

Student: _____ PUID: _____ Catalog Term: _____

Additional Majors: _____ Minors: _____

Radiological Health Sciences/Pre-Medical Physics Core (University Foundational Learning Outcomes) (27-29 credits)

- ____ (4-3) ENGL 10600 First-Year Composition or ENGL 10800 Accelerated First-Year Composition **[Written Communication and [Information Literacy]**
- ____ (3) COM 11400 Fundamental of Speech Communication or COM 21700 Science Writing & Presentations **[Oral Communication]**
- ____ (4) BIOL 11000 Fundamentals of Biology I **[Fulfills 1 Science Core Course]**
- ____ (4) BIOL 11100 Fundamentals of Biology II **[Fulfills 1 Science Core Course]**
- ____ (3) _____ **[Humanities]** – *select course from University list*
- ____ (3) _____ **[Behavior/Social Science Humanities]** – *select course from University list*
- ____ (4-5) MA 16100* Plane Analytic Geometry & Calculus I or MA 16500* Analytic Geometry & Calculus I **[Quantitative Reasoning]**
- ____ (3) _____ **[Science, Technology & Society]** – *select from HSCI Science, Technology & Society Core List*

Required Courses for Radiological Health Sciences/Pre-Medical Physics (84-85 credits)

- ____ (4) BIOL 20300 Human Anatomy & Physiology
- ____ (4) BIOL 20400 Human Anatomy & Physiology
- ____ (4) CHM 11500 General Chemistry
- ____ (4) CHM 11600 General Chemistry
- ____ (3) _____ English Selective – *select from list*
- ____ (2) HSCI 10100 Introduction to Health Sciences Professions
- ____ (3) HSCI 20200 Essentials of Environmental, Occupational, and Radiological Health Sciences
- ____ (3) HSCI 31200* Radiation Science Fundamentals
- ____ (2) HSCI 31300 Principles of Radiation Detection & Measurement
- ____ (2) HSCI 51400* Radiation Instrumentation Laboratory
- ____ (3) HSCI 52600 Principles of Health Physics & Dosimetry
- ____ (3) HSCI 54000* Radiation Biology
- ____ (3) HSCI 57000* Introduction to Medical Diagnostic Imaging
- ____ (3) HSCI 57200* Radiation Oncology Physics
- ____ (2) HSCI 57400* Medical Health Physics
- ____ (4-5) MA 16200* Plane Analytic Geometry & Calculus II or MA 16600* Analytic Geometry & Calculus II
- ____ (4) MA 26100 Multivariate Calculus
- ____ (4) MA 26200 Linear Algebra & Differential Equations
- ____ (3) _____ Math-Computer Sciences Selective – *select from list*
- ____ (4) PHYS 17200* Modern Mechanics
- ____ (3) PHYS 24100 Electricity & Optics
- ____ (1) PHYS 25200 Electricity & Optics Laboratory
- ____ (3) _____ Physics Selective – *must be PHYS 30000 or higher ***
- ____ (3) _____ Physics Selective – *must be PHYS 30000 or higher ***
- ____ (1) PHYS 34000 Modern Physics Laboratory
- ____ (3) PHYS 34200 Modern Physics
- ____ (3) _____ Radiological Health Sciences Selective – *select from list*
- ____ (3) STAT 30100 Elementary Statistical Methods

HSCI Humanities, Behavioral/Social Sciences Selectives – select from list (3 credits)

- ____ (3) _____ *select course from HSCI Humanities, Behavioral/Social Sciences list*

Electives (3-6 credits)

____ () _____ ____ () _____ ____ () _____ ____ () _____

***A grade of “C” or higher must be earned in HSCI 31200, HSCI 51400, HSCI 54000, HSCI 57000, HSCI 57200, HSCI 57400; MA 16100/16200 or MA 16500/16600; and PHYS 17200.**

An Ethics course (such as PHIL 11100 Ethics, PHIL 27000 Biomedical Ethics, or PHIL 29000 Environmental Ethics) is highly recommended.

****Suggested physics selectives are PHYS 31000 Intermediate Mechanics, PHYS 36000 Quantum Mechanics, and/or PHYS 55600 Introductory Nuclear Physics.**

All students must complete 32 credits of 300 level or higher courses at Purdue for graduation.

120 credits required for Bachelor of Science degree

Revised 5/2013

University Foundational Learning Outcomes List:

<https://www.purdue.edu/provost/initiatives/curriculum/course.html>

HSCI Science, Technology & Society Core List

BCHM 10000	Intro to Biochemistry
EAPS 10000	Planet Earth
EAPS 11300	Introduction to Environmental Science
EAPS 12000	Introduction to Geography
HONR 19901	First-Year Honors in Science, Technology & Society
HSCI 20100	Principles of Public Health
NRES 29000	Introduction to Environmental Science
PHIL 27000	Biomedical Ethics
STAT 11300	Statistics and Society
TECH 12000	Technology and the Individual

English Selective List

ENGL 23000	Great Narrative Works
ENGL 26600	World Literature: From The Beginnings To 1700 A.D.
ENGL 26700	World Literature: From 1700 A.D. To The Present
ENGL 30400	Advanced Composition
ENGL 30600	Introduction To Professional Writing
ENGL 42000	Business Writing
ENGL 42100	Technical Writing

Math-Computer Sciences Selective List

CS 15800	C Programming
CS 15900	Programming Applications for Engineers
CS 18000	Programming I
CS 31400	Numerical Methods
CS 47800	Introduction to Bioinformatics
MA 26200	Linear Algebra and Differential Equations
MA 41600	Probability
MA 52700	Advanced Mathematics for Engineers and Physicists I
MA 52800	Advanced Mathematics for Engineers and Physicists II
PHYS 58000	Computational Physics
STAT 31100	Introductory Probability
STAT 50300	Statistical Methods for Biology
STAT 51100	Statistical Methods
STAT 51200	Applied Regression Analysis

Radiological Health Sciences Selective List

CHM 22400	Introductory Quantitative Analysis
CHM 25500	Organic Chemistry
CHM 25501	Organic Chemistry Laboratory
CHM 25600	Organic Chemistry
CHM 25601	Organic Chemistry Laboratory
CHM 33300	Principles of Biochemistry
HSCI 34500	Introduction To Occupational And Environmental Health Science
BIOL 41500	Introduction To Molecular Biology
BIOL 44400	Human Genetics
BIOL 54200	Animal Cell Culture
BIOL 51600	Molecular Biology Of Cancer
HK 44500	Principles of Epidemiology
HSCI 54700	Environmental Epidemiology
HSCI 55100	Health Effects of Non-ionizing Radiation

Continued: Radiological Health Sciences Selective List

HSCI 55200	Introduction to Aerosol Science
HSCI 56000	Toxicology
HSCI 58000	Occupational Ergonomics
PHIL 27000	Biomedical Ethics
PHIL 29000	Environmental Ethics
PHIL 35000	Philosophy and Probability
PHYS 22000	General Physics
PHYS 22100	General Physics
PHYS 31000	Intermediate Mechanics
PHYS 36000	Quantum Mechanics
PHYS 55000	Introduction To Quantum Mechanics
PHYS 55600	Introductory Nuclear Physics
PHYS 56400	Introduction To Elements Particle Physics
PHYS 56500	Introduction To Elementary Particle Physics II
AT 57200	Human Error

**HSCI Humanities, Behavioral/Social Sciences Selectives List -
select any course(s) from the following subjects:**

Anthropology (ANTH)
Art & Design (AD)
Classics (CLCS)
Communication (COM)
Dance (DANC)
Economics (ECON)
English (ENGL)
Foreign Languages & Literatures (FLL)
History (HIST)
Interdisciplinary Studies (IDIS)
Music (MUS)
Philosophy (PHIL)
Political Science (POL)
Psychology (PSY)
Sociology (SOC)
Theatre (THTR)

Name: _____

School of Health Sciences

Date: _____

Student I.D.: _____

Radiological Health Sciences

Pre-Medical Physics - RHMP

120 Semester Hours

Freshman Year - First Semester		Sem/Yr	Grade	Second Semester		Sem/Yr	Grade
(4)	BIOL 11000 Fundamentals of BIOL I (Science)			(4)	BIOL 11100 Fundamentals of BIOL II (BIOL 11000) (Science)		
(4)	CHM 11500 General Chemistry I (MA 15900 or CALC Placement) (Science)			(4)	CHM 11600 General Chemistry II (CHM 11500) (Science)		
(2)	HSCI 10100 Intro to HSCI Professions Fall only			(4)	ENGL 10600 Freshman Composition (Written Communication & Info Literacy)		
(4-5)	MA 16100/16500-Plane Analytic Geometry & CALC I (Quant. Reasoning)			(4-5)	MA 16200/16600 Plane Analytic Geom & CALC II (MA 16100) (Quant. Reasoning)		
[14-15]				[16-17]			

Sophomore Year - Third Semester		Sem/Yr	Grade	Fourth Semester		Sem/Yr	Grade
(3)	COM 11400 Fundamentals of Speech or COM 21700 Science Writing & Presentation (Oral Communication)			(4)	MA 26200 Linear Algebra and Diff Equations (Quant. Reasoning)		
(3)	Elective			(3)	PHYS 24100 Electricity and Optics (Science)		
(3)	HSCI 20200 Essntls of RH, EH, + OH (1 sem of BIOL & 1 sem of CHM) Fall only			(1)	PHYS 25200 Electricity and Optics Lab		
(4)	MA 26100 Multivariate Calculus (Quant. Reasoning)			(3)	STAT 30100 Elem. Statistical Methods (Info. Literacy)		
(4)	PHYS 17200 Modern Mechanics (MA 16200/16600) (Science)			[14]			
[17]							

Note: All students must complete 32 hours
of 300 level or higher courses at Purdue for graduation.

Note: Responsibility for completing graduation requirements
is solely that of the student.

RHMP

School of Health Sciences

Radiological Health Science - RHMP

Pre- Medical Physics Concentration

120 Semester Hours

Junior Year - Fifth Semester		Sem/Yr	Grade	Sixth Semester		Sem/Yr	Grade
(4)	BIOL 20300 Human Anat & Physiology I (Science) Fall only			(4)	BIOL 20400 Human ANAT & Physiology II (BIOL 20300) (Science) Spring only		
(3)	HSCI 31200* Radiation Science Fund. (PHYS 17200 or NUCL 20000 & MA 16200/16600) Fall only			(3)	HSCI 54000* Radiation Biology (HSCI 31200 & BIOL 11100) Spring only		
(2)	HSCI 31300* Prncpls of Rad Dtectn & Mesmnt (PHYS 17200 or NUCL 20000 & MA 16200/16600) Fall only			(2)	HSCI 51400* Radiation Instrumentation Lab (HSCI 31200) Spring only		
(3)	Humanities Selective (Select from Univesity list)			(3)	Math and Computer Science Elective		
(3)	PHYS 30000 or higher PHYS Elective			(3)	PHYS 34200 Modern Physics		
[15]				[15]			
Senior Year - Seventh Semester		Sem/Yr	Grade	Eighth Semester		Sem/Yr	Grade
(0-2)	Elective			(3)	English Elective		
(3)	HSCI 52600* Principles of Health Physics and Dosimetry Fall only			(3)	HSCI 57000* Intro to Medical Diagnostic Imaging Spring only		
(2)	HSCI 57400* Medical Health Physics Fall only			(3)	HSCI 57200* Radiation Oncology Physics Spring only		
(3)	**Humanities Elective (Behavior/Soc. Science)			(3)	Humanities Elective		
(3)	PHYS 30000 or higher PHYS Elective			(3)	Rad. Health Sciences Elective		
(1)	PHYS 3400 Modern Physics Lab						
[12-14]				[15]			
Note:	Suggested physics electives are PHYS 310- Intermediate Mechanics, PHYS 360 - Quantum Mechanics and/or PHYS 556 - Introductory Nuclear Physics			Note:	*A grade of 'C' or higher must be earned in HSCI 312, 313, 514, 526, 540, 570, 572, and 574 and MA 161/162 or MA 165/166.		
	** Selected courses only; please see your advisor						Revised: 09/28/2013