

Valparaiso University Department of Education – Content Requirements

Secondary Physics (49 credits minimum)

PHYS 141 (151)	<i>Mechanics & Heat (Honors)</i>
PHYS 142 (152)	<i>Electricity, Magnetism, and Waves (Honors)</i>
PHYS 141L	<i>Experimental Physics I</i>
PHYS 142L	<i>Experimental Physics II</i>
PHYS 243	<i>Atoms and Nuclei</i>
PHYS 245	<i>Experimental Physics III</i>
PHYS 246	<i>Data Reduction and Error Analysis</i>
PHYS 250	<i>Mechanics</i>
PHYS 281	<i>Electricity and Electronics</i>
PHYS 345	<i>Experimental Physics IV</i>
PHYS 371	<i>Electromagnetic Fields</i>
PHYS 445	<i>Senior Research</i>
PHYS 499	<i>Colloquium</i>
Other courses as selected	
Total Physics Credits: 26 credits	
ASTR 101 and 101L	<i>Astronomy</i>
ASTR 221	<i>Observational Astronomy</i>
Total Credits in Additional Licensure Areas 6 credits**	
PHYS 489	<i>Teaching of Natural Sciences</i>
Total Credits in Supporting Content Area 3 credits	
Select one of these Additional Licensure Areas:	15 credits total for each Additional Licensure Area
Biology	Chemistry
BIO 172	CHEM 122 or 131
BIO 270	CHEM 221 or 222
Electives in Biology (7 cr.)	CHEM 230
	Electives in Chemistry (8 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 (7 cr.)
	Total Content Requirements for Secondary Physics Teaching Majors...49 credits

**Completion of the requirements listed will earn Secondary Education/Physics Majors a B.A. degree. Completion of the requirements listed above plus one additional credit in Physics will earn Secondary Education/Physics Majors a B.S. degree.