

**BALDWIN-WALLACE COLLEGE**  
**Division of Education**  
**INTEGRATED SCIENCE - ADOLESCENT YOUNG ADULT EDUCATION GRADES 7-12**  
**BALDWIN-WALLACE COLLEGE REQUIREMENTS: 60-63.5 semester hours**

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<u>COURSE</u>	<u>CREDIT HOURS</u>	<u>COURSE TITLE</u>
<b>REQUIRED COURSES IN BIOLOGY (16 semester hours)</b>		
BIO 121L	4	Principles of Biology I
BIO 122L	4	Principles of Biology II
BIO 211	4	Genetics
BIO 310	4	Evolution
<b>REQUIRED COURSES IN CHEMISTRY (17.5 semester hours)</b>		
CHM 111 &	4	General Chemistry I
CHM 111L	.5	General Chemistry I Laboratory
CHM 112 &	4	General Chemistry II
CHM 112L	.5	General Chemistry II Laboratory
CHM 221 &	3	Quantitative Analysis
CHM 221L	1	Quantitative Analysis Laboratory
CHM 251 &	4	Organic Chemistry I
CHM 251L	.5	Organic Chemistry Laboratory
<b>REQUIRED COURSES IN PHYSICS (10 semester hours)</b>		
PHY 131 &	4	General Physics I
PHY 151L	1	Introduction to Physics Lab I
OR		
PHY 145L	5	Applied College Physics I
PHY 132 &	4	General Physics II
PHY 152L	1	Introduction to Physics Lab II
OR		
PHY 146L	5	Applied College Physics II
<b>REQUIRED COURSES IN GEOLOGY (7 semester hours)</b>		
GEO 121IL	4	Physical Geography
GEO 229	3	Oceanography
<b>CHOOSE ANY OF THE FOLLOWING SENIOR SEMINARS (.5-1 semester hour)</b>		
BIO 463	1	Biology Senior Seminar
CHM 463	.5	Chemistry Senior Seminar
<b>CHOOSE ANY TWO OF THE FOLLOWING PHYSICS COURSES (6-8 semester hours)</b>		
PHY 233	4	Modern Physics
PHY 312	3	Advanced Laboratory
PHY 331	3	Physical Mechanics I
PHY 371	4	Thermal Physics
PHY 362	3	Physics of Waves
PHY 372	3	Quantum Physics
<b>CHOOSE ANY OF THE FOLLOWING ASTRONOMY COURSES (4 semester hours)</b>		
AST 170L <u>WITH</u>	1	Observational Astronomy Lab
AST 111	3	Astronomy of the Stars
OR		
AST 121	3	Astronomy of the Solar System
AST 131L	4	Exploratory Astronomy (Lab included)
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EDU 356	3	Special Methods: Science (Prerequisites: EDU 340 & EDU 348)

Prescribed courses as listed for this license represent B-W "Model Program" for license. Substitutions in the model program may be approved only by the Chairperson, Division of Education, Baldwin-Wallace College.