

Science 8-12 Course Requirements

In order to be admitted to the program and pursue certification in Science 8-12, you must have 37 hours of coursework in the designated areas and 18 of these hours must be upper level (junior or senior designation).

| Course | Title | Hours |
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| BIOL 111 BIOL 113 & 123 BIOL 101 | Introductory Biology I Introductory Biology & Introductory Biology lab Botany | 4 |
| BIOL 112 BIOL 114 & 124 BIOL 107 | Introductory Biology II Introductory Biology & Introductory Biology lab Zoology | 4 |
| BIOL 413 & 423 BIOL 351 VTPB 405 AGRO 405 BESC 401 | Microbiology / Cell Biology Cell Biology & Cell Biology lab Fundamentals of Microbiology Biomedical Microbiology Soil Microbiology Bioenvironmental Microbiology | 3-4 |
| BIOL 357 RENR 205 & 215 WFSC 403 WFSC 420 & 409 ENTO 424 | Ecology Ecology Fundamentals of Ecology & lab Animal Ecology Ecology and Society & Integrating Natural Resources for Classroom Use Insect Ecology | 3-4 |
| GENE 301 GENE 302 GENE 310 GENE 320 | Genetics Comprehensive Genetics Principles of Genetics Principles of Heredity Biomedical Genetics | 3-4 |
| CHEM 101 | Fundamentals of Chemistry I | 4 |
| CHEM 102 | Fundamentals of Chemistry II | 4 |
| PHYS 201 or PHYS 218 | College Physics Mechanics | 4 |
| PHYS 202 or PHYS 219 and PHYS 221 | College Physics Electricity Optics and Thermal Physics | 4-7 |
| GEOL 308 | Integrated Earth Science* (requires prerequisite of GEOL 101 or GEOG 203) | 4 |
| | Additional hours may be necessary to meet the requirement of 18 upper level science hours | |
| Total | | 37 |

Course equivalencies will be determined on a case-by-case basis

* A series of courses representing all four branches of Earth Science (geology – GEOL 101, meteorology – ATMO 201, oceanography – OCNG 251 and astronomy – PHYS 306) can be substituted for GEOL 308