# MAGNETIC RESONANCE IMAGING, B.S.

Magnetic resonance imaging is a medical imaging technique that uses a large magnet and radio waves to create clear pictures of internal body structures. MRI provides excellent contrast between the different soft tissues of the body and is especially useful in imaging the brain, spine, joints, muscles and other structures. The superior resolution of the images and advancing technology is rapidly increasing the variety of exams an MRI technologist will perform.

- Saint Louis University's Bachelor of Science in MRI is one of only two programs of its kind in the country.
- SLU's MRI program contains a strong science curriculum which prepares students for immediate job placement as well as graduate study.
- SLU's MRI program offers a tailored curriculum including individual mentorship by MRI faculty and clinical training sites within the St. Louis metropolitan area.

The practice of MRI encompasses multidisciplinary skills. MRI technologists are not exposed to ionizing radiation and are not required to monitor their exposure to the magnet. The responsibilities of the MRI technologist include:

- · Operation of imaging, laboratory and computer instrumentation
- · Empathetic and instructional approach to patient care
- · Preparation of contrast agents
- · Performance of quality control procedures
- · Application of accepted standards of MRI safety and protection

Unlike traditional X-rays, MRI does not expose patients to ionizing radiation. MRI uses a strong magnet and radio waves to produce clear pictures of internal body structures. These pictures aid health care professionals in diagnosing and treating patients.

Advantages to earning your B.S. in MRI at Saint Louis University include:

- A curriculum with an interprofessional focus that emphasizes a team approach to health care
- · Instruction by professionally credentialed faculty
- · A flexible curriculum that allows diverse areas of concentration
- Medically relevant coursework ideal for pre-professional curriculum options, including pre-med and pre-physician assistant
- Opportunities to participate in professional conferences with faculty
  and fellow students
- Undergraduate opportunities to conduct research and produce projects/papers acceptable for publication and presentation at professional conferences.

MRI offers procedures that are helpful to a broad span of medical specialties. These specialties include neurology, sports medicine, cardiology, pediatrics and more. MRI technologists are educated and trained to work with patients and other members of the health care team to obtain high-quality images in a safe and effective manner.

# **Curriculum Overview**

Saint Louis University's Bachelor of Science in Magnetic Resonance Imaging prepares a graduate for an entry-level position as a MRI technologist. The program includes all basic sciences, as well as, a 12month intensive MRI curriculum that includes 1,300 hours of clinical practicum. The MRI program offers several curriculum tracks, including pre-physician assistant and pre-medicine. Upon successful completion of the program, the graduate is eligible for national certification to become a registered MRI technologist/ radiologic technologist (MR).

# **Fieldwork and Research Opportunities**

Students in the MRI degree program have opportunities to conduct research and produce projects and papers that are acceptable for publication and could be presented at professional conferences.

MRI students are encouraged to join and participate in the functions of the American Society of Radiologic Technologists (ASRT).

### Careers

Jobs can be found in the following settings:

- · Medical and surgical hospitals
- Freestanding clinics
- Physician offices
- Research institutions

Some jobs are classified as traveling jobs where the employee provides temporary help to departments that are short-staffed for a period of time. These technologists travel regularly, with the length of stay and location varying.

Career advancement opportunities from the position of staff technologist may lead to areas of administration, education, sales or research.

The salary range for an MRI technologist depends on geographic location, years of experience and education. The median annual wage is \$69,930 according to the Bureau of Labor Statistics.

## **Admission Requirements**

Admission consideration for the MRI program is initially based on a strong overall academic background.

#### Admission criteria include:

- · Minimum GPA of 2.70 on a 4.00 scale
- · Minimum ACT score of 22 with no subsection lower than 20

Applicants are encouraged to contact the department about availability in the program.

## **Scholarships and Financial Aid**

There are two principal ways to help finance a Saint Louis University education:

- Scholarships: awarded based on academic achievement, service, leadership and financial need. In addition to University scholarships, the Doisy College of Health Sciences offers a scholarship to sophomores, juniors and seniors.
- Financial Aid: provided in the form of grants and loans, some of which require repayment.

For priority consideration for merit-based scholarships, applicants should apply for admission by Dec. 1 and complete a Free Application for Federal Student Aid (FAFSA) by March 1. For more information, visit the student financial services office online at http://finaid.slu.edu.

# Accreditation

# Joint Review Committee on Education in Radiological Technology (JRCERT)

20 N. Wacker Drive, Suite 2850 Chicago, Illinois 60606-3182 (312) 704-5300 http://www.jrcert.org

Additional Accreditation Information (https://www.slu.edu/doisy/ degrees/program-pdfs/mri-accreditation-1218.pdf)

# **Learning Outcomes**

- 1. Graduates will be able to demonstrate the Jesuit mission by caring for the whole patient.
- 2. Graduates will be able to demonstrate effective communication skills when interacting in the MRI profession.
- 3. Graduates will be able to apply critical reasoning as it relates to the MRI setting.
- 4. Graduates will be able to demonstrate application of professional knowledge.
- 5. Graduates will be able to recognize ethical practices in the health care setting.

# Requirements

Students in Saint Louis University's magnetic resonance imaging program take the following courses.

### **Standard Track**

Code	Title	Credits
Foundation		
BIOL 1240 & BIOL 1245	Principles of Biology I and Principles of Biology I Laboratory	4
BIOL 1260 & BIOL 1265	Principles of Biology II and Principles of Biology II Laboratory	4
CHEM 1083	Principles of Chemistry 1 with Lab	4
CHEM 1483	Principles of Chemistry 2	4
ENGL 1900	Advanced Strategies Of Rhetoric and Research	3
ENGL 2xxx	Literature	3
HIM 4150	Quality Improvement	3
HSCI 3200	Health Law and Policy	3
HSCI 3700	Research Methods	3
HSI 2200	Medical Terminology	3
HSI 3300 & HSI 3310	Anatomy & Physiology I and Anatomy & Physiology I Lab	4
HSI 3400 & HSI 3410	Anatomy & Physiology II and Anatomy & Physiology II Lab	4
IPE 1100	Introduction to Interprofessional Health Care	1
IPE 3500	Health Care Systems and Health Promotion	3
IPE 4200	Applied Decision-Making in Interprofessional Practice	3
MATH 1200	College Algebra	3
MATH 1300	Elementary Statistics with Computers	3
MATH 1320	Survey of Calculus	3

ORES 2310	Introduction to Clinical Medicine	3
PHIL 1050	Introduction to Philosophy: Self and Reality	3
PHIL 2050	Ethics	3
PHYS 1220	General Physics I	4
PHYS 1240	General Physics II	4
PSY 1010	General Psychology	3
SOC 1100	Introduction to Sociology	3
THEO 1000	Theological Foundations	3
Fine Art (Cultur	al Studies, Art, Dance, Music, Theater)	3
Humanities Ele	ctive (Psychology, Socilolgy, Theology, Foreign	3
Language, Ecor	nomics, Ethics, etc.	
Magnetic Reso	nance Imaging	
MRI 4310	Physical Principles	3
MRI 4320	Cross Sectional Anatomy and Pathology	3
MRI 4330	Instrumentation and Quality Analysis	3
MRI 4340	Clinical MRI and Image Production	5
MRI 4350	Patient Care and MRI Safety	3
MRI 4410	Clinical MRI Practicum	9
MRI 4420	Adv / Emerging Tech	3
MRI 4910	Clinical Practicum	0
MRI 4960	Capstone in MRI	2
Total Credits		121

### **Pre-Medicine Track**

Code	Title	Credits
Foundation		
BIOL 1240	Principles of Biology I	4
& BIOL 1245	and Principles of Biology I Laboratory	
BIOL 1260	Principles of Biology II	4
& BIOL 1265	and Principles of Biology II Laboratory	
BIOL 3020	Biochemistry and Molecular Biology	3
BIOL 3040	Cell Structure & Function	3
CHEM 1110	General Chemistry 1	4
& CHEM 1115	and General Chemistry I Laboratory	
CHEM 1120	General Chemistry 2	4
& CHEM 1125	and General Chemistry 2 Laboratory	
CHEM 2410	Organic Chemistry 1	4
& CHEM 2415	and Organic Chemistry I Laboratory	
CHEM 2420	Organic Chemistry 2	4
& CHEM 2425	and Organic Chemistry 2 Laboratory	
ENGL 1900	Advanced Strategies Of Rhetoric and Research	3
ENGL 2xxx	Literature	3
HSCI 3200	Health Law and Policy	3
HSCI 3700	Research Methods	3
HSI 2200	Medical Terminology	3
HSI 3300	Anatomy & Physiology I	3
HSI 3310	Anatomy & Physiology I Lab	1
HSI 3400	Anatomy & Physiology II	3
HSI 3410	Anatomy & Physiology II Lab	1
IPE 1100	Introduction to Interprofessional Health Care	1
IPE 3500	Health Care Systems and Health Promotion	3
IPE 4200	Applied Decision-Making in Interprofessional Practice	3

Total Credits		130
MRI 4960	Capstone in MRI	2
MRI 4910	Clinical Practicum	0
MRI 4420	Adv / Emerging Tech	3
MRI 4410	Clinical MRI Practicum	9
MRI 4350	Patient Care and MRI Safety	3
MRI 4340	Clinical MRI and Image Production	5
MRI 4330	Instrumentation and Quality Analysis	3
MRI 4320	Cross Sectional Anatomy and Pathology	3
MRI 4310	Physical Principles	3
Magnetic Reso	nance Imaging	
Fine Art (Cultur	al Studies, Art, Dance, Music, Theater)	3
THEO 1000	Theological Foundations	3
SOC 1100	Introduction to Sociology	3
PSY 1010	General Psychology	3
PHYS 1340	Physics II Laboratory	1
PHYS 1330	Physics II	3
PHYS 1320	Physics I Laboratory	1
PHYS 1310	Physics I	3
PHIL 2050	Ethics	3
PHIL 1050	Introduction to Philosophy: Self and Reality	3
ORES 2310	Introduction to Clinical Medicine	3
MATH 1510	Calculus I	4
MATH 1400	Pre-Calculus	3
MATH 1300	Elementary Statistics with Computers	3

## **Pre-Physician Assistant and PA Scholar Track**

Code	Title	Credits
Foundation		
BIOL 1240 & BIOL 1245	Principles of Biology I and Principles of Biology I Laboratory	4
BIOL 1260 & BIOL 1265	Principles of Biology II and Principles of Biology II Laboratory	4
BIOL 3020	Biochemistry and Molecular Biology	3
BIOL 3030	Principles of Genetics	3
BLS 4510	Medical Microbiology	4
CHEM 1110 & CHEM 1115	General Chemistry 1 and General Chemistry 1 Laboratory	4
CHEM 1120 & CHEM 1125	General Chemistry 2 and General Chemistry 2 Laboratory	4
CHEM 2410 & CHEM 2415	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
CHEM 2420 & CHEM 2425	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
ENGL 1900	Advanced Strategies Of Rhetoric and Research	3
ENGL 2xxx	Literature	3
HSCI 3200	Health Law and Policy	3
HSCI 3700	Research Methods	3
HSI 2200	Medical Terminology	3
HSI 3300 & HSI 3310	Anatomy & Physiology I and Anatomy & Physiology I Lab	4
HSI 3400 & HSI 3410	Anatomy & Physiology II and Anatomy & Physiology II Lab	4

IPE 1100	Introduction to Interprofessional Health Care	1
IPE 3500	Health Care Systems and Health Promotion	3
IPE 4200	Applied Decision-Making in Interprofessional Practice	3
MATH 1200	College Algebra	3
MATH 1300	Elementary Statistics with Computers	3
MATH 1320	Survey of Calculus	3
ORES 2310	Introduction to Clinical Medicine	3
PHIL 1050	Introduction to Philosophy: Self and Reality	3
PHIL 2050	Ethics	3
PHYS 1220	General Physics I	4
PHYS 1240	General Physics II	4
PSY 1010	General Psychology	3
THEO 1000	Theological Foundations	3
Fine Art (Cultura	al Studies, Art, Dance, Music, Theater)	3
Magnetic Resor	nance Imaging	
MRI 4310	Physical Principles	3
MRI 4320	Cross Sectional Anatomy and Pathology	3
MRI 4330	Instrumentation and Quality Analysis	3
MRI 4340	Clinical MRI and Image Production	5
MRI 4350	Patient Care and MRI Safety	3
MRI 4410	Clinical MRI Practicum	9
MRI 4420	Adv / Emerging Tech	3
MRI 4910	Clinical Practicum	0
MRI 4960	Capstone in MRI	2
Total Credits		130

# **2+2** Option for Students with Associate Degree in Radiography

Total semester credits vary based on applicable courses complete in undergraduate program. Specific course plan is individually designed for each applicant.

Code	Title	Credits
AAS Radiograph	y Program Professional Port	ion
Select 28 credits		28
<b>Transfer Credits</b>		
American Histor	y or Origins of the Modern W	orld 3
Anatomy and Ph	ysiology I with Lab	4
Anatomy and Ph	ysiology II with Lab	4
Biology I with La	b	4
College Algebra		3
Composition and	Rhetoric I	3
Composition and	Rhetoric II	3
General Psychol	ogy	3
Medical Termino	logy	3
Professional Cor	nmunication	3
Sociology		3
Foundation		
CHEM 1083	Principles of Chemistry 1	vith Lab 4
CHEM 1483	Principles of Chemistry 2	4
HSCI 3200	Health Law and Policy	3
HSCI 3700	Research Methods	3

IPE 3500	Health Care Systems and Health Promotion	3
IPE 4200	Applied Decision-Making in Interprofessional Practice	3
MATH 1300	Elementary Statistics with Computers	3
MATH 1320	Survey of Calculus	3
ORES 2310	Introduction to Clinical Medicine	3
PHIL 1050	Introduction to Philosophy: Self and Reality	3
THEO 1000	Theological Foundations	3
Magnetic Reso	nance Imaging	
MRI 4310	Physical Principles	3
MRI 4320	Cross Sectional Anatomy and Pathology	3
MRI 4330	Instrumentation and Quality Analysis	3
MRI 4340	Clinical MRI and Image Production	5
MRI 4350	Patient Care and MRI Safety	3
MRI 4410	Clinical MRI Practicum	9
MRI 4420	Adv / Emerging Tech	3
MRI 4910	Clinical Practicum	0
MRI 4960	Capstone in MRI	2
Total Credits		130

### **Second Bachelor's Degree Option**

Total semester credits vary based on applicable courses complete in undergraduate program. Specific course plan is individually designed for each applicant.

Code	Title	Credits
Transfer Credits		
Select 56 credits		56
Prerequisite Cou	rses	
Principles Chemi	stry I with Lab	4
Principles Chemi	stry II with Lab	4
<b>General Physics</b>	I with Lab	4
General Physics	II with Lab	4
Anatomy and Phy	ysiology I with Lab	4
Anatomy and Phy	ysiology II with Lab	4
Medical Ethics		3
Oral and Written	Communication	3
Theology		3
Magnetic Resona	ance Imaging	
MRI 4310	Physical Principles	3
MRI 4320	Cross Sectional Anatomy and Pathology	3
MRI 4330	Instrumentation and Quality Analysis	3
MRI 4340	Clinical MRI and Image Production	5
MRI 4350	Patient Care and MRI Safety	3
MRI 4410	Clinical MRI Practicum	9
MRI 4420	Adv / Emerging Tech	3
MRI 4910	Clinical Practicum	0
MRI 4960	Capstone in MRI	2
Total Credits		120

# **Continuation Standards**

Students must maintain a cumulative grade point average (GPA) of 2.70 to remain in good standing.

# Roadmap

Roadmaps are recommended semester-by-semester plans of study for programs and assume full-time enrollment unless otherwise noted.

Courses and milestones designated as critical (marked with !) must be completed in the semester listed to ensure a timely graduation. Transfer credit may change the roadmap.

This roadmap should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor/mentor each semester. Requirements, course availability and sequencing are subject to change.

### **Standard Track**

Course	Title	Credits
Year One		
Fall		
CHEM 1083	Principles of Chemistry 1 with Lab	4
IPE 1100	Introduction to Interprofessional Health Care	1
ENGL 1900	Advanced Strategies Of Rhetoric and Research	3
MATH 1200	College Algebra	3
PHIL 1050	Introduction to Philosophy: Self and Reality	3
	Credits	14
Spring		
CHEM 1483	Principles of Chemistry 2	4
MATH 1300	Elementary Statistics with Computers	3
MATH 1320	Survey of Calculus	3
PSY 1010	General Psychology	3
XXXX	Literature Elective	3
	Credits	16
Year Two		
Fall		
BIOL 1240	Principles of Biology I	4
& BIOL 1245	and Principles of Biology I Laboratory	
IPE 3500	Health Care Systems and Health Promotion	3
HSI 2200	Medical Terminology	3
PHIL 2050	Ethics	3
	Credits	13
Spring		
BIOL 1260	Principles of Biology II	4
& BIOL 1265	and Principles of Biology II Laboratory	
IPE 4200	Applied Decision-Making in Interprofessional Practice	3
THEO 1000	Theological Foundations	3
XXXX	Fine Arts Elective	3
XXXX	Humanities Elective	3
	Credits	16
Year Three		
Fall		
HSCI 3200	Health Law and Policy	3
HSCI 3700	Research Methods	3
I HSI 3300	Anatomy & Physiology I	4
& HSI 3310	and Anatomy & Physiology I Lab	

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PHYS 1220	General Physics I	4
	Credits	14
Spring		
HIM 4150	Quality Improvement	3
I HSI 3400	Anatomy & Physiology II	4
& HSI 3410	and Anatomy & Physiology II Lab	
ORES 2310	Introduction to Clinical Medicine	3
PHYS 1240	General Physics II	4
SOC 1100	Introduction to Sociology	3
	Credits	17
Year Four		
Fall		
MRI 4310	Physical Principles	3
MRI 4320	Cross Sectional Anatomy and Pathology	3
MRI 4330	Instrumentation and Quality Analysis	3
MRI 4340	Clinical MRI and Image Production	5
MRI 4350	Patient Care and MRI Safety	3
	Credits	17
Spring		
MRI 4410	Clinical MRI Practicum	9
MRI 4420	Adv / Emerging Tech	3
MRI 4960	Capstone in MRI	2
	Credits	14
Summer		
MRI 4910	Clinical Practicum	0
	Credits	0
	Total Credits	121

## **Pre-Medicine Track**

Course	Title	Credits
Year One		
Fall		
BIOL 1240 & BIOL 1245	Principles of Biology I and Principles of Biology I Laboratory	4
LCHEM 1110 & CHEM 1115	General Chemistry 1 and General Chemistry 1 Laboratory	4
IPE 1100	Introduction to Interprofessional Health Care	1
MATH 1400	Pre-Calculus	3
ENGL 1900	Advanced Strategies Of Rhetoric and Research	3
PSY 1010	General Psychology	3
	Credits	18
Spring		
BIOL 1260 & BIOL 1265	Principles of Biology II and Principles of Biology II Laboratory	4
LCHEM 1120 & CHEM 1125	General Chemistry 2 and General Chemistry 2 Laboratory	4
MATH 1510	Calculus I	4
PHIL 1050	Introduction to Philosophy: Self and Reality	3
	Credits	15

Fall		
BIOL 3020	Biochemistry and Molecular Biology	3
CHEM 2410	Organic Chemistry 1	4
& CHEM 2415	and Organic Chemistry 1 Laboratory	
IPE 3500	Health Care Systems and Health Promotion	3
PHIL 2050	Ethics	3
XXXX	Literature Elective	3
	Credits	16
Spring		
BIOL 3040	Cell Structure & Function	3
CHEM 2420 & CHEM 2425	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
IPE 4200	Applied Decision-Making in Interprofessional Practice	3
MATH 1300	Elementary Statistics with Computers	3
THEO 1000	Theological Foundations	3
	Credits	16
Year Three		
Fall		
HSCI 3200	Health Law and Policy	3
HSCI 3700	Research Methods	3
HSI 3300 & HSI 3310	Anatomy & Physiology I and Anatomy & Physiology I Lab	4
PHYS 1310 & PHYS 1320	Physics I and Physics I Laboratory	4
XXXX	Fine Arts Elective	3
	Credits	17
Spring		
HSI 2200	Medical Terminology	3
LHSI 3400 & HSI 3410	Anatomy & Physiology II and Anatomy & Physiology II Lab	4
ORES 2310	Introduction to Clinical Medicine	3
PHYS 1330	Physics II	4
& PHYS 1340	and Physics II Laboratory	
SOC 1100	Introduction to Sociology	3
	Credits	17
Year Four		
Fall		
MRI 4310	Physical Principles	3
MRI 4320	Cross Sectional Anatomy and Pathology	3
MRI 4330	Clinical MPL and Image Production	3
MRI 4340	Clinical MRI and Image Production	3
WINI 4330		17
Spring	Credits	17
MRI 4/10	Clinical MBI Practicum	C
MRI 4420	Adv / Emerging Tech	3
MBI 4960	Capstone in MBI	2
	Credits	1/
	orcano	14

#### Summer

MRI 4910	Clinical Practicum	0
	Credits	0
	Total Credits	130

#### **Program Notes**

Curriculum is designed to address SLU's Medical School requirements and is subject to change. If applying to a Medical School at another institution, please consult their website for specific requirements.

### **Pre-Physician Assistant Track**

Course	Title	Credits
Year One		
Fall		
BIOL 1240 & BIOL 1245	Principles of Biology I and Principles of Biology I Laboratory	4
CHEM 1110 & CHEM 1115	General Chemistry 1 and General Chemistry 1 Laboratory	4
IPE 1100	Introduction to Interprofessional Health Care	1
MATH 1200	College Algebra	3
ENGL 1900	Advanced Strategies Of Rhetoric and Research	3
PSY 1010	General Psychology	3
	Credits	18
Spring		
BIOL 1260 & BIOL 1265	Principles of Biology II and Principles of Biology II Laboratory	4
CHEM 1120	General Chemistry 2	4
& CHEM 1125	and General Chemistry 2 Laboratory	
MATH 1320	Survey of Calculus	3
PHIL 1050	Introduction to Philosophy: Self and Reality	3
	Credits	14
Year Two		
Fall		
BIOL 3020	Biochemistry and Molecular Biology	3
LCHEM 2410 & CHEM 2415	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
HSCI 3200	Health Law and Policy	3
IPE 3500	Health Care Systems and Health Promotion	3
PHIL 2050	Ethics	3
	Credits	16
Spring		
BIOL 3030	Principles of Genetics	3
CHEM 2420	Organic Chemistry 2	4
& CHEM 2425	and Organic Chemistry 2 Laboratory	
IPE 4200	Applied Decision-Making in Interprofessional Practice	3
MATH 1300	Elementary Statistics with Computers	3
THEO 1000	Theological Foundations	3
	Credits	16
Year Three		
Fall		
BLS /510	Medical Microbiology	Л

HSCI 3700	Research Methods	3
LHSI 3300 & HSI 3310	Anatomy & Physiology I and Anatomy & Physiology I Lab	4
PHYS 1220	General Physics I	4
XXXX	Fine Arts Elective	3
	Credits	18
Spring		
HSI 2200	Medical Terminology	3
LHSI 3400 & HSI 3410	Anatomy & Physiology II and Anatomy & Physiology II Lab	4
ORES 2310	Introduction to Clinical Medicine	3
PHYS 1240	General Physics II	4
XXXX	Literature Elective	3
	Credits	17
Year Four		
Fall		
MRI 4310	Physical Principles	3
MRI 4320	Cross Sectional Anatomy and Pathology	3
MRI 4330	Instrumentation and Quality Analysis	3
MRI 4340	Clinical MRI and Image Production	5
MRI 4350	Patient Care and MRI Safety	3
	Credits	17
Spring		
MRI 4410	Clinical MRI Practicum	9
MRI 4420	Adv / Emerging Tech	3
MRI 4960	Capstone in MRI	2
	Credits	14
Summer		
MRI 4910	Clinical Practicum	0
	Credits	0
	Total Credits	130

#### **Program Notes**

Curriculum is designed to address SLU's PA Program requirements and is subject to change. If applying to a PA Program at another institution, please consult their website for specific requirements.

### **Physician Assistants Scholar Track**

Course	Title	Credits
Year One		
Fall		
BIOL 1240 & BIOL 1245	Principles of Biology I and Principles of Biology I Laboratory	4
CHEM 1110 & CHEM 1115	General Chemistry 1 and General Chemistry 1 Laboratory	4
IPE 1100	Introduction to Interprofessional Health Care	1
MATH 1200	College Algebra	3
ENGL 1900	Advanced Strategies Of Rhetoric and Research	3
PSY 1010	General Psychology	3
	Credits	18

#### Spring

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BIOL 1260 & BIOL 1265	Principles of Biology II and Principles of Biology II Laboratory	4
CHEM 1120 & CHEM 1125	General Chemistry 2 and General Chemistry 2 Laboratory	4
MATH 1320	Survey of Calculus	3
PHIL 1050	Introduction to Philosophy: Self and Reality	3
	Credits	14
Year Two		
Fall		
BIOL 3020	Biochemistry and Molecular Biology	3
CHEM 2410	Organic Chemistry 1	4
& CHEM 2415	and Organic Chemistry 1 Laboratory	
HSCI 3200	Health Law and Policy	3
IPE 3500	Health Care Systems and Health Promotion	3
PHIL 2050	Ethics	3
	Credits	16
Spring		
BIOL 3030	Principles of Genetics	3
CHEM 2420 & CHEM 2425	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
IPE 4200	Applied Decision-Making in Interprofessional Practice	3
MATH 1300	Elementary Statistics with Computers	3
THEO 1000	Theological Foundations	3
	Credits	16
Year Three		
Fall		
BLS 4510	Medical Microbiology	4
HSCI 3700	Research Methods	3
HSI 3300 & HSI 3310	Anatomy & Physiology I and Anatomy & Physiology I Lab	4
PHYS 1220	General Physics I	4
XXXX	Fine Arts Elective	3
	Credits	18
Spring		
HSI 2200	Medical Terminology	3
HSI 3400	Anatomy & Physiology II	4
& HSI 3410	and Anatomy & Physiology II Lab	
ORES 2310	Introduction to Clinical Medicine	3
PHYS 1240	General Physics II	4
XXXX	Literature Elective	3
	Credits	17
Year Four		
Fall		
MRI 4310	Physical Principles	3
MRI 4320	Cross Sectional Anatomy and Pathology	3
MRI 4330	Instrumentation and Quality Analysis	3
MRI 4340	Clinical MRI and Image Production	5
MRI 4350	Patient Care and MRI Safety	3
Spring	Credits	17
MRI 4410	Clinical MRI Practicum	9

	Total Credits	130
	Credits	0
MRI 4910	Clinical Practicum	0
Summer		
	Credits	14
MRI 4960	Capstone in MRI	2
MRI 4420	Adv / Emerging Tech	3

#### **Program Notes**

Upon completion of the bachelor's degree, students will proceed directly into SLU's graduate-level PA program.

### 2+2 Track

Code	Title	Credits
AAS Radiograph	y Program Professional Portion	
Community Colle	ege credits	28
Transfer Credits		
American Histor	y or Origins of the Modern World	3
Anatomy and Ph	iysiology I	4
Anatomy and Ph	iysiology II	4
Biology I		4
College Algebra		3
Composition and	d Rhetoric I	3
Composition and	d Rhetoric II	3
General Psychol	ogy	3
Medical Termino	ology	3
Professional Cor	mmunication	3
Sociology		3
Classes to Be Ta	ken and Completed at Saint Louis University	
CHEM 1110 & CHEM 1115	General Chemistry 1 and General Chemistry 1 Laboratory	4
CHEM 1120 & CHEM 1125	General Chemistry 2 and General Chemistry 2 Laboratory	4
HSCI 3200	Health Law and Policy	3
HSCI 3700	Research Methods	3
IPE 3500	Health Care Systems and Health Promotion	3
IPE 4200	Applied Decision-Making in Interprofessional Practice	3
MATH 1300	Elementary Statistics with Computers	3
MATH 1320	Survey of Calculus	3
ORES 2310	Introduction to Clinical Medicine	3
THEO 1000	Theological Foundations	3
Magnetic Reson	ance Imaging Curriculum	31
Total Credits		127

#### **Program Notes**

Selection for student admission is on a space available basis, and final acceptance decision is made by the Magnetic Resonance Imaging Program Director.

### Second Baccalaureate Degree Track

Code	Title	Credits
Prerequisite Co	urses	
College Algebra		3
Principles of Ch	emistry I & II	8

General Physics I & II	8
Anatomy and Physiology I & II	8
Medical Ethics	3
Oral and Written Communication Elective	3
Theology	3
Total Credits	36

#### **Courses to Be Taken at Saint Louis University**

Course	Title	Credits
Year One		
Fall		
MRI 4310	Physical Principles	3
MRI 4320	Cross Sectional Anatomy and Pathology	3
MRI 4330	Instrumentation and Quality Analysis	3
MRI 4340	Clinical MRI and Image Production	5
MRI 4350	Patient Care and MRI Safety	3
	Credits	17
Spring		
MRI 4410	Clinical MRI Practicum	9
MRI 4420	Adv / Emerging Tech	3
MRI 4960	Capstone in MRI	2
	Credits	14
Summer		
MRI 4910	Clinical Practicum	0
	Credits	0
	Total Credits	31

#### **Program Notes**

This 12-month program is identical to the senior year of the degree option. Successful completion leads to a second baccalaureate degree in Magnetic Resonance Imaging. This option is for a student who already possesses a bachelor's degree and is motivated to become a practicing Magnetic Resonance Technologist in 12-months.

To be considered for the second baccalaureate degree option, the applicant must have satisfactorily completed a baccalaureate degree, with a minimum GPA of 2.7 (on a 4.0 scale), including the prerequisite courses listed above.

The applicant must complete the application for the professional year and submit official transcripts of prior college work through the SLU admission website at http://www.slu.edu. Application deadline is August 1<sup>st</sup>.

The applicant must show satisfactory evidence of good character and physical ability to perform functions of Magnetic Resonance Technologist. All applicants must meet the professional performance and technical standards required by the profession. Students must also successfully complete a drug screen and criminal background check prior to the start of the professional year.

Application to the 12-month option is via a competitive application process with admission granted on a space-available basis. The selection process includes a personal interview for qualified applicants.

Selection Factors: Among the parameters considered by the Selection Committee are:

- Applicant's academic potential as evidenced by previous performance in college
- · Specific motivation toward pursuit of a health care profession
- Evidence of sound judgment
- Interpersonal and communication skills
- Job shadowing of a Magnetic Resonance Imaging Department is highly recommended