

PROGRAM NAME: Biomedical Physics - Biomedical Engineering
 PROGRAM COLLEGE: College of Health and Human Services
 CATALOG TERM: 2019-2020

Program Description: The Biomedical Engineering major is intended for students interested in attending graduate school in areas such as medical physics and bioengineering, as well as graduate pre-professional health and medical schools.

NOTE: Individual Programs of Study will vary in consultation with your Advisor and course/section availability each term. The below schedule serves only as an **example** four year degree plan.

For a complete list of courses that meet Rockhurst Core Curriculum requirements, please click [here](#).

YEAR 1

Fall Semester

Course Name	Credits	Minimum Grade Required	Experience Notes
Core: Written Communication (WCP)	3		<ul style="list-style-type: none"> Join an RU Academy Participate in the Finucane Service Project Attend the New Student Retreat
MT 1800 Calculus I (MTP)	4	C	
CH 2610 General Chemistry I	3	C	
CH 2620 General Chemistry Laboratory I	1	C	
BL 1250 General Biology I	3	C	
BL 1251 General Biology Laboratory I	1	C	
TOTAL HOURS	15		

Spring Semester

Course Name	Credits	Minimum Grade Required	Notes
Core: Oral Communication (OCP)	3		<ul style="list-style-type: none"> Join a campus club/organization (can be dept. specific)
PH 2850 Physics for Scientists and Engineers I (SCI) or can take Physics for the Life Sciences fall/spring sequence	3	C	
PH 2860 Physics for Scientists and Engineers Laboratory I (SCI) or can take Physics for the Life Sciences fall/spring sequence	1	C	
CH 2630 General Chemistry II	3	C	
CH 2640 General Chemistry Laboratory II	1	C	
MT 1810 Calculus II	4	C	
TOTAL HOURS	15		

YEAR 2

Fall Semester

Course Name	Credits	Minimum Grade Required	Notes
Core: Historical Mode Lv I (HSI)	3		
PH 2940 Physics for Scientists and Engineers II (SCII) or can take Physics for the Life Sciences fall/spring sequence	3	C	
PH 2920 Physics for Scientists and Engineers Laboratory II (SCII) or can take Physics for the Life Sciences fall/spring sequence	1	C	
MT 2800 Calculus III	4	C	
PH 3500 Statics	3	C	
Elective – if pre-med take CH 2710/2720 Organic Chemistry I	3 - 4		
TOTAL HOURS	17 - 18		

Spring Semester

Course Name	Credits	Minimum Grade Required	Notes
Core: Literary Mode Lv I (LTI)	3		
Core: Theological Mode Lv I (THI)	3		
PH 4000 Electric Circuits	3	C	
PH 4320 Strength of Materials	3	C	
Biomedical Engineering Elective	3	C	
TOTAL HOURS	15		

YEAR 3

Fall Semester

Course Name	Credits	Minimum Grade Required	Notes
Core: Historical Mode or Literary Mode Lv II (HSII or LTII)	3		
Core: Scientific-Relational Mode Lv I (SRI)	3		
Core: Philosophical Mode Lv I (PLI)	3		
MT 2200 Mathematical Computing	3	C	
PH 3200 Physics of the Body I	3	C	
Elective – if pre-med take CH 3620 Biochemistry I	3		
TOTAL HOURS	18		

Spring Semester

Course Name	Credits	Minimum Grade Required	Notes
Core: Philosophical Mode Lv II (PLII)	3		
Core: Artistic Mode (ARI)	3		
MT 3700 Differential Equations	3	C	
PH 3210 Physics of the Body II	3	C	
Biomedical Engineering Elective	3	C	
TOTAL HOURS	15		

YEAR 4

Fall Semester

Course Name	Credits	Minimum Grade Required	Notes
Core: Theological Mode Lv II (THII)	3		
PH 3710 Mathematical Methods in Physics	3	C	
PH 3240 Physics of Medical Imaging	3	C	

PH 4500 Modern Physics	3	C	
PH 4900 Statistics for the Health Sciences	3	C	
PH 4940 Research Physics Capstone	1	C	
TOTAL HOURS	16		

Spring Semester

Course Name	Credits	Minimum Grade Required	Notes
Core: Philosophical Mode or Theological Mode Lv II (PLII or THII)	3		
Core: Global Perspectives (GPR)	3		
Core: Scientific-Relational Mode Lv I or Lv II (SRI or SRII)	3		
MT 3810 Linear Algebra	3	C	
Elective	3		
Elective	3		
TOTAL HOURS	18		

Credit Hours

- Core: 51-54 hours
- Major: 75-77 hours
- Electives 12 hours; depending on career interests, these may be focused on coursework to prepare for medical school or used to double-major in mathematics. Discuss these possibilities with your advisor.

TOTAL Credit Hours: 129