

AMI - ADVANCED MEDICAL IMAGING

AMI 201 - Introduction of MRI, Patient Care, and Safety Units: 2

This course covers patient screening procedures, safety issues, and biological considerations, magnetic resonance (MR) terminology, and elementary imaging principles. Also covered is an introduction to patient care in the MR environment, including professional ethics, and patient communications.

Transferability: May not transfer towards an NSHE bachelor's degree
Enrollment Requirements: Prerequisite: Students must be ARRT credentialed, or have an Associate degree in an Allied Health field with permission of the program director.
Term Offered: Fall

AMI 203 - Introduction to Computed Tomography Basics, Instrumentation & Safety Units: 2

This course is a study of the history of computed tomography, location and function of CT equipment components, the sequence of physical events from the x-ray tube to the finished CT image. Operator console parameters and their effects on CT image data and digital image elements, patient care, radiation safety and dose will also be discussed.

Transferability: May not transfer towards an NSHE bachelor's degree
Enrollment Requirements: Current American Registry of Radiologic Technologists (ARRT) Certification Associate Degree or Higher in Radiologic Technology or comparable subject Acceptance into the Computed Tomography Program

AMI 216 - Computed Tomography Procedures I Units: 3

This course is an introduction to computed tomography (CT) and will cover general full body scanning procedures and protocols. Associated pathology and a general overview of cross sectional anatomy will be applied per body module.

Transferability: May not transfer towards an NSHE bachelor's degree
Enrollment Requirements: Current American Registry of Radiologic Technologists (ARRT) Certification Associate Degree or Higher in Radiologic Technology or comparable subject Acceptance into the Computed Tomography Program

AMI 218 - Computed Tomography Physics & Instrumentation I Units: 3

This course is a study of computed tomography (CT) physics and instrumentation. The course provides an overview of technology, application, and practice that is unique to the computed tomography profession.

Transferability: May not transfer towards an NSHE bachelor's degree
Enrollment Requirements: Current American Registry of Radiologic Technologists (ARRT) Certification Associate Degree or Higher in Radiologic Technology or comparable subject Acceptance into the Computed Tomography Program

AMI 226 - Computed Tomography Procedures II Units: 3

This course is an introduction to complex computed tomography (CT) procedures and protocols. Associated pathology and a general overview of cross sectional anatomy will be applied per body module.

Transferability: May not transfer towards an NSHE bachelor's degree
Enrollment Requirements: Current American Registry of Radiologic Technologists (ARRT) Certification Associate Degree or Higher in Radiologic Technology or comparable subject Acceptance into the Computed Tomography Program

AMI 228 - Computed Tomography Physics & Instrumentation II Units: 3

This course is a study of the role of the technologist in dealing with radiation safety, contrast media administration, and emergency procedures during CT examinations. Image quality artifacts are also discussed along with quality control (QC) tests and QC programs for CT.

Transferability: May not transfer towards an NSHE bachelor's degree
Enrollment Requirements: Current American Registry of Radiologic Technologists (ARRT) Certification Associate Degree or Higher in Radiologic Technology or comparable subject Acceptance into the Computed Tomography Program

AMI 236 - Cross-Sectional Anatomy and Pathology for Imaging Professionals Units: 3

This course is a study of the human anatomy as viewed using cross-sectional images. This class is also used in imaging modalities like magnetic resonance imaging (MRI), computed tomography (CT), and ultrasound (US).

Transferability: May not transfer towards an NSHE bachelor's degree
Enrollment Requirements: Prerequisite: Students must be ARRT credentialed, or have an Associate degree in an Allied Health field with permission of the program director.
Term Offered: Fall

AMI 238 - Physics, Instrumentation, and Imaging for MRI Units: 3

This course is an introduction and exploration of MRI physics, instrumentation, and application.

Transferability: May not transfer towards an NSHE bachelor's degree
Enrollment Requirements: Prerequisite: Students must be ARRT credentialed, or have an Associate degree in an Allied Health field with permission of the program director.
Term Offered: Fall

AMI 246 - MRI Procedures of the Central Nervous System Units: 3

This course is an exploration of the magnetic resonance imaging techniques of the Central Nervous System - head, neck and spine to include patient positioning, protocols, pulse sequences, and pathology.

Transferability: May not transfer towards an NSHE bachelor's degree
Enrollment Requirements: Prerequisite: Students must be ARRT credentialed, or have an Associate degree in an Allied Health field with permission of the program director.
Term Offered: Fall

AMI 248 - Advanced MR Techniques and Post Processing Units: 3

This course explores advanced imaging techniques and new technologies in magnetic resonance imaging (MRI).

Transferability: May not transfer towards an NSHE bachelor's degree
Enrollment Requirements: Prerequisite: AMI 201, AMI 236, AMI 238, and AMI 246 completed with a C or better.
Term Offered: Spring

AMI 256 - MRI Procedures of the Torso and Limbs Units: 3

This course is an exploration of the magnetic resonance imaging techniques of the Torso and Limbs - abdomen, pelvis, and musculoskeletal system to include patient positioning, protocols, pulse sequences, and pathology.

Transferability: May not transfer towards an NSHE bachelor's degree
Enrollment Requirements: Prerequisite: AMI 201, AMI 236, AMI 238, and AMI 246 completed with a C or better.
Term Offered: Spring

AMI 259 - Seminar in Computed Tomography **Units: 1**

This course is focused on the preparing the student to sit for the ARRT Computed Tomography (CT) exam.

Transferability: May not transfer towards an NSHE bachelor's degree

Enrollment Requirements: Current American Registry of Radiologic Technologists (ARRT) Certification Associate Degree or Higher in Radiologic Technology or comparable subject Acceptance into the Computed Tomography Program

AMI 290 - Internship in Advanced Medical Imaging **Units: 1-3**

A course designed wherein students will apply knowledge to real life situations in cooperation with the clinical education site and a faculty advisor to maximize learning experiences. A planned clinical experience is provided which gives the student the opportunity to demonstrate clinical skills in performing competency examinations in accordance to ARRT specifications in advanced modalities such as MRI, CT, Mammography, CVI, etc. These skills should include analysis, synthesis and evaluation of the examinations performed. Competency evaluations are based on ARRT standards for the specific modality in which the student is applying for advanced certification.

Transferability: May not transfer towards an NSHE bachelor's degree

Enrollment Requirements: Prerequisite: Students must be ARRT credentialed, or have an Associate degree in an Allied Health field with permission of the program director.

Term Offered: Spring and Fall