BHS in Clinical and Diagnostic Sciences with Emphasis in Nuclear Medicine

Degree Program Description

Nuclear medicine (NM) technologists use radioactive compounds to produce functional, molecular images and to treat many cancers. They work in a variety of settings, including hospitals, imaging and research centers, commercial radiopharmacies, and nuclear research reactors. Nuclear medicine procedures are used to diagnose and treat diseases and to tailor treatment regimens. The NM program includes two years of pre-requisite coursework and two years of professional coursework. Students graduate with a Bachelor of Health Science (BHS) degree in Clinical and Diagnostic Sciences with an emphasis in Nuclear Medicine. Graduates of the program are eligible to challenge the nuclear medicine technology credentialing examinations administered by the Nuclear Medicine Technology Certification Board and the American Registry of Radiologic Technologists. The program is accredited by the Joint Review Committee on Educational Programs in Nuclear Medicine Technology.

Major Program Requirements

To earn the BHS in Clinical and Diagnostic Sciences with emphasis in Nuclear Medicine degree, students must meet degree and University requirements (https://catalog.missouri.edu/academicdegreerequirements/universityrequirements/), including University general education (https://catalog.missouri.edu/academicdegreerequirements/generaleducationrequirements/) requirements. In addition to the degree requirements below, the Nuclear Medicine program requires an application, including an interview. Students are encouraged to work with an advisor in order to best structure the pre-requisites and prepare for the program application. Students must complete the Program Pre-requisite courses below with a grade of C- or higher. All Major Core Requirements require a grade of C (2.0) or higher, unless otherwise noted.

Program Pre-Requisites		**45**
MATH 1100	College Algebra	3-5
or MATH 1160	Precalculus Mathematics	
or MATH 1400	Calculus for Social and Life Sciences I	
or MATH 1500	Analytic Geometry and Calculus I	
ENGLSH 1000	Writing and Rhetoric	3
COMMUN 1200	Public Speaking	3
BIO_SC 1010 & BIO_SC 1020	General Principles and Concepts of Biology and General Biology Laboratory	5
or BIO_SC 1030	General Principles and Concepts of Biology with Laboratory	
or BIO_SC 1500	Introduction to Biological Systems with Laboratory	
STAT 1200	Introductory Statistical Reasoning	3
or STAT 1300	Elementary Statistics	
or STAT 2500	Introduction to Probability and Statistics I	
or ESC_PS 4170	Introduction to Applied Statistics	
PHYSCS 1210	College Physics I	4
CHEM 1400 & CHEM 1401	College Chemistry I and College Chemistry I Laboratory	4
CHEM 1410 & CHEM 1411	College Chemistry II and College Chemistry II Laboratory	4
PTH_AS 2201 & PTH_AS 2203	Human Anatomy Lecture and Human Anatomy Laboratory	5
MPP 3202	Elements of Physiology	5
or BIO_SC 3700	Human Physiology	
CDS 2190	Medical Terminology	3
CDS 3100	Introduction to Research	3
or HLTH_SCI 4200W	Introduction to The Research Process and Evidence Base - Writing Intensive	
Major Core Requirements		**69**
NUCMED 3255	Orientation to Clinical Practice	2
NUCMED 3256	Clinical Nuclear Medicine I	2
NUCMED 3263	Morphological Correlations in Nuclear Medicine I	3
NUCMED 4232	Regulation of Radioisotopes	3
NUCMED 4268W	Clinical Nuclear Medicine II - Writing Intensive (Capstone)	3
NUCMED 4269	Clinical Nuclear Medicine III (Capstone)	1
NUCMED 4299	Morphological Correlations in Nuclear Medicine II	3
NUCMED 4300	Advanced Procedures	3
NUCMED 4330	PET in Nuclear Medicine	3
NUCMED 4327	Nuclear Medicine Instrumentation	3
NUCMED 4329	Radiopharmaceuticals in Nuclear Medicine	3
NUCMED 4939	Nuclear Clinical Internship I	2
NUCMED 4940	Nuclear Clinical Internship II	6
NUCMED 4941	Nuclear Clinical Internship III	7
RA_SCI 3160	Radiologic Physics *	3
RA_SCI 4110	Sectional Anatomy *	3
RA_SCI 4150	Computed Tomography: Physics and Procedures *	6
CDS 4328	Radiation Safety and Biology	4
CDS 4460	Cardiovascular and Pulmonary Diagnostic Applications II	3
CDS 4985	Healthcare Organization and Leadership	3
PHIL 2440	Medical Ethics	3
or PHIL 1100	The Difference Between Right and Wrong: An Introduction to Ethics	
or PHIL 1150	Introductory Bioethics	
or HLTH_SCI 4480	Clinical Ethics	
or CDS 4480	Clinical Ethics	

* Denotes courses in which a grade of C- is accepted.

Professional Certification

Upon completion of the program, students are eligible to take the national certifying examinations given by the Nuclear Medicine Technology Certification Board. Students may also pursue credentials offered through the American Registry of Radiologic Technologists.

Semester Plan

Below is a sample plan of study, semester by semester. A student's actual plan may vary based on course choices where options are available.

First Year					
Fall	**CR**	**Spring**	**CR**		
NUCMED 1000	1	CHEM 1400 & CHEM 1401	4		
BIO_SC 1010 & BIO_SC 1020	5	ENGLSH 1000	3		
MATH 1100, 1400, or 1500	3	PTH_AS 2201 & PTH_AS 2203	5		
PSYCH 1000	3	Humanities course*If Phil 1100/1150/2440 taken from Core, these are qualifying Humanities*	3		
COMMUN 1200	3				
	15		**15**		
Second Year					
Fall	**CR**	**Spring**	**CR**		
PHYSCS 1210	4	HIST 1100, 1200, or POL_SC 1100	3		
CDS 3100	3	MPP 3202	5		
STAT 1200, 1300, or ESC_PS 4170	3	CDS 2190	3		
CHEM 1410 & CHEM 1411	4	Writing Intensive Behavioral/Social Sci	3		
		2000+ level Humanities	3		
	14		**17**		
Third Year					
Fall	**CR**	**Spring**	**CR**	**Summer**	**CR**
CDS 4328	4	CDS 3460	3	CDS 4460	3
NUCMED 3255	2	CDS 4480, PHIL 2440, or HLTH_SCI 4480	3	NUCMED 4232	3
NUCMED 3263	3	NUCMED 3256	2	NUCMED 4939	2
NUCMED 4327	3	NUCMED 4299	3		
RA_SCI 3160	3	NUCMED 4329	3		
		NUCMED 4330	3		
	15		**17**		**8**
Fourth Year					
Fall	**CR**	**Spring**	**CR**		
NUCMED 4268W	3	CDS 4985	3		
NUCMED 4300	3	NUCMED 4269	1		
NUCMED 4940	6	NUCMED 4941	7		
RA_SCI 4110	3	RA_SCI 4150	6		
	15		**17**		

Total Credits: 133