer 2021, Summer 2020, Summer 2019, Summer 2018.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 350 Introduction to Radiologic Science and Healthcare**

2 cr. Undergraduate.

Introduction to Radiologic Technology imaging principles and equipment. Basic concepts of patient care, emergency care, CPR, medical ethics, legal issues, and cultural diversity.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Fall 2021, Summer 2021, Fall 2020, Summer 2020.**Current Offerings:** <https://catalog.uwm.edu/course-search/>

DMI 351 Radiation Protection

2 cr. Undergraduate.

All aspects of radiation protection including radiation safety, detection, and measurement relevant to Radiologic Technology.

Prerequisites: jr st in BioMed Sci prog or cons instr.

Last Taught: Fall 2021, Fall 2020, Fall 2019, Fall 2018.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 352 Human Structure & Function I

2 cr. Undergraduate.

Structure and physiology of the human body as they relate to radiography of the respiratory, digestive and urinary systems, and skeletal anatomy.

Prerequisites: jr st in BioMed Sci prog or cons instr.

Last Taught: Fall 2019, Fall 2018, Fall 2017, Fall 2016.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 353 Principles of Imaging I

3 cr. Undergraduate.

Radiographic qualities and factors influencing those qualities. X-ray tube, beam restricting devices, exposure factors, grids and scatter radiation.

Prerequisites: jr st in BioMed Sci prog or cons instr.

Last Taught: Fall 2021, Fall 2020, Fall 2019, Fall 2018.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 354 Radiographic Procedures I

3 cr. Undergraduate.

Introduction to radiographic positioning of the chest, upper extremities, urinary and digestive systems. Pharmacology of contrast media.

Prerequisites: jr st in BioMed Sci prog or cons instr.

Last Taught: Fall 2019, Fall 2018, Fall 2017, Fall 2016.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 355 Radiography Clinical Education I

3 cr. Undergraduate.

Students rotate through all aspects of the radiologic science field. A total of 65 competencies must be achieved in two years of clinical education.

Prerequisites: jr st in BioMed Sci prog or cons instr.

Last Taught: Fall 2021, Fall 2020, Fall 2019, Fall 2018.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 360 Radiation Biology

2 cr. Undergraduate.

Effects of radiation from the cellular level to the entire human body. Long and short term somatic effects and genetic effects.

Prerequisites: jr st in BioMed Sci prog or cons instr.

Last Taught: Spring 2022, Spring 2021, Spring 2020, Spring 2019.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 361 Human Structure & Function II

2 cr. Undergraduate.

Structure and physiology of the human body as they relate to radiography of the digestive and urinary systems and skeletal anatomy.

Prerequisites: jr st in BioMed Sci prog or cons instr.

Last Taught: Spring 2020, Spring 2019, Spring 2018, Spring 2017.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 362 Principles of Imaging II

3 cr. Undergraduate.

Radiographic qualities and the factors influencing those qualities. Systems and chemicals used in radiographic processing. Film and processor sensitometry.

Prerequisites: jr st in BioMed Sci prog or cons instr.

Last Taught: Spring 2022, Spring 2021, Spring 2020, Spring 2019.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 363 Radiographic Procedures II

3 cr. Undergraduate.

Introduction to radiographic positioning for lower extremities, spine, and digestive system. Students learn to identify anatomy on radiographs and evaluate them for acceptability.

Prerequisites: jr st in BioMed Sci prog or cons instr.

Last Taught: Spring 2020, Spring 2019, Spring 2018, Spring 2017.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 364 Radiography Clinical Education II

3 cr. Undergraduate.

Students rotate through all aspects of the radiologic science field. A total of 65 competencies must be achieved in two years of clinical education.

Prerequisites: jr st in BioMed Sci prog or cons instr.

Last Taught: Spring 2022, Spring 2021, Spring 2020, Spring 2019.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 370 Human Structure & Function III

1 cr. Undergraduate.

Anatomy and physiology of the human body as they relate to the radiography of the skull, facial bone, and circulatory system.

Prerequisites: jr st in BioMed Sci prog or cons instr.

Last Taught: Summer 2020, Summer 2019, Summer 2018, Summer 2017.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 371 Radiographic Procedures III

2 cr. Undergraduate.

Basic concepts of advanced imaging, special procedures, and supplementary imaging modalities.

Prerequisites: jr st in BioMed Sci prog or cons instr.

Last Taught: Summer 2020, Summer 2019, Summer 2018, Summer 2017.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 372 Radiographic Clinical Education III

4 cr. Undergraduate.

Clinical Education allows students to rotate through all aspects of the radiologic science field. A total of 65 competencies must be achieved in two years of clinical education.

Prerequisites: jr st in BioMed Sci prog or cons instr.

Last Taught: Summer 2021, Summer 2020, Summer 2019, Summer 2018.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 401 Seminar in Radiography II

2 cr. Undergraduate.

Evaluation of all aspects of the imaging system from processor to generator.

Prerequisites: jr st in BioMed Sci prog or cons instr.

Last Taught: Spring 2022, Fall 2021, Summer 2021, Spring 2021.

Current Offerings: <https://catalog.uwm.edu/course-search/>

DMI 402 Introduction to MSK Sonography

1 cr. Undergraduate.

Study of anatomy (to include anatomic variants), physiology, pathophysiology and the sonographic appearance of the musculoskeletal system as evaluated by diagnostic medical sonography.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Fall 2021, Fall 2020, Fall 2019, Fall 2018.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 435 Adult Echocardiography - Advanced Pathology**

3 cr. Undergraduate.

Cardiovascular pharmacology and the potential effects of cardiac medications on echocardiographic images.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Fall 2021, Fall 2020, Fall 2019, Fall 2018.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 436 Pediatric Echocardiography II**

3 cr. Undergraduate.

Advanced instruction in various types of congenital heart disease and pediatric echocardiography.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Fall 2021, Fall 2020, Fall 2019, Fall 2018.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 437 Stress Echocardiography**

3 cr. Undergraduate.

Indications, utility, limitations and technical procedures related to exercise stress echocardiography.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Fall 2021, Fall 2020, Fall 2019, Fall 2018.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 438 Clinical Education IV - Echocardiography**

3 cr. Undergraduate.

Clinical practicum rotations including advanced adult and pediatric imaging of the heart with focus on advanced pediatric competencies.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Fall 2021, Fall 2020, Fall 2019, Fall 2018.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 439 Clinical Education V - Echocardiography**

4 cr. Undergraduate.

Clinical practicum rotations including exercise and pharmacological stress, echocardiograms and transesophageal echocardiograms.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Spring 2022, Spring 2021, Spring 2020, Spring 2019.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 440 Clinical Education VI - Echocardiography**

3 cr. Undergraduate.

Clinical practicum including advanced imaging in echocardiography techniques.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Summer 2021, Summer 2020, Summer 2019, Summer 2018.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 441 Special Procedures in Echocardiography**

3 cr. Undergraduate.

Indications, utility, limitations and technical procedures related to transesophageal echocardiography.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Spring 2022, Summer 2021, Summer 2020, Spring 2020.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 450 Vascular Sonography I**

3 cr. Undergraduate.

Anatomy, physiology, pathology, and pathophysiology of the peripheral vascular subset of the cardiovascular system as it relates to sonography.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Fall 2021, Spring 2021, Fall 2020, Spring 2020.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 451 Vascular Sonography II**

3 cr. Undergraduate.

Anatomy, physiology, pathology, and pathophysiology of the cerebrovascular subset of the cardiovascular system as it relates to sonography.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Spring 2022, Spring 2021, Fall 2020, Spring 2020.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 452 Sonography Clinical Education IV**

3 cr. Undergraduate.

Clinical practicum including abdominal and OB/GYN imaging, and vascular technology.

Prerequisites: sr st in BioMed Sci prog or cons instr.**Last Taught:** Fall 2021, Fall 2020, Fall 2019, Fall 2018.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 453 Seminar in OB/GYN Sonography**

3 cr. Undergraduate.

The role of ultrasound in assisting with treatment as it relates to women's reproductive health and prenatal care.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Fall 2021, Fall 2020, Fall 2019, Fall 2018.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 454 Introduction to Fetal Echocardiography**

3 cr. Undergraduate.

Echocardiographic examination of the fetal heart including normal anatomy and congenital heart disease.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Fall 2021, Fall 2020, Fall 2019, Spring 2019.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 455 Vascular Sonography III**

3 cr. Undergraduate.

Doppler principles, spectral display, hemodynamics of abdominal, transplant organ, and penile vascular techniques; vascular statistics.

Prerequisites: sr st in BioMed Sci prog or cons instr.**Last Taught:** Fall 2021, Fall 2020, Fall 2019, Fall 2018.**Current Offerings:** <https://catalog.uwm.edu/course-search/>

DMI 457 Sonography Clinical Education V

4 cr. Undergraduate.

Clinical practicum including abdominal and OB/GYN imaging, and vascular technology.

Prerequisites: sr st in BioMed Sci prog or cons instr.**Last Taught:** Spring 2022, Spring 2021, Spring 2020, Spring 2019.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 458 Seminar in Advanced Medical Imaging**

3 cr. Undergraduate.

Comparison of normal and pathological anatomy cases combining diagnostic medical sonography, computed sonography and magnetic resonance imaging.

Prerequisites: junior standing in BioMedical Science program or consent of instructor.**Last Taught:** Spring 2022, Spring 2021.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 458X Seminar in Advanced Medical Imaging**

3 cr. Undergraduate.

Comparison of normal and pathological anatomy cases combining diagnostic medical sonography, computed sonography and magnetic resonance imaging.

Prerequisites: junior standing in BioMedical Science program or consent of instructor.**Last Taught:** Spring 2022, Spring 2021.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 460 Professional Development in Sonography - Seminar**

3 cr. Undergraduate.

Current trends in health care and sonography. Federal regulations, Medicare, managed care, professional organizations, and certification exam preparation.

Prerequisites: sr st in BioMed Sci prog or cons instr.**Last Taught:** Spring 2022, Summer 2021, Spring 2021, Spring 2020.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 461 Sonography Clinical Education VI**

3 cr. Undergraduate.

Clinical practicum including abdominal and OB/GYN imaging, and vascular technology.

Prerequisites: sr st in BioMed Sci prog or cons instr.**Last Taught:** Summer 2021, Summer 2020, Summer 2019, Summer 2018.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 463 Seminar in Education and Management in Medical Imaging**

3 cr. Undergraduate.

Problem solving of management issues relating to diagnostic medical sonography and exploring educational strategies employed in ultrasound education.

Prerequisites: junior standing in BioMedical Science program or consent of instructor.**Last Taught:** Spring 2022, Spring 2021.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 463X Seminar in Education and Management in Medical Imaging**

3 cr. Undergraduate.

Problem solving of management issues relating to diagnostic medical sonography and exploring educational strategies employed in ultrasound education.

Prerequisites: junior standing in BioMedical Science program or consent of instructor.**Last Taught:** Spring 2022, Spring 2021.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 464 Introduction to Neurosonography**

3 cr. Undergraduate.

Anatomy, physiology, pathology, pathophysiology and the sonographic appearance of the normal and abnormal fetal and neonatal brain.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Spring 2022, Summer 2021, Spring 2021, Summer 2020.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 470 Radiographic Physics**

2 cr. Undergraduate.

Atomic and subatomic theories, electrical theory, interaction of x-rays with matter, production of radiation, equipment maintenance, x-ray circuits, tubes, and cooling charts.

Prerequisites: sr st in BioMed Sci prog or cons instr.**Last Taught:** Spring 2022, Fall 2021, Spring 2021, Fall 2020.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 471 Digital Imaging**

3 cr. Undergraduate.

Radiographic qualities and factors influencing those qualities. Principles of fluoroscopy, AEC, tomography, and other accessory equipment.

Prerequisites: sr st in BioMed Sci prog or cons instr.**Last Taught:** Spring 2020, Fall 2019, Spring 2019, Fall 2018.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 473 Imaging Procedures IV**

2 cr. Undergraduate.

Skull positioning advanced skills, special procedures, and supplementary imaging modalities.

Prerequisites: sr st in BioMed Sci prog or cons instr.**Last Taught:** Fall 2021, Fall 2020, Fall 2019, Fall 2018.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 474 Radiography Clinical Education IV**

3 cr. Undergraduate.

Students to rotate through all aspects of the radiologic science field. A total of 65 competencies must be achieved in two years of clinical education.

Prerequisites: sr st in BioMed Sci prog or cons instr.**Last Taught:** Fall 2021, Fall 2020, Fall 2019, Fall 2018.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 475 Seminar in Radiography III**

2 cr. Undergraduate.

Current concepts in radiologic technology.

Prerequisites: sr st in BioMed Sci prog or cons instr.**Last Taught:** Spring 2022, Fall 2021, Spring 2021, Fall 2020.**Current Offerings:** <https://catalog.uwm.edu/course-search/>

DMI 477 Cross Sectional Anatomy

3 cr. Undergraduate.

Structure and physiology of the human body as it appears in cross section. Diagrams, CT, and MRI images are utilized.

Prerequisites: sr st in BioMed Sci prog or cons instr.**Last Taught:** Fall 2021, Spring 2021, Fall 2020, Spring 2020.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 478 Radiologic Pathology**

3 cr. Undergraduate.

Changes that occur in disease and injury and their applications to radiography.

Prerequisites: sr st in BioMed Sci prog or cons instr.**Last Taught:** Spring 2022, Fall 2021, Spring 2021, Fall 2020.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 479 Radiography Clinical Education V**

3 cr. Undergraduate.

Students rotate through all aspects of the radiologic science field. A total of 65 competencies must be achieved in two years of clinical education.

Prerequisites: sr st in BioMed Sci prog or cons instr.**Last Taught:** Spring 2022, Spring 2021, Spring 2020, Spring 2019.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 480 Seminar in Radiography IV**

2 cr. Undergraduate.

Current concepts in radiologic technology.

Prerequisites: sr st in BioMed Sci prog or consent of instructor.**Last Taught:** Spring 2022, Spring 2021.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 482 Radiography Clinical Internship I**

6 cr. Undergraduate.

600 hours of clinical experience. The student will begin surgical and evening rotations.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Summer 2021, Summer 2020, Summer 2019, Summer 2018.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 483 Radiography Clinical Internship II**

3 cr. Undergraduate.

Rotations through the Emergency Department, diagnostic area outpatient and orthopedic clinics, CT, MRI, and interventional radiology.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Fall 2021, Fall 2020, Fall 2019, Fall 2018.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 484 Radiography Clinical Internship IV**

1 cr. Undergraduate.

70 hours of clinical practice. Opportunity to rotate through any area of interest in a variety of imaging modalities.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Last Taught:** Spring 2022, Spring 2021, Spring 2020, Spring 2019.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 485 Professional Development in Radiography**

2 cr. Undergraduate.

Federal regulations and legislation as they relate to the health care profession and radiology. Preparation for the certification exam.

Prerequisites: sr st in BioMed Sci prog or cons instr.**Last Taught:** Spring 2022, Summer 2021, Spring 2021, Summer 2020.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 486 Radiography Clinical Education VI**

4 cr. Undergraduate.

Students rotate through all aspects of the radiologic science field. A total of 65 competencies must be achieved in two years of clinical education.

Prerequisites: sr st in BioMed Sci prog or cons instr.**Last Taught:** Summer 2021, Summer 2020, Summer 2019, Spring 2019.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 489 Radiography Clinical Internship III**

4 cr. Undergraduate.

400 hours of clinical practice. Opportunity to rotate through any area of interest in a variety of imaging modalities.

Prerequisites: jr st in BioMed Sci prog or cons instr.**Course Rules:** Counts as repeat of BMS 590 with similar topic.**Last Taught:** Spring 2022, Spring 2021, Spring 2020, Spring 2019.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 496 Professional Growth and Career Advancement in Diagnostic Imaging Professions**

3 cr. Undergraduate.

Exploration and discussion of volunteerism and leadership in professional associations, professional advocacy, emerging trends in certification, re-certification and career pathways related to career advancement.

Prerequisites: admis to BMS major; or cons instr.**Course Rules:** Counts as repeat of BMS 590 w/ same topic.**Last Taught:** Fall 2017.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 496X Professional Growth and Career Advancement in Diagnostic Imaging Professions**

3 cr. Undergraduate.

Exploration and discussion of volunteerism and leadership in professional associations, professional advocacy, emerging trends in certification, re-certification and career pathways related to career advancement.

Prerequisites: admis to BMS major; or cons instr.**Course Rules:** Counts as repeat of BMS 590 w/ same topic.**Last Taught:** Fall 2017.**Current Offerings:** <https://catalog.uwm.edu/course-search/>**DMI 599 Independent Study**

1-3 cr. Undergraduate.

Individualized experience which enables the student to study current topics of interest in Diagnostic Medical Imaging. Level of credit assigned based on time required for completion.

Prerequisites: consent of Program Director.**Course Rules:** May be retaken to 15 cr max.**Last Taught:** Spring 2022, Fall 2021, Spring 2021, Fall 2020.**Current Offerings:** <https://catalog.uwm.edu/course-search/>