

Valparaiso University Department of Education – Content Requirements

Secondary Chemistry (45 credits minimum)

CHEM 121 or 131	<i>General Chemistry</i>
CHEM 122 or 132	<i>General Chemistry</i>
CHEM 221	<i>Organic Chemistry</i>
CHEM 222	<i>Organic Chemistry</i>
CHEM 230	<i>Quantitative Analysis</i>
CHEM 311 or 321	<i>Physical Chemistry</i>
Other courses as selected	
<i>Total Chemistry Credits: 27 credits</i>	
CHEM 489	<i>Teaching of Natural Sciences</i>
<i>Total Credits in Supporting Content Areas 3 credits</i>	
Select one of these Additional Licensure Areas:	<i>15 credits total for each Additional Licensure Area</i>
Biology	Physics
BIO 172	PHYS 112 or 142
BIO 270	PHYS 243
Electives in Biology (7 cr.)	PHYS 245
	Electives in Physics (7 cr.)
Physical Science	Earth-Space Science
CHEM 122	MET 103 or GEO 104
GEO 103 or 104	ASTR 101
PHYS 112	ASTR 221
Electives from Chemistry, Physics, or Physical Science (7 cr.)	Electives in Geography (6 cr.)
	<i>Total Content Requirements for Secondary Chemistry Teaching Majors...45 credits</i>