In addition to or as part of the requirements below, students who pursue life science certification (7-12) at UNH must:

a. Possess an undergraduate degree with a major in an area of the life sciences (e.g., Biology, Environmental Studies, Botany, Physiology, etc. or an interdisciplinary life science degree).

b. Possess an undergraduate degree that includes coursework equivalent to an undergraduate major in life sciences (typically 40-48 credits or 10-12 courses).

**Principles of Biology**

A full year of general biology should include anatomy, physiology, embryology, evolution; and growth, development, structure and function in the animal and plant kingdom (BIOL 411 and 412) or (PBIO 412 and ZOOL 412).

**Genetics**

Should include chemical and physical bases of inheritance genes in populations, genes and chromosomes as units of mutation (GEN 604).

**Vertebrate and/or Invertebrate Morphology and Physiology**

ZOOL 518, ZOOL 625, or ZOOL 628

**Systematic Botany - Taxonomy and/or Field Natural History**

Should include identification and classification of major plant families (PBIO 566).

**General Ecology**

Should include populations, communities, the ecosystem, and energy flow (BIOL 541).

**Chemistry**

Should include a year of general chemistry and one course in organic chemistry or in biochemistry (CHEM 403 & 404) and (CHEM 651/653; CHEM 652/654) or CHEM 545/546) & BMCB 658/659).

**Recommended**

- Cell Biology BMCB 605
- Biology 528
- Mathematics MATH 424B

**Education Requirements for Biology Certification**

EDUC 500/935 Exploring Teaching
EDUC 700/800 Educational Structure and Change
EDUC 701/801 Human Development and Learning
EDUC 705/805 Alternative Perspectives on the Nature of Education
EDUC 707/807 Teaching Reading through the Content Area (2 credits)
EDUC 751/851B Educating Exceptional Learners
EDUC 791/891 Methods of Teaching Secondary School Science
EDUC 900, 901 Internship & Seminar in Teaching (12 credits)

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