Associate of Applied Science in Magnetic Resonance Imaging

MRI technologist is a healthcare professional who uses specialized MRI equipment to create images of structures inside the human body. They must be able to interact with people who range from healthy to critically ill. MRI Technologists will be supervised by board certified radiologists. This course is designed to prepare the student to perform clinical MRI examinations of the human body with special consideration to image production, quality control, signal to noise ratio and basic pulse sequences. Graduates will be able to obtain employment in orthopedic clinics, diagnostic imaging clinics, and hospitals.

Admissions requirements:

- **All potential students must receive a school catalog prior to signing an enrollment agreement**
- **Student must attend entrance orientation**
- **A high school diploma or its equivalency is required for admission into the program**
- **Prospective students must complete a successful interview with an admissions counselor**
- **Prospective students must submit an AAS MRI Admissions Application**
- **Applicants must be at least 17 years of age (applicants under the age of 18 require written permission from a parent or legal guardian in order to enroll.)**
- **Applicants must take and pass an institutional HESI entrance exam with a minimum of 70%. Non-Refundable exam fee is $45.00 dlls**
- **Applicants must be a graduate of Southwest University AAS Allied Health Program. (Tuition and Program length for these programs are in addition to the cost for this program; please refer to the institutional catalog for program specific tuition costs).**

Allied Health Program	Allied Heath Program Tuition and Fees Cost	Adjusted Tuition and Fees (Includes transfer credits)	Tuition and Fees (including all adjustments)	Total Additional Program length
Medical Assistant	$17,781	$32,701	$50,482	20 Terms
Associate in Applied Science In Medical Assistant	$28,035	$31,077	$59,112	22 Terms
Associate in Applied Science in Medical Coding and Billing	$31,457	$32,244	$63,701	24 Terms
Associate in Applied Science in Health Administration	$30,451	$31,528	$61,979	24 Terms

General Criteria: Applicants for specialized admissions must satisfy minimum criteria in order to be eligible for consideration for ranking. The following is required for all students wishing to enroll the program:

- Must be a graduate of an SU AAS Allied Health Program or a SU BS program
- Must have earned a minimum SU cumulative GPA of 3.5, an attendance rate of 90% and no write ups are required.
- The following is required for all outside students wishing to enroll the program: Baccalaureate in Science and Minimum cumulative GPA of 3.0 (Transcript is required for academic review)

Students must complete admissions requirements prior to enrollment in specialized courses. There is a scheduled ranking date for this program. It is ultimately the student's responsibility to submit all required documentation to allow for normal processing.

Total Lab Hours:	**80 Hrs**
Total Externship Hours:	**1050 Hrs**
Total Lecture Hours:	**1210 Hrs**
Total Program Hours:	**2340 Hrs**
Total Length of Time:	**96 Weeks**
Total Credit Hours:	**160 Credit Hrs**

Definition of Academic Year: An academic year will consist of 30 instruction weeks and 36 quarter credit hours.
Full Time Status: Student's enrollment status will be considered full time if student is enrolled in at least 8.0 credit hours in a six week period.
Program Delivery: Blended (Residential and Online, please see marked classes) *The program content is offered through lecture, laboratory, and externship experience. (certain lecture and/or laboratory courses may be delivered online, those courses are identified as blended, below)*

ALG 110 ALGEBRA I

This course is designed to provide understanding of basic properties of real numbers and to use algebraic models to solve verbal problems with linear and quadratic equation, complex numbers, factoring and graphs. Emphasis is placed on manipulation of algebraic equations, problem solving and their correlation to general arithmetic.

Clock hours of lab: 0
Clock hours of classroom lecture: 30
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: N/A
Total Clock Hours: 30
Method of Delivery: Blended
Tuition: $690.00
Length of time (1 hrs per day, 5 days per wk): 6 wks

Lecture	3.0
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr Hr

AAIP 101 ADVANCED ANATOMY FOR IMAGING PROFESSIONALS

This course is designed to establish a knowledge base in the systems of the human body. The course content describes and discusses in specific detail the various functions of biological systems within the human body. The course introduces concepts relating to tissue, cells and organ systems. Anatomy is heavily emphasized, and individual class sessions often concentrate on specific parts of the body. Beginning human physiology covers the mechanisms sustaining human life and addresses each system's specific function, health issues, pathologies, diagnostics and disease prevention.

Clock hours of lab: 20
Clock hours of classroom lecture: 40
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: N/A
Total Clock Hours: 60
Tuition: $1150.00
Length of time (2 hrs per day, 5 days per wk): 6 wks

Lecture	4.0
Lab	1.0
Ext	0.0

TOTAL = 5.0 Qtr Hr

AP 145R ANATOMY AND PHYSIOLOGY I

This course provides systemic and functional review of human gross anatomy and systematic anatomy in order for students to obtain the knowledge required in the allied health professions. Students will learn the major gross—anatomical and systematic anatomy structures and functions / interactions of the different (organ) systems as well as the related terminology. The course will also introduce students to basic diagnostic images of gross-anatomical and systematic anatomy structures, as well as basic physiology, common diseases & treatments, and diet and nutrition. Apart from giving students an introduction to the body and its organ systems, this course will primarily focus on the clinical anatomy as it pertains to the appendicular skeletal system (upper and lower limbs), muscular system, and nervous system.

Clock hours of lab: 10
Clock hours of classroom lecture: 40
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: N/A
Total Clock Hours: 50
Tuition: $1035.00
Length of time (1hrs per day, 5 days per wk): 6 wks

Lecture	4.0
Lab	0.5
Ext	0.0

TOTAL = 4.5 Qtr Hr

AP 147R ANATOMY AND PHYSIOLOGY II

This course provides a systemic and functional review of human gross anatomy and systematic anatomy in order for students to expand the knowledge acquired in the Anatomy & Physiology I course. Students will learn the major gross—anatomical and systematic anatomy structures and functions / interactions of the different (organ) systems as well as the related terminology. The course will also introduce students to basic diagnostic images of gross-anatomical and systematic anatomy structures, as well as basic physiology, common diseases and treatments. This course will primarily focus on the clinical anatomy as it pertains to the thorax, abdomen, pelvis & perineum.

Clock hours of lab: 10
Clock hours of classroom lecture: 40
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: AP 145R
Total Clock Hours: 50
Tuition: $1035.00
Length of time (2 hrs per day, 5 days per wk): 6 wks

Lecture	4.0
Lab	0.5
Ext	0.0

TOTAL = 4.5 Qtr Hr

BC 110 BUSINESS COMMUNICATION

This course examines basic interpersonal communication processes with practical applications for the business environment. Issues regarding cross-cultural communications and ethical considerations in business communication are discussed. The course will emphasize planning, organizing and delivering oral presentations in business settings.

Clock hours of lab: 0
Clock hours of classroom lecture: 30
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: N/A
Total Clock Hours: 30
Method of Delivery: Blended
Tuition: $690.00
Length of time (1 hrs per day, 5 days per wk): 6 wks

Lecture	3.0

Lab 0.0
Ext 0.0

TOTAL = 3.0 Qtr Hr

BIO 101 BIOLOGY I

This course is designed to provide the students with the foundation and knowledge of biology in brief investigations of all major facets of living organisms including cell structure and function, major kingdoms of organisms, selected topics in human anatomy, physiology, genetics, reproduction, evolution, and biochemistry. In addition, ecological principles and conservation will be stressed throughout the course.

Clock hours of lab: 0
Clock hours of classroom lecture: 30
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: N/A
Total Clock Hours: 30
Method of Delivery: Blended
Tuition: $690.00
Length of time (1 hrs per day, 5 days per wk): 6 wks
Lecture 3.0
Lab 0.0
Ext 0.0

TOTAL = 3.0 Qtr Hr

ENGL 145 TECHNICAL WRITING

This course will teach students how to communicate clearly and effectively, changing writing style and content for varying audiences and purposes. The course will focus on meeting readers' needs while representing the interests of your employer. The assignments will cover a variety of tasks produced under different circumstances.

Clock hours of lab: 0
Clock hours of classroom lecture: 30
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: N/A
Total Clock Hours: 30
Method of Delivery: Blended
Tuition: 690.00
Length of time (1 hrs per day, 5 days per wk): 6 wks
Lecture 3.0
Lab 0.0
Ext 0.0

TOTAL = 3.0 Qtr Hr

HC 115R HEALTHCARE VOCABULARY I

This course provides in-depth medical terminology information including Greek and Latin derivations, prefixes, suffixes, root words, and combining forms. It provides practice in building and defining medical terms, and emphasizes correct spelling and pronunciation of medical words. Interpreting terminology related to body structure, disease, diagnosis, and treatment is emphasized along with medical abbreviations.

Clock hours of lab: 10
Clock hours of classroom lecture: 40
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: N/A
Total Clock Hours: 50
Method of Delivery: Blended
Tuition: $1035.00
Length of time (1 hrs per day, 5 days per wk): 6 wks
Lecture 4.0
Lab 0.5
Ext 0.0

TOTAL = 4.5 Qtr Hr

HC 120R HEALTHCARE VOCABULARY II

This course is a continuation of HC 115 and provides in-depth medical terminology information including Greek and Latin derivations, prefixes, suffixes, root words, and combining forms. It provides practice in building and defining medical terms, and emphasizes correct spelling and pronunciation of medical words. Interpreting terminology related to body structure, disease, diagnosis, and treatment is emphasized along with medical abbreviations.

Clock hours of lab: 10
Clock hours of classroom lecture: 40
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: HC 115R
Total Clock Hours: 50
Tuition: $1035.00
Length of time (1 hrs per day, 5 days per wk): 6 wks
Lecture 4.0
Lab 0.5
Ext 0.0

TOTAL = 4.5 Qtr Hr

HC 135 HEALTHCARE ETHICS

The student will learn the application of legal principles, policies, regulations, and standards for the control and use of information as it applies to various areas of employment. Students will learn the proper release of information, ethical codes, confidentiality, humanistic healthcare, legal terminology, legal judgments, documents, and litigation terms. In class, the student will apply this knowledge through discussion of ethical dilemmas, conferencing, and analysis of legal situations.

Clock hours of lab: 0
Clock hours of classroom lecture: 30
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: N/A
Total Clock Hours: 30
Method of Delivery: Blended
Tuition: $690.00
Length of time (2 hrs per day, 5 days per wk): 6 wks
Lecture 3.0
Lab 0.0
Ext 0.0

TOTAL = 3.0 Qtr Hr

ISC 101 INTRODUCTION TO COMPUTERS

Participants are introduced to the Microsoft Office program suite, including Excel for spreadsheets and Word for word processing, Content includes creating, saving, retrieving, editing, formatting, enhancing, printing, and merging a variety of documents.

Clock hours of lab: 0

Clock hours of classroom lecture: 30

Clock hours of individual and small group tutoring: provided to student on an as-needed basis

Pre-Requisite: N/A

Total Clock Hours: 30

Method of Delivery: Blended

Tuition: $690.00

Length of time (2 hrs per day, 5 days per wk): 6 wks

Lecture	3.0
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr Hr

ISC 1100 CLINICAL PRACTICE

Content and clinical practice experiences should be designed to sequentially develop, apply, critically analyze, integrate, synthesize and evaluate concepts and theories in the performance of radio logic procedures. Through structured, sequential, competency-based clinical assignments, concepts of team practice, patient-centered clinical practice and professional development are discussed, examined and evaluated.

Clock hours of lab: 10

Clock hours of classroom lecture: 40

Clock hours of individual and small group tutoring: provided to student on an as-needed basis

Pre-Requisite: N/A

Total Clock Hours: 50

Tuition: $1035.00

Length of time (2 hrs per day, 5 days per wk): 6 wks

Lecture	4.0
Lab	0.5
Ext	0.0

TOTAL = 4.5 Qtr Hr

ISC 1301 SECTIONAL ANATOMY I

This course is the study of cross-sectional normal with normal anatomical variants. The course will demonstrate and educate the student on the correlation of the study of cross-sectional anatomy. In this course, students will explore in-depth study of human anatomy in sagittal, coronal, transverse, and orthogonal sections essential to current techniques in diagnostic imaging. This course content will include an introduction to cross sectional anatomy, cranium and facial bones, brain, neck and spine.

Clock hours of lab: 0

Clock hours of classroom lecture: 30

Clock hours of individual and small group tutoring: provided to student on an as-needed basis

Pre-Requisite: N/A

Total Clock Hours: 30

Tuition: $690.00

Length of time (2 hrs per day, 5 days per wk): 6 wks

Lecture	3.0
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr Hr

ISC 1302 SECTIONAL ANATOMY II

This course is a continuation of ISC 1301. This course is the study of cross-sectional normal with normal anatomical variants. The course will demonstrate and educate the student on the correlation of the study of cross-sectional anatomy. In this course, students will explore in-depth study of human anatomy in sagittal, coronal, transverse, and orthogonal sections essential to current techniques in diagnostic imaging. This course content will include the thorax, abdomen, pelvis, upper and lower extremities.

Clock hours of lab: 0

Clock hours of classroom lecture: 30

Clock hours of individual and small group tutoring: provided to student on an as-needed basis

Pre-Requisite: ISC 1301

Total Clock Hours: 30

Tuition: $690.00

Length of time (2 hrs per day, 5 days per wk): 6 wks

Lecture	3.0
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr Hr

ISC 1400 DIGITAL IMAGE AND DISPLAY

This course provides a comprehensive overview of digital imaging acquisition, PACS , RIS and the electronic medical. The subjects are formatted in individual outlines and can be sequenced according to level of knowledge desired. The course includes basic principles of digital imaging, digital image acquisition, PACS, RIS and the EMR. The course will include digital imaging quality control and the importance of formulating a QA management program.

Clock hours of lab: 0

Clock hours of classroom lecture: 30

Clock hours of individual and small group tutoring: provided to student on an as-needed basis

Pre-Requisite: N/A

Total Clock Hours: 30

Tuition: $690.00

Length of time (2 hrs per day, 5 days per wk): 6 wks

Lecture	3.0
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr Hr

ISC 1500 FUNDAMENTALS OF IMAGING SCIENCES

The course content is designed to provide an overview of the foundations in the imaging sciences and the practitioner's role in the health care delivery system. Principles, practices and policies of the health care organization(s) are examined

and discussed in addition to the professional responsibilities of the imaging professional. The course will include development of critical thinking skills as well as the transition from classroom to clinical environment. The course will discuss current legal and ethical situation as it pertains to medical imaging.

Clock hours of lab: 0
Clock hours of classroom lecture: 30
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: N/A
Total Clock Hours: 30
Tuition: $690.00
Length of time (2 hrs per day, 5 days per wk): 6 wks

Lecture	3.0
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr Hr

ISC 1600 PATIENT CARE IN IMAGING SCIENCES
The content for this course is designed to provide the basic concepts of patient care, including consideration for the physical and psychological needs of the patient and family. Routine and emergency patient care procedures are described, as well as infection control procedures using standard precautions. The role of the imaging professional in patient education is identified. The course provides laboratory instruction in basic patient care procedures as well as beginning practical clinical experience in a radiology department. The following topics will be explored, infection control, isolation procedures, aseptic technique, sterile procedures, vital signs, chest tubes, various lines, patient transfer techniques, patient interactions , history taking and patient safety protocols.
Clock hours of lab: 10
Clock hours of classroom lecture: 40
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: N/A
Total Clock Hours: 50
Tuition: $1035.00
Length of time (2 hrs per day, 5 days per wk): 6 wks

Lecture	4.0
Lab	0.5
Ext	0.0

TOTAL = 4.5 Qtr Hr

ISC 1601 IMAGING PATHOLOGY I
This course investigates general pathology and organ system pathology. It includes a brief review of normal structure and function, followed by more in-depth descriptions of specific pathologic processes. This course will include basic characteristics, etiology, pathogenesis, clinical features, and diagnostic tools including medical imaging procedures, prognoses, and therapies for each of the specific pathologies. The contents of this course include an introduction to pathology, specialized imaging techniques, respiratory system, skeletal system, GI system and the urinary system.
Clock hours of lab: 0
Clock hours of classroom lecture: 30
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: N/A
Total Clock Hours: 30
Tuition: $690.00
Length of time in wks (2 hrs per day, 5 days per wk): 6 wks

Lecture	3.0
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr Hr

ISC 1602 IMAGING PATHOLOGY II
This course investigates general pathology and organ system pathology. It includes a brief review of normal structure and function, followed by more in-depth descriptions of specific pathologic processes. This course will include basic characteristics, etiology, pathogenesis, clinical features, and diagnostic tools including medical imaging procedures, prognoses, and therapies for each of the specific pathologies. The contents of this course include the cardiovascular, nervous, hematopoietic, endocrine and reproductive systems.
Clock hours of lab: 0
Clock hours of classroom lecture: 30
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: ISC 1601
Total Clock Hours: 30
Tuition: $690.00
Length of time in wks (2 hrs per day, 5 days per wk): 6 wks

Lecture	3.0
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr Hr

ISC 1700 PHARMACOLOGY AND DRUG ADMINISTRATION
Content is designed to provide basic concepts of pharmacology. The theory and practice of basic techniques of vein punctures and administration of diagnostic contrast agents and/or intravenous medications is included. The appropriate delivery of patient care during these procedures is emphasized. The course will include contrast media utilized in the imaging sciences including Ionic, non-ionic, barium sulfate , gadolinium, water soluble, positive, negative and newer agents. The course will discuss possible adverse reactions to contrast agents utilized in the imaging sciences. Discussion regarding adverse reactions to contrast as well patient emergency preparedness will be included.
Clock hours of lab: 0
Clock hours of classroom lecture: 30
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: N/A
Total Clock Hours: 30
Tuition: $690.00

Length of time (2 hrs per day, 5 days per wk): 6 wks

Lecture	3.0
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr Hr

PSY 110 INTRODUCTION TO GENERAL PSYCHOLOGY

This course will describe the basic theories, principles, and concepts of psychology as they relate to behaviors and mental processes. This course will also apply psychological theories, principles, and concepts to everyday life, including industry and organizations. The students will learn to compare and contrast material and information from other cultures.

Clock hours of lab: 0

Clock hours of classroom lecture: 30

Clock hours of individual and small group tutoring: provided to student on an as-needed basis

Pre-Requisite: N/A

Total Clock Hours: 30

Tuition: $690.00

Length of time (2 hrs per day, 5 days per wk): 6 wks

Lecture	3.0
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr Hr

MR 1101 MRI PHYSICAL PRINCIPLES I

This course provides the student with a comprehensive overview of MR imaging principles. The subjects are formatted in individual outlines and can be sequenced according to the level of knowledge desired. Course topics include the history of MR, atomic structure, the atom, alignment, precession, resonance ,MR signal,FID,relaxation,T1,T2 and pulse timing parameters. The course will discuss the importance of the Larmor equation in MR imaging.

Clock hours of lab: 0

Clock hours of classroom lecture: 30

Clock hours of individual and small group tutoring: provided to student on an as-needed basis

Pre-Requisite: N/A

Total Clock Hours: 30

Tuition: $690.00

Length of time (2 hrs per day, 5 days per wk): 6 wks

Lecture	3.0
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr Hr

MR 1102 MRI PHYSICAL PRINCIPLES II

This course provides continuation and review for students to expand the knowledge acquired following MR 1101. This unit provides the student with a comprehensive overview of MR imaging principles. The subjects are formatted in individual outlines and can be sequenced according to the level of knowledge desired. Course topics include image contrast, contrast mechanisms, relaxation of different tissues,T1 contrast,T2 contrast, proton density, weighting, T2* decay. The course will discuss encoding and image formation as well as MR parameters and trade-offs.

Clock hours of lab: 0

Clock hours of classroom lecture: 30

Clock hours of individual and small group tutoring: provided to student on an as-needed basis

Pre-Requisite: MR 1101

Total Clock Hours: 30

Tuition: $690.00

Length of time (2 hrs per day, 5 days per wk): 6 wks

Lecture	3.0
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr Hr

MR 1103 MRI PHYSICAL PRINCIPLES III

This course provides continuation and review for students to expand the knowledge acquired following MR 1102. This unit provides the student with a comprehensive overview of MR imaging principles. The subjects are formatted in individual outlines and can be sequenced according to the level of knowledge desired. The course topics include: The mechanisms of flow phenomenon, time of flight, entry slice, intra- voxel dephasing and flow compensation. The course will discuss even echo rephrasing, nulling and spatial pre-saturation. The course will include an in depth analysis of image artifacts and their compensation.

Clock hours of lab: 0

Clock hours of classroom lecture: 30

Clock hours of individual and small group tutoring: provided to student on an as-needed basis

Pre-Requisite: MR 1102

Total Clock Hours: 30

Tuition: $690.00

Length of time (2 hrs per day, 5 days per wk): 6 wks

Lecture	3.0
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr Hr

MR 1104 MRI PHYSICAL PRINCIPLES IV

This course provides continuation and review for students to expand the knowledge acquired following MR 1103. The subjects are formatted in individual outlines and can be sequenced according to the level of knowledge desired. The course topics include MR vascular imaging techniques, MRA, cardiac MR, cardiac gating, peripheral gating, pseudo gating, multiphase cardiac imaging, Cine and SPAMM.

Clock hours of lab: 0

Clock hours of classroom lecture: 30

Clock hours of individual and small group tutoring: provided to student on an as-needed basis

Pre-Requisite: MR 1103

Total Clock Hours: 30

Tuition: $690.00

Length of time in wks (2 hrs per day, 5 days per wk): 6 wks

Lecture	3.0
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr Hr

MR 1105 MRI PHISICAL PRINCIPLES V

This course provides continuation and review for students to expand the knowledge acquired following MR 1104. The subjects are formatted in individual outlines and can be sequenced according to the level of knowledge desired. The Course will discuss all MR Safety aspects including the various types of magnetic fields, patient monitoring devices and patient conditions. The course will cover contrast agents in MR as well as the various functional MR imaging techniques.

Clock hours of lab: 0
Clock hours of classroom lecture: 30
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: MR 1104
Total Clock Hours: 30
Tuition: $690.00
Length of time in wks (2 hrs per day, 5 days per wk): 6 wks

Lecture	3.0
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr Hr

MR 1201 MRI PROCEDURES I

This course introduces the student to the following MRI procedures. The brain, IAC's , sella tursica, orbits, cervical spine, thoracic spine, lumbar spine will be covered . This course will primarily focus on the Imaging Planes, Signal Characteristics, General Considerations.

Clock hours of lab: 0
Clock hours of classroom lecture: 30
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: N/A
Total Clock Hours: 30
Tuition: $690.00
Length of time in wks (2 hrs per day, 5 days per wk): 6 wks

Lecture	3.0
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr Hr

MR 1202 MRI PROCEDURES II

The continuation of MR 1201, this course continues the introduction to clinical aspects of MRI procedures. The knee joint, hip joint, ankle joint and shoulder joint, elbow joint, wrist join, long bones, female pelvis, male pelvis will be covered. This course will primarily focus on the Imaging Considerations, Imaging Planes and Signal Characteristics.

Clock hours of lab: 0
Clock hours of classroom lecture: 30
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: MR 1201
Total Clock Hours: 30
Tuition: $690.00
Length of time in wks (2 hrs per day, 5 days per wk): 6 wks

Lecture	3.0
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr Hr

MR 1203 MRI PROCEDURES III

The continuation of MR 1202, this course continues the introduction to clinical aspects of MRI procedures. The course covers procedures the following procedures abdomen, liver, pancreas, MRCP, renal and adrenals, thorax and mediastinum, MRA of the head, carotids, abdominal MRA, and advance MRI procedures). This course will primarily focus on the Imaging Consideration, Imaging Planes and Signal Characteristics.

Clock hours of lab: 0
Clock hours of classroom lecture: 30
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: MR 1202
Total Clock Hours: 30
Tuition: $690.00
Length of time in wks (2 hrs per day, 5 days per wk): 6 wks

Lecture	3.0
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr Hr

MR 1301 MRI PULSE SEQUENCES

This course is designed to provide the student with a comprehensive overview of MR pulse sequences. The course topics include spin echo, fast spin echo, gradient echo, inversion recovery, echo planar, parallel imaging and spectroscopy. The course will include FLAIR, STIR, IR prep sequences, steady state, coherent, balance gradient and single shot imaging.

Clock hours of lab: 0
Clock hours of classroom lecture: 30
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: N/A
Total Clock Hours: 30
Tuition: $690.00
Length of time in wks (2 hrs per day, 5 days per wk): 6 wks

Lecture	3.0
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr Hr

MR 1302 PATIENT MANAGEMENT AND ASSESSMENT IN MRI

The content for this course is designed to provide the concepts of patient care specific to MR, including consideration for the physical and psychological needs of the patient and family. Routine and emergency patient care procedures are described, as well as infection control procedures using standard precautions. The role of the imaging professional in patient education is identified. The following topics will be explored, infection control, isolation procedures, aseptic technique, sterile procedures, vital signs, chest tubes, various lines, patient transfer techniques, patient interactions , history taking and patient safety protocols. The course will include implant devices, sedated patients,

claustrophobic patients, life threatening situations including quench and projectiles.
Clock hours of lab: 0
Clock hours of classroom lecture: 30
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: N/A
Total Clock Hours: 30
Tuition: $690.00
Length of time in wks (2 hrs per day, 5 days per wk): 6 wks

Lecture	3.0
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr Hr

MR 1400 MRI SCREENING AND SAFETY
In this course, magnetic resonance imaging parameters are introduced. The formation of the MR signal is discussed as well as the essential components of an MR imaging system. Magnetic safety precautions that affect both patient and operator are discussed. This course will primarily focus on the Static Magnetic Field, Radio Frequency (RF) Magnetic Field, Gradient Magnetic Fields.
Clock hours of lab: 0
Clock hours of classroom lecture: 30
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: N/A
Total Clock Hours: 30
Tuition: $690.00
Length of time in wks (2 hrs per day, 5 days per wk): 6 wks

Lecture	3.0
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr Hr

MR 1601 MRI INSTRUMENTATION I
This course provides a comprehensive overview of the instrumentation associated with MR imaging. The subjects are formatted in individual outlines and can be sequenced according to level of knowledge desired. Topics include: magnetism, properties of magnetism, MR system components, MR magnets (permanent, resistive, superconducting, hybrid), radio frequency (RF) systems, gradient systems, shim systems and system shielding. This course will primarily focus on the Magnetism, Magnets, Shim Systems.
Clock hours of lab: 0
Clock hours of classroom lecture: 30
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: N/A
Total Clock Hours: 30
Tuition: $690.00
Length of time in wks (2 hrs per day, 5 days per wk): 6 wks

Lecture	30
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr Hr

MR 1602 MRI INSTRUMENTATION II
This course is a continuation of MR1601, and provides a comprehensive overview of the instrumentation associated with MR imaging. The subjects are formatted in individual outlines and can be sequenced according to level of knowledge desired. Course topics include the gantry, the operator's console, MR computers, and MR system. The course will provide an explanation regarding image processing, display and manipulation.
Clock hours of lab: 0
Clock hours of classroom lecture: 30
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: MR 1601
Total Clock Hours: 30
Tuition: $690.00
Length of time in wks (2 hrs per day, 5 days per wk): 6 wks

Lecture	3.0
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr Hr

MR 1701 MRI PARAMETERS & IMAGING OPTIONS
This course provides the student with knowledge of the parameters and imaging options used to create MR images. In addition, the content introduces quality assurance measures used in maintaining image quality. This course will primarily focus on the MR Imaging Parameters and Sequences Selections, Imaging Options and Quality assurance.
Clock hours of lab: 0
Clock hours of classroom lecture: 30
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: N/A
Total Clock Hours: 30
Tuition: $690.00
Length of time in wks (2 hrs per day, 5 days per wk): 6 wks

Lecture	3.0
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr Hr

MR 1702 MRI QUALITY ASSESSMENT AND ACCREDITATION
This course provides a comprehensive overview of MR quality control associated with MR imaging. The subjects are formatted in individual outlines and can be sequenced according to level of knowledge desired. Course topics include slice thickness, spatial resolution, contrast resolution, SNR, central frequency, transmit gain, geometric accuracy, equipment handling and inspection. The course will provide discussion pertinent to MR ACR accreditation.
Clock hours of lab: 0
Clock hours of classroom lecture: 30
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: N/A

Total Clock Hours: 30
Tuition: $690.00
Length of time in wks (2 hrs per day, 5 days per wk): 6 wks

Lecture	3.0
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr Hr

MR 1801 MRI REGISTRY PREPARATION COURSE I

This course provides a systemic and functional review of human gross anatomy and Magnetic Resonance Imaging principles in preparation for certification examination and lifelong learning. This course will primarily focus on the clinical practice.

Clock hours of lab: 0
Clock hours of classroom lecture: 30
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: N/A
Total Clock Hours: 30
Tuition: $690.00
Length of time in wks (2 hrs per day, 5 days per wk): 6 wks

Lecture	3.0
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr Hr

MR 1802 MRI REGISTRY PREPARATION COURSE II

This course provides a systemic and functional review of human gross anatomy and Magnetic Resonance Imaging principles in preparation for certification examination and lifelong learning , and is a continuation of MR 1801. This course will primarily focus on the clinical practice.

Clock hours of lab: 0
Clock hours of classroom lecture: 30
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: MR 1801
Total Clock Hours: 30
Tuition: $690.00
Length of time in wks (2 hrs per day, 5 days per wk): 6 wks

Lecture	3.0
Lab	0.0
Ext	0.0

TOTAL = 3.0 Qtr H

MR 2001 MRI CLINICAL EXPERIENCE I

This is the first of five clinical courses; the student is expected to apply knowledge gained during fourth and fifth semesters of the program and begins to demonstrate the skills to become an effective MRI technologist. The students will be scheduled for approximately 7.5 hours a day, with a 30 minute lunch/break for 5 days a week totaling 210 clinical hours.

Clock hours of Externship: 210
Clock hours of classroom lecture: 0
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: Successful completion of program content to this point.
Total Clock Hours: 210
Tuition: $ 1610.00
Length of time in wks (The students will be scheduled for approximately 7.5 hours a day, with a 30 minute lunch/break for 5 days a week): 6 wks

Lecture	0.0
Lab	0.0
Ext	7.0

TOTAL = 7.0 Qtr Hr

MR 2002 MRI CLINICAL EXPERIENCE II

This is the second of five clinical courses; the student is expected to apply knowledge gained during sixth and seventh semesters of the program and begins to demonstrate the skills to become an effective MRI technologist. The students will be scheduled for approximately 7.5 hours a day, with a 30 minute lunch/break for 5 days a week totaling 210 clinical hours

Clock hours of Externship: 210
Clock hours of classroom lecture: 0
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: MR 2001
Total Clock Hours: 210
Tuition: $ 1610.00
Length of time in wks (The students will be scheduled for approximately 7.5 hours a day, with a 30 minute lunch/break for 5 days a week): 6 wks

Lecture	0.0
Lab	0.0
Ext	7.0

TOTAL = 7.0 Qtr Hr

MR 2003 MRI CLINICAL EXPERIENCE III

This is the third of five clinical courses; the student is expected to apply knowledge gained during eighth and ninth semesters of the program and begins to demonstrate the skills to become an effective MRI technologist. The students will be scheduled for approximately 7.5 hours a day, with a 30 minute lunch/break for 5 days a week totaling 210 clinical hours.

Clock hours of Externship: 210
Clock hours of classroom lecture: 0
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: MR 2002
Total Clock Hours: 210
Tuition: $ 1610.00
Length of time in wks (The students will be scheduled for approximately 7.5 hours a day, with a 30 minute lunch/break for 5 days a week): 6 wks

Lecture	0.0
Lab	0.0
Ext	7.0

TOTAL = 7.0 Qtr Hr

MR 2004 MRI CLINICAL EXPERIENCE IV

This is the fourth of five clinical courses; the student is expected to apply knowledge gained during ninth and tenth semesters of the program and begins to demonstrate the skills to become an effective MRI technologist. The students will be scheduled for approximately 7.5 hours a day, with a 30 minute lunch/break for 5 days a week totaling 210 clinical hours.

Clock hours of Externship: 210
Clock hours of classroom lecture: 0
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: MR 2003
Total Clock Hours: 210
Tuition: $ 1610.00

Length of time in wks (The students will be scheduled for approximately 7.5 hours a day, with a 30 minute lunch/break for 5 days a week): 6 wks

Lecture	0.0
Lab	0.0
Ext	7.0

MR 2005 MRI CLINICAL EXPERIENCE V

TOTAL = 7.0 Qtr Hr

This is the fifth of five clinical courses; the student is expected to apply knowledge gained during eleventh and twelfth semesters of the program and begins to demonstrate the skills to become an effective MRI technologist. The students will be scheduled for approximately 7.5 hours a day, with a 30 minute lunch/break for 5 days a week totaling 210 clinical hours.

Clock hours of Externship: 210
Clock hours of classroom lecture: 0
Clock hours of individual and small group tutoring: provided to student on an as-needed basis
Pre-Requisite: MR 2004
Total Clock Hours: 210
Tuition: $ 1610.00

Length of time in wks (The students will be scheduled for approximately 7.5 hours a day, with a 30 minute lunch/break for 5 days a week): 6 wks

Lecture	0.0
Lab	0.0
Ext	7.0

TOTAL = 7.0 Qtr Hr