

Valparaiso University Department of Education – Content Requirements

Secondary Biology (57 credits minimum)

BIO 171	<i>Unity of Life</i>
BIO 172	<i>Diversity of Life</i>
BIO 270	<i>Genetics</i>
BIO 290 or 320 or 350 or 360 or 380	<i>(select two)</i>
BIO 420 or 440 or 450 or 460 or 490	<i>(select two)</i>
BIO 493 or 495 (2 credits)	
<i>Total Biology Credits: 28 credits*</i>	
CHEM 121 and 122 (or 131 and 132)	<i>Chemistry</i>
PHYS 111	<i>Physics</i>
MET 103 or GEO 104	<i>Geography or Meteorology</i>
<i>Total Credits in General Science Requirements 14 credits</i>	
BIO 489	<i>Teaching of Natural Sciences</i>
<i>Total Credits in Supporting Content Area 3 credits</i>	
Select one of these Additional Licensure Areas:	
<i>15 credits total for each Additional Licensure Area</i>	
Chemistry	Physics
CHEM 122 or 132	PHYS 112 or 142
CHEM 221 or 222	PHYS 243
CHEM 230	PHYS 245
Electives in Chemistry (3 cr.)	Electives in Physics (8 cr.)
Physical Science	Earth-Space Science
CHEM 122	MET 103 or GEO 104
MET 103 or GEO 104	ASTR 101
PHYS 112	ASTR 221
Electives from Chemistry, Physics, or Physical Science (7 cr.)	Electives in Geography (7 cr.)
<i>Total Content Requirements for Secondary Biology Teaching Majors...57 credits</i>	

* CHEM 121 and 122 are required to meet the minimum requirements for a **B.A. in Biology** (28 credits).

* **The B.S. in Biology** (32 credits) requires 8 credits of General Chemistry (CHEM 121 and 122), 4 credits of Organic Chemistry (CHEM 222), and 4 credits of MATH 124 or higher.