

John Carroll University Chemistry Department

Biochemistry Concentration with Physical Therapy Study Plan (2017-2019 Bulletin)

First Year

| Fall Semester | Credits | Major | Core | Other | Spring Semester | Credits | Major | Core | Other |
|--------------------------------------|-----------|-------|------|-------|---------------------------------------|--------------|-------|------|-------|
| CH141 General Chemistry I* | 4 | X | | | CH142 General Chemistry II* | 4 | X | | |
| CH143 General Chemistry Lab I* | 1 | X | | | CH144 General Chemistry Lab II* | 1 | X | | |
| MT135 Calculus / Analytic Geometry I | 4 | X | | | MT136 Calculus / Analytic Geometry II | 4 | X | | |
| EN125 Seminar on Academic Writing | 3 | | X | | CO125 Speech Communications | 3 | | X | |
| BL155 Principles of Biology I | 3 | X | | | BL156 Principles of Biology II | 3 | X | | |
| BL157 Principles of Biology Lab I | 1 | X | | | BL158 Principles of Biology Lab II | 1 | X | | |
| Creative and Performing Arts (CAPA) | 1-3 | | X | | TRS Course | 3 | | X | |
| | | | | | | | | X | |
| Total Credit Hours | 17 | | | | Total Credit Hours | 19*** | | | |

Second Year

| Fall Semester | Credits | Major | Core | Other | Spring Semester | Credits | Major | Core | Other |
|--------------------------------------|-----------|-------|------|-------|--------------------------------------|--------------|-------|------|-------|
| CH221 Organic Chemistry I | 3 | X | | | CH222 Organic Chemistry II | 3 | X | | |
| CH223 Organic Chemistry Lab I | 1 | X | | | CH224 Organic Chemistry Lab II | 1 | X | | |
| PH125 General Physics I | 3 | X | | | CH261 Analytical Chemistry | 3 | X | | |
| PH125L General Physics Lab I | 1 | X | | | CH263 Analytical Chemistry Lab (QA) | 1 | X | X | |
| PS100 (ISJ) | 3 | | X | | PH126 General Physics II | 3 | X | | |
| BL230 Human Anatomy and Physiology I | 3 | | | X | PH126L General Physics Lab II | 1 | X | | |
| Lab | 1 | | | X | BL231 Human Anatomy and Physiology I | 3 | | | X |
| TRS Course | 3 | | X | | Lab | 1 | | | X |
| | | | | | Philosophy Knowledge/Reality (PLKR) | 3 | | X | |
| Total Credit Hours | 18 | | | | Total Credit Hours | 19*** | | | |

Third Year

| Fall Semester | Credits | Major | Core | Other | Spring Semester | Credits | Major | Core | Other |
|-------------------------------|--------------|-------|------|-------|-------------------------------------|--------------|-------|------|-------|
| CH363 Physical Chemistry I | 3 | X | | | CH367 Physical Chemistry I Lab | 2 | X | | |
| CH Elective | 3 | X | | | CH436 Biochemistry II | 3 | X | | |
| CH435 Biochemistry I | 3 | X | | | CH478 Chemistry Seminar | 0 | X | | |
| CH437 Biochemistry Laboratory | 1 | X | | | Engaging the Global COmmunity (EGC) | 3 | | X | |
| Linked Pair of Courses | 6 | | X | | Humanities Course | 3 | | X | |
| Language Requirement | 3 | | X | | Philosophy Values/Society (PLVS) | 3 | | X | |
| | | | | | Language Requirement | 3 | | X | |
| | | | | | Social Science Course | 3 | | X | |
| Total Credit Hours | 19*** | | | | Total Credit Hours | 20*** | | | |

If you are planning to attend graduate school or a health professions program, take the GRE or MCAT in summer between years 3 and 4 and begin submitting applications this fall.

Total of 112 credits. 8cr Transfer back to JCU from Partner School.

Notes:

* Well prepared students may substitute the CH141-144 sequence with CH151/153 - Chemical Principles and Lab in the Fall Semester

471 and PS426 and others by petition.

CH398, or CH399D (with 3 credits of CH399). One of these should be taken in the senior year.

*Please consult your academic advisor to address specific needs of your major, minor, and/or concentration.

***Going beyond 18 credits in a semester incurs a fee per credit hour.