

MI 201 Intro to Radiography3 Credit hours

Provides an overview of the foundations in radiography and the practitioner's role in the health care delivery system and professional responsibilities of the radiographer.

Pre-req: [BSC 228](#) and [MTH 121](#) and [PHY 101](#).

Grade Mode: Normal Grading Mode

MI 202 Patient Care Img Science3 Credit hours

Content is designed to identify the role of the radiographer in patient care, including consideration for the physical and psychological needs of the patient and family.

Pre-req: [BSC 228](#) and [MI 201](#).

Co-req: [MI 203](#), [MI 204](#), [MI 205](#), [MI 206](#)

Grade Mode: Normal Grading Mode

MI 204 Radiographic Anatomy3 Credit hours

Content is designed to introduce the student to radiographic anatomy. Emphasis is placed on identifying structures visible on correctly performed radiographic procedures.

Pre-req: [BSC 228](#). **Co-req:** [MI 202](#), [MI 203](#), [MI 205](#), [MI 206](#) **Grade Mode:** Normal Grading Mode

MI 205 Imaging Procedures I 4 Credit hours

Content is designed to provide the knowledge base necessary to perform standard imaging procedures. Students will practice imaging procedures in lab prior to performing them on patients.

Pre-req: [BSC 228](#). **Co-req:** [MI 202](#), [MI 203](#), [MI 204](#), [MI 206](#)

Grade Mode: Normal Grading Mode

MI 206 Clinical Practice I 4 Credit hours

Content and clinical practice experiences are designed to sequentially develop, apply, critically analyze, integrate, synthesize and evaluate concepts and theories in the performance of radiologic procedures.

Co-req: [MI 202](#), [MI 203](#), [MI 204](#), [MI 205](#) **Grade Mode:** Normal Grading Mode

MI 207 Imaging Procedures II 4 Credit hours

Content is designed to provide the knowledge base necessary to perform special imaging procedures and basic computed tomography.

Pre-req: [BSC 228](#) with a minimum grade of D and [MI 206](#) with a minimum grade of D.

Co-req: [MI 208](#), [MI 209](#), [MI 210](#), [MI 211](#)

Grade Mode: Normal Grading Mode

MI 208 Pharmacology for Imaging Sci2 Credit hours

Content is designed to provide basic concepts of pharmacology including delivery of and pharmacodynamics associated with imaging contrast media.

Pre-req: [BSC 227](#) with a minimum grade of D and [MI 206](#) with a minimum grade of D.

Co-req: [MI 207](#), [MI 209](#), [MI 210](#), [MI 211](#)

Grade Mode: Normal Grading Mode

MI 209 Intro to Imaging Equip3 Credit hours

Content is designed to provide knowledge in radiographic, fluoroscopic, mobile and tomographic equipment requirements and design.

Pre-req: [MTH 121](#) with a minimum grade of D and [PHY 101](#) with a minimum grade of D and [PHY 101L](#) with a minimum grade of D.

Co-req: [MI 207](#), [MI 208](#), [MI 210](#), [MI 211](#)

Grade Mode: Normal Grading Mode

MI 210 Clinical Practice II 4 Credit hours

Content is designed to provide the knowledge base necessary to perform standard imaging procedures. Students will begin clinical rotations in computed tomography.

Pre-req: [MI 206](#) with a minimum grade of D.

Co-req: [MI 207](#), [MI 208](#), [MI 209](#), [MI 211](#)

Grade Mode: Normal Grading Mode

MI 211 Seminar Imaging Science1 Credit hour

Introduces student to current research in imaging science. Emphasis will be on oral communication via power point presentations.

Co-req: [MI 207](#), [MI 208](#), [MI 209](#), [MI 210](#)

Grade Mode: Normal Grading Mode

MI 212 Seminar Imaging Sciences II 1 Credit hour

Seminar on new and emerging technologies in imaging sciences.

Grade Mode: Normal Grading Mode

MI 302 Princ of Radiation Physics3 Credit hours

Introduces student to the nature and characteristic of radiation production and the fundamentals of photon interactions with matter. Course covers principles associated with radiography, nuclear medicine and radiation oncology.

Pre-req: [PHY 101](#) and [PHY 101L](#) and [MTH 121](#) and [MI 209](#).

Co-req: [MI 303](#), [MI 304](#), [MI 305](#), [MI 306](#)

Grade Mode: Normal Grading Mode

MI 303 Image Acquisition 3 Credit hours

Introduces students to the factors that govern the image production process.

Pre-req: [MTH 121](#) and [MI 209](#).

Co-req: [MI 302](#), [MI 304](#), [MI 305](#), [MI 306](#)

Grade Mode: Normal Grading Mode

MI 304 Radiographic Pathology 3 Credit hours

Introduces student to concepts related to disease and etiological considerations with emphasis on radiographic appearance of disease and impact on exposure factor selection.

Pre-req: [BSC 228](#) with a minimum grade of D and [MI 204](#) with a minimum grade of D.

Co-req: [MI 302](#), [MI 303](#), [MI 305](#), [MI 306](#)

Grade Mode: Normal Grading Mode

MI 305 Clinical Practice IV

4 Credit hours

Content is designed to provide the knowledge base necessary to perform standard imaging procedures. Clinical practice is sequential. Students will be introduced to special imaging modalities.

Pre-req: MI 301.

Co-req: [MI 302](#), [MI 303](#), [MI 304](#), [MI 306](#)

Grade Mode: Normal Grading Mode

MI 306 Seminar Imaging Science1 Credit hour

Introduces student to current research in imaging science.

Co-req: [MI 302](#), [MI 303](#), [MI 304](#), [MI 305](#)

Grade Mode: Normal Grading Mode

MI 307 Radiobiology3 Credit hours

This course focuses on the biological impact of ionizing radiation.

Pre-req: [BSC 228](#) and [CHM 203](#) and [MI 302](#).

Co-req: [MI 308](#), [MI 309](#), [MI 310](#)

Grade Mode: Normal Grading Mode

MI 308 Rad Image Analysis2 Credit hours

Content is designed to provide a basis for analyzing and critiquing radiographic images.

Pre-req: [MI 303](#) with a minimum grade of D and [MI 304](#) with a minimum grade of D and [MI 208](#) with a minimum grade of D.

Co-req: [MI 307](#), [MI 309](#), [MI 310](#)

Grade Mode: Normal Grading Mode

MI 309 Digital Image Acquisition 2 Credit hours

Content is designed to impart an understanding of the components, principles and operation of digital imaging systems found in diagnostic radiography.

Pre-req: [MI 303](#) with a minimum grade of D.

Co-req: [MI 305](#), [MI 307](#), [MI 310](#)

Grade Mode: Normal Grading Mode

MI 310 Clinical Practice V 4 Credit hours

Content is designed to provide the knowledge base necessary to perform standard imaging procedures. Clinical practice is sequential. Students will be introduced to special imaging modalities.

Pre-req: [MI 210](#) with a minimum grade of D and [MI 301](#) with a minimum grade of D and [MI 305](#) with a minimum grade of D.

Co-req: [MI 307](#), [MI 308](#), [MI 309](#)

Grade Mode: Normal Grading Mode

MI 311 Seminar Imaging Sciences III 1 Credit hour

Seminar on new and emerging technologies in imaging sciences.

Grade Mode: Normal Grading Mode

MI 321 Imaging Procedures III 4 Credit hours

Content is designed to provide the knowledge necessary for advanced diagnostic radiographic imaging procedures.

Pre-req: [MI 205](#) and [MI 207](#).

Grade Mode: Normal Grading Mode

MI 322 Radiation Safety3 Credit hours

This course focuses on radiation safety including ionizing radiation dose limits for the occupational worker, patient and general public. **Grade Mode: Normal Grading Mode**

MI 401 Seminar in Imaging Sci1 Credit hour

Review seminar for the primary ARRT certification examination.

Grade Mode: Normal Grading Mode

MI 403 Adv Practice Medical Img 3 Credit hours

Core theory requirement for all advanced practice students focused on discussion of communication, human diversity, health care policy, legal issues and patient information management.

Grade Mode: Normal Grading Mode

MI 404 Adv Sectional Anatomy 3 Credit hours

Provides students enrolled in CT/MRI advanced practice track advanced knowledge of sectional anatomy.

Co-req: [MI 405](#), [MI 407](#)

Grade Mode: Normal Grading Mode

MI 405 CT Procedures 3 Credit hours

Focus on advanced patient care skills including ACLS, imaging procedures and equipment in computed tomography.

Co-req: [MI 404](#), [MI 408](#)

Grade Mode: Normal Grading Mode

MI 406 MRI Procedures3 Credit hours

Focus on advanced patient care skills including ACLS, imaging procedures and equipment in computed tomography.

Co-req: [MI 404](#), [MI 408](#)

Grade Mode: Normal Grading Mode

MI 407 Cardiovascular Anatomy 3 Credit hours

Focus on advanced cardiovascular anatomy, physiology and pathophysiology including heart anatomy, coronary, systemic, pulmonary, peripheral and cerebral circulation.

Co-req: [MI 408](#)

Grade Mode: Normal Grading Mode

MI 408 Vascular Interventional Imaging 3 Credit hours

Focus is on advanced patient care skills including ACLS, procedures and equipment utilized in cardiovascular and vascular/interventional imaging.

Co-req: [MI 407](#)

Grade Mode: Normal Grading Mode

MI 409 Adv Clinical Practice 4 Credit hours

Students will arrange clinical experience in selected imaging modality to gain competency in clinical procedures required to sit for post-primary ARRT certification exams.

Grade Mode: Normal Grading Mode

MI 410 Research Medical Imaging 3 Credit hours

Capstone course. Research methods and information literacy.

Attributes: Capstone Course

Grade Mode: Normal Grading Mode

MI 411 Transcultural Healthcare 3 Credit hours

Multidisciplinary approach to transcultural healthcare. Course will utilize comparative ethnography and provide a theoretical framework for organizing and interpreting information about health.

Attributes: Multicultural

Grade Mode: Normal Grading Mode

MI 412 Radiography Management I 3 Credit hours

Provides instruction in management principles for radiography departmental managers including JACHO and Nuclear Regulatory Commission parameters. Students will be prepared to sit for the certification exam offered by the AHRA.

Grade Mode: Normal Grading Mode

MI 413 Radiography Management II 3 Credit hours

Continuation of [MI 412](#) to provide radiographer with management principles and preparation for the AHRA certification exam in radiography management.

Grade Mode: Normal Grading Mode

MI 414 Mammography 3 Credit hours

Introduction to medical imaging of the breast. Focus is to prepare student for advanced certification exam in Mammography.

Grade Mode: Normal Grading Mode

MI 415 RIS and PACS Principles 3 Credit hours

Course content provides basic knowledge of digital storage systems, computer networking, radiology information systems (RIS), and picture archiving and communication systems (PACS).

Grade Mode: Normal Grading Mode

MI 427 Adv Trauma and Surgical Rad 3 Credit hours

Advanced practice course in trauma and surgical radiography for imaging sciences.

Grade Mode: Normal Grading Mode

MI 428 Forensic Radiology 3 Credit hours

This course will focus on introducing forensic radiography techniques and theoretical models.

Grade Mode: Normal Grading Mode

MI 429 Geriatric and Pediatric Rad 3 Credit hours

This course will focus on advanced diagnostic medical imaging in the geriatric and pediatric population including mobile radiography.

Grade Mode: Normal Grading Mode

MI 430 Mammography II 3 Credit hours

Advanced medical imaging of the breast.

Grade Mode: Normal Grading Mode

MI 434 Cardiovascular Imaging 3 Credit hours

This course will focus on diagnostic and interventional procedures of the cardiovascular system.

Grade Mode: Normal Grading Mode

MI 435 Seminar ARRT Exam Review II 1 Credit hour

This is a review course for the ARRT primary certification examination.

Grade Mode: Normal Grading Mode

MI 432 Advanced MRI Theory 3 Credit hours

Advanced magnetic resonance imaging equipment and procedures.

Pre-req: [MI 406](#) with a minimum grade of C

Grade Mode: Normal Grading Mode

MI 485 Independent Study1-4 Credit hours

Course designed to allow student to pursue individual research in medical imaging.

Grade Mode: Normal Grading Mode

MI 486 Independent Study1-4 Credit hours

Course designed to allow student to pursue individual research in medical imaging.

Grade Mode: Normal Grading Mode