

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
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 206 BIOL 351 VTPB 405	Microbiology / Cell Biology Cell Biology & Cell Biology lab Introductory Microbiology Fundamentals of Microbiology Biomedical 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 320	Genetics Comprehensive Genetics Principles of Genetics 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