Biology Secondary Education Option

This is a course of study for those who wish to teach biology at the secondary level (high school). Students receive a degree with majors in both biology and secondary education. In addition to the courses listed below, students are required to meet the certification requirements mandated by the Kansas Department of Education, and they must successfully pass a standardized content knowledge test and a criminal background check. The courses listed here are in addition to the General Education (Gen Ed) requirements of the university, although some of these courses count toward the Gen Ed requirement. Latest update: 30 May 2013. Biology advisor: Mark Eberle (meberle@fhsu.edu). Additional information on Teacher Licensure.

| Biology Tier I: * = required course for Biology majors | Credit Hours |
|---|---------------------|
| * BIOL 180/180L Principles of Biology/Lab [fall and spring] | 4 |
| * BIOL 250/250L Introductory Botany/Lab [fall and spring] | 4 |
| * BIOL 260/260L Introductory Zoology/Lab [fall and spring] | 4 |
| * BIOL 325/325L Genetics/Lab [fall and spring] | 4 |
| * BIOL 490/490L General Microbiology/Lab [spring only] | 5 |
| Biology Tier II: * = required for option | |
| * BIOL 395/395L Ecology/Lab [spring only] | 4 |
| * BIOL 420 Evolution [fall only; odd-numbered years] | 3 |
| * BIOL 620/620L Biostatistics/Lab [fall only] (taken instead of Elements of Statistics) | 4 |
| Biology Tier III: * = required for option | |
| * BIOL 230/230L Human Anatomy & Physiology I/Lab [fall and spring] | 4 |
| * BIOL 231/231L Human Anatomy & Physiology II/Lab [fall and spring] | 4 |
| * BIOL 235 Early Field Experience [fall and spring] | 1 |
| * BIOL 476 Apprenticeship in Biology [fall and spring] | 1 |
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| ¹ may substitute Human Anatomy (BIOL 345; spring) and Human Physiology (BIOL 346; fall) | |
| Science Cognates: * = required course for option | |
| * CHEM 120/120L University Chemistry I/Lab [fall only] | 5 (Gen Ed) |
| * CHEM 122/122L University Chemistry II/Lab [spring only] | 5 |
| * CHEM 480 Laboratory Safety [spring only (8 weeks)] | 1 |
| * MATH 331 Calculus Methods [fall and spring] | 3 (Gen Ed) |
| * PHYS 111/111L Physics I/Lab [fall only] | 5 (Gen Ed) |
| * PHYS 606 Science Teaching Methods ³ [spring only] | 2 |
| Education Courses: * = required course for option | |
| * TEEL 202 Foundations of Education ² [fall and spring] | 3 |
| * TEEL 231 Human Growth and Development [fall and spring] | 3 |
| * TESP 302 Educating Exceptional Students ² [fall and spring] | 3 |
| * TECS 290 Introduction to Instructional Technology ² [fall and spring] | 3 |
| * TEEL 431 Educational Psychology ³ [fall and spring] | 3 |
| * TESS 494 The Secondary School Experience ³ [fall and spring] | 4 |
| * TESS 496 Directed Teaching – Secondary ³ [fall and spring] | 12 |
| | |
| taken before admission to teacher education program taken after admission to teacher education program | |
| Required General Education Courses | |
| * IDS 350 Multiculturalism [fall and spring] | 3 (Gen Ed) |
| * IDS 499 Global Environmental Issues [fall and spring] | 3 (Gen Ed) |
| Additional General Education Courses | 3 (Gen Ed) 39 |
| | 139 |
| Total Credit Hours Required for Option (Dual Major) | 139 |