

Saint Francis University Education Department
Paradigm for Catalog Year 2020-2021

BIOLOGY/SECONDARY EDUCATION CONCENTRATION

Suggested Course Sequence - 129 Total Credits Needed for Graduation

| FIRST YEAR FALL | | | CREDITS | FIRST YEAR SPRING | | | CREDITS |
|------------------------|-------------------------------------------------------------------------------------------------------------------|--------------|---------|-------------------------|--------------------------------------------------------------|-----------|---------|
| CORE 103 | Fall Community Enrichment Series | 0 | | CORE 104 | Spring Community Enrichment Series | 0 | |
| BIOL 131 | Biology Freshman Seminar | 0 | | CORE 113 | Gen Ed 1st Year Seminar | 3 | |
| BIOL 110 | Evolution, Ecol, & Plant Biol. | 4 | | BIOL 111 | Molecules, Cells, & Anim. Phys | 4 | |
| CHEM 121 | Chemistry Principles I | 4 | | CHEM 122 | Chemistry Principles II | 4 | |
| WRIT 102 | Research Writing | 3 | | RLST 105 | Franciscan Goals for Today | 3 | |
| HIST | History Elective | 3 | | EDUC 150 | Educational Psychology | 3 | |
| PSYC 101 | Introduction to Psychology | 3 | | | | | |
| TOTAL | | 17 | | TOTAL | | 17 | |
| SECOND YEAR FALL | | | CREDITS | SECOND YEAR SPRING | | | CREDITS |
| BIOL105 OR BIOL 205 | Human Biology Human Anatomy & Physiology | 3-4 | | BIOL xxx | Cell Biology or Physiology Course Option | 4 | |
| CHEM 221 | Organic Chemistry I | 4 | | BIOL 203 | Ecology | 4 | |
| *LIT 104 | Intro to Literature | 3 | | BIOL 231 | Biology Sophomore Seminar | 0 | |
| EDUC 205 | Intro to Special Education | 3 | | MATH 112 | Calculus | 3 | |
| EDUC 261 | Linguistic Diversity in the Classroom | 3 | | PHIL 205 | Reason and Responsibility | 3 | |
| | | | | EDUC 240 | The Diverse Learner in Sec Settings | 3 | |
| TOTAL | | 16-17 | | TOTAL | | 17 | |
| THIRD YEAR FALL | | | CREDITS | THIRD YEAR SPRING | | | CREDITS |
| EXAM 301 | Writing Competency Exam (Completing WRIT 199 with a grade of C or better can also satisfy this requirement) | 0 | | LANG | Foreign Lang. (102 or higher) | 3 | |
| BIOL 301 | Genetics | 4 | | BIOL XXX | Biological Diversity Course Option | 4 | |
| BIOL 331 | Biology Junior Seminar | 0 | | BIOL 402 | Evolution | 3 | |
| PHYS 104 | Intro to Physics | 4 | | PHYS 101 or PHYS 102 | Physical Sciences or Descriptive Astronomy | 3 | |
| STAT | Statistics Course | 3 | | BIOL 431 | Biology Senior Seminar | 1 | |
| SOSC | SOC SCI Elective (2of2) | 3 | | EXAM 401 | Dept. Comp. Exam | 0 | |
| EDUC 333 | Reading in the Content Area | 3 | | EDUC 429 | Middle/Secondary Methods I | 3 | |
| TOTAL | | 17 | | TOTAL | | 17 | |
| FOURTH YEAR FALL | | | CREDITS | FOURTH YEAR SPRING | | | CREDITS |
| BIOL 208 | Animal Behavior | 4 | | EDUC 451 | Student Teaching | 12 | |
| PHIL 319 | Philosophy, Ethics and Education | 3 | | EDUC 407 | Teacher as Reflective Practitioner (for Education Majors) | 3 | |
| EDUC 430 | Methods II | 3 | | | | | |
| FNAR | Fine Art Elective | 3 | | | | | |
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| | | | | | | | |
| TOTAL | | 13 | | TOTAL | | 15 | |

Six credits of Math and six credits of English are Pennsylvania Department of Education program Requirements

***Course sequence may be altered with advisor consent

students may want to take summer courses to lighten the load

*LIT 104-Completing any of the following 200-level literature courses (LIT 201, 202, 204,207,274, and 270) can also satisfy this requirement. Any course taken for the fulfillment of this general education requirement may not count for the general education outer core or for a course within any major.

Biology Clusters

F = Fall; S = Spring; Su = Summer; AN = As Needed

At least 1 course is required from each cluster.

Note: BIOL 302 is required and satisfies the Molecules and Cells Cluster requirement.

Ecology Cluster

BIOL 203 – Ecology (F)- *Recommended for Educ maj*

BIOL 208 – Animal Behavior (F)

BIOL 220 – Conservation Biology (S)

BIOL 320 – Natural History of Vertebrates (AN)

BIOL 322 – Field Biology (S,Su)

BIOL 326 – Freshwater Aquatic Biology (F)

Molecules and Cells Cluster

BIOL 302 – Gen. Microbiology (S) (required)

BIOL 305 – Immunology (S)

BIOL 401 – Cell & Molecular Biology (F)

BIOL 405 – Biochemistry (S)

BIOL 430 – Adv. Lab. Methods Molec. Bio. (S)

Organismal Biology Cluster

BIOL 204 – Invertebrate Zoology (F)

BIOL 205 – Human Anatomy & Phys I (F)

BIOL 206 – Human Anatomy & Phys II (S)

BIOL 211 – Comparative Anatomy (F)

BIOL 212 – Developmental Biology (S)

BIOL 218 – Marine Biology (S)

BIOL 306 – Animal Nutrition (F)

BIOL 403 – Advanced Botany (F)

BIOL 406 – Vertebrate Physiology (S)

Secondary Education Elective Course:

Any of the cluster courses above, or

BIOL 420-424 – Biology Research, or

Any 300-, 400-, or 500-level Biology course

Statistics Requirement can be fulfilled by:

BIOL 315 – Biostatistics (S)

MATH 215 – Introductory Statistics (F,S)

STAT 205 – Essentials of Statistics (F,S)

Many Secondary Ed. students opt to take

BIOL 205 & 206 Human Anatomy & Physiology