# **Doisy College of Health Sciences**

http://www.slu.edu/doisy

#### Mardell Wilson, Ed.D., Dean

The Doisy College of Health Sciences (DCHS) incorporates Saint Louis University's long-standing tradition of excellence in health care education with modern innovations in interprofessional education (IPE), research and service. The College consists of the Departments of Biomedical Laboratory Science (1929), Health Informatics and Information Management (1936), Medical Imaging and Radiation Therapeutics (1981), Nutrition and Dietetics (1934), Occupational Science and Occupational Therapy (1992), Physician Assistant Education (1971), Physical Therapy and Athletic Training (PT-1933, AT-2008) and the Program in Health Science (2010). The College offers undergraduate, graduate, professional and certificate programs in these departments. Many of the departments are nationally ranked and all of them have a reputation for excellence in professional education.

The typical program for the undergraduate student includes course work at both the Medical Center and Frost campus as well as clinical experiences at one or more of the College's numerous affiliated clinical facilities and professional practice settings spread throughout the United States as well as international sites.

Understanding the unique contributions of various health care professionals is important for meeting the needs of an increasingly complex patient population. Students in the Doisy College learn how to work in collaborative health care teams to provide outstanding health care through participation in the Interprofessional Education Program (IPE). Because Doisy College offers a variety of health profession majors, the activities in the IPE program provide students multiple perspectives which include the widest overview of our complex health care delivery system. Working in teams on patient cases both as case studies and through clinical learning experiences, investigating the literature for the latest scientific insight, attending patient-care rounds and considering ethical issues in our health care system are just a few of the many ways the IPE Program enriches a student's understanding of health care.

Visit the Doisy College of Health Sciences on the web at: http://www.slu.edu/doisycollege.xml.

# Special Admission Requirements and Procedures

Admission requirements and procedures for the programs vary, and prospective students should contact Brion Abel (<u>dchs@slu.edu</u> or 314.977.2570) recruitment specialist for Doisy College of Health Sciences, with specific questions.

All students that participate in clinical learning experiences are required to complete a criminal background check prior to the first clinical practicum. Additional criminal background checks may be required based on the contractual agreements with the College's clinical affiliate facilities. Further, drug screening is required for clinical practicum work. Prospective applicants are encouraged to consult with the chosen profession's governing or licensing organization for more detailed information before applying.

#### **DCHS General Admission Requirements**

Saint Louis University's Office of Admission, housed under the division of Enrollment and Retention Management begins reviewing freshman applications for admission and scholarship for the following year on a rolling basis beginning September 1. SLU also accepts the Common Application. If you apply using the Common Application, you will be considered for admission on the same terms and within the same timeframe as those who use SLU's general freshman application.

To receive priority consideration for University meritbased scholarships admission applications must be submitted by **December 1**. Students who meet this deadline will be automatically considered for a range of Saint Louis University's merit-based scholarships. Applications submitted after December 1 will be given scholarship consideration based on availability of funds.

To be considered for SLU's Medical Scholars Program and/or SLU's Honors Program students are encouraged to visit <u>www.slu.edu</u> and/or contact the specific office(s) directly. Each program has a separate application and application procedures for students interested in the Medical Scholars as well as the Honors Program.

# DCHS Programs with Established Special Admission Criteria

#### **Certificate Programs in Medical Laboratory Science**

The Biomedical Laboratory Science Department offers three certificate programs in Medical Laboratory Science. Specific program information is located in the Biomedical Laboratory Science Section of this catalog. For fall entry consideration, applicants should have their applications in by *April 1*. Applications received after *April 1* will be reviewed only if spaces in the class remain available.

#### Certificate Program in Cytotechnology

The Biomedical Laboratory Science Department offers a certificate program in Cytotechnology. Specific program information is located in the Biomedical Laboratory Science Section of this catalog. For fall entry consideration, applicants should have their applications in by *March 1*. Applications received after *March 1* will be reviewed only if spaces in the class remain available

#### Master of Athletic Training

The Master of Athletic Training program is designed both as a freshman entry five-year curriculum and a standalone two year post-baccalaureate program. Students desiring to pursue a degree in athletic training should apply to the program as entering freshmen, as transfer admission is on a space available basis. Students must be admitted into the Athletic Training Education Program. Due dates for applications are available on the Office of Undergraduate Admission website (BeABilliken.com). Post-baccalaureate candidates should apply through the graduate admission website: (graduate.slu.edu).

#### Master of Science in Health Sciences

The Master of Science in Health Sciences (MSHS) is a twoyear, 36 credit hour program that will equip graduates with the tools and skills necessary to assume a variety of roles in health care that may involve teaching, research, administrative responsibilities and critical inquiry. Applications for admittance into the program should be received by *February I*. Applications received after *February 1* will be reviewed only if spaces in the class remain available. To learn more about the program and the application and admissions processes, please contact Brion Abel (dchs@slu.edu or 314.977.2570), recruitment specialist for Doisy College of Health Sciences.

#### Master of Science – Molecular Imaging & Therapeutics

Applicants seeking admission to the competitive entry, 12 month, post-baccalaureate program in Molecular Imaging and Therapeutics should consult the Medical Imaging and Radiation Therapeutics Department (314.977.8526) or visit the website (http://mit.slu.edu) for more information on programmatic details.

#### Master of Medical Science – Physician Assistant Program

Applicants seeking admission to the post-baccalaureate (M.M.S.) Physician Assistant Program should consult the PA department or visit the PA Program web site (http://prepa.slu.edu) for information.

#### **Bachelor of Science in Occupational Science**

For admission consideration into the Bachelor of Science in Occupational Science program, three years of natural science, three years of math courses and four years of English courses are required. There are also minimum GPA and ACT requirements for every program of study in order to be considered for admission.

#### Master of Occupational Therapy

The Master of Occupational Therapy Program is a competitive-entry, five-year curriculum for students who enter the program as freshmen. Students must apply by *December 1* for consideration into the BSOS/MOT program. Transfer students will be accepted at the sophomore and junior levels on a limited basis. Additionally, students may apply to the post-baccalaureate phase of the MOT program upon completion of a bachelor's degree. These students are encouraged to contact the department for assistance. Enrollment capacity is limited; therefore, applications for this post-baccalaureate phase must be received by *January 15*.

#### **Doctor of Physical Therapy**

The Doctor of Physical Therapy Program is a competitive freshman-entry, six-year curriculum. Students should apply to the program as entering freshmen, as transfer admission into the program is very limited and may not be available. High school seniors applying for *fall 2015* admission have two options for acceptance into the SLU Program in Physical Therapy. Deadline for both options is *December 1, 2014*.

- Students with an ACT composite score of 30 or higher with math and science subsections scores of at least 28 (or equivalent SAT scores), a high school GPA of 3.85/4.0 and an outstanding high school academic record (with an emphasis placed on excellence in math and science courses), will be considered for early acceptance to the SLU Program in Physical Therapy. \*
- 2. All other students with an ACT composite score of 25 or higher with no subsection below a 23 (or equivalent SAT scores) and a high school GPA of 3.2/4.0 are encouraged to apply for the standard selective admission process for the SLU Program in Physical Therapy. Students will be notified of their status by *February 1, 2015*.

\* If a student is not accepted through the early acceptance process, he/she will automatically be considered for the standard selective admission process if minimum requirements are met.

For admission to the Physical Therapy program, four years of mathematics, four years of science including biology and chemistry and four years of English are required. It is strongly recommended that one of those years be high school physics.

#### Pre-Physician Assistant Scholars Track

Freshman seeking acceptance into the Pre-Physician Assistant Scholars Track should contact Brion Abel (<u>dchs@slu.edu</u> or 314.977.2570), recruitment specialist for Doisy College of Health Sciences, for information on admission requirements and degree options.

## Program Minimum GPA Admissions Criteria

The table below contains the minimum Grade Point Average (GPA) required for admission consideration in each program offered through Doisy College of Health Sciences.

Program	Freshman	Transfer <sup>1</sup>
Athletic Training	3.00	3.00
Medical Laboratory Science	3.00	2.50
Cytotechnology	3.00	2.50
Investigative and Medical Scienc	es 3.00	2.50
Health Information Management	2.50	2.50
Health Sciences	2.50	2.50
Magnetic Resonance Imaging	2.80	2.70
Nuclear Medicine Technology	2.80	2.70 Nutrition and
Dietetics	2.70	2.75
Occupational Science and		
Occupational Therapy	3.20	3.20
Physical Therapy	3.20	3.20
Radiation Therapy	2.80	2.70
Undeclared	$2.00^{2}$	

#### Notes:

 $\overline{{}^{1}Trans}$  fer admission may not be available in some programs.

<sup>2</sup>Undeclared students are held to the minimum university cumulative GPA of 2.00. Such students must select and be accepted into a formal program, and subsequently complete all program requirements in order to graduate from Saint Louis University.

### **Degrees Offered**

The Doisy College of Health Sciences offers programs that lead to the following degrees

#### **Bachelor of Science Degrees**

Medical Laboratory Science Cytotechnology Exercise Science (*leading to* a Doctor of Physical Therapy and Master of Athletic Training) Investigative and Medical Sciences Health Information Management Health Sciences Magnetic Resonance Imaging Nuclear Medicine Technology Nutrition and Dietetics Occupation Science Radiation Therapy

**Graduate Degrees Doctor of Physical Therapy** Physical Therapy

#### **Master of Athletic Training** Athletic Training

Master Science in Health Informatics Health Informatics and Information Management

#### **Master of Medical Science** Physician Assistant

Master of Science in Health Sciences Health Sciences

**Master of Science in Molecular Imaging and Therapeutics** Medical Imaging and Radiation Therapeutics

**Master of Science in Nutrition and Dietetics** Nutrition and Dietetics

#### **Master of Occupational Therapy (Entry Level)** Occupational Therapy

For additional program information please contact Brion Abel (<u>dchs@slu.edu</u> or 314.977.2570), Doisy College of Health Sciences Recruitment Specialist.

### **Certificate Programs**

Medical Laboratory Science (Undergraduate and Post-baccalaureate | Categorical) Clinical Chemistry Clinical Hematology Clinical Microbiology Cytotechnology (Post-baccalaureate) Nutrition and Dietetics Dietetic Internship Verification Statement Didactic Program in Dietetics Verification Statement

### **Accreditation of Programs**

Programs of the Doisy College of Health Sciences are accredited by the respective accreditation agencies as follows:

#### Athletic Training

Commission on Accreditation of Athletic Training Education 2201 Double Creek Drive, Suite 5006 Round Rock, TX 78664 (512)733-9700

#### **Clinical Laboratory Science:**

National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) 8410 West Bryn Mawr Avenue, Suite 670 Chicago, IL 60631 (773) 714-8880

#### Cytotechnology:

Commission on Accreditation of Allied Health Education Programs (CAAHEP) through the American Society of Cytopathology (ASC), Cytotechnology Programs Review Committee (CPRC) 400 West 9<sup>th</sup>. Street Suite 201 Wilmington, DE 19801-1555 (312) 553-9355

#### Health Informatics & Information Management:

Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM)

233 N. Michigan Avenue 21st Floor Chicago, IL 60601-5800

#### **Nuclear Medicine Technology:**

The Joint Review Committee on Educational Programs in Nuclear Medicine Technology

2000 W. Danforth Rd. Suite 130, #203 Edmond, OK 73003 (405) 285-0546

#### **Nutrition and Dietetics:**

The Accreditation Council for Education in Nutrition and Dietetics (ACEND) the accrediting agency for the Academy of Nutrition and Dietetics

120 South Riverside Plaza, Suite 2000 Chicago, Illinois 60606-6995 (312) 899-0040 ext 5400

#### **Occupational Therapy:**

Accreditation Council for Occupational Therapy Education, (ACOTE), American Occupational Therapy Association, (AOTA) 4720 Montgomery Lane P.O. Box 31220

P.O. Box 31220 Bethesda, MD 20824-1220 (301) 652-2682

#### **Physical Therapy:**

Commission on Accreditation in Physical Therapy Education (CAPTE)

American Physical Therapy Association (APTA) 1111 N. Fairfax Street Alexandria, VA 22314 (703) 706-3245

#### **Physician Assistant:**

Accreditation Review Commission on Education for the Physician Assistant (ARC-PA) 12000 Findley Road, Suite 150 Johns Creek, GA 30097 (770) 476-1224 http://www.arc-pa.org/

#### **Radiation Therapy:**

Joint Review Committee on Education in Radiological Technology, (JRCERT), 20 N. Wacker Drive, Suite 2850 Chicago, Illinois 60606-3182 (312) 704-5300

## Program/Department Course Requirements

Specific course requirements vary by program/ department.

### **Non-Academic Requirements**

Clinical internship experiences in clinical practice settings (i.e. hospitals, clinics, schools, etc.) are a required component of select Doisy College of Health Sciences Programs. Regulations require all students in programs with one or more clinical internships to complete a criminal background check and a drug test at least once during the Program, either or both of these may be repeated as clinical placement sites requirements demand. Positive results from the criminal background check or drug tests may result in ineligibility to graduate from the program. A felony conviction will affect a graduate's eligibility for professional licensure, certification and professional practice. Additional and program-specific information about the requirements may be obtained directly from the program.

## **Interprofessional Education (IPE)**

Students in health related programs at Saint Louis University have the opportunity to study Interprofessional Education (IPE) as part of their programs. The IPE Program offers both Minor and Concentration options. Information on both programs may be found on the Interprofessional Education page as well as visiting <u>http://ipe.slu.edu/</u>.

# **Biomedical Laboratory** Science

#### Tim R. Randolph, Ph.D., MT(ASCP) Chair

The Department of Biomedical Laboratory Science (BLS) offers three separate degree programs: Medical Laboratory Science (MLS), Cytotechnology (CT), and Investigative and Medical Sciences (IMS) and four certificate programs in the areas of cytotechnology, medical chemistry, medical hematology, and medical microbiology. Pre-Medicine, Pre-Physician Assistant and other pre-professional curricular tracks are options in all three programs. Consult the respective program's website for more information.

Medical Laboratory Science program website: http://www.slu.edu/x24731.xml

Cytotechnology program website https://www.slu.edu/x16887.xml

Investigative and Medical Sciences program website: http://www.slu.edu/x24730.xml

#### **Faculty:**

Elizabeth Blessing, PhD, MLS(ASCP)<sup>CM</sup> Donna Duberg, MA, MS, MT(ASCP)SM Uthayashanker Ezekiel, PhD, MB(ASCP)<sup>CM</sup> Mona Hebert, BS, MLS(ASCP)<sup>CM</sup> Rita M. Heuertz, PhD, MT(ASCP) Larry List, MS, PA(ASCP), CT(ASCP)<sup>CM</sup> Tim R. Randolph, PhD, MT(ASCP), Chair Amanda Reed, MAE, MLS(ASCP)<sup>CM</sup>

# Medical Laboratory Science Program Description:

The Bachelor of Science in Medical Laboratory Science (MLS) degree prepares graduates for a career as a health care professional in laboratory medicine. The curriculum provides students with a strong science foundation (chemistry, biology, and math), medically applied courses (BLS & MLS), and a 21 week practicum in the clinical laboratory. MLS graduates are prepared to manage, conduct and interpret a wide spectrum of laboratory testing to include hematology, chemistry, microbiology, immunology, transfusion medicine, and molecular diagnostics. Results of these tests are used to evaluate the health status of individuals, diagnose disease, and monitor treatment efficacy. Progression through the program is based on meeting academic, psychomotor, and professional behavior requirements. Upon successful completion of the program, the graduate is eligible for national certification as a Medical Laboratory Scientist or equivalent. In addition to working in diagnostic, research and other laboratories, many graduates continue their education in medical school, graduate school, and other professional programs.

#### <u>Note:</u> All applicants must meet the professional performance standards required for the profession. These standards may be viewed by visiting http://www.slu.edu/x2356.xml.

#### **Non-academic Requirements:**

Clinical internship experiences in clinical practice settings (i.e. hospitals, clinics, reference labs, etc.) are a required component of the medical laboratory science curriculum. Regulations require all students to complete a criminal background check and a drug test at least once during the Program, either or both of these may be repeated as agency requirements demand. Positive results from the criminal

background check or drug tests may result in ineligibility to graduate from the program. A felony conviction will affect a graduate's eligibility for professional certification and professional practice.

#### Medical Laboratory Science (BS)

ENGL ENGL	190 2XX	Adv Strategies of Rhetoric & Rsch Literature or above	3 3
Fine Art ( <i>ART-1</i> (		tive TH-100/101, any applied art)	3
		Elective /120, HIST-111/112, PSY-101)	3
PHIL	105	Introduction to Philosophy	3
THEO	100	Theological Foundations	3
Philosop	phy or	Theology Elective (200 or above)	3
MATH	141	Pre-Calculus	3
MATH	130	Elementary Statistics w/ Computers	3
BIOL	104	Principles of Biology I	4
BIOL	106	Principles of Biology II	4
BIOL	302	Molecular Cell Biology I	3
CHEM	163	General Chemistry I	3
CHEM	165	General Chemistry I Lab	1
CHEM	164	General Chemistry II	3
CHEM	166	General Chemistry II Lab	1
CHEM	342	Prin of Organic Chemistry I	3
CHEM	344	Prin of Organic Chemistry I Lab	1
CHEM	343	Principles of Organic Chemistry II	3
CHEM	345	Organic Chemistry Lab II	1
		or	
CHEM	320	Analytical Chemistry I (for Org II)	3
CHEM	322	Analytical Chemistry I Lab	1
PPY	254	Human Physiology	4
IPE	110	Intro to Interprofessional Health Care	1
HCE	201	Health Care Ethics	3
		Subtotal	62

#### **Required Biomedical Laboratory Science Courses**

BLS	110	Found. of Medical Laboratory Science	e 1
BLS	115	Foundations of MLS Lab	1
BLS	311	Urinalysis & Body Fluids	2
BLS	411	Medical Chemistry I	3
BLS	412	Medical Chemistry II	2
BLS	413	Prin. & Tech. in Molecular Biology	1
BLS	421	Hematology	4
BLS	422	Hemostasis and Thrombosis	2

		Subtotal	71
MLS	482	Clinical Urinalysis Practicum	1
MLS	481	Clinical Microbiology	2
MLS	480	Clinical Microbiology Practicum	3
MLS	479	Clinical Immunohematology	1
MLS	478	Clinical Immunohematology Practice	ım2
MLS	477	Clinical Phlebotomy Practicum	1
MLS	476	Clinical Hemostasis Practicum	1
MLS	475	Clinical Hematology	1
MLS	474	Clinical Hematology Practicum	2
MLS	473	Clin Chem Special Testing	1
MLS	472	Clin Chem Special Testing Practicun	n 1
MLS	471	Clinical Chemistry Routine Testing	1
MLS	470	Clin Chem Routing Testing Practicu	
MLS	461	Advanced Topics & Case Correlation	
MLS	456	Medical Mycology & Parasitology L	ab1
MLS	455	Medical Bacteriology Lab	2
MLS	454	Medical Parasitology	1
MLS	453	Medical Mycology	1
MLS	452	Medical Bacteriology	2
MLS	435	Immunohematology Lab	1
MLS	425	Hematology Lab	1
MLS	416	Molecular Biology Lab	2
MLS	415	Analytical Chemistry Lab	2
MLS	330	Clinical Laboratory Management	1
MLS	320	Principles of Clinical Education	1
MLS	315	Urinalysis & Immunology Lab	1
BLS	485	Research	3
BLS	463	Senior Seminar	1
BLS	461	Rsch Design/Critique/Presentation	3
BLS	451	Medical Microbiology	4
BLS	441	Medical Immunology	4
BLS	431	Immunohematology	3

**Cytotechnology (CT) Program Description:** The Bachelor of Science in Cytotechnology (CT) degree prepares graduates for a career in a specialized area of laboratory medicine. The cytotechnologist is a health care professional whose primary responsibility is the microscopic examination of cell samples for morphologic changes that indicate infectious disease or malignancy. The cytotechnologist detects subtle changes in the appearance of the cytoplasm and nucleus of the cells consistent with a variety of disease states. The majority of the workload of a cytotechnologist is in the evaluation of PAP smears. fine needle biopsies from lymph nodes and other tissues. Results of cytotechnology analyses assist in the diagnosis of infectious, pre-cancerous and malignant disease. The curriculum provides students with a strong science foundation (chemistry, biology, and math), cytotechnology courses, and an 8 week practicum in cytotechnology laboratories. Progression through the program is based on meeting academic, psychomotor, and professional behavior requirements. Upon successful completion of the program, the graduate is eligible for national certification as a Cytotechnologist. In addition to working in

clinical cytotechnology labs many graduates continue their education in medical school, graduate school, and other professional programs. A post-baccalaureate certificate program in Cytotechnology is also available for students who have earned a BS degree in a science area. Information on the certificate option is located at the end of this section. <u>Note</u>: All applicants must meet the professional performance standards required for the profession. These standards may be viewed online by visiting http://www.slu.edu/biomedical-laboratory-science/futurestudents/cytotechnology/professional-performance-standards

#### Non-academic Requirements:

Clinical internship experiences in clinical practice settings (i.e. hospitals, clinics, reference labs, etc.) are a required component of the cytotechnology curriculum. Regulations require all students to complete a criminal background check and a drug test at least once during the Program, either or both of these may be repeated as agency requirements demand. Positive results from the criminal background check or drug tests may result in ineligibility to graduate from the program. A felony conviction will affect a graduate's eligibility for professional certification and professional practice.

#### Cytotechnology (BS)

ENGL ENGL	190 2XX	Adv Strategies of Rhetoric & Rsch Literature or above	3 3
Fine Art (ART-10		tive TH-100/101, any applied art)	3
		Elective /120, HIST-111/112, PSY-101)	3
PHIL THEO	105 100	Introduction to Philosophy Theological Foundations	3 3
Philosop	phy or	Theology Elective (200 or above)	3
MATH	141	Pre-Calculus	3
MATH	130	Elementary Statistics w/ Computers	3
BIOL	104	Principles of Biology I	4
BIOL	106	Principles of Biology II	4
BIOL	302	Molecular Cell Biology I	3
CHEM	163	General Chemistry I	3
CHEM	165	General Chemistry I Lab	1
CHEM	164	General Chemistry II	3
CHEM	166	General Chemistry II Lab	1
CHEM	342	Prin of Organic Chemistry I	3
CHEM	344	Prin of Organic Chemistry I Lab	1

CHEM	343	Prin of Organic Chemistry II	3
CHEM	345	Prin of Organic Chemistry II Lab	1
ANAT	100	Human Anatomy	3
PPY	254	Human Physiology	4
IPE	110	Intro to Interprofessional Health Care	1
HCE	201	Health Care Ethics	3
XXX	XXX	Electives	9
		Subtotal	74

#### **Required Biomedical Laboratory Science Courses**

BLS	110	Found. of Medical Laboratory Science	e 1
BLS	115	Found. of Medical Lab Science Lab	1
BLS	413	Prin. & Tech. in Molecular Biology	1
BLS	441	Medical Immunology	4
BLS	451	Medical Microbiology	4
Dequired Medical Laboratory Science Courses			

Keyun	eu me	ulcal Laboratory Science Courses	
MLS	330	Clinical Laboratory Management	1
MLS	416	Molecular Biology Laboratory	2
MLS	452	Medical Bacteriology	2
MLS	455	Medical Bacteriology Lab	2
		Subtotal	18

#### **Required Cytotechnology Courses**

		Total	125
		Subtotal	33
CYTO	490	Advanced Practices in Cytology Pra	ict. 8
CYTO	480	Fine Needle Aspiration Cytology	4
CYTO	470	Gastrointestinal & Genitourinary Cy	yto 3
CYTO	460	Body Fluid Cytology	3
CYTO	440	Respiratory and Oral Cytology	3
CYTO	430	Processing Laboratory Practicum	2
CYTO	420	Female Genital Tract III	3
CYTO	411	Female Genital Tract II	1
CYTO	410	Female Genital Tract I	3
CYTO	400	Foundations of Cytology	3
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# Investigative and Medical Sciences Program Description:

The Bachelor of Science in Investigative and Medical Sciences (IMS) program is primarily designed as a preparatory degree for students planning advanced study in the medical sciences to include medical school, physician assistant school, dental school, veterinary school, pharmacy school, graduate school, etc. The IMS curriculum offers a strong base in both basic and medically applied sciences. The curriculum provides graduates with the knowledge, skills, and attitudes that make them strong candidates for medical school, graduate school, or other professional programs. The curriculum

requires a minimum of 24 flexible hours in an "Area of Concentration" (AOC) that can be used to earn a second major, minor, certificate, or combinations to meet personal and/or professional goals. Students are individually advised in selecting courses to meet the AOC requirement. Students can combine the IMS degree with a second major or minor in Forensic Science offered through the Department of Sociology and Criminal Justice to enhance their qualifications for employment or advanced study in forensics. Many curriculum tracks are available to include the Medical Scholar track. Progression through the program is based on meeting academic, psychomotor, and professional behavior requirements. Most IMS graduates pursue advanced study. However, some directly enter the workforce in fields such as medical research, pharmaceutical sales, biotechnology labs, and crime labs.

# Investigative and Medical Sciences (BS) (Standard Option)

ENGL ENGL	190 2XX	Adv Strategies of Rhetoric & Rsch Literature (or above)	3 3
Fine Art (ART-10		tive TH-100/101, any applied art)	3
		Elective /120, HIST-111/112, PSY-101)	3
PHIL THEO	105 100	Introduction to Philosophy Theological Foundations	3 3
Philosop	ohy or '	Theology Elective (200 or above)	3
MATH	141	Pre-Calculus	3
MATH	130	Elementary Statistics w/Computers	3
BIOL	104	Principles of Biology I	4
BIOL	106	Principles of Biology II	4
BIOL	302	Molecular Cell Biology I	3
CHEM	163	General Chemistry I	3
CHEM	165	General Chemistry I Lab	1
CHEM	164	General Chemistry II	3
CHEM	166	General Chemistry II Lab	1
CHEM	342	Prin of Organic Chemistry I	3
CHEM	344	Prin of Organic Chemistry I Lab	1
CHEM	343	Prin of Organic Chemistry II	3
CHEM	345	Prin of Organic Chemistry II Lab	1
PPY	254	Human Physiology	4
IPE	110	Intro to Interprofessional Health Care	1
HEC	201	Health Care Ethics	3

Subtotal	

Required Investigative and Medical Sciences Courses				
BLS	110	Found. of Medical Laboratory Science	e 1	
BLS	115	Found. of Med Lab Science Lab	1	
BLS	311	Urinalysis & Body Fluids	2	
BLS	411	Medical Chemistry I	3	
BLS	412	Medical Chemistry II	2	
BLS	413	Prin. & Tech. in Molecular Biology	1	
BLS	421	Hematology	4	
BLS	422	Hemostasis & Thrombosis	2	
BLS	431	Immunohematology	3	
BLS	441	Medical Immunology	4	
BLS	451	Medical Microbiology	4	
BLS	461	Research Design/Critique/Presentatio	n 3	
BLS	462	Senior Synthesis (or 485 Research)	3	
BLS	463	Senior Seminar	1	

#### Subtotal

34

62

*Plus a <u>minimum</u> of 24hours in an area of concentration (AOC):* 

Area of Concentration electives (minimum)	24
Subtotal	24
Total	120

# Additional requirements for Pre-med option Courses:

МАТН	142	Calculus I	1
			4
PHYS	131	Physics I	3
PHYS	132	Physics I Lab	1
PHYS	133	Physics II	3
PHYS	134	Physics II Lab	1
		Subtotal	12
		Total	132

#### **Certificate in Medical Laboratory Science** (CMLS) **Program Description:**

The Medical Laboratory Science (MLS) Program offers *undergraduate and post-baccalaureate* certificate (categorical) programs in three laboratory-specific disciplines: Medical Chemistry, Medical Hematology, and Medical Microbiology. Each of the certificate curricula provides students with a strong science background, medically applied courses, and corresponding practicum experiences in the clinical laboratory. Each program consists of two full semesters of didactic coursework and a subsequent clinical practicum that varies in length between 5-7 weeks. Clinical experiences are scheduled at the convenience of BLS Department affiliate sites. Thus, the typical program takes between 12-18 months to complete. CMLS graduates are prepared to manage and conduct a wide spectrum of laboratory testing relative to the laboratory discipline studied. Results of these tests are used to evaluate the health status of individuals, diagnose disease, and monitor treatment efficacy. Progression through the program is based on meeting academic, psychomotor, and professional behavior requirements. Upon successful completion of the program, the graduate is eligible for national certification as a categorical medical laboratory professional. In addition to working in diagnostic, research and other laboratories, many graduates continue their education in medical school, graduate school, and other professional programs.

#### **General Prerequisites:**

Concurrent enrollment at Saint Louis University or completion of a conferred degree from a regionally accredited college/university with a major in biological science or chemistry is required. Students must complete a combination of 30 semester hours (45 quarter hours) of biology, chemistry and/or medical sciences courses for program admission consideration.

Science-based required coursework consists of a minimum of 30 credit hours and must contain concepts in biology, inorganic chemistry, organic chemistry, and human physiology. Courses in genetics, cellular and molecular biology, and biochemistry are recommended. Other required coursework includes a minimum of 3 credit hours of mathematics at a level of pre-calculus or above and 3 credit hours of statistics. Depending on the certificate program chosen, students may be able to take the math or statistics requirement while completing the program.

Applicants wishing to apply for a certificate program must have a 2.5 minimum cumulative GPA on a 4.0 scale to include a 2.5 minimum science/math GPA ("C") in all biological sciences, chemistry, and math for admissions consideration.

#### **Admissions Process:**

The first step in the admissions process for all students interested in pursuing a certificate in medical laboratory science is to contact the MLS certificate program coordinator Amanda Reed at <u>areed19@slu.edu</u> or by phone at 314.977.8686. The prospective student will be asked to submit a copy of his/her transcript indicating all coursework from all colleges and universities attended for evaluation. Student-issued transcripts are acceptable at this stage of the process. Preliminary unofficial applicant status will then be determined. Students who meet the prerequisite requirements will be invited to formally apply to the program following the appropriate process identified next.

Completion of a Curricular Update Form by the MLS certificate program coordinator is required for current SLU students to add a CLS certificate to their academic plan. *Since these students are in the process of completing their* 

undergraduate studies, they are considered as undergraduate applicants and as such fall under undergraduate fees and general standards.

Students who already hold a Bachelor's degree will be instructed to apply through *graduate admissions*.

Official transcripts are required as part of the graduate admissions process. Specifics regarding these transcripts as well as other admissions requirements are located on the graduate admissions page found at <u>www.slu.edu</u>. *These students are considered as post-baccalaureate applicants and as such fall under post-baccalaureate fees and general standards*.

The number of students admitted into each certificate program is based on the availability of clinical placement sites for practicum experiences. No student will be admitted until clinical placement for practicum experiences has been secured. In the event of a limited number of available placement spots, a competitive entry process based on GPA, letters of recommendation and previous coursework will be used to admit students. Admission decisions will be made on or before June 1.

<u>Note</u>: The certificate will not be awarded prior to student completion of a recognized baccalaureate degree as detailed above.

All applicants must meet the professional performance standards required for the profession. These standards may be viewed online by visiting http://www.slu.edu/x2356.xml.

#### **Non-academic Requirements:**

Clinical internship experiences in clinical practice settings (i.e. hospitals, clinics, reference labs, etc.) are a required component of the medical laboratory science certificate curricula. Regulations require all students to complete a criminal background check and a drug test at least once during the Program, either or both of these may be repeated as agency requirements demand. Positive results from the criminal background check or drug tests may result in ineligibility to graduate from the program. A felony conviction will affect a graduate's eligibility for professional certification and professional practice.

### Certificate in Medial Laboratory Science (CMLS) - Chemistry

Fall Se	mester			
BLS	411	Medical Chemistry I	3	
BLS	441	Medical Immunology	4	
MLS	415	Analytical Chemistry Laboratory	2	
PHIL/7	ГНЕО	Elective (200 or above)	3	
		Subtotal Required	12	

Option	al Fall I	Enhancement Courses:	
BLS	421	Hematology	4
MLS	425	Hematology Laboratory	1
		Subtotal Optional	5
	Semest		
BLS	311	Urinalysis & Body Fluids	2
MLS	315	Urinalysis & Serology Laboratory	1
MLS	320	Principles of Clinical Education	1
MLS	330	Clinical Laboratory Management	1
BLS	412	Medical Chemistry II	2
BLS	413	Prin. & Tech. in Molecular Biology	1
MLS	462	Adv. Topics/Case Corr-Clin Chem	1
IPE	110	Intro. to Interprofessional Education	1
HCE	201	Healthcare Ethics	3
		Subtotal Required	13
Option	al Sprin	g Enhancement Courses:	
BLS	431	Immunohematology	3
MLS	435	Immunohematology Laboratory	1
		Subtotal Optional	4
		*	
Summe	er Seme	ster	
MLS	416	Molecular Biology Laboratory	2
MLS	470	Clinical Chemistry Routine Practicur	n 2
MLS	471	Clinical Chemistry Routine Testing	1
MLS	472	Clin. Chem Special Testing Practicur	n 1
MLS	473	Clinical Chemistry Special Testing	1
MLS	477	Clinical Phlebotomy Practicum	1
MLS	482	Clinical Urinalysis Practicum	1
		Subtotal Required	9
		Total Required	34
		Total Optional Credits	9
		Maximum Total Credits	43
<b>A</b>	<b></b>		
		in Medical Laboratory Science	e
(CMI	LS) - H	Iematology	
Fall Se			
BLS	421	Hematology	4

I un be	mester		
BLS	421	Hematology	4
BLS	425	Hematology Laboratory	1
BLS	441	Medical Immunology	4
PHIL/	ГНЕО	Elective (200 or above)	3
		Subtotal Required	12

Optional Fall Enhancement Courses: BLS 411 Medical Chemistry I

MLS	415	Analytical Chemistry Laboratory	2
		Subtotal Optional	5

3

Spring Semester

BLS	311	Urinalysis & Body Fluids	2
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MLS	315	Uringly and R Social and I aboratory	1
MLS		Urinalysis & Serology Laboratory	1
MLS	320	Principles of Clinical Education	1
MLS	330	Clinical Laboratory Management	1
BLS	413	Prin. & Tech. in Molecular Biology	1
BLS	422	Hemostasis and Thrombosis	2
MLS	463	Adv. Topics/Case Corr-Hematology	1
IPE	110	Introduction to Interprofessional	
		Education (IPE)	1
HCE	201	Healthcare Ethics	3
		Subtotal Required	13
Option	al Sprir	g Enhancement Courses:	
BLS	412	Medical Chemistry II	2
BLS	431	Immunohematology	3
MLS	435	Immunohematology Laboratory	1

Subtotal Optional

#### Summer Semester

		Maximum Total Credits	44
		Total Optional Credits	11
		Total Required	33
		Subtotal Required	8
MLS	482	Clinical Urinalysis Practicum	1
MLS	477	Clinical Phlebotomy Practicum	1
MLS	476	Clinical Hemostasis Practicum	1
MLS	475	Clinical Hematology Testing	1
MLS	474	Clinical Hematology Practicum	2
MLS	416	Molecular Biology Laboratory	2

6

### Certificate in Medical Laboratory Science (CMLS) - Microbiology

Fall Se	mester		
BLS	441	Medical Immunology	4
BLS	451	Medical Microbiology	4
HCE	201	Health Care Ethics	3
PHIL/	ГНЕО	Elective (200 or above)	3
		Subtotal	14

Spring Semester

MLS	320	Principles of Clinical Education	1
MLS	330	Clinical Laboratory Management	1
MLS	413	Prin. & Tech. in Molecular Biology	1
MLS	452	Medical Bacteriology	2
MLS	455	Medical Bacteriology Laboratory	2
MLS	453	Medical Mycology	1
MLS	454	Medical Parasitology	1
MLS	456	Medical Mycology/Parasitology Lab	1
MLS	464	Adv. Topics/Case Corr-Microbiology	1
IPE	110	Intro. to Interprofessional Education	1
		Subtotal	12

Summer Semester

Doisy Colleg	e of Health	Sciences
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MLS	416	Molecular Biology Laboratory	2
MLS	477	Clinical Phlebotomy Practicum	1
MLS	480	Clinical Microbiology Practicum	3
MLS	481	Clinical Microbiology Testing	2
		Subtotal	8
		Total	34

### Certificate in CYTOTECHNOLOGY (CCT) Program Description

The Cytotechnology (CT) Program offers a one-year postbaccalaureate certificate program in cytotechnology. The certificate curriculum provides students with a strong science background, medically applied courses, and corresponding practicum experiences in the cytotechnology laboratory. The cytotechnologist is a health care professional whose primary responsibility is the microscopic examination of cell samples for morphologic changes that indicate infectious disease or malignancy. Cytotechnologists detect clues to disease in the delicate patterns of the cytoplasm and nucleus of the cells. The majority of the workload of a Cytotechnologist is in the evaluation of PAP smears, fine needle biopsies from lymph nodes and other tissues. Results of cytotechnology analyses assist in the diagnosis of infectious, pre-cancerous and malignant disease. Progression through the certificate program is based on meeting academic, psychomotor, and professional behavior requirements. The didactic curriculum culminates in an 8 week practicum in cytotechnology laboratories. Upon successful completion of the certificate program, the graduate is eligible for national certification as a Cytotechnologist. In addition to working in clinical cytotechnology labs many graduates continue their education in medical school, graduate school, and other professional programs.

#### **General Prerequisites:**

A conferred degree from a regionally accredited college/university is required for program admission consideration. Students must have completed at least 28 semester hours in the biological sciences and chemistry of which at least 20 semester hours must be in biology and at least 8 semester hours in chemistry. In addition, students must have at least 3 semester hours of mathematics at a level of precalculus or above and at least 3 semester hours in statistics.

Applicants wishing to apply for a certificate program must have a 2.5 minimum cumulative GPA on a 4.0 scale to include a 2.5 minimum science/math GPA ("C") in all biological sciences, chemistry, and math for admissions consideration.

#### **Admissions Process:**

The first step in the admissions process for all students interested in pursuing a certificate in Cytotechnology is to contact the Cytotechnology Program Director Larry List at <u>listlw@slu.edu</u> or by phone at 314.977.8685. The prospective student will be asked to submit a copy of his/her transcript

indicating all coursework from all colleges and universities attended for evaluation. Student-issued transcripts are acceptable at this stage of the process. Preliminary unofficial applicant status will then be determined. Students who meet the prerequisite requirements will be invited to formally apply to the program following the appropriate process identified next.

Students must already hold a Bachelor's degree and will be instructed to apply through *graduate admissions*. Official transcripts are required as part of the graduate admissions process. Specifics regarding these transcripts as well as other admissions requirements are located on the graduate admissions page found at <u>www.slu.edu</u>. *These students are considered as post-baccalaureate applicants and as such fall under post-baccalaureate fees and general standards*.

The number of students admitted into the Cytotechnology certificate program is based on the availability of clinical placement sites for practicum experiences. No student will be admitted until clinical placement for practicum experiences have been secured. In the event of a limited number of available placement spots, a competitive entry process based on GPA, letters of recommendation and previous coursework will be used to admit students. Admission decisions will be made on or before May 1.

#### All applicants must meet the professional performance standards required for the profession. These standards may be viewed on line by visiting:

http://www.slu.edu/biomedical-laboratory-science/futurestudents/cytotechnology/professional-performance-standards

#### Non-academic Requirements:

Clinical internship experiences in clinical practice settings (i.e. hospitals, clinics, reference labs, etc.) are a required component of the Cytotechnology certificate curricula. Regulations require all students to complete a criminal background check and a drug test at least once during the Program, either or both of these may be repeated as agency requirements demand. Positive results from the criminal background check or drug tests may result in ineligibility to graduate from the program. A felony conviction will affect a graduate's eligibility for professional certification and professional practice.

Summer Semester (1 <sup>st</sup> Monday in June)					
Requir	<b>Required Medical Laboratory Science Courses</b>				
MLS	413	Prin. & Tech. in Molecular Biology	1		
Requir	Required Cytotechnology Courses				
CYTO	400	Foundations of Cytology	3		
CYTO	410	Female Genital Tract I	3		
		Subtotal	7		

Fall Semester Required Medical Laboratory Science Courses

MLS	416	Molecular Biology Laboratory	2		
Required Cytotechnology Courses					
CYTO	411	Female Genital Tract II	1		
CYTO	420	Female Genital Tract III	3		
CYTO	440	Respiratory and Oral Cytology	3		
CYTO	460	Body Fluid Cytology	3		
CYTO	470	Gastrointestinal & Genitourinary C	yto 3		
		Subtotal	15		
Required Medical Laboratory Science Courses					
Require	ed Me	dical Laboratory Science Courses			
Require MLS	ed Me 330	Clinical Laboratory Science Courses	1		
MLS	330	•	1		
MLS	330	Clinical Laboratory Management	1 2		
MLS Require	330 ed Cyt	Clinical Laboratory Management otechnology Courses	1 2 4		
MLS <b>Require</b> CYTO	330 ed Cyt 430	Clinical Laboratory Management <b>totechnology Courses</b> Processing Laboratory Practicum	4		
MLS Require CYTO CYTO	330 ed Cyt 430 480	Clinical Laboratory Management otechnology Courses Processing Laboratory Practicum Fine Needle Aspiration Cytology	4		

# Health Informatics and Information Management

Teresa Neal, MHA, RHIA, Interim Program Director http://www.slu.edu/x2374.xml

#### Faculty:

Julie Howe, MBA, D-ABMDI Teresa Neal, MHA, RHIA Deborah Seale, PhD

Health Information Management is a unique program for students interested in the study of medical sciences, information technology, legal concepts and business administration. Faculty within the Department of Health Informatics and Information Management, as well as adjunct faculty who are professionals in the health information management field, prepare the graduate to take the nationally recognized credentialing examination offered by the American Health Information Management Association. These graduates are primed for a tremendous variety of rapidly growing employment opportunities in all venues of the health care industry. These opportunities include, but are not limited to: working with healthcare organization leadership to optimize the use of patient and organizational data in meaningful ways; and to make decisions concerning quality of care, patient safety, and organizational operations; working with patients and families to understand their health information and develop their personal health record; and working with healthcare providers to optimize their use of technology to manage their data and operational needs. The department offers an undergraduate degree in health information management and a graduate degree in health informatics.

The program in Health Information Management offers several curricular options to allow the student to emphasize a specific concentration to complement their health information management foundation. These emphases include a minor in business administration, information technology management, or legal studies. Information in healthcare is now a tremendously valuable asset to both administrators and clinicians. The health information management program can also establish a strong foundation for students interested in pursuing pre-med scholar, pre-professional, and pre-physician assistant degrees. It is the student's responsibility to remain current on the requirements for each of the curriculum requirements. The most recent information will be in the Student Handbook for the Department of Health Informatics and Information Management in addition to the department's web page. http://www.slu.edu/x2374.xml

## Health Information Management (BS)

ENGL	. 190	Adv Strategies of Rhetoric & Rsh	3
ENGL	2XX	Literature	3
XXX		Fine Art	3
(Forei	ign Lang	uage, Cultural Studies, Art, Music, T	Theater)
XXX		Social Science	3
(Anthr	opology	, Political Science, Criminal Justice,	Sociology,
Select		ogy, Urban Politics)	
CMM			3
PHIL	105		3 3 3
PHIL	205	Ethics	3
THEC	) 100	Theological Foundations	3
HIST	XXX	History	3
PSY	101	General Psychology	3
MATI	H 120	College Algebra	3
STAT	110	Statistics	3
BIO		Biology or other Science Elective	3-4
ECON	V 190	Economics	3
HSCI	330	Anatomy & Physiology I	4
HSCI	340	Anatomy & Physiology II	4
ITM	200	Intro to Info Technology Mgmt	3
XXX		Elective	3
HIM	270	Medical Terminology	3
HIM	300	Intro to Health Informatics	3
HIM	310	Medico Legal Aspects	3
HIM	320	Health Data Management	3
HIM	330	Classification Systems I	3
HIM	350	Health Care Management	3
HIM	360	HIM Theory and Practice	3
HIM	375	Fund of Clinical Medicine	3
HIM	415	Quality Improvement	3
HIM	420	Research Design, Critique	3 3 3 3 3 3 3 3 3 3 3 3
HIM	430	Classification Systems II	3
		-	

HIM	440	Clinical Data Analytics	3
HIM	450	Human Resource Mgmt in HC	3
HIM	451	Healthcare Financial Mgmt	3
HIM	453	Professional Practice	3
HIM	461	Electronic Health Systems Mgmt	3
HIM	498	Senior Seminar	3
HIM		Elective	3

# Health Information Management (BS)/Business Minor

DUCI	100		•
ENGL	190 2000	Adv Strategies of Rhetoric & Rsch	3
ENGL	2XX	Literature	3
XXX		Fine Art	3
		uage, Cultural Studies, Art, Music, T	
PHIL	105		3
PHIL	205	Ethics	3
THEO	100	Theological Foundations	3
HIST		History	3
PSY	101	General Psychology	
		l Science- Anthropology, Political S	
		ce, Sociology, Select Psychology, Ur	ban
Politics	)	3	
MATH	120	College Algebra	3
MATH	132*	Survey of Calculus	3
BIO		Biology or other Science Elective	3-4
ECON	190	Economics	3
HSCI	330	Anatomy & Physiology I	4
HSCI	340	Anatomy & Physiology II	4
ITM	200	Intro to Info Technology Mgmt	3
HIM	270	Medical Terminology	3
HIM	300	Intro to Health Informatics	3
HIM	310	Medico Legal Aspects	3
HIM	320	Health Data Management	3
HIM	330	Classification Systems I	3
HIM	360	HIM Theory and Practice	3
HIM	375	Fund of Clinical Medicine	3
HIM	415	Quality Improvement	3
HIM	420	Research Design, Critique	3
HIM	430	Classification Systems II	3
HIM	440	Clinical Data Analytics	3
HIM	450	Human Resource Mgmt in HC	3
HIM	451	Healthcare Financial Mgmt	3
HIM	453	Professional Practice	3
HIM	461	Electronic Health Systems Mgmt	3
HIM	498	Senior Seminar	3
HIM		Elective	3
ACCT	220	Financial Accounting	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
ACCT	222	Managerial Accounting	3
OPM	207	Intro Business Statistics	3
FIN	301	Principles of Finance	3
MGT	300	Mgmt Theory & Practice	3
MKT	300	Intro to Marketing Mgmt.	3
		Electives to be Chosen From:	5
OPM	305	Intro Mgmt Science & Operations	
OI WI	505	into Wight Science & Operations	

		Management	3
ECON	312	Intermediate Microeconomics	3
ECON	314	Intermediate Macroeconomics	3
IB	200	Intro to International Business	3
MGT	218	Legal Environment of Business	3

\*Prerequisite for OPM 305. If survey of calculus not taken, another class must be substituted with permission from your advisor.

Requirements for the minor are determined by the John Cook School of Business. It is the student's responsibility to remain current on the requirements for the Business Minor.

# Health Information Management (BS)/Information Technology Minor

ENGL 10	$\Delta dv$	Strategies of Rhetoric & Rsch	3
	XX Liter		3
XXX 22	Fine		3
	-	Cultural Studies, Art, Music, T	-
XXX		al Science	3
		ical Science, Criminal Justice,	Sociology.
		Vrban Politics)	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
•	0,	ic Speaking	3
PHIL 10		duction to Philosophy	3
THEO 10		logical Foundations	3
XXX		osophy or Theological Studies	3
HIST X	XX Histo	1 5 6	3 3 3
PSY 10	01 Gene	eral Psychology	3
MATH 12	20 Colle	ege Algebra	3
OPM 20	07 Intro	Business Statistics	3
BIO	Biolo	ogy or other Science Elective	3-4
HSCI 33	30 Anat	omy & Physiology I	4
HSCI 34		omy & Physiology II	4
ITM 20	00 Intro	to Info Technology Mgmt	3
XXX	Elect	tive	3
XXX	Elect	tive	3
HIM 27	70 Med	ical Terminology	3
HIM 30	00 Intro	to Health Informatics	3 3
HIM 3	10 Med	ico Legal Aspects	
HIM 32	20 Heal	th Data Management	3
HIM 33	30 Class	sification Systems I	3
HIM 35	50 Heal	th Care Management	3
HIM 30	60 HIM	Theory and Practice	3
HIM 3	75 Fund	l of Clinical Medicine	3 3 3 3 3 3 3 3 3 3 3 3 3
		ity Improvement	3
HIM 42		arch Design, Critique	3
HIM 43		sification Systems II	3
HIM 44		cal Data Analytics	3
		an Resource Mgmt in HC	3
		thcare Financial Mgmt	3
		essional Practice	3
		tronic Health Systems Mgmt	3
		or Seminar	3
HIM	Elect	tive	3

Twelv	e hour:	s to be chosen from:	
ITM	250	Spreadsheet & Database Productivity	3
ITM	310	Program Development Techniques	3
ITM	320	Object Oriented Programming	3
ITM	330	Database Management Systems	3
ITM	345	Web site Design & Development	3
ITM	350	Information Security Management	3
ITM	360	Global Information Mgmt	3
ITM	370	Business Analytics & Modeling	3
ITM	380	Project Management	3
ITM	410	Systems Analysis & Design	3
ITM	435	Data Communications & Networking	3
ITM	450	Web-based Applications	3
ITM	460	<b>Business Process Implementation</b>	3
ITM	490	Enterprise Systems Practicum	3

# Health Information Management (BS)/Pre-Physician Assistant Scholars

ENGL	190	Adv Strategies of Rhetoric & Rsch	3
ENGL	2XX	Literature	3
XXX		Fine Art	3
(Foreig	n Lang	uage, Cultural Studies, Art, Music, The	ater)
XXX		Social Science	3
(Anthro	pology	, Political Science, Criminal Justice, Science,	ociology,
Select P	sychol	ogy, Urban Politics)	
XXX		Communications	3
PHIL	105	Introduction to Philosophy	3
THEO	100	Theological Foundations	3
XXX		Philosophy or Theological Studies	3
MATH	120	College Algebra	3
STAT	110	Statistics	3
BIO	104	Principles of Biology I	4
BIO	106	Principles of Biology II	4
BIO	302	Cellular Biochem & Mole Biology I	3
CHEM	163	General Chemistry I/Lab	4
CHEM	164	General Chemistry II/Lab	4
CHEM	342	Organic Chemistry I/Lab	4
CHEM	343	Organic Chemistry II/Lab	4
CLS	352	Medical Microbiology	4
ANAT	100	Basic Human Anatomy	3
PPY	254	Human Physiology	4
ITM	200	Intro to Info Technology Mgmt	3
XXX		Elective	3
HIM	270	Medical Terminology	3
HIM	300	Intro to Health Informatics	3
HIM	310	Medico Legal Aspects	3
HIM	320	Health Data Management	3
HIM	330	Classification Systems I	3
HIM	350	Health Care Management	3
HIM	360	HIM Theory and Practice	3
HIM	375	Fund of Clinical Medicine	3
HIM	415	Quality Improvement	3 3 3 3 3 3 3 3
HIM	420	Research Design, Critique	3
HIM	430	Classification Systems II	3

HIM	440	Clinical Data Analytics	3
HIM	450	Human Resource Mgmt in HC	3
HIM	451	Healthcare Financial Mgmt	3
HIM	453	Professional Practice	3
HIM	461	Electronic Health Systems Mgmt	3
HIM	498	Senior Seminar	3
HIM		Elective	3

# Health Information Management (BS)/Pre-Professional

ENGL	190	Adv Strategies of Rhetoric & Rsch	3
ENGL	2XX	Literature	3
XXX		Fine Art	3
(Foreig	n Lang	uage, Cultural Studies, Art, Music, The	eater)
XXX	0	Social Science	3
(Anthro	pology	, Political Science, Criminal Justice, S	ociology,
		ogy, Urban Politics)	0,7 -
CMM		Communications	3
PHIL	105	Introduction to Philosophy	3
PHIL	205	Ethics	3
THEO	100	Theological Foundations	3
MATH	142	Calculus I	3
STAT	110	Statistics	3
BIOL	104	Principles of Biology I	4
BIOL	106	Principles of Biology II	4
BIOL	302	Cellular Biochemistry & Molecular	
		Biology I	3
BIOL	304*	Cellular Biochemistry & Molecular	
		Biology II*	3
BIOL	3XX	Biology Elective (suggested)	3
CHEM	163	General Chemistry I/Lab	4
CHEM	164	General Chemistry II/Lab	4
CHEM	342	Organic Chemistry I/Lab	4
CHEM	343	Organic Chemistry II/Lab	4
PHYS	131	Physics I/Lab	4
PHYS	133	Physics II/Lab	4
PPHS	100	Foundations of Medicine (optional)	1
ANAT	100	Anatomy	3
PPY	254	Human Physiology	4
XXX		Elective	3
HIM	270	Medical Terminology	3
HIM	300	Intro to Health Informatics	3
HIM	310	Medico Legal Aspects	3
HIM	320	Health Data Management	3
HIM	330	Classification Systems I	3
HIM	350	Health Care Management	3
HIM	360	HIM Theory and Practice	3
HIM	375	Fund of Clinical Medicine	3
HIM	415	Quality Improvement	3
HIM	420	Research Design, Critique	3
HIM	430	Classification Systems II	3
HIM	440	Clinical Data Analytics	3 3 3 3 3 3 3 3 3 3 3 3 3 3
HIM	450	Human Resource Mgmt in HC	3
HIM	451	Healthcare Financial Mgmt	3

HIM	453	Professional Practice	3
HIM	461	Electronic Health Systems Mgmt	3
HIM	498	Senior Seminar	3
HIM		Elective	3

\*BIO 304 Cellular Biochemistry and Molecular Biology II is recommended, but not required.

Requirements for HIM/ Pre-Professional curriculum are determined by the Pre-Professional Health Studies Office. It is the student's responsibility to remain current on the requirements these curricular options.

# Health Information Management (BS)/Medical Scholars

ENGL	190	Adv Strategies of Rhetoric & Rsch	3
ENGL	2XX	Literature	3
XXX	1	Fine Art	3
(Foreig	n Langu	age, Cultural Studies, Art, Music, The	eater)
XXX		Social Science	3
(Anthro	pology, İ	Political Science, Criminal Justice, Se	ociology,
Select P	sycholog	zy, Urban Politics)	
CMM		Communications	3
PHIL	105	Introduction to Philosophy	3
THEO	100	Theological Foundations	3
MATH	142	Calculus I*	3
STAT	110	Statistics	3
BIOL	104	Principles of Biology I	4
BIOL	106	Principles of Biology II	4
BIOL	302	Cellular Biochemistry &	
		Molecular Biology I	3
BIOL	304	Cellular Biochemistry &	
		Molecular Biology II	3
BIOL	XXX	Upper Division Biology	3
BIOL	XXX	Upper Division Biology	3
CHEM	163	General Chemistry I/Lab	4
CHEM	164	General Chemistry II/Lab	4
CHEM	342	Organic Chemistry I/Lab	4
CHEM	343	Organic Chemistry II/Lab	4
PHYS	131	Physics I/Lab	4
PHYS	133	Physics II/Lab	4
PHYS	100	Foundations of Medicine (optional)	1
PPHS	105	Medical Scholars Seminar	0
ANAT	100	Anatomy	3
PPY	254	Human Physiology	4
XXX		Elective	3
HIM	270	Medical Terminology	3
HIM	300	Intro to Health Informatics	3
HIM	310	Medico Legal Aspects	3
HIM	320	Health Data Management	3
HIM	330	Classification Systems I	3
HIM	350	Health Care Management	3
HIM	360	HIM Theory and Practice	3
HIM	375	Fund of Clinical Medicine	3

HIM	415	Quality Improvement	3
HIM	420	Research Design, Critique	3
HIM	430	Classification Systems II	3
HIM	440	Clinical Data Analytics	3
HIM	450	Human Resource Mgmt in HC	3
HIM	451	Healthcare Financial Mgmt	3
HIM	453	Professional Practice	3
HIM	461	Electronic Health Systems Mgmt	3
HIM	498	Senior Seminar	3

\*Students must take one course at Saint Louis University with a MATH prefix. If the student tests out or transfers in MATH142, they must take MATH130 or another math class approved by the Director.

## Health Information Management (BS)/Legal Studies Minor

ENGL	190	Adv Strategies of Rhetoric & Rsch	3
ENGA	2XX	Literature	3
XXX		Fine Art	3
(Foreig		uage, Cultural Studies, Art, Music, T	heater)
CMM	120	Public Speaking	3
PHIL	105	Introduction to Philosophy	3
PHIL	205	Ethics	3 3 3 3 3 3
THEO	100	Theological Foundations	3
PSY	101	General Psychology	3
MATH	120	College Algebra	3
STAT	110	Statistics	
BIO		Biology or other Science Elective	3-4
ECON	190	Economics	3
HSCI	330	Anatomy & Physiology I	4
HSCI	340	Anatomy & Physiology II	4
ITM	200	Intro to Info Technology Mgmt	3
PLS	100	Intro to law	2
PLS	105	Intro to Legal Careers	1
PLS	200	Intro to Legal Research & Writing	3
PLS	220	Service Learning	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
PLS	300	Alternative Dispute Resolution	3
PLS	375	Issues in Health Law	3
PLS	400	Comparative Legal System	3
PSL	410	Legal Internships	3
XXX		Elective	3
HIM	270	Medical Terminology	3
HIM	300	Intro to Health Informatics	3
HIM	310	Medico Legal Aspects	3
HIM	320	Health Data Management	3
HIM	330	Classification Systems I	3
HIM	350	Health Care Management	3
HIM	360	HIM Theory and Practice	3
HIM	375	Fund of Clinical Medicine	3
HIM	415	Quality Improvement	3
HIM	420	Research Design, Critique	3
HIM	430	Classification Systems II	3
HIM	440	Clinical Data Analytics	3

HIM	450	Human Resource Mgmt in HC	3
HIM	451	Healthcare Financial Mgmt	3
HIM	453	Professional Practice	3
HIM	461	Electronic Health Systems Mgmt	3
HIM	498	Senior Seminar	3
HIM		Elective	3

## Health Information Management (BS)/Accelerated Option

The Bachelor of Science in Health Information Management Accelerated option is designed for individuals already possessing a bachelor's degree. The curriculum is designed to prepare the graduate to take the national credentialing examination offered by the American Health Information Management Association. Prior to acceptance into the program, it is advisable for prospective students to complete the following Foundation Courses. Once accepted into the program, all courses must be taken at SLU.

Basic Human Anatomy with Lab Section	3-4
Human Physiology	3-4
Introduction Computer Applications	3
Philosophy	3
Theology	3
Statistics	3
Management of Human Resources	3
Management Theory & Practice	3
Medical Terminology	2-3

Required Health Information Management Courses:

HIM	300	Intro to Health Informatics	3
HIM	310	Medico Legal Aspects	3
HIM	320	Health Data Management	3
HIM	330	Classification Systems I	3
HIM	360	HIM Theory and Practice	3
HIM	375	Fund of Clinical Medicine	3
HIM	415	Quality Improvement	3
HIM	420	Research Design, Critique	3
HIM	430	Classification Systems II	3
HIM	440	Clinical Data Analytics	3
HIM	451	HealthCare Financial Mgmt	3
HIM	453	Professional Practice	3
HIM	461	Electronic Health Systems Mgmt	3
HIM	498	Senior Seminar	3

# **Minor in Health Information**

A minor in Health Information Management can complement any student's major who is interested in healthcare. It provides students with an introduction and foundation in the management of the increasingly important asset of health information. As healthcare becomes more information intensive the ability to manage and understand data will be an increasingly valuable skillset.

#### **Required Courses:**

HIM	300	Introduction to Health Informatics	3
HIM	270	Medical Terminology	3
ITM	200	Intro to Information Mgmt	3

#### **Elective Courses:**

Students must choose three of the following courses:				
HIM	310	Medico-legal Aspects	3	
HIM	320	Health Data Management	3	
HIM	350	Health Care Management	3	
HIM	415	Quality Improvement	3	
HIM	450	Human Resources Mgmt in HC	3	
HIM	461	Electronic Systems Management	3	

# **Health Sciences**

# Julie Wolter, MA, RHIA, FAHIMA; Program Director, Health Sciences

Suzanne McGahan, MHI, RHIA- Program Coordinator

Faculty: Elaina Osterbur, PhD- Assistant Professor

#### http://www.slu.edu/x38430.xml

The Program in Health Sciences offers an undergraduate program leading to a Bachelor of Science in Health Sciences degree. Our goal is to prepare students for professional and research careers in the rapidly changing world of health, with special emphasis on the holistic context in which health care is delivered.

The health care industry is growing and changing rapidly. A new generation of health professionals will be needed to examine old problems from a fresh perspective and arrive at innovative theories, policies and technologies that address emerging health concerns. We prepare our students for these challenges by offering curricular tracks in pre-medicine, medical scholar, pre-nursing, pre-physician assistant, prephysical therapy, pre-occupational therapy, pre-athletic training and a general health science that prepare students for both the graduate studies and the workforce.

The Program in Health Sciences is a unit within the College of Health Sciences. Our outstanding faculty, students and staff study all aspects of health from cell to society. By integrating high quality research, instruction and outreach programs, faculty scholars and students are leading interdisciplinary initiatives that promote optimal health for people of all ages.

#### <u>Health Sciences</u> General Curriculum

Gene	ral C	urriculum	
ENGL	190	Adv Strategies of Rhetoric & Rsch	3
ENGL	2XX	Literature	3
XXX		Fine Art	3
(Foreign	n Lang	uage, Cultural Studies, Art, Music, T	heater)
XXX		Social Science	3
(Anthrop	pology,	Political Science, Sociology, Criminal	Justice,
Select P.	sychol	ogy)	
CMMA	120	Public Speaking	3
PHIL	105	Introduction to Philosophy	3
PHIL	205	Ethics	3
THEO	100	Theological Foundations	3
THEO	2XX	Theology Elective	3
HIST		History Elective	3
PSY	101	General Psychology	3
PSY	439	Abnormal Psychology	3
SOC	110	Intro to Sociology	3 3
MATH		College Algebra	3
MATH		Survey of Calculus	3
STAT	110	Elementary Statistics (or MATH 130)	3
BIOL	104	Principles of Biology I/Lab	4
BIOL	106	Principles of Biology II/ Lab	4
CHEM		Principles of Chemistry I/Lab	4
CHEM	154	Principles of Chemistry II/Lab	4
XXX		Elective	3
HSCI	100	Intro to Health Sciences	1
HSCI	200	The U.S. Health Care System	3
HSCI	250	Human Dev Across the Life Span	3
HSCI	301	Medical Terminology	3
HSCI	320	Healthcare Legal Aspects	3
HSCI	330	Anatomy & Physiology I & lab	4
HSCI	340	Anatomy & Physiology II & lab	4
HSCI	350	Electronic Health Systems	3
HSCI	370	Using Evidence in Health Care	3
HSCI	400	Neuroscience in Daily Life	3
HSCI	450	Hot Topics in Health Care	3
HSCI	460	Consumer Health	3
HSCI	470	Health Care & Human Resource Mgt	3
HSCI	490	Fundamentals Health Living	3

## **Pre-Med Curriculum**

ENGL	190	Adv Strategies of Rhetoric & Rsch	3
ENGL	2XX	Literature	3
CMMA	120	Public Speaking	3
STAT	110	Elementary Statistics (or MATH 130)	3
MATH	141	Pre-Calculus	3
MATH	142	Calculus I	4
BIOL	104	Principles of Biology I	4
BIOL	106	Principles of Biology II	4

BIOL	302	Molecular Cell Biology I/Lab	3
BIOL	304	Cellular Biochem & Molecular bio	3
CHEM	163	General Chemistry I/Lab	4
CHEM	164	General Chemistry II/ Lab	4
CHEM	- • •	Prin of Organic Chemistry I/Lab	4
CHEM	343	Prin of Organic Chemistry II/Lab	4
PHIL	105	Intro to Philosophy	3
PHIL	205	Ethics	3
PPHS	100	Foundations of Medicine	1
THEO	100	Theology Foundations	3
THEO	2XX	Theology Elective	3
PSY	101	General Psychology	3
PSY	439	Abnormal Psychology	3
SOC	110	Intro to Sociology	3
HIST	XXX		3
XXX		Fine Art	3
(Foreig	n Lang	uage, Cultural Studies, Art, Music, The	ater)
PHYS	131	Physics I/ Lab	4
PHYS	133	Physics II/Lab	4
XXX		Elective	3
XXX		Elective	3
HSCI	100	Intro to Health Sciences	1
HSCI	200	The U.S. Health Care System	3
HSCI	250	Human Dev Across the Life Span	3
HSCI	301	Medical Terminology	3
HSCI	320	Healthcare Legal Aspects	3
HSCI	330	Anatomy & Physiology I & lab	4
HSCI	340	Anatomy & Physiology II & lab	4
HSCI	350	Electronic Health Systems	3
HSCI	370	Using Evidence in Health Care	3
HSCI	400	Neuroscience in Daily Life	3
HSCI	450	Hot Topics in Health Care	3
HSCI	460	Consumer Health	3
HSCI	470	Health Care & Human Resource Mgt	3 3
HSCI	490	Fundamentals Health Living	3

# **Medical Scholars Curriculum**

ENGL	190	Adv Strategies of Rhetoric & Rsch	3
ENGL	2XX	Literature	3
CMMA	120	Public Speaking	3
STAT	110	Elementary Statistics (or MATH 130)	3
MATH	142	Calculus I	4
BIOL	104	Principles of Biology I	4
BIOL	106	Principles of Biology II	4
BIOL	302	Molecular Cell Biology I/Lab	3
BIOL	304	Cellular Biochem & Molecular Bio	4
CHEM	163	General Chemistry I/Lab	4
CHEM	164	General Chemistry II/ Lab	4
CHEM	342	Prin Organic Chemistry I/Lab	4
CHEM	343	Prin Organic Chemistry II/ Lab	4
PHIL	105	Intro to Philosophy	3
PHIL	205	Ethics	3
THEO	100	Theology Foundations	3
THEO	2XX	Theology Elective	3

PSY	101	General Psychology	3
PSY	439	Abnormal Psychology	3
SOC	110	Intro to Sociology	3
PPHS	100	Foundations of Medicine	1
PPHS	105	Med Scholars Seminar	0
XXX		Fine Art	3
(Foreig	n Lang	uage, Cultural Studies, Art, Music, The	ater)
	0	3	,
PPY	254	Human Physiology	4
ANAT	100	Human Anatomy	3
PHYS	131	Physics I/Lab	4
PHYS	133	Physics II/Lab	4
BIOL		Upper Division Biology	3
BIOL		Upper Division Biology	3 3
XXX		Elective	3
HSCI	100	Intro to Health Sciences	1
HSCI	200	The U.S. Health Care System	3
HSCI		Human Dev Across the Life Span	3
HSCI		Medical Terminology	3
HSCI		Healthcare Legal Aspects	3
HSCI		Electronic Health Systems	3 3 3 3 3 3 3 3 3 3
HSCI		Using Evidence in Health Care	3
HSCI		Neuroscience in Daily Life	3
HSCI	450	Hot Topics in Health Care	3
HSCI	460	Consumer Health	3 3 3
HSCI	470	Health Care & Human Resource Mgt	3
HSCI	490	Fundamentals Health Living	3

# Post-Baccalaureate DPT Curriculum

I USU I	Dave		1
ENGL	190	Adv Strategies of Rhetoric & Rsch	3
ENGL	2XX	Literature	3
CMMA	120	Public Speaking	3
MATH	120	College Algebra	3
STAT	110	Elementary Statistics (or MATH 130)	3
MATH	142	Calculus I	4
BIOL	104	Principles of Biology I	4
BIOL	106	Principles of Biology II	4
CHEM	153	Principles of Chemistry I	4
CHEM	154	Principles of Chemistry II	4
PHIL	105	Intro to Philosophy	3
PHIL	205	Ethics	3
THEO	100	Theology Foundations	3
THEO	2XX	Theology Elective	3
PSY	101	General Psychology	3
PSY	439	Abnormal Psychology	3
SOC	110	Intro to Sociology	3
XXX		Fine Art	3
(Foreign	ı Langi	uage, Cultural Studies, Art, Music, Theo	ater)
XXX		Social Science	3
(Anthrop	oology,	Political Science, Sociology, Criminal	Justice,
Select P.	sycholo	pgy)	
HIST	XXX	History Elective	3
PHYS	122	General Physics I	4

124	General Physics II	4
	Elective	3
	Elective	3
	Elective	3
100	Intro to Health Sciences	1
200	The U.S. Health Care System	3
250	Human Dev Across the Life Span	3
301	Medical Terminology	3
320	Healthcare Legal Aspects	3
330	Anatomy & Physiology I & lab	4
340	Anatomy & Physiology II & lab	4
350	Electronic Health Systems	3
370	Using Evidence in Health Care	3
400	Neuroscience in Daily Life	3
450	Hot Topics in Health Care	3
460	Consumer Health	3
470	Health Care & Human Resource Mgt	3
490	Fundamentals Health Living	3
	100 200 250 301 320 330 340 350 370 400 450 460 470	Elective Elective Elective 200 The U.S. Health Care System 250 Human Dev Across the Life Span 301 Medical Terminology 320 Healthcare Legal Aspects 330 Anatomy & Physiology I & lab 340 Anatomy & Physiology I & lab 350 Electronic Health Systems 370 Using Evidence in Health Care 400 Neuroscience in Daily Life 450 Hot Topics in Health Care 460 Consumer Health 470 Health Care & Human Resource Mgt

# Post-Baccalaureate MAT Curriculum

ENGL	190	Adv Strategies of Rhetoric & Rsch	3		
ENGL	2XX	Literature	3		
CMMA	120	Public Speaking	3		
MATH	120	College Algebra	3		
STAT	110	Elementary Statistics (or MATH 130)	3		
MATH	141	Pre-Calculus	3		
BIOL	104	Principles of Biology I	4		
BIOL	106	Principles of Biology II	4		
CHEM	153	Principles of Chemistry I	4		
CHEM	154	Principles of Chemistry II	4		
PHIL	105	Intro to Philosophy	3		
PHIL	205	Ethics	3		
THEO	100	Theology Foundations	3		
THEO	2XX	Theology Elective	3		
PSY	101	General Psychology	3		
PSY	439	Abnormal Psychology	3		
SOC	110	Intro to Sociology	3		
XXX		Fine Art	3		
(Foreign	(Foreign Language, Cultural Studies, Art, Music, Theater)				
XXX		Social Science	3		
(Anthrop	pology	, Political Science, Sociology, Criminal	Justice,		
Select P.	sychol	ogy)			
HIST	XXX	History Elective	3		
PHYS	122	General Physics I	4		
PHYS	124	General Physics II	4		
XXX		Exercise Physiology	3		
XXX		Elective	3		
XXX		Elective	3		
HSCI	100	Intro to Health Sciences	1		
HSCI	200	The U.S. Health Care System	3		
HSCI	250	Human Dev Across the Life Span	3		
HSCI	301	Medical Terminology	3		

Doisy Colleg	ge of Health	Sciences

HSCI	320	Healthcare Legal Aspects	3
HSCI	330	Anatomy & Physiology I & lab	4
HSCI	340	Anatomy & Physiology II & lab	4
HSCI	350	Electronic Health Systems	3
HSCI	370	Using Evidence in Health Care	3
HSCI	400	Neuroscience in Daily Life	3
HSCI	450	Hot Topics in Health Care	3
HSCI	460	Consumer Health	3
HSCI	470	Health Care & Human Resource Mgt	3
HSCI	490	Fundamentals Health Living	3

#### **Post-Baccalaureate MOT Curriculum** ENGL 190 Adv Strategies of Rhetoric & Rsch 3

ENGL	190	Adv Strategies of Rhetoric & Rsch	3
ENGL	2XX	Literature	3
CMMA	120	Public Speaking	3 3 3
MATH	120	College Algebra	3
STAT	110	Elementary Statistics (or MATH 130)	3
MATH	132	Survey of Calculus	3
BIOL	104	Principles of Biology I	4
BIOL	106	Principles of Biology II	4
CHEM	153	Principles of Chemistry I	4
CHEM	154	Principles of Chemistry II	4
PHIL	105	Intro to Philosophy	3
PHIL	205	Ethics	3
THEO	100	Theology Foundations	3
THEO	2XX	Theology Elective	3 3
PSY	101	General Psychology	3
PSY	439	Abnormal Psychology	3
XXX		Fine Art	3
-	ı Langi	uage, Cultural Studies, Art, Music, The	ater)
XXX		Social Science	3
		Political Science, Sociology, Criminal	Justice,
Select P.			
HIST		History Elective	3
SOC	110	Intro to Sociology	3
PHSY	105	Physics of Human Body	3
XXX		Elective	3
XXX		Elective	3 3
XXX		Elective	
XXX		Elective	3
HSCI	100	Intro to Health Sciences	1
HSCI	200	The U.S. Health Care System	3
HSCI	250	Human Dev Across the Life Span	3
HSCI	301	Medical Terminology	3
HSCI	320	Healthcare Legal Aspects	3
HSCI	330	Anatomy & Physiology I & lab	4
HSCI	340	Anatomy & Physiology II & lab	4
HSCI	350	Electronic Health Systems	3
HSCI	370	Using Evidence in Health Care	3 3 3
HSCI	400	Neuroscience in Daily Life	3
HSCI	450	Hot Topics in Health Care	
HSCI	460	Consumer Health	3
HSCI	470	Health Care & Human Resource Mgt	3

3

HSCI 490 Fundamentals Health Living

### Post-Baccalaureate PA Curriculum

Post-Baccalaureate PA Curriculum					
ENGL	190	Adv Strategies of Rhetoric & Rsch	3		
ENGL	2XX	Literature	3		
CMMA	120	Public Speaking	3		
MATH	120	College Algebra	3		
STAT	110	Elementary Statistics (or MATH 130)	3		
BIOL	104	Principles of Biology I	4		
BIOL	106	Principles of Biology II	4		
BIOL	302	Molecular Cell Biology I/Lab	3		
CHEM	163	General Chemistry I/Lab	4		
CHEM	164	General Chemistry II/Lab	4		
CHEM	342	Organic Chemistry I/Lab	4		
CHEM	343	Organic Chemistry II/Lab	4		
PHIL	105	Intro to Philosophy	3		
PHIL	205	Ethics	3		
THEO	100	Theology Foundations	3		
THEO	2XX	Theology Elective	3		
PSY	101	General Psychology	3		
PSY	439	Abnormal Psychology	3		
SOC	110	Intro to Sociology	3		
XXX		Fine Art	3		
-	n Lang	uage, Cultural Studies, Art, Music, The			
XXX		Social Science	3		
(Anthrop	nolom	, Political Science, Sociology, Criminal	Instiga		
			Justice,		
Select P	sychol	ogy)			
Select P HIST	sychol XXX	<i>ogy)</i> History Elective	3		
Select P HIST BLS	sycholo XXX 451	ogy) History Elective Medical Microbiology	3 4		
Select P HIST BLS BIOL	sychol XXX	ogy) History Elective Medical Microbiology Principles of Genetics	3 4 3		
Select P HIST BLS BIOL XXX	sycholo XXX 451	ogy) History Elective Medical Microbiology Principles of Genetics Elective	3 4 3 3		
Select P HIST BLS BIOL	sycholo XXX 451	ogy) History Elective Medical Microbiology Principles of Genetics	3 4 3		
Select P HIST BLS BIOL XXX XXX	sycholo XXX 451 303	ogy) History Elective Medical Microbiology Principles of Genetics Elective Elective	3 4 3 3 3		
Select P HIST BLS BIOL XXX XXX HSCI	sycholo XXX 451 303	ogy) History Elective Medical Microbiology Principles of Genetics Elective Elective Intro to Health Sciences	3 4 3 3 3 1		
Select P HIST BLS BIOL XXX XXX HSCI HSCI	sychola XXX 451 303 100 200	<i>ogy)</i> History Elective Medical Microbiology Principles of Genetics Elective Elective Intro to Health Sciences The U.S. Health Care System	3 4 3 3 3 1 3		
Select P HIST BLS BIOL XXX XXX HSCI HSCI HSCI	sychols XXX 451 303 100 200 250	<i>ogy)</i> History Elective Medical Microbiology Principles of Genetics Elective Elective Intro to Health Sciences The U.S. Health Care System Human Dev Across the Life Span	3 4 3 3 3 1 3 3		
Select P HIST BLS BIOL XXX XXX HSCI HSCI HSCI HSCI	sychola XXX 451 303 100 200 250 301	ogy) History Elective Medical Microbiology Principles of Genetics Elective Elective Intro to Health Sciences The U.S. Health Care System Human Dev Across the Life Span Medical Terminology	3 4 3 3 3 1 3 3 3 3		
Select P HIST BLS BIOL XXX XXX HSCI HSCI HSCI HSCI HSCI	sycholo XXX 451 303 100 200 250 301 320	ogy) History Elective Medical Microbiology Principles of Genetics Elective Elective Intro to Health Sciences The U.S. Health Care System Human Dev Across the Life Span Medical Terminology Healthcare Legal Aspects	3 4 3 3 3 1 3 3 3 3 3		
Select P HIST BLS BIOL XXX XXX HSCI HSCI HSCI HSCI HSCI HSCI	sycholo XXX 451 303 100 200 250 301 320 330	ogy) History Elective Medical Microbiology Principles of Genetics Elective Elective Intro to Health Sciences The U.S. Health Care System Human Dev Across the Life Span Medical Terminology Healthcare Legal Aspects Anatomy & Physiology I & lab	3 4 3 3 3 1 3 3 3 3 4		
Select P HIST BLS BIOL XXX XXX HSCI HSCI HSCI HSCI HSCI HSCI HSCI	sychols XXX 451 303 100 200 250 301 320 330 340	ogy)History ElectiveMedical MicrobiologyPrinciples of GeneticsElectiveElectiveIntro to Health SciencesThe U.S. Health Care SystemHuman Dev Across the Life SpanMedical TerminologyHealthcare Legal AspectsAnatomy & Physiology I & labAnatomy & Physiology II & lab	3 4 3 3 3 1 3 3 3 3 4 4		
Select P HIST BLS BIOL XXX XXX HSCI HSCI HSCI HSCI HSCI HSCI HSCI HSCI	sychols XXX 451 303 100 200 250 301 320 330 340 350	ogy)History ElectiveMedical MicrobiologyPrinciples of GeneticsElectiveElectiveIntro to Health SciencesThe U.S. Health Care SystemHuman Dev Across the Life SpanMedical TerminologyHealthcare Legal AspectsAnatomy & Physiology I & labAnatomy & Physiology II & labElectronic Health Systems	3 4 3 3 3 1 3 3 3 4 4 4 3		
Select P HIST BLS BIOL XXX XXX HSCI HSCI HSCI HSCI HSCI HSCI HSCI HSCI	sychols XXX 451 303 100 200 250 301 320 330 340 350 370	ogy)History ElectiveMedical MicrobiologyPrinciples of GeneticsElectiveElectiveIntro to Health SciencesThe U.S. Health Care SystemHuman Dev Across the Life SpanMedical TerminologyHealthcare Legal AspectsAnatomy & Physiology I & labAnatomy & Physiology II & labElectronic Health SystemsUsing Evidence in Health Care	3 4 3 3 3 1 3 3 3 4 4 4 3		
Select P HIST BLS BIOL XXX XXX HSCI HSCI HSCI HSCI HSCI HSCI HSCI HSCI	sychols XXX 451 303 100 200 250 301 320 330 340 350 370 400	ogy)History ElectiveMedical MicrobiologyPrinciples of GeneticsElectiveElectiveIntro to Health SciencesThe U.S. Health Care SystemHuman Dev Across the Life SpanMedical TerminologyHealthcare Legal AspectsAnatomy & Physiology I & labAnatomy & Physiology II & labElectronic Health SystemsUsing Evidence in Health CareNeuroscience in Daily Life	3 4 3 3 3 1 3 3 3 4 4 4 3		
Select P HIST BLS BIOL XXX XXX HSCI HSCI HSCI HSCI HSCI HSCI HSCI HSCI	sychols XXX 451 303 100 200 250 301 320 330 340 350 370 400 450	ogy)History ElectiveMedical MicrobiologyPrinciples of GeneticsElectiveElectiveIntro to Health SciencesThe U.S. Health Care SystemHuman Dev Across the Life SpanMedical TerminologyHealthcare Legal AspectsAnatomy & Physiology I & labAnatomy & Physiology II & labElectronic Health SystemsUsing Evidence in Health CareNeuroscience in Daily LifeHot Topics in Health Care	3 4 3 3 3 1 3 3 3 4 4 4 3		
Select P HIST BLS BIOL XXX XXX HSCI HSCI HSCI HSCI HSCI HSCI HSCI HSCI	sychols XXX 451 303 100 200 250 301 320 330 340 350 370 400 450 460	ogy)History ElectiveMedical MicrobiologyPrinciples of GeneticsElectiveElectiveIntro to Health SciencesThe U.S. Health Care SystemHuman Dev Across the Life SpanMedical TerminologyHealthcare Legal AspectsAnatomy & Physiology I & labAnatomy & Physiology II & labElectronic Health SystemsUsing Evidence in Health CareNeuroscience in Daily LifeHot Topics in Health CareConsumer Health	3 4 3 3 3 1 3 3 3 4 4 4 3		
Select P HIST BLS BIOL XXX XXX HSCI HSCI HSCI HSCI HSCI HSCI HSCI HSCI	sycholo XXX 451 303 100 200 250 301 320 330 340 350 370 400 450 460 470	ogy)History ElectiveMedical MicrobiologyPrinciples of GeneticsElectiveElectiveIntro to Health SciencesThe U.S. Health Care SystemHuman Dev Across the Life SpanMedical TerminologyHealthcare Legal AspectsAnatomy & Physiology I & labAnatomy & Physiology II & labElectronic Health SystemsUsing Evidence in Health CareNeuroscience in Daily LifeHot Topics in Health CareConsumer HealthHealth Care & Human Resource Mgt	3 4 3 3 3 1 3 3 3 4 4 3 3 3 3 3 3 3 3 3		
Select P HIST BLS BIOL XXX XXX HSCI HSCI HSCI HSCI HSCI HSCI HSCI HSCI	sychols XXX 451 303 100 200 250 301 320 330 340 350 370 400 450 460	ogy)History ElectiveMedical MicrobiologyPrinciples of GeneticsElectiveElectiveIntro to Health SciencesThe U.S. Health Care SystemHuman Dev Across the Life SpanMedical TerminologyHealthcare Legal AspectsAnatomy & Physiology I & labAnatomy & Physiology II & labElectronic Health SystemsUsing Evidence in Health CareNeuroscience in Daily LifeHot Topics in Health CareConsumer Health	3 4 3 3 3 1 3 3 3 4 4 4 3		

## **Pre-Nursing Curriculum**

ENGL	190	Adv Strategies of Rhetoric & Rsch	3
ENGL	2XX	Literature	3
XXX		Fine Art	3
(Foreig	n Lang	uage, Cultural Studies, Art, Music, T	Theater)
XXX		Social Science	3

(Anim Of	joiogy,	Tollical science, sociology, Criminal	Justic
Select P.	sycholo	ogy)	
CMMA	120	Public Speaking	3
PHIL	105	Introduction to Philosophy	3
PHIL	205	Ethics	3
THEO	100	Theological Foundations	3
THEO	2XX	Theology Elective	3
HIST	XXX	History Elective	3
PSY	101	General Psychology	3
PSY	439	Abnormal Psychology	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
SOC	110	Intro to Sociology	3
MATH	120	College Algebra	3
MATH	132	Survey of Calculus	3
STAT	110	Elementary Statistics (or MATH 130)	3
BIOL	104	Principles of Biology I/Lab	4
BIOL	106	Principles of Biology II/ Lab	4
CHEM	153	Principles of Chemistry I/Lab	4
CHEM	154	Principles of Chemistry II/Lab	4
BLS	451	Medical Microbiology	4
XXX		Elective	3
HSCI	100	Intro to Health Sciences	1
HSCI	200	The U.S. Health Care System	3
HSCI	250	Human Dev Across the Life Span	3
HSCI	301	Medical Terminology	3
HSCI	320	Healthcare Legal Aspects	3
HSCI	330	Anatomy & Physiology I & lab	4
HSCI	340	Anatomy & Physiology II & lab	4
HSCI	350	Electronic Health Systems	3
HSCI	370	Using Evidence in Health Care	3 3 3 3
HSCI	400	Neuroscience in Daily Life	3
HSCI	450	Hot Topics in Health Care	3
HSCI	460	Consumer Health	3
HSCI	470	Health Care & Human Resource Mgt	3
HSCI	490	Fundamentals Health Living	3

(Anthropology, Political Science, Sociology, Criminal Justice,

# General Curriculum with a minor in Legal Studies

105		aics	
ENGL	190	Adv Strategies of Rhetoric & Rsch	3
ENGL	2XX	Literature	3
XXX		Fine Art	3
(Foreign	n Lang	uage, Cultural Studies, Art, Music, Th	eater)
XXX		Social Science	3
(Anthrop	pology,	Political Science, Sociology, Crimina	al Justice,
Select P	sycholo	ogy)	
CMMA	120	Public Speaking	3
PHIL	105	Introduction to Philosophy	3
THEO	100	Theological Foundations	3
THEO	2XX	Theology Elective	3
HIST	XXX	History Elective	3
PSY	101	General Psychology	3

PSY	439	Abnormal Psychology	3
SOC	110	Intro to Sociology	3
MATH	120	College Algebra	3
MATH	132	Survey of Calculus	3
STAT	110	Elementary Statistics (or MATH 130)	3
BIOL	104	Principles of Biology I/Lab	4
BIOL	104	Principles of Biology II/Lab	4
-	153	Principles of Chemistry I/Lab	4
CHEM	155	Principles of Chemistry II/Lab	4
XXX	134	Elective	3
XXX		Elective	3
MAA		Licetive	5
PLS	100	Intro to Law	3
PLS	200	Legal Research and Writing	3
XXX		Pre-Law Elective	3
PHIL	406	Logic for Pre-Professionals	3
PLS	220	e	
rLS	220		
	410	Service/Internship	3
		Service/Internship	3
		Service/Internship Intro to Health Sciences	3 1
or	410	-	1 3
or HSCI	410 100	Intro to Health Sciences The U.S. Health Care System Human Dev Across the Life Span	1 3 3
or HSCI HSCI	410 100 200	Intro to Health Sciences The U.S. Health Care System	1 3 3 3
or HSCI HSCI HSCI	410 100 200 250	Intro to Health Sciences The U.S. Health Care System Human Dev Across the Life Span	1 3 3 3 3
or HSCI HSCI HSCI HSCI	410 100 200 250 301	Intro to Health Sciences The U.S. Health Care System Human Dev Across the Life Span Medical Terminology	1 3 3 3
or HSCI HSCI HSCI HSCI HSCI	410 100 200 250 301 320	Intro to Health Sciences The U.S. Health Care System Human Dev Across the Life Span Medical Terminology Healthcare Legal Aspects	1 3 3 3 3 4 4
or HSCI HSCI HSCI HSCI HSCI HSCI	410 100 200 250 301 320 330	Intro to Health Sciences The U.S. Health Care System Human Dev Across the Life Span Medical Terminology Healthcare Legal Aspects Anatomy & Physiology I & lab	1 3 3 3 3 4 4 3
or HSCI HSCI HSCI HSCI HSCI HSCI HSCI	410 100 200 250 301 320 330 340	Intro to Health Sciences The U.S. Health Care System Human Dev Across the Life Span Medical Terminology Healthcare Legal Aspects Anatomy & Physiology I & lab Anatomy & Physiology II & lab	1 3 3 3 3 4 4 3 3
or HSCI HSCI HSCI HSCI HSCI HSCI HSCI HSCI	410 100 200 250 301 320 330 340 350	Intro to Health Sciences The U.S. Health Care System Human Dev Across the Life Span Medical Terminology Healthcare Legal Aspects Anatomy & Physiology I & lab Anatomy & Physiology II & lab Electronic Health Systems	1 3 3 3 4 4 3 3 3
or HSCI HSCI HSCI HSCI HSCI HSCI HSCI HSCI	410 100 200 250 301 320 330 340 350 370	Intro to Health Sciences The U.S. Health Care System Human Dev Across the Life Span Medical Terminology Healthcare Legal Aspects Anatomy & Physiology I & lab Anatomy & Physiology II & lab Electronic Health Systems Using Evidence in Health Care	1 3 3 3 3 4 4 3 3 3 3 3
or HSCI HSCI HSCI HSCI HSCI HSCI HSCI HSCI	100           200           250           301           320           330           340           350           370           400	Intro to Health Sciences The U.S. Health Care System Human Dev Across the Life Span Medical Terminology Healthcare Legal Aspects Anatomy & Physiology I & lab Anatomy & Physiology II & lab Electronic Health Systems Using Evidence in Health Care Neuroscience in Daily Life	1 3 3 3 3 4 4 3 3 3 3 3 3 3
or HSCI HSCI HSCI HSCI HSCI HSCI HSCI HSCI	100 200 250 301 320 330 340 350 370 400 450	Intro to Health Sciences The U.S. Health Care System Human Dev Across the Life Span Medical Terminology Healthcare Legal Aspects Anatomy & Physiology I & lab Anatomy & Physiology II & lab Electronic Health Systems Using Evidence in Health Care Neuroscience in Daily Life Hot Topics in Health Care	1 3 3 3 3 4 4 3 3 3 3 3 3 3 3
or HSCI HSCI HSCI HSCI HSCI HSCI HSCI HSCI	100           200           250           301           320           330           340           350           370           400           450           460	Intro to Health Sciences The U.S. Health Care System Human Dev Across the Life Span Medical Terminology Healthcare Legal Aspects Anatomy & Physiology I & lab Anatomy & Physiology II & lab Electronic Health Systems Using Evidence in Health Care Neuroscience in Daily Life Hot Topics in Health Care Consumer Health	1 3 3 3 3 4 4 3 3 3 3 3 3 3

# Medical Imaging and Radiation Therapeutics

http://www.slu.edu/x10579.xml

#### William Hubble, M.A., CNMT, R.T. (R)(N)(CT), FSNMMI-TS, Academic Chair/NMT Program Director

The Department of Medical Imaging and Radiation Therapeutics contains three separate degree programs: Magnetic Resonance Imaging, Nuclear Medicine Technology, and Radiation Therapy. Please consult the respective websites for more information.

# Magnetic Resonance Imaging Program (MRI)

#### Faculty: Austin Turner, B.S., CNMT, PET, RT(MR) Clinical Coordinator Robert Turco, PhD

The Bachelor of Science in Magnetic Resonance Imaging (MRI) Program prepares a graduate for an entry level position as a magnetic resonance imaging technologist. The program includes all basic sciences, as well as a 12 month intensive MRI curriculum that includes 1300 hours of clinical practicum. The Magnetic Resonance Imaging 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 Magnetic Resonance Imaging Technologist RT(MR). MRI graduates can work as technologists in hospitals, imaging centers, and physicians' offices. They may also seek positions in information technology, healthcare administration, sales and training, teaching, research, and other related fields. In addition, many graduates continue their education by attending medical school, graduate school, and other professional programs.

# Magnetic Resonance Imaging (BS)

ENGL	190	Adv Strategies of Rhetoric & Rsch	3
ENGL		Literature	
ART	XXX	Fine Arts Elective	3 3
(Art Apt	preciat	ion, Art History, Intro to Theatre, etc.)	-
· · · ·		Humanities Elective	6
(Psycho	logy, S	ociology, Theology, Foreign Language,	,
		hics, etc.)	
PHIL	105	Introduction to Philosophy	3
PHIL	205		3
THEO	100	Theological Foundations	
HIST	111	Origins of Modern World	3 3
PSY	101	General Psychology	3
SOC	110	Intro to Sociology	3
MATH	120	College Algebra	3
MATH	130	Elementary Statistics	3 3
MATH	132	Survey of Calculus	3
ITM	200	Intro to Info Technology Mgmt	3
BIOL	104	Principles of Biology I	4
BIOL	106	Principles of Biology II	4
CHEM	153	General Chemistry I/Lab	4
CHEM	154	General Chemistry II/Lab	4
PHYS	122	General Physics I/Lab	4
PHYS	124	General Physics II/Lab	4
HSCI	301	Medical Terminology	3
HSCI	320	HC Legal Aspects	3
HSCI	330	Anatomy and Physiology I	4
HSCI	340	Anatomy and Physiology II	4
HSCI	370	Evidence in HC	3
HSCI	470	HC & HR Management	3
ORES	231	Intro to Clinical Medicine	3

Magnetic Resonance Professional Coursework:					
IPE	420	Applied Decision Making in HC	3		
IPE	350	Health Care System/Hlth Promotion	3		
IPE	110	Intro to Interprofessional Health Care	1		

MRĪ	431	MRI Physical Principles	3
MRI	432	MRI Cross Sectional Anat/Path	3
MRI	433	MRI Instrumentation/QA	3
MRI	434	Clinical MRI/Image Production	5
MRI	435	MRI Patient Care/Safety	3
MRI	441	Clinical MRI Practicum	9
MRI	442	Adv/Emerging Technologies	2
MRI	498	Capstone in MRI	2
MRI	499	Clinical Practicum	0

# Magnetic Resonance Imaging (BS)/Pre-Physician Assistant (PA) Track

ENGL		8	3			
ENGL		Literature	3			
ART		Fine Arts Elective	3			
	(Art Appreciation, Art History, Intro to Theatre, etc.)					
PHIL	105	Introduction to Philosophy	3			
PHIL	205	Ethics	3 3			
THEO	100	Theological Foundations	3			
HIST	111	Origins of Modern World	3			
PSY	101	General Psychology	3			
MATH	120	College Algebra	3			
MATH	130	Elementary Statistics	3			
MATH	132	Survey of Calculus	3			
ITM	200	Intro to Info Technology Mgmt	3			
BIOL	104	Principles of Biology I	4			
BIOL	106	Principles of Biology II	4			
BIOL	302	Cellular Biochemistry	3			
CLS	352	Medical Microbiology	4			
CHEM	163	General Chemistry I	3			
CHEM	164	General Chemistry II	3			
CHEM	165	General Chemistry I Lab	1			
CHEM	166	General Chemistry II Lab	1			
CHEM	342	Organic Chemistry I	3			
CHEM	343	Organic Chemistry II	3			
CHEM	344	Organic Chemistry Lab I	1			
CHEM	345	Organic Chemistry Lab II	1			
PHYS	122	General Physics I/Lab	4			
PHYS	124	General Physics II/Lab	4			
HSCI	301	Medical Terminology	3			
HSCI	320	HC Legal Aspects	3			
HSCI	330	Anatomy and Physiology I	4			
HSCI	340	Anatomy and Physiology II	4			
HSCI	370	Evidence in HC	3			
ORES	231	Intro to Clinical Medicine	3			
IPE	110	Intro to Interprofessional Health Care	1			
IPE	350	Health Care System/Hlth Promotion	3			
IPE	420	Applied Decision Making in HC	3			
	120	TPP	2			

#### Magnetic Resonance Professional Coursework:

MRI	431	MRI Physical Principles	3
MRI	432	MRI Cross Sectional Anat/Path	3
MRI	433	MRI Instrumentation/QA	3
MRI	434	Clinical MRI/Image Production	5
MRI	435	MRI Patient Care/Safety	3
MRI	441	Clinical MRI Practicum	9
MRI	442	Adv/Emerging Technologies	2
MRI	498	Capstone in MRI	2
MRI	499	Clinical Practicum	0

# Magnetic Resonance Imaging (BS)/Pre-Professional (Medicine) Track

ENGL	190	Adv Strategies of Rhetoric & Rsch	3
ENGL		-	3
ART		Fine Arts Elective	3
		ion, Art History, Intro to Theatre, etc.)	5
XXX		Humanities Elective	3
		ociology, Theology, Foreign Language,	
		hics, etc.)	
PHIL	105	Introduction to Philosophy	3
PHIL	205	Ethics	3
THEO	100	Theological Foundations	3
HIST	111	Origins of Modern World	3
PSY	101	General Psychology	3
MATH		Elementary Statistics	3
MATH	141	PreCalculus	3 3 3 3 3 3 3
MATH	142	Calculus I	4
ITM	200	Intro to Info Technology Mgmt	3
BIOL	104	Principles of Biology I	4
BIOL	106	Principles of Biology II	4
BIOL	302	Cellular Biochemistry	3
CHEM	163	General Chemistry I	3
CHEM	164	General Chemistry II	3
CHEM	165	General Chemistry I Lab	1
CHEM	166	General Chemistry II Lab	1
CHEM	342	Organic Chemistry I	3
CHEM	343	Organic Chemistry II	3
CHEM	344	Organic Chemistry Lab I	1
CHEM	345	Organic Chemistry Lab II	1
PHYS	131	General Physics I	3
PHYS	132	General Physics I Lab	1
PHYS	133	General Physics II	3
PHYS	134	General Physics II Lab	1
HSCI	301	Medical Terminology	3
HSCI	320	HC Legal Aspects	3
HSCI	330	Anatomy and Physiology I	4
HSCI	340	Anatomy and Physiology II	4
HSCI	370	Evidence in HC	3
ORES	231	Intro to Clinical Medicine	3
IPE	110	Intro to Interprofessional Health Care	1
IPE	350	Health Care System/Hlth Promotion	3
IPE	420	Applied Decision Making in HC	3

Magnetic Resonance Professional Coursework:					
MRI	431	MRI Physical Principles	3		
MRI	432	MRI Cross Sectional Anat/Path	3		
MRI	433	MRI Instrumentation/QA	3		
MRI	434	Clinical MRI/Image Production	5		
MRI	435	MRI Patient Care/Safety	3		
MRI	441	Clinical MRI Practicum	9		
MRI	442	Adv/Emerging Technologies	2		
MRI	498	Capstone in MRI	2		
MRI	499	Clinical Practicum 0			

# Nuclear Medicine Technology Program (NMT)

**Faculty:** 

Crystal Botkin, MPH, CNMT, PET - Clinical Coordinator Ross Frye, BS, CNMT Debra Hewing, MBA, CNMT, CCRP James Littlefield, MD, M.Ed - Medical Director Medhat Osman, MD, ScM, PhD

The Bachelor of Science in Nuclear Medicine Technology (NMT) prepares a graduate for an entry level position as a nuclear medicine technologist. The program includes all basic sciences, as well as a 12 month intensive NMT curriculum that includes 1300 hours of clinical practicum. The Nuclear Medicine Technology 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 Certified Nuclear Medicine Technologist (CNMT). NMT graduates can work as technologists in hospitals and clinics. They may also seek positions in information technology, healthcare administration, sales and training, radiopharmacy labs, teaching, and other related fields. In addition, many graduates continue their education by attending medical school, graduate school, and other professional programs.

## **Nuclear Medicine Technology (BS)**

ENGL ART	XXX	Adv Strategies of Rhetoric & Rsch Literature Fine Arts Elective <i>ion, Art History, Intro to Theatre, etc.)</i>	3 3 3
XXX	XXX	Humanities Elective	6
(Psycho	logy, S	'ociology, Theology, Foreign Language	,
Econom	ics, Et	hics, etc.)	
PHIL	105	Introduction to Philosophy	3
PHIL	205	Ethics	3
THEO	100	Theological Foundations	3
HIST	111	Origins of Modern World	3
PSY	101	General Psychology	3
SOC	110	Intro to Sociology	3
MATH	120	College Algebra	3

MATH	130	Elementary Statistics	3
MATH	132	Survey of Calculus	3
ITM	200	Intro to Info Technology Mgmt	3
BIOL	104	Principles of Biology I	4
BIOL	106	Principles of Biology II	4
CHEM	153	General Chemistry I/Lab	4
CHEM	154	General Chemistry II/Lab	4
PHYS	122	General Physics I/Lab	4
PHYS	124	General Physics II/Lab	4
HSCI	200	US Healthcare System	3
HSCI	301	Medical Terminology	3
HSCI	320	HC Legal Aspects	3
HSCI	330	Anatomy and Physiology I	4
HSCI	340	Anatomy and Physiology II	4
HSCI	370	Evidence in HC	3
HSCI	470	HC & HR Management	3
PHIL	336	Medical Ethics	3
ORES	231	Intro to Clinical Medicine	3
Nuclear	• Medi	cine Professional Coursework	

#### **Nuclear Medicine Professional Coursework:**

NMT NMT NMT NMT	431 432 433 434	Radiation Physics and Protection Radiochemistry Nuclear Medicine Instrumentation Clinical Nuclear Medicine	4 3 3 5
NMT	435	NM Information Systems	3
NMT	441	Imaging Practicum	7
NMT	442	Radiochemistry Practicum	3
NMT	443	Emerging Technologies	2
NMT	498	Capstone in Nuclear Medicine	1
NMT	499	Clinical Practicum	0

# Nuclear Medicine Technology (BS)/Pre-Physician Assistant (PA) Track

ENGL	190	Adv Strategies of Rhetoric & Rsch	3
ENGL	2XX	Literature	3
ART	XXX	Fine Arts Elective	3
(Art App	preciat	ion, Art History, Intro to Theatre, etc.)	
PHIL	105	Introduction to Philosophy	3
PHIL	205	Ethics	3
THEO	100	Theological Foundations	3
HIST	111	Origins of Modern World	3
PSY	101	General Psychology	3
MATH	120	College Algebra	3
MATH	130	Elementary Statistics	3
MATH	132	Survey of Calculus	3
ITM	200	Intro to Info Technology Mgmt	3
BIOL	104	Principles of Biology I	4
BIOL	106	Principles of Biology II	4
BIOL	302	Cellular Biochemistry	3
CLS	352	Medical Microbiology	4
CHEM	163	General Chemistry I	3
CHEM	164	General Chemistry II	3
CHEM	165	General Chemistry I Lab	1
CHEM	166	General Chemistry II Lab	1

CHEM	342	Organic Chemistry I	
CHEM	343	Organic Chemistry II	
CHEM	344	Organic Chemistry Lab I	
CHEM	345	Organic Chemistry Lab II	
PHYS	122	General Physics I/Lab	
PHYS	124	General Physics II/Lab	
HSCI	200	US Healthcare System	
HSCI	301	Medical Terminology	
HSCI	320	HC Legal Aspects	
HSCI	330	Anatomy and Physiology I	
HSCI	340	Anatomy and Physiology II	
HSCI	370	Evidence in HC	
PHIL	336	Medical Ethics	
ORES	231	Intro to Clinical Medicine	
Nuclear	· Medi	cine Professional Coursework:	
NMT	431	Radiation Physics and Protection	
NIMT	122	Dadia de auxintera	

NMT	431	Radiation Physics and Protection	4
NMT	432	Radiochemistry	3
NMT	433	Nuclear Medicine Instrumentation	3
NMT	434	Clinical Nuclear Medicine	5
NMT	435	NM Information Systems	3
NMT	441	Imaging Practicum	7
NMT	442	Radiochemistry Practicum	3
NMT	443	Emerging Technologies	2
NMT	498	Capstone in Nuclear Medicine	1
NMT	499	Clinical Practicum	0

# Nuclear Medicine Technology (BS)/Pre-Professional (Medicine) Track

ENGL	190	Adv Strategies of Rhetoric & Rsch	3
ENGL	2XX	Literature	3
ART	XXX	Fine Arts Elective	3
(Art App	oreciat	ion, Art History, Intro to Theatre, etc.)	
XXX	XXX	Humanities Elective	3
		ociology, Theology, Foreign Language	?,
Econom	ics, Et	hics, etc.)	
PHIL	105	Introduction to Philosophy	3
PHIL	205	Ethics	3
THEO	100	Theological Foundations	3
HIST	111	Origins of Modern World	3
PSY	101	General Psychology	3 3 3
MATH	130	Elementary Statistics	3
MATH	141	Pre-Calculus	3
MATH	142	Calculus I	4
ITM	200	Intro to Info Technology Mgmt	3
BIOL	104	Principles of Biology I	4
BIOL	106	Principles of Biology II	4
BIOL	302	Cellular Biochemistry	3
CHEM	163	General Chemistry I	3
CHEM	164	General Chemistry II	3
CHEM	165	General Chemistry I Lab	1
CHEM	166	General Chemistry II Lab	1
CHEM	342	Organic Chemistry I	3
CHEM	343	Organic Chemistry II	3

CHEM	344	Organic Chemistry Lab I	1
CHEM	345	Organic Chemistry Lab II	1
PHYS	131	General Physics I	3
PHYS	132	General Physics I Lab	1
PHYS	133	General Physics II	3
PHYS	134	General Physics II Lab	1
HSCI	200	US Healthcare System	3
HSCI	301	Medical Terminology	3
HSCI	320	HC Legal Aspects	3
HSCI	330	Anatomy and Physiology II	4
HSCI	340	Anatomy and Physiology II	4
HSCI	370	Evidence in HC	3
PHIL	336	Medical Ethics	3
ORES	231	Intro to Clinical Medicine	3
Nuclear	· Medi	cine Professional Coursework:	
NMT	431	Radiation Physics and Protection	4
NMT	432	Radiochemistry	3
NMT	433	Nuclear Medicine Instrumentation	3
NMT	434	Clinical Nuclear Medicine	5
NIMT	125	NIM Information Constants	2

#### 435 NM Information Systems 3 NMT 7 NMT 441 **Imaging Practicum** 3 NMT 442 Radiochemistry Practicum 2 NMT 443 Emerging Technologies NMT 498 Capstone in Nuclear Medicine 1 NMT 499 **Clinical Practicum** 0

# **Radiation Therapy Program** (XRT)

Kathleen O. Kienstra, MAT, R.T.(R)(T) Program Director

Faculty: Sherry Bicklein, MHI, R.T.(R)(T) Elizabeth Lansing, CMD, R.T.(R)(T) Patty Karfs, CMD, R.T.(R)(T) Robert F. Turco, Ph.D John M. Bedwinek, M.D., FACR, FACRO, FASTRO

The Bachelor of Science in Radiation Therapy (XRT) prepares a graduate for an entry-level position as a radiation therapist. The program includes all basics sciences as well as a 12 month intensive XRT curriculum that includes 1200 hours of clinical practicum. The Radiation Therapy 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 Radiation Therapist (ARRT). XRT graduates can work as therapists in hospitals and clinics. They may also seek positions in information technology, healthcare administration, sales and training, teaching, and other related fields. In addition, many graduates continue their education by attending medical school, graduate school, and other professional programs.

# Radiation Therapy (BS)

ENGL	190	Adv Strategies of Rhetoric & Rsch	3
ENGL	2XX	Literature	3
ART	XXX	Fine Arts Elective	3
(Art Ap	precia	ition, Art History, Intro to Theatre, et	c.)
XXX	XXX	Humanities Elective	3
(Psycho	ology, S	Sociology, Theology, Foreign Language	,
		hics, etc.)	
PHIL	105	Introduction to Philosophy	3
PHIL	205	Ethics	3
THEO	100	Theological Foundations	3
HIST	111	Origins of Modern World	3
PSY	101	General Psychology	3
SOC	110	Intro to Sociology	3
MATH	120	College Algebra	3
MATH	-	Elementary Statistics	3
MATH	141	Pre-Calculus	3
DIET	208	Foundations in Nutrition	2
ITM	200		3
BIOL	104	Principles of Biology I	4
BIOL	104	Principles of Biology II	4
СНЕМ	153		4
-		General Chemistry I/Lab	-
CHEM	154	General Chemistry II/Lab	4
PHYS	122	General Physics I/Lab	4
PHYS	124	General Physics II/Lab	4
HSCI	301	Medical Terminology	3
HSCI	320	HC Legal Aspects	3
HSCI	330	Anatomy and Physiology I	4
HSCI	340	Anatomy and Physiology II	4
HSCI	470	HC & HR Management	3
IPE	110	Intro to Interprofessional Health C	are
	1		
IPE	350	Health Care Systems	3
IPE	420	Applied Decision Making	3
ORES	231	Intro to Clinical Med	3
ORES	232	Interprof Health Outcomes	2
		erapy Professional Coursework:	•
XRT	431	Radiation Physics	2
XRT	432	Radiation Therapy Practice I	3
XRT	433	Treatment Techniques	3
XRT	434	Treatment Planning	3
XRT	435	Clinical Practicum I	6
XRT VPT	436 442	Emerging Technologies	2 3
XRT XRT	442 444	Radiation Therapy Practice II Clinical Dosimetry	3 4
XRT	444 445	Clinical Practicum II	4
XRT	44 <i>5</i> 450	Radiation One Patient Care and Q.M.	3
			5
хкі			2
XRT XRT	450 451 498	Radiobiology & Radiation Protection Capstone in Radiation Therapy	2 1

# Radiation Therapy (BS)/Pre-Physician Assistant (PA) Track

хкі	434	Treatment Planning Clinical Practicum I	3 6
XRT XRT XRT	432 433	Radiation Therapy Practice I Treatment Techniques	3 3
XRT	431	Radiation Physics	2
Radiati	on Th	erapy Professional Coursework:	
IPE	420	Applied Decision Making	3
IPE	1 350	Health Care Systems	3
IPE	110	Intro to Interprofessional Health C	are
ORES	232	Interprof Hlth Outcomes	2
ORES	231	Intro to Clinical Medicine	3
HSCI	340	Anatomy and Physiology I	4
HSCI HSCI	320 330	HC Legal Aspects Anatomy and Physiology I	3 4
HSCI	301	Medical Terminology	3
PHYS	124	General Physics II/Lab	4
PHYS	122	General Physics I/Lab	4
CHEM	345	Organic Chemistry Lab II	1
CHEM	344	Organic Chemistry Lab I	1
CHEM	343	Organic Chemistry II	3
CHEM	342	Organic Chemistry I	3
CHEM	166	General Chemistry II Lab	1
CHEM	164	General Chemistry II General Chemistry I Lab	5 1
CHEM CHEM	163 164	General Chemistry I General Chemistry II	3 3
CLS	352	Medical Microbiology	4
BIOL	302	Cellular Biochemistry	3
BIOL	106	Principles of Biology II	4
BIOL	104	Principles of Biology I	4
ІТМ	200	Intro to Info Technology Mgmt	3
DIET	208	Foundations in Nutrition	2
MATH	141	Pre-Calculus	3
MATH MATH		College Algebra Elementary Statistics	3 3
PSY	101	General Psychology	3
HIST	111	Origins of Modern World	3
THEO	100	Theological Foundations	3
PHIL	205	Ethics	3
PHIL	105	Introduction to Philosophy	3
(Art Ap	precia	tion, Art History, Intro to Theatre, et	:c.)
ART	XXX		3
ENGL	2XX	Literature	3
ENGL	190	Adv Strategies of Rhetoric & Rsch	3

XRT	444	Clinical Dosimetry	4
XRT	445	Clinical Practicum II	0
XRT	450	Radiation Onc Patient Care and Q.M.	3
XRT	451	Radiobiology & Radiation Protection	2
XRT	498	Capstone in Radiation Therapy	1

# Radiation Therapy (BS)/Pre-Professional (Medicine) Track

			-	
ENGL	190	Adv Strategies of Rhetoric & Rsch		
ENGL	2XX	Literature	3	
ART	XXX		3	
•	-	tion, Art History, Intro to Theatre, e		
PHIL	105	Introduction to Philosophy	3	
PHIL	205	Ethics	3	
THEO	100	Theological Foundations	3	
HIST	111	Origins of Modern World	3	
PSY	101	General Psychology	3	
MATH		Elementary Statistics	3	
MATH		Pre-Calculus	3	
MATH	142	Calculus I	4	
SOC	110	Intro to Sociology	3	
DIET	208	Foundations in Nutrition	2	
ITM	200	Intro to Info Technology Mgmt	3	
BIOL	104	Principles of Biology I	4	
BIOL	106	Principles of Biology II	4	
BIOL	302	Cellular Biochemistry	3	
CHEM	163	General Chemistry I	3	
CHEM	164	General Chemistry II	3	
CHEM	165	General Chemistry I Lab	1	
CHEM	166	General Chemistry II Lab	1	
CHEM	342	Organic Chemistry I	3	
CHEM	343	Organic Chemistry II	3	
CHEM	344	Organic Chemistry Lab I	1	
CHEM	345	Organic Chemistry Lab II	1	
PHYS	131	General Physics I	3	
PHYS	132	General Physics I Lab	1	
PHYS	133	General Physics II	3	
PHYS	134	General Physics II Lab	1	
HSCI	301	Medical Terminology	3	
HSCI	320	HC Legal Aspects	3	
HSCI	330	Anatomy and Physiology I	4	
HSCI	340	Anatomy and Physiology II	4	
ORES	231	Intro to Clinical Med	3	
ORES	232	Interprof Hlth Outcomes	2	
IPE	110	Intro to Interprofessional Health	Care	
	1	•		
IPE	350	Health Care Systems	3	
IPE	420	Applied Decision Making	3	
<b>Radiation Therapy Professional Coursework:</b>				
XRT	431	Radiation Physics	2	

XRT	432	Radiation Therapy Practice I	3
XRT	433	Treatment Techniques	3
XRT	434	Treatment Planning	3
XRT	435	Clinical Practicum I	6
XRT	436	Emerging Technologies	2
XRT	442	Radiation Therapy Practice II	3
XRT	444	Clinical Dosimetry	4
XRT	445	Clinical Practicum II	0
XRT	450	Radiation Onc Patient Care and Q.M.	3
XRT	451	Radiobiology & Radiation Protection	2
XRT	498	Capstone in Radiation Therapy	1

# **Nutrition and Dietetics**

#### Mildred Mattfeldt-Beman PhD, RD, Chair www.slu.edu/x2270.xml

#### Faculty:

Daniel Brewer, MS, RD, Chef Katie Eliot, PhD, RD Susan Hansen, RD, PhD Steve Jenkins, MA, Chef Lori Jones, MPH, RD, MS Kathy Kress, MS, RD Lauren Landfried, MS, RD Whitney Linsenmyer, MS, RD Michael Milster, MS, CEC, CCE, CFBE, CHE Amy Moore, PhD, MPH, RD Todd Parkhurst, BS, Chef Rabia Rahman, MS, RD Melissa Ramel, MS, MPH, RD Marjorie Sawicki, MS, RD Edward Weiss, PhD Melissa White, MS, MPH, RD

Dietetics, the application of food and nutrition knowledge to promote health, prevent disease and minimize disability, is a rapidly growing profession in allied health. Dietitians are dedicated to helping the public attain better health and longevity through the use of sound nutrition practices. Our graduates are prepared with foundation knowledge and skills to enter the field of nutrition. The Didactic Program in Dietetics and the Supervised Practice Program (Dietetic Internship) at Saint Louis University are currently granted Accreditation by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) the accrediting agency for the Academy of Nutrition and Dietetics, 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6995, 312,899,0400 ext 5400. The Didactic Program in Dietetics (DPD) prepares the student for entry into a supervised practice program, a prerequisite to becoming a registered dietitian.

The Food Innovation and Entrepreneurship (FIE) program at Saint Louis University provides students with a strong knowledge base in nutrition, culinary arts, and entrepreneurship. This option is for those interested in nutrition sciences, sustainability, food preparation, food service management, and leadership opportunities. Saint Louis University prepares FIE students for innovative opportunities in the food industry.

Undergraduate students may opt for a general course of study in dietetics, one with an emphasis in culinary arts or food innovation and entrepreneurship, one that fulfills requirements for medical school (pre-professional health studies), or a prephysician assistant scholar's track. Students receive a broad and varied experience in classroom, laboratory and clinical settings. The program provides individual attention and close ties with faculty. Students may pursue either full-time or parttime study.

Undergraduate students have the option to complete a special emphasis in Culinary Arts. Saint Louis University is one of the first in the nation to combine a dietetics and culinary program. The culinary emphasis is designed to meet the standards of the Academy of Nutrition and Dietetics and the American Culinary Federation.

Upon successful completion of the Didactic Program in Dietetics (DPD), graduates are ready to compete for dietetic internships and have the flexibility to enter positions in:

- · Hospitals, clinics, health centers, and private practice
- Public and private wellness programs
- Government nutrition programs
- Schools, restaurants, private clubs
- Research settings, food and pharmaceutical industries

#### Admission Requirements and Procedures for Transfer Students

External Transfer students should have at least a 2.75 GPA (4.0 scale). Internal Transfer students should have at least a 2.75 GPA (4.0 scale). Chemistry, biology, college algebra and English composition are recommended. Contact the Department of Nutrition and Dietetics for further information and assistance.

# Nutrition and Dietetics (B.S.)/ DPD Verification

#### **Required Related Courses**

BIOL	110	Principles of Biology	4
CHEM	163	General Chemistry I	3
CHEM	164	General Chemistry II	3
CHEM	165	General Chemistry I Lab	1
CHEM	166	General Chemistry II Lab	1
CHEM	342	Principles of Organic Chemistry	3
CHEM	344	Organic Chemistry Lab	1
CHEM	360	Biochemistry	3
DIET	308	Nutritional Aspects of Biochemistry	1
BLS	451	Medical Microbiology	4

MGT	300	Management Theory & Practice	3
HIM	270	Medical Terminology	3
PPY	254	Human Physiology	4
ECON	190	Principles of Economics	3
HCE	201	Found in Clinical Health Care Ethics	3
IPE	110	Intro to IP Health Care	1
PSY	101	Introduction to Psychology	3
PHIL	105	Introduction to Philosophy	3
THEO	100	Theology	3
ENGL	190	Rhetoric and Critical Thinking	3
HIST	XXX	History Elective	3
ART	XXX	Fine Arts Elective	3
		(Art, Music, etc.)	
ENGL	XXX	English Literature Elective	3
ELEC	XXX	General Electives	12
	(Cour	ses of the student's choice)	

#### **Required Courses for the Major**

Required Courses for the Major			
DIET	100	Hot Topics in Nutrition	2
DIET	208	Foundations in Nutrition	3
DIET	210	Nutrition in the Lifecycle	3
DIET	308	Nutritional Aspects of Biochemistry	1
DIET	251	Ethnic Meal Management	4
DIET	360	Food Science	3
DIET	370	Quantity Food Procurement/Prep	4
DIET	385	Advanced Nutrition	4
DIET	389	Internship Seminar	1
DIET	410	Medical Nutrition Therapy I	3
DIET	411	Clinical Practicum Lab	2
DIET	415	Medical Nutrition Therapy II	3
DIET	416	Clinical Practicum Lab II	2
DIET	430	Community Nutrition	3
DIET	435	Food Systems Management I	3
DIET	436	Food Systems Management II	3
DIET	440	Nutrition Education	3
DIET	450	Nutrition Counseling	3
DIET	487	Critical Reading Research Material I	1
DIET	488	Critical Reading Research Material II	1

# Nutrition and Dietetics (B.S.)/ DPD Verification + Special Emphasis in Culinary Arts

#### **Required Related Courses**

BIOL	110	Principles of Biology	4
CHEM	163	General Chemistry I	3
CHEM	164	General Chemistry II	3
CHEM	165	General Chemistry I Lab	1
CHEM	166	General Chemistry II Lab	1
CHEM	342	Principles of Organic Chemistry	3
CHEM	344	Organic Chemistry Lab	1
CHEM	360	Biochemistry	3
BLS	451	Med Microbiology	4
MGT	300	Management Theory & Practice	3
ACCT	220	Financial Accounting	3

PPY	254	Human Physiology	4
HCE	201	Found in Clinical Health Care Ethics	3
IPE	110	Intro to IP Health Care	1
PSY	101	Introduction to Psychology	3
PHIL	105	Introduction to Philosophy	3
THEO	100	Theology	3
ENGL	190	Rhetoric and Critical Thinking	3
ENGL	XXX	English Literature Elective	3
ELEC	XXX	General Elective	3
		(Courses of the student's choice)	
Requir	red Cou	rses for the Major	
DIÊT	100	Hot Topics in Nutrition	2
DIET	208	Foundations in Nutrition	3
DIET	202	Foundations in Classical Cuisine	3
DIET	210	Nutrition in the Lifecycle	3
DIET	212	Bar and Beverage Management	3
DIET	290	Culinary Intersession I	1
DIET	301	Catering I	1
DIET	303	Sustainable Food Systems	
DIET	308	Nutritional Aspects of Biochemistry	1
DIDT	0.51	TH 1 1 1 1 1	

Keyun		inses for the whajor	
DIET	100	Hot Topics in Nutrition	2
DIET	208	Foundations in Nutrition	3
DIET	202	Foundations in Classical Cuisine	3
DIET	210	Nutrition in the Lifecycle	3
DIET	212	Bar and Beverage Management	3
DIET	290	Culinary Intersession I	1
DIET	301	Catering I	1
DIET	303	Sustainable Food Systems	
DIET	308	Nutritional Aspects of Biochemistry	1
DIET	251	Ethnic Meal Management	4
DIET	360	Food Science	3
DIET	370	Quantity Food Procurement/Prep	4
DIET	375	Advanced Cooking & World Cuisine	2
DIET	385	Advanced Nutrition	4
DIET	389	Internship Seminar	1
DIET	390	Culinary Intersession II	1
DIET	401	Catering I	1
DIET	410	Medical Nutrition Therapy I	3
DIET	414	Adv Meat Analysis & Knife Skills	2
DIET	419	Garde Manger	3
DIET	415	Medical Nutrition Therapy II	3
DIET	425	Baking	3
DIET	426	Pastry	3 3
DIET	430	Community Nutrition	
DIET	435	Food Systems Management I	3
DIET	436	Food Systems Management II	3
DIET	450	Nutrition Counseling	3
DIET	490	Culinary Philosophy and Practice	4
DIET	497	Culinary and Medicinal Herbs	3

Students may also earn a Certificate in Food Safety/Sanitation.

## Nutrition and Dietetics (B.S.)/ **DPD Verification + Special Emphasis in Food Innovation & Entrepreneurship**

#### **Required Related Courses**

BIOL	110	Principles of Biology	4
CHEM	163	General Chemistry I	3
CHEM	164	General Chemistry II	3
CHEM	165	General Chemistry I Lab	1
CHEM	166	General Chemistry II Lab	1
CHEM	342	Principles of Organic Chemistry	3

CHEM	344	Organic Chemistry Lab	1
CHEM	360	Biochemistry	3
BLS	451	Med Microbiology	4
MGT	300	Management Theory & Practice	3
MGT	320	Managing Ideas in Entrep Firms	3
MGT	321	Mgng Resources in Entrep Firms	3
MGT	421	Business Plan Devlopment	3 3 3
ACCT	220	Financial Accounting	
PPY	254	Human Physiology	4
PHIL	205	Ethics	3
IPE	110	Intro to IP Health Care	1
PSY	101	Introduction to Psychology	3
PHIL	105	Introduction to Philosophy	3
THEO	100	Theology	3
ENGL	190	Rhetoric and Critical Thinking	3
Require	ed Cou	rses for the Major	
DIET	100	Hot Topics in Nutrition	2
DIET	208	Foundations in Nutrition	3
DIET	202	Foundations in Classical Cuisine	3
DIET	210	Nutrition in the Lifecycle	3
DIET	212	Bar and Beverage Management	3
DIET	290	Culinary Intersession I	1
DIET	308	Nutritional Aspects of Biochemistry	1
DIET	251	Ethnic Meal Management	4
DIET	360	Food Science	3
DIET	370	Quantity Food Procurement/Prep	4
DIET	375	Advanced Cooking & World Cuisine	2
DIET	385	Advanced Nutrition	4
DIET	389	Internship Seminar	1
DIET	390	Culinary Intersession II	1
DIET	410	Medical Nutrition Therapy I	3
DIET	414	Adv Meat Analysis & Knife Skills	2
DIET	419	Garde Manger	3
DIET	415	Medical Nutrition Therapy II	3 3
DIET	425	Baking	3
DIET	426	Pastry	3 3 3
DIET	430	Community Nutrition	3
DIET	435	Food Systems Management I	3
DIET	436	Food Systems Management II	3
DIET	450	Nutrition Counseling	3
DIET	490	Culinary Philosophy and Practice	4
DIET	497	Culinary and Medicinal Herbs	3

# Nutrition and Dietetics (B.S.)/ Special Emphasis in Food Innovation & Entrepreneurship

#### **Required Related Courses**

BIOL	110	Principles of Biology	4
CHEM	163	General Chemistry I	3
CHEM	164	General Chemistry II	3
CHEM	165	General Chemistry I Lab	1
CHEM	166	General Chemistry II Lab	1
BLS	451	Med Microbiology	4

MGT MGT MGT ACCT PPY PHIL PSY PHIL	300 320 321 421 220 254 205 101 105	Management Theory & Practice Managing Ideas in Entrep Firms Mgng Resources in Entrep Firms Business Plan Devlopment Financial Accounting Human Physiology Ethics Introduction to Psychology Introduction to Philosophy	3 3 3 3 3 4 3 3 3
THEO	100	Theology	3
ENGL	190	Rhetoric and Critical Thinking	3
Requir	ed Coı	rses for the Major	
DIET	100	Hot Topics in Nutrition	2
DIET	208	Foundations in Nutrition	2 3
DIET	202	Foundations in Classical Cuisine	3
DIET	210	Nutrition in the Lifecycle	3
DIET	212	Bar and Beverage Management	3
DIET	250	Food Processing	4
DIET	290	Culinary Intersession I	1
DIET	303	Sustainable Food Systems	3
DIET	251	Ethnic Meal Management	4
DIET	360	Food Science	3
DIET	370	Quantity Food Procurement/Prep	4
DIET	375	Advanced Cooking & World Cuisine	2
DIET	390	Culinary Intersession II	1
DIET	401	Catering I	1
DIET	414	Adv Meat Analysis & Knife Skills	2
DIET	419	Garde Manger	3
DIET	425	Baking	3
DIET	426	Pastry	3
DIET	430	Community Nutrition	3
DIET	435	Food Systems Management I	3
DIET	436	Food Systems Management II	3
DIET	480	Sustainable Fd Innovatn Externship	3
DIET	490	Culinary Philosophy and Practice	4
DIET	497	Culinary and Medicinal Herbs	3

#### **Pre-Professional Health (Pre-Med) and Medical Scholars:**

Pre-professional health students and students accepted as medical scholars may declare Nutrition and Dietetics as a major. The curriculum for completion of B.S. in Nutrition and Dietetics with fulfillment of pre-professional health studies requirements is 144 credit hours. For more information, contact the Department of Nutrition and Dietetics.

#### Pre-Physicians Assistant (PA) Scholars Track:

Students accepted into B.S. program in Nutrition and Dietetics may apply for acceptance into the Pre-PA Scholars Track. This track, for entering freshman, presents an opportunity for a select number of highly qualified applicants who successfully complete the Track to be guaranteed a position in the Physician Assistant Program at Saint Louis University upon graduation. The track is 136 credit hours. For more information, contact the Department of Nutrition and Dietetics or the Department of Physician Assistant Education. Verification of Didactic Program in Dietetics (DPD):

The Department has a program whereby students who possess a previously earned baccalaureate degree may complete requirements for DPD verification. This verification allows students to meet requirements for entry into a dietetic internship without completion of a second baccalaureate degree. For more information, contact the DPD Director in the Department of Nutrition and Dietetics

# Occupational Science & Occupational Therapy

#### Debra A. Rybski, MS, MSHCA, OTR/L, Chair

#### http://www.slu.edu/x2400.xml

#### **Full-time Faculty:**

S. Omar Ahmad, Ph.D., OTD/L Rebecca M. Aldrich, Ph.D., OTR/L Karen F. Barney, Ph.D., OTR/L, FAOTA, Emerita Jeanne R. Eichler, MOT, OTR/L, MT Julia Henderson-Kalb, MS, OTR/L Lisa A. Jaegers, MS, PhD (candidate), OTR/L S. Margaret Maloney, Ph.D., OTR/L Cynthia S. Matlock, MBA, OTR/L Sherry L. Muir, MOT, OTR/L, ABD Charlotte Royeen, Ph.D., OTR/L, FAOTA Kathleen L. Serfas, OTD, OTR/L Sarah Walsh, MOT, OTR/L

This program offers two degrees: a Bachelor of Science in Occupational Science (BSOS) and a Master of Occupational Therapy (MOT) degree.

Occupational Science is the study of the forms and meaning of human activity, and how everyday activities influence individuals' sense of identity and roles within families and communities. Occupational therapy is a health profession that employs everyday activities in the service of helping people to live healthy and satisfying lives. Services are provided to individuals who are at risk, or who have disabling conditions or life circumstances that prevent full participation in the roles and activities that they value.

Students have guaranteed entry into the graduate level master's program if they have successfully completed all the requirements of the undergraduate program. The combined BSOS and MOT program is five years of study.

Qualified Post Baccalaureate students with degrees in other fields may apply to the MOT program for an additional two years of study (including one summer semester).

#### **Educational Requirements**

<u>Freshman Entry</u>: A high school GPA of at least 3.2; four years of sciences, including one year of chemistry, one year of biology and preferably Physics; four years of math; four years of English; an ACT composite score of at least 24 or an equivalent SAT score.

<u>Transfer Entry</u>: Transfer students may enter the program during the sophomore or junior year with a cumulative GPA of 3.2.

<u>Post-Baccalaureate Entry</u>: Students who have a bachelor's degree may apply to MOT Program via Occupational Therapy Centralized Application Service, online at <u>https://portal.otcas.org/</u>. Applicants provide an official transcript sent from the university where the degree was earned; the documents must indicate degree conferral, including the required prerequisite courses, listed as follows:

Chemistry with a lab	4
Biology with a lab	4
Basic Anatomy	3-4
Physiology	3-4
Physics	3-4
Lifespan Human Development	3
Abnormal Psychology	3
Research Methods	3-4
Medical Terminology	3

Applicants must achieve a grade of "C" or higher in all of the above subjects with a GPA of 3.2 or higher based on these courses only to qualify for admission. The GRE is required.

#### Non-academic Requirements

Fieldwork experiences in community and clinical practice settings are required in occupational therapy education. Regulations require all students to complete a criminal background check and a drug test at least once during the Program, either or both of these may be repeated as agency requirements demand. Positive results from the criminal background check or drug tests may result in ineligibility to graduate from the program. A felony conviction will affect a graduate's eligibility for professional certification and licensure.

### Occupational Science (BSOS leading to MOT) OS Core Requirements

ENGL	190	Adv Strat. of Rhetoric and Research	3
ENGL	202-2	260, 300-395 Literature	3
ENGL	400	Business and Professional Writing	3
CMM	120	Public Speaking	3
PHIL	105	Introduction to Philosophy	3
PHIL	205	Ethics	3
THEO	100	Theological Foundations	3

SOC	110	or SOC 120 Anthropology or Sociology	3
HSCI	301	Medical Terminology	3
PSY	101	General Psychology	3
PSY	205	Research Methods	3
PSY	439	Abnormal Psychology	3
MATH	120,	141, or 142 College Algebra, Pre-Calcu	lus, or
Calculu	s	3	
BIOL	110	Introduction to Biology	4
CHEM	153	General Chemistry I	4
ANAT	100	Basic Human Anatomy	3
PHYS	105	Intro to Physics of the Human Body	3
PPY	254	Human Physiology	4
IPE	110	Intro to Interprofessional Health Care	1
IPE	350	Health Care System & Hlth Promotion	3
IPE	420	Appl. Decision Making in IP Practice	3
IPE	490	Integrative IP Practicum	2
ORES	232	IPE Health Outcomes Research	2
TOTAL	,		68

### **Required Occupational Science Courses:**

OCS	100	Seminar in OT Practice	2
OCS	101	Intro to OS & OT	2
OCS	312	Study of Occupation	3
OCS	322	Contexts of Occupation	3
OCS	332	Development of Humans as Occupat	ional
Beings	3		
OCS	352	Occupational Health & Wellness	3
OCS	362	Lived Experience of Disabilities	3
OCS	372	Critical Perspectives of Culture, Occ	upation &
Justice	3		
ENGL	400	Business and Professional Writing	3

## **Occupational Therapy (MOT)**

For the first two semesters, MOT courses are cross-listed with the OCS 4XX level BSOS courses. These courses are required for both the occupational science seniors and the first year post baccalaureate occupational therapy students.

ANAT	400	Grass Anotomy	6
		Gross Anatomy	Ū
OCS	462	Clin Conditions & Phenomenology	3
MOT	500	Fundamentals of OS for Post Bac	1
MOT	502	Professional Development I	1
MOT	503	Professional Development II	1
MOT	504	Professional Development III	1
MOT	515	Kinesiology	3
MOT	517	Neuroscience for OT	4
MOT	520	Clin Conditions & Phenomenology	3
MOT	525	OT Policy & Administration	2
MOT	526	Problem Based Learning	2
MOT	530	Fundamentals of OT Practice	3
MOT	535	Theoretical Foundations of OT	3
MOT	540	OT in Rehabilitation I	4
MOT	541	OT in Behavioral Health II	3
MOT	545	OP & Assmnt of Infant & Child	3
MOT	546	OT with Aging Adults	2

MOT	548	OT & Upper Extremity	2
MOT	540	11 5	2
MOT	549	Applied Research I	1
MOT	550	Applied Research II	1-3
MOT	555	OT in Rehab II	3
MOT	556	OT in Behavioral Health II	3
MOT	560	OT with Infants & Children	4
MOT	565	Applied Research III	2
MOT	566	Applied Research IV	0-5
MOT	570	Level II Fieldwork (12 weeks)	6
MOT	575	Level II Fieldwork (12 weeks)	6

#### Graduation:

Upon completion of all requirements, students receive the Master's in Occupational Therapy (MOT) Degree and are eligible to sit for the national certification examination administered by the National Board for Certification in Occupational Therapy (NBCOT). In addition to passing the national exam, most states require licensure in order to practice.

NOTE: All Level II Fieldwork must be complete within 18 months following completion of academic preparation.

Accreditation: The occupational therapy program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA) located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220; ACOTE's telephone number is (301) 652-AOTA

# **Pre P.A. Scholars Track for Occupational Science Students**

Occupational Science Students have the option to choose the Bachelor of Science in Occupational Science (BSOS) degree with a pre-PA track. These students follow a modified BSOS four-year curriculum. After successful completion of the Pre-PA track and the BSOS degree, the student is guaranteed a position in the PA Graduate Program. For more information go to the PA website at http://www.slu.edu/x6928.xml.

# **Physical Therapy & Athletic Training**

Mark F. Reinking, PT, PhD, SCS, ATC, Chair

The Department of Physical Therapy & Athletic Training includes two separate professional programs, the Program in Physical Therapy and the Athletic Training Program.

PT Program Website: <u>http://pt.slu.edu</u> AT Program Website: <u>http://at.slu.edu</u>

#### Faculty:

Program in Physical Therapy Tricia Austin, PT, PhD, ATC, Assistant Director Carol Beckel, PT, PhD, Director of Clinical Education Jason Bennett, PT, PhD, ATC, SCS Jill FitzGerald, PT, DPT Alicia D. Flach, PT, DPT, NCS Ethel Frese, PT, DPT, CCS Kelly Hawthorne, PT, DPT, GCS Ann Marcolina Hayes, PT, DPT, OCS Ginge Kettenbach, PT, PhD Kim Levenhagen, PT, DPT, WCC Mark Reinking, PT, PhD, SCS, ATC, Program Director Randy R. Richter, PT. PhD Gretchen Salsich, PT, PhD Darina Sargeant, PT, PhD Sara Scholtes, PT, DPT, PhD Chris Sebelski, PT, DPT, OCS, CSCS Joanne Wagner, PT, PhD Barb Yemm, PT, DPT, OCS

#### Athletic Training Program

Anthony Breitbach, PhD, ATC, Program Director Tim Howell, EdD, ATC, CSCS, Clin. Ed. Coordinator Michael Markee, ATC, PT, OCS, COMT Katherine Newsham, PhD, ATC

L. Tyler Wadsworth, MD, Medical Director

#### **Program in Physical Therapy Description:**

The Program in Physical Therapy Program is a freshman entry six-year curriculum leading to a Bachelor of Science in Exercise Science (BSES) degree after the fourth year and a Doctor of Physical Therapy (DPT) degree after the sixth year. Students desiring a major in physical therapy should apply to that program as entering freshman, as transfer admission into the program is very limited. The admissions process in physical therapy is competitive and due dates for applications are available on the Program in Physical Therapy website (pt.slu.edu). Progression through the program is based on meeting academic and professional behavior requirements. Students in the Program in Physical Therapy are required to earn a minor or an area of concentration.

#### Athletic Training Program Description:

The Athletic Training Program is a freshman entry five-year curriculum leading to a BSES degree after the fourth year and a Master of Athletic Training (MAT) degree after the fifth year. Students desiring an undergraduate major in athletic training should apply to that program as entering freshmen, as transfer admission is limited. Application information is available on the Athletic Training Program website (at.slu.edu). Progression through the program is based on meeting academic and professional behavior requirements. Pre-Medicine and Pre-Physician Assistant curricular tracks are options in both programs. Consult the respective program's website for more information.

The BSES degree is available only to those students admitted to the Program in Physical Therapy or the Athletic Training Program and is not a stand-alone degree program.

## **Program in Physical Therapy** (BSES leading to DPT)

#### **PT** Core Requirements

1 1 Core Requirements				
ENGL	190 A	dv Strat. of Rhetoric and Research	3	
ENGL	202-2	60, 300-395 Literature	3	
	Fine A	Arts elective <sup>1</sup>	3	
PHIL	105	Introduction to Philosophy	3	
PHIL	205	Ethics	3	
THEO	100	Theological Foundations	3	
THEO		Theology elective	3	
HIST	111-4	93 History elective	3	
PSY	101	General Psychology	3	
PSY	439	Abnormal Psychology	3	
MATH	141	Pre-Calculus	3	
BIOL	110	Introduction to Biology	4	
CHEM	153 &	2 154 General Chemistry I & II	8	
ANAT	100	Basic Human Anatomy	3	
PHYS	122 &	t 124 General Physics I & II	8	
PPY	254	Human Physiology	4	
IPE	110	Intro to Interprofessional Health Ca	re 1	
IPE	350	Health Care System & Hlth Promot	tion 3	
IPE	420	Appl. Decision Making in IP Practi	ce 3	
IPE	490	Integrative IP Practicum	2	
	Foreig	gn Language (through 115 level)	6	
	Resea	rch Statistics course	3	
	Non-s	specified electives	18	
	TOT	AL	96	

<sup>1</sup>Fine Arts Elective: Any course specified in the college catalog as accepted as a fine arts elective (for Arts and Sciences) will be accepted as a fine arts elective for Physical Therapy. Courses from Study Abroad experiences will be accepted as per the approval of the Program in Physical Therapy Registration Coordinator.

#### **Required Physical Therapy Courses (for BSES)**

108	Student Development I	1
110	Student Development II	1
208	Student Development III	1
210	Student Development IV	1
403	Documentation	1
405	Human Growth & Development	3
411	Kinesiology I	2
412	Kinesiology II	3
413	Survey of Disease	3
414	Exercise Physiology	3
	110 208 210 403 405 411 412 413	<ul> <li>110 Student Development II</li> <li>208 Student Development III</li> <li>210 Student Development IV</li> <li>403 Documentation</li> <li>405 Human Growth &amp; Development</li> <li>411 Kinesiology I</li> <li>412 Kinesiology II</li> <li>413 Survey of Disease</li> </ul>

DPT	415	Therapeutic Exercise	2
DPT	420	Developmental Biology	3
DPT	430	Therapeutic Modalities	3
DPT	455	Basic Exam	3
DPT	460	Clinical Research & Design	2
DPT	470	Basic Procedures	2
DPT	484	Skills Practicum	1
DPT	520	Musculoskeletal Conditions I	2
DPT	540	Lab Studies & Imaging	2
DPT	542	Pharmacology	1
ANAT	400	Gross Anatomy	6
ANAT	430	Neuroscience	5
	тот	AL	51
Post-Ba	iccala	ureate PT Courses (for DPT)	
DPT	507	Applied Neuroscience	2
DPT	508	Professional Development I	1
DPT	510	Professional Development II	2
DPT	512	Professional Development III	1
DPT	519	Biomechanical Interventions	3
DPT	521	Musculoskeletal Conditions II	3
DPT	522	Musculoskeletal Conditions III	4
DPT	523	Musculoskeletal Conditions IV	3
DPT	525	Clinical Gait	2
DPT	526	Neuropathology	2
DPT	527	Neurological Conditions I	4
DPT	528	Neurological Conditions II	2
DPT	529	Cardiopulmonary Conditions	3
DPT	534	Multisystem Management	3
DPT	560	Departmental Administration	2
DPT	561	Applied Administration & Mgmt	2
DPT	563	Evidence Based Practice	2
DPT	565	Components of Eff Comm.& Tchng	
	566	Concepts of Wellness	1
DPT	570	Patient Management I	3
DPT	571	Patient Management II	1
DPT	572	Patient Management III	2
DPT	580	Clinical Rotation IA (5 wks)	2
DPT	581	Clinical Rotation IB (5 wks)	2
DPT	582	Clinical Rotation IIA (5 wks)	2
DPT	583	Clinical Rotation IIB (5 wks)	2
DPT	584	Clinical Internship A (10 weeks)	4
DPT	585	Clinical Internship B (10 weeks)	4
DPT	590	Applied Evidence Based Practice	2
DPT	502	Aspects of Nutrition in PT	<u>2</u>
	тот	AL	71

## **Athletic Training Program** (BSES leading to MAT)

#### **AT Core Requirements**

EDH	101	Enhancing 1 <sup>st</sup> Year Success	1
ENGL	190	Adv Strat Rhetoric and Research	3

ENGL		60, 300-395 Literature	3
	Fine A	Arts elective <sup>1</sup>	3
PHI	105	Introduction to Philosophy	3
PHIL	205	Ethics	3
THEO	100	Theological Foundations	3
THEO	2xx	-	3
HIST	1xx		3
	Foreig	gn Language (through 115 level)	6
PSY	101	General Psychology	3
PSY	2xx		3
MATH	141		3
BIOL	110	Introduction to Biology	4
CHEM	153 &	z 154 General Chemistry I & II	8
ANAT	100	Basic Human Anatomy	3
PHYS	122 &	z 124 General Physics I & II	8
PPY	254	Human Physiology	4
STAT	110	Statistics	3
IPE	110	Intro to Interprofessional Health Care	e 1
IPE	350		
IPE	420	Appl. Decision Making in IP Practice	
IPE	490	Integrative IP Practicum	2
	Non-s	specified electives	15
	TOT	-	94

<sup>1</sup>Fine Arts Elective: Any course specified in the college catalog as accepted as a fine arts elective (for Arts and Sciences) will be accepted as a fine arts elective for Physical Therapy. Courses from Study Abroad experiences will be accepted as per the approval of the Program in Physical Therapy Registration Coordinator.

#### **Required Athletic Training Courses (for BSES)**

1		8 ( )	
MAT	100	Introduction to Athletic Training	1
MAT	200	AT Student Development	1
MAT	300	AT Student Development II	2
MAT	414	Exercise Physiology	3
ANAT	400	Gross Anatomy	6
MAT	430	Therapeutic Modalities	3
MAT	501	Principles of Athletic Training	3
MAT	510	Athletic Training Kinesiology	3
MAT	516	Bioenergetics of Athletic Performanc	e 3
MAT	524	Musculoskeletal Assessment	4
		and Management I	
MAT	525	Musculoskeletal Assessment and Management II	4
MAT	550	Rehabilitation in Athletic Training I	4
MAT	562	Psychology of Sport and Injury	3
MAT	580	Medical Conditions in AT	3
	TOT	AL	43

Post-Baccalaureate AT Courses (for MAT)			
MAT	540	Lab Studies and Imaging	
MAT	555	Rehabilitation in Athletic Training II	
MAT	560	Athletic Training Administration	

MAT	565	Research in Athletic Training	2
MAT	570	AT Clinical Practicum I	3
MAT	575	AT Clinical Practicum II	3
MAT	590	AT Field Experience	2
MAT	595	AT Clinical Practicum III	4
MAT	616	Enhancing Athletic Performance	3
MAT	670	AT Capstone Project	2
MAT	671	AT Clinical Practicum IV	4
MAT	680	Seminar in Athletic Training	3
TOTAL			34

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