

Student: \_\_\_\_\_ PUID: \_\_\_\_\_ Catalog Term: Fall 2018

Additional Majors: \_\_\_\_\_ Minors: \_\_\_\_\_

**Major Requirements (61 credits)**

- \_\_\_ (4) BIOL 11000 Fundamentals of Biology I **[Satisfies 1 Science Core Course]**
- \_\_\_ (4) BIOL 11100 Fundamentals of Biology II **[Satisfies 1 Science Core Course]**
- \_\_\_ (4) BIOL 20300 Human Anatomy & Physiology
- \_\_\_ (4) BIOL 20400 Human Anatomy & Physiology
- \_\_\_ (4) CHM 11500 General Chemistry
- \_\_\_ (4) CHM 11600 General Chemistry
- \_\_\_ (2) HSCI 10100 Introduction to Health Sciences Professions
- \_\_\_ (3) HSCI 20100 Principles of Public Health Science **[Satisfies Science, Technology & Society Core]**
- \_\_\_ (3) HSCI 20200 Essentials of Environmental, Occupational, and Radiological Health Sciences
- \_\_\_ (3) HSCI 31200 Radiation Science Fundamentals (must earn a grade of "C" or higher)
- \_\_\_ (2) HSCI 31300 Principles of Radiation Detection & Measurement (must earn a grade of "C" or higher)
- \_\_\_ (2) HSCI 51400 Radiation Instrumentation Laboratory (must earn a grade of "C" or higher)
- \_\_\_ (3) HSCI 54000 Radiation Biology (must earn a grade of "C" or higher)
- \_\_\_ (2) HSCI 57400 Medical Health Physics (must earn a grade of "C" or higher)
- \_\_\_ (4) MA 26100 Multivariate Calculus
- \_\_\_ (3) PHYS 24100 Electricity & Optics
- \_\_\_ (1) PHYS 34000 Modern Physics Laboratory
- \_\_\_ (3) PHYS 34200 Modern Physics
- \_\_\_ (3) STAT 30100 Elementary Statistical Methods
- \_\_\_ (3) \_\_\_\_\_ Math-Computer Science Selective – *select from list*

**Health Physics Concentration (38-40 credits)**

- \_\_\_ (3) HSCI 52600 Principles of Health Physics & Dosimetry (must earn a grade of "C" or higher)
- \_\_\_ (3) HSCI 53400 Applied Health Physics (must earn a grade of "C" or higher)
- \_\_\_ (4-5) MA 16100 Plane Analytic Geometry & Calculus I or MA 16500 Analytic Geometry & Calculus I **[Satisfies Quantitative Reasoning Core]**
- \_\_\_ (4-5) MA 16200 Plane Analytic Geometry & Calculus II or MA 16600 Analytic Geometry & Calculus II
- \_\_\_ (3) NUCL 20000 Introduction to Nuclear Engineering
- \_\_\_ (2) NUCL 20500 Nuclear Engineering Undergraduate Laboratory I
- \_\_\_ (2) NUCL 30500 Nuclear Engineering Undergraduate Laboratory II
- \_\_\_ (4) PHYS 17200 Modern Mechanics
- \_\_\_ (3) \_\_\_\_\_ General Science or Radiological Health Sciences Selective – *select from list*
- \_\_\_ (3) \_\_\_\_\_ Health Physics Selective – *select from list*
- \_\_\_ (3) \_\_\_\_\_ Health Physics Selective – *select from list*
- \_\_\_ (4) \_\_\_\_\_ Math-Computer Science or General Science Selective - *select from list*

**Other Departmental/Program Course Requirements (18-19 credits)**

- \_\_\_ (3) COM 11400 Fundamental of Speech Communication **[Satisfies Oral Communication Core]**
- \_\_\_ (4-3) ENGL 10600 First-Year Composition or ENGL 10800 Accelerated First-Year Composition **[Satisfies Written Communication Core] and [Information Literacy Core]**
- \_\_\_ (3) \_\_\_\_\_ **[Behavior/Social Science Core]** *select course from University list*
- \_\_\_ (3) \_\_\_\_\_ **English Selective** – *select any 20000 level or above ENGL course*
- \_\_\_ (3) \_\_\_\_\_ **HSCI Humanities, Behavioral/Social Sciences Selective** – *select from HSCI list*
- \_\_\_ (3) \_\_\_\_\_ **[Humanities Core]** *select course from University list*

**Electives (0-3 credits)**

\_\_\_ ( ) \_\_\_\_\_ \_\_\_ ( ) \_\_\_\_\_ \_\_\_ ( ) \_\_\_\_\_ \_\_\_ ( ) \_\_\_\_\_

**All students must complete 32 credits of 30000 level or higher courses at Purdue for graduation.**

**120 credits required for Bachelor of Science degree**

**Must earn a grade of "C" or higher in HSCI 31200, HSCI 31300, HSCI 51400, HSCI 52600, HSCI 53400, HSCI 54000, and HSCI 57400.**

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

### **General Science Selective List**

AT 57200	Human Error and Safety
BIOL 41500	Introduction To Molecular Biology
BIOL 44400	Human Genetics
BIOL 51600	Molecular Biology Of Cancer
BIOL 54200	Animal Cell Culture
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
HK 44500	Principles of Epidemiology
HSCI 34500	Introduction To Occupational and Environmental Health Science
HSCI 54700	Fundamentals of Epidemiology
HSCI 55100	Physical Agents in Environmental Health
HSCI 55200	Introduction to Aerosol Science
HSCI 56000	Toxicology
HSCI 58000	Occupational Safety and 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

### **Health Physics Selective List**

HSCI 39000	Radiological Emergency Management
HSCI 41500	Introduction to Nuclear and Radiological Source Security
HSCI 48500	Health Physics Internship
HSCI 54700	Fundamentals of Epidemiology
HSCI 55100	Physical Agents in Environmental Health
HSCI 55200	Introduction to Aerosol Science
HSCI 59000	Public Health Law and Policy
ME 20000	Thermodynamics I
ME 27000	Basic Mechanics I
NRES 28000	Hazardous Waste Handling
NUCL 30000	Nuclear Structure and Radiation Interactions
NUCL 31000	Introduction to Neutron Physics
NUCL 35000	Nuclear Thermal-Hydraulics I
NUCL 35100	Nuclear Thermal-Hydraulics II
NUCL 50100	Nuclear Engineering Principles
NUCL 50300	Radioactive Waste Management
NUCL 50400	Nuclear Engineering Experiments
NUCL 51000	Nuclear Reactor Theory I

### **HSCI Humanities, Behavioral/Social Sciences Selective List - select any 10000-59999 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)

### **Math-Computer Science Selective List**

CS 15800	C Programming
CS 15900	Programming Applications for Engineers
CS 18000	Problem Solving and Object-Oriented Programming
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 51200	Applied Regression Analysis

### **Radiological Health Sciences Selective List for HLPH**

Any course on the Health Physics Selective List	
HSCI 19000, 29000, 39000, 49000, or 59000 - Special Topics in Radiological Health Sciences	
HSCI 31000	Imaging in Medicine
HSCI 57000	Introduction to Medical Diagnostic Imaging
HSCI 57200	Radiation Oncology Physics
NUPH 55000	Introduction to Positron Emission Tomography

**University Foundational Learning Outcomes List:** <https://www.purdue.edu/provost/initiatives/curriculum/course.html>

A student may elect the Pass / Not-Pass (P/NP) grading option for elective courses only, unless an academic unit requires that a specific departmental course/s be taken P/NP. Students may elect to take University Core Curriculum courses P/NP; however, some major Plans of Study require courses that also fulfill UCC foundational outcomes. In such cases, students may not elect the P/NP option. A maximum of 24 credits of elective courses under the P/NP grading option can be used toward graduation requirements. For further information, students should refer to the College of Health and Human Sciences P/NP Policy.

Students are encouraged to use this advising worksheet as a resource when planning progress toward completion of degree requirements. An Academic Advisor may be contacted for assistance in interpreting this worksheet. This worksheet is not an academic transcript, and it is not official notification of completion of degree or certificate requirements. The University Catalog is the authoritative source for displaying plans of study. The student is ultimately responsible for knowing and completing all degree requirements.

**Suggested Arrangement of Courses:**

Credits	Fall 1st Year	Prerequisite	Credits	Spring 1st Year	Prerequisite
4	*BIOL 11000 <sup>CC</sup>		4	*BIOL 11100 <sup>CC</sup>	BIOL 11000
4	*CHM 11500 <sup>CC</sup>	MA 15400 or MA 15800 or ALEKS = 75	4	*CHM 11600 <sup>CC</sup>	CHM 11200 or 11500
3	*COM 11400 <sup>CC</sup>		4-3	*ENGL 10600 OR 10800 <sup>CC</sup>	
2	HSCI 10100 <sup>CC</sup> Fall only		5-4	*MA 16200 or 16600 <sup>CC</sup>	MA 16500 or 16100 = C-
5-4	*MA 16100 or 16500 <sup>CC</sup>	ALEKS = 85			
<b>17-18</b>			<b>15-17</b>		

Credits	Fall 2nd Year	Prerequisite	Credits	Spring 2nd Year	Prerequisite
4	*BIOL 20300 <sup>CC</sup> Fall only		4	*BIOL 20400 <sup>CC</sup> Spring only	BIOL 20300
3	*HSCI 20200 <sup>CC</sup> Fall only	3 credits in BIOL & CHM	3	*HSCI 20100 <sup>CC</sup> Spring only	Classification of 03
4	*MA 26100 <sup>CC</sup>	MA 16200 or 16600 = C-	3	NUCL 20000 Spring only	MA 16200 or 16600 & PHYS 17200
4	*PHYS 17200 <sup>CC</sup>	MA 16100 or 16500 or ALEKS = 85	2	NUCL 20500 Spring only	NUCL 20000 or may be taken concurrently
			1	Elective	
<b>15</b>			<b>13</b>		

Credits	Fall 3rd Year	Prerequisite	Credits	Spring 3rd Year	Prerequisite
3	^HSCI 31200 Fall only	MA 16600 or 16200 & PHYS 17200 or NUCL 20000	2	^HSCI 51400 Spring only	HSCI 31200
2	^HSCI 31300 Fall only	MA 16600 or 16200 & PHYS 17200 or NUCL 20000	3	^HSCI 54000 Spring only	BIOL 11100 & HSCI 31200
2	NUCL 30500 Fall only	NUCL 20500	3	PHYS 34200	PHYS 24100
3	*PHYS 24100	PHYS 17200	1	PHYS 34000	PHYS 24100 or 34200 may be taken concurrently
3	*STAT 30100		3	*Humanities BSS Core Selective	Select from University list
3	HSCI Humanities Selective	Select from HSCI list	3	English Selective	Select any 20000 or above ENGL course
<b>16</b>			<b>15</b>		

Credits	Fall 4th Year	Prerequisite	Credits	Spring 4th Year	Prerequisite
3	^HSCI 52600 Fall only	HSCI 31200	3	^HSCI 53400 Spring only	HSCI 31200
2	^HSCI 57400 Fall only	HSCI 31200 & MA 26100 & PHYS 24100	4	MA/CS Science Selective	Select from list
3	MA/CS Selective	Select from list	3	General Science or RADH Sel.	Select from list
3	Health Physics Sel.	Select from list	3	*Humanities Core Selective	Select from University list
3	Health Physics Sel.	Select from list			
2	Elective				
<b>16</b>			<b>13</b>		

\*Satisfies a University Core Requirement.

<sup>CC</sup>Critical Course – a course that a student must be able to pass to persist and succeed in a particular major.

^A minimum grade of C must be earned in HSCI 31200, 31300, 51400, 52600, 53400, 54000, and 57400, and they cannot be taken as pass/no pass.

Students must complete 32 credit hours of 30000 level or higher courses for graduation at Purdue University.  
120 semester credits required for Bachelor of Science degree.

2.0 Graduation GPA required for Bachelor of Science degree.

The student is ultimately responsible for knowing and completing all degree requirements.

Degree Works is knowledge source for specific requirements and completion