

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 113 & 123 BOTN 101	Introductory Biology & Introductory Biology lab Botany	4
BIOL 114 & 124 ZOO 107	Introductory Biology & Introductory Biology lab Zoology	4
BIOL 413 & 423 MICR 206 MICR 351 VTPB 405	Microbiology / Cell Biology Cell Biology & Cell Biology lab Introductory Microbiology Fundamentals of Microbiology Biomedical Microbiology	3-4
BIOL 357 & 358 RENR 205 & 215 WFSC 403 WFSC 420 & 409	Ecology Ecology & Ecology lab Fundamentals of Ecology & lab Animal Ecology Ecology for Teacher & Integrating Natural Resources for Classroom Use	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)	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