

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

A Suggested Sequence of Required Courses (2013-2014 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 | | | | | |
| First | | | Second | | |
| _____ | 4 | BIO 1305/1105 Biology I w/ Lat | _____ | 4 | BIO 1306/1106 Biology II w/ Lat |
| _____ | 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 2330 Social World I | _____ | 3 | BIC 2340 Social World II |
| _____ | 3 | BIC 2334 World Cultures III | _____ | 3 | BIC 2344 World Cultures IV |
| _____ | 3 | MTH 2321 Calculus II | _____ | 4 | BIO (3000-4000 level; BIO 3422 recommended) |
| _____ | 3 | PHY 2350 Modern Physics | _____ | 3 | PHY 2360 Math. And Comp. Physics |
| _____ | 1 | PHY 2135 Basic Electronics Lab | _____ | 1 | PHY 2190 Intr. To Research |
| _____ | 3 | MTH 2311 Linear Algebra | _____ | 3 | MTH 3325 Ordinary Diff. Equations |
| Total: | 16 | | Total: | 17 | |
| J u n i o r Y e a r | | | | | |
| Fall | | | Spring | | |
| _____ | 3 | MTH 3326 Partial Diff. Equations | _____ | 3 | BIC 3358 Biblical Heritage/Ethics |
| _____ | 1 | PHY 3175 Int. Physics Lab I | _____ | 3 | CHE 3331 Organic Chemistry I |
| _____ | 3 | PHY 3320 Int. Classical Mechanics | _____ | 3 | PHY 3330 Int. Electricity and Mag. |
| _____ | 3 | PHY 3372 Intro. Quantum Mech. I | _____ | 3 | PHY 3373 Intr Quantum Mechanics I |
| _____ | 3-4 | Foreign Language 1401/12 (see reverse) | _____ | 3-4 | Foreign Language - 1402/2310 (see reverse) |
| Total: | 13-14 | | Total: | 15-16 | |
| 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 | _____ | 3 | BIO (3000-4000 level; see below) |
| _____ | 0 | PHY 4001 Exit Exam | _____ | 1 | Lifetime Fitness |
| _____ | 3 | CHE 3332 Organic Chemistry II | _____ | 4 | BIO (3000-4000 level) |
| _____ | 2 | CHE 3238 Organic Chemistry Lab | _____ | 3 | Foreign Language 2320 |
| _____ | 3 | Foreign Language 2310 | | | |
| _____ | 1 | Lifetime Fitness | | | |
| Total: | 13 | | Total: | 15 | |

36 of which must be at the 3000/4000 level.

Notes about major requirements:

- 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. Given the advanced-level requirement under your major, 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.

Please see reverse side for important information on general requirements.