

Bachelor of Science Degree in Physics – Pre-Health Care Concentration (BIC)

A Suggested Sequence of Required Courses (2018-2019 Catalog)

F r e s h m a n Y e a r

Fall				Spring		
_____	0	Chapel (CHA 1088)		_____	0	Chapel (CHA 1088)
_____	2	BIC 1212 Examined Life I		_____	3	CHE 1301/1101
_____	3	BIC 1314 World Cultures I		_____	3	BIC 1324 World Cultures II
_____	4	BIC 1413 Rhetoric I		_____	3	BIC 1323 Rhetoric II
_____	3	MTH 1321 (if eligible) Calculus I		_____	3	MTH 1322 Calculus II
_____	4	PHY 1420 Physics I (Cal. Based)		_____	4	PHY 1430 Physics II (Cal. Based)
Total:	16			Total:	16	

S u m m e r

_____	4	BIO 1305/1105 Biology I w/ Lab		_____	4	BIO 1306/1106 Biology II w/ Lab
_____	3	CHE (1302/1102) Chemistry I w/ Lab				
Total:	7			Total:	4	

S o p h o m o r e Y e a r

Fall				Spring		
_____	3	BIC 2334 World Cultures III		_____	3	BIC 2344 World Cultures IV
_____	3	CHE 3331 Organic Chemistry I		_____	3	CHE 3332 Organic Chemistry II
_____	3	MTH 2321 Calculus III		_____	2	CHE 3238 Organic Chemistry Lab
_____	1	PHY 2135 Basic Electronics Lab		_____	1	PHY 2190 Intr. To Research
_____	3	PHY 2350 Modern Physics		_____	3	PHY 2360 Math. And Comp. Physics
_____	3	MTH 2311 Linear Algebra		_____	3	MTH 3325 Ordinary Diff. Equations
Total:	16			Total:	15	

J u n i o r Y e a r

Fall				Spring		
_____	3	BIC 2330 Social World I		_____	3	BIC 2340 Social World II
_____	3	BIO 2306 Genetics		_____	4	BIO (3000-4000 level; BIO 3422 recommended)
_____	3	MTH 3326 Partial Diff. Equations		_____	3	PHY 3330 Int. Electricity and Mag.
_____	1	PHY 3175 Int. Physics Lab I		_____	3	PHY 3373 Intr Quantum Mechanics II
_____	3	PHY 3320 Int. Classical Mechanics		_____	3-4	Foreign Language - 1402/2310 (see reverse)
_____	3	PHY 3372 Intro. Quantum Mech. I		_____	1	Lifetime Fitness
_____	3-4	Foreign Language 1401/12 (see reverse)				
Total:	16-17			Total:	16-17	

S e n i o r Y e a r

Fall				Spring		
_____	1	PHY 4190 Dissemination of Research		_____	4	CSI (1430 recommended)
_____	3	PHY 4340 Stat. and Thermal Physics		_____	1	Lifetime Fitness
_____	0	PHY 4001 Exit Exam		_____	4	BIO (3000-4000 level)
_____	3	Foreign Language 2310		_____	3	Foreign Language 2320
_____	3	BIO (3000-4000 level; see below)		_____	3	BIC 3358 Biblical Heritage/Ethics
_____	3	PSY 1305 Intro to Psychology (for MCAT prep)				
Total:	13			Total:	15	

*All students must graduate with a minimum of 124 hours,
36 of which must be at the 3000/4000 level.*

Notes about major requirements:

Note: Any student pursuing a major or secondary major within the Department of Physics (BA or BS, all concentrations) must complete PHY 1420 with a grade of B- or better in order to enroll in PHY 1430. A student who fails to make a B- or better in the course, yet wishes to continue as a major within the Department of Physics must petition to repeat PHY 1420. Any student pursuing a major or secondary major within the Department of Physics (BA or BS, all concentrations) must complete PHY 1430 with a grade of C or better in order to enroll in PHY 2350. A student who fails to make a C or better in the course (where a C- is insufficient) yet wishes to continue in the major within the Department of Physics must petition to

- This concentration is designed for students with an interest in medicine, dentistry, or other health related professions, and it satisfies the medical/dental preprofessional program requirements.

- Prior to taking PHY 4190, students are expected to make substantial progress on a research project. Research typically begins when PHY 2190 is taken in the sophomore year. Students involved in research during their junior year should enroll in PHY 3V95 (Undergraduate Research). In addition, students are strongly encouraged to participate in summer research opportunities.

- BIO 3000-4000 level electives: Pre-Med/Pre-Dent admissions require that two additional biology courses be completed beyond the basic 1305-1105 and 1306-1106. You will need to take BIO 3422 (Human Physiology) and CHE 4341 (Biochemistry - recommended).

- Many required courses are offered only one time each year in either the fall semester or spring semester.

- Check your degree audit often through Bearweb to ensure that you are making timely progress toward your degree.

- For more information, see the undergraduate catalog.