

## **Undergraduate Program Name: BS Biology Graduate Program Name: MS Integrative Biology**

Pathway Description: Undergraduate students following the 2022 catalog revision for the B.S. in Biology may follow this path towards the M.S. in Integrative Biology.

## Course pairs:

Graduate course	Undergraduate Substitution	Credit Hours
BIOL 7200 – Integrative Biology	Upper-Level Elective	3
BIOL 7100 – Professional Aspects in Biology	Upper-Level Elective	3
BIOL 7990 – Thesis Research	BIOL 4400 – Directed Study	3

Year 1 - Fall (credits)	Credits	Year 1 - Spring (credits)	Credits
Area F BIOL 1107/L – Biol Principles I	4	Area D2 CHEM 1211/L – General Chem. I	4
Area B1 ECON 1000 – Economics	2	Area A1 ENGL 1102 – Composition II	3
SCM 2000 – Culture and Success in Science and Mathematics	3	Area F BIOL 1108/L – Biol Principles II	4
Area A2 MATH 1113 – Pre-calculus	3	Area D1 MATH 1190 – Calculus I	4
Area A1 ENGL 1101 – Composition I	3		
TOTAL SEMESTER CREDITS	15	TOTAL SEMESTER CREDITS	15
Year 2 - Fall (credits)	Credits	Year 2 - Spring (credits)	Credits
Area E1 POLS 1101 – American Government	3	CHEM 3361/L – Organic Chemistry I	4
CHEM 1212/L –General Chem. II	4	BIOL 3410 – Cell Biology	3
BIOL 3300/L – Genetics	4	PHYS 1111/L – Introduction to Physics I	4
STAT 3125 – Biostatistics (Or equivalent prerequisite for Ecology)	3	General Education Core C2	3
TOTAL SEMESTER CREDITS	14	TOTAL SEMESTER CREDITS	14
Year 3 - Fall (credits)	Credits	Year 3 - Spring (credits)	Credits
Year 3 - Fall (credits)  Upper-Level Concentration Requirement	Credits 4	Year 3 - Spring (credits) BIOL 3370/L – Ecology	Credits 4
Upper-Level Concentration Requirement	4	BIOL 3370/L – Ecology	4
Upper-Level Concentration Requirement Area C1 elective	4 3	BIOL 3370/L – Ecology Upper-Level Biology Elective	4 4
Upper-Level Concentration Requirement  Area C1 elective  PHYS 1112/L – Introduction to Physics II	4 3 4	BIOL 3370/L – Ecology Upper-Level Biology Elective Upper-Level Concentration Requirement	4 4 3
Upper-Level Concentration Requirement  Area C1 elective  PHYS 1112/L – Introduction to Physics II  Area E3 elective	4 3 4 3	BIOL 3370/L – Ecology  Upper-Level Biology Elective  Upper-Level Concentration Requirement  Area B2 Elective	4 4 3 3 3
Upper-Level Concentration Requirement  Area C1 elective  PHYS 1112/L – Introduction to Physics II  Area E3 elective  TOTAL SEMESTER CREDITS	4 3 4 3 14	BIOL 3370/L – Ecology  Upper-Level Biology Elective  Upper-Level Concentration Requirement  Area B2 Elective  TOTAL SEMESTER CREDITS	4 4 3 3 14
Upper-Level Concentration Requirement Area C1 elective PHYS 1112/L – Introduction to Physics II Area E3 elective TOTAL SEMESTER CREDITS Year 4 - Fall (credits)	4 3 4 3 14 Credits	BIOL 3370/L – Ecology  Upper-Level Biology Elective  Upper-Level Concentration Requirement  Area B2 Elective  TOTAL SEMESTER CREDITS  Year 4 - Spring (credits)	4 4 3 3 14 Credits
Upper-Level Concentration Requirement  Area C1 elective  PHYS 1112/L – Introduction to Physics II  Area E3 elective  TOTAL SEMESTER CREDITS  Year 4 - Fall (credits)  BIOL 4399 – Seminar	4 3 4 3 14 Credits	BIOL 3370/L – Ecology  Upper-Level Biology Elective  Upper-Level Concentration Requirement  Area B2 Elective  TOTAL SEMESTER CREDITS  Year 4 - Spring (credits)  Free Elective	4 4 3 3 14 Credits 3

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		Area E1 Elective	3
TOTAL SEMESTER CREDITS	12	TOTAL SEMESTER CREDITS	13
Year 5 - Fall (credits)	Credits	Year 5 - Spring (credits)	Credits
BIOL 7200 – Integrative Biology (subs Upper-Level Concentration Requirement)	3	BIOL 7300 – Research Methods Across Biology	4
BIOL 7100 – Professional Aspects in Biology (subs Upper-Level Concentration Elective)	3	BIOL 7500 – Current Topics in Integrative Biology	1
BIOL 7990 – Thesis Research (subs BIOL 4400 – Directed Study)	3	MS-Level Elective	4
TOTAL SEMESTER CREDITS	9	TOTAL SEMESTER CREDITS	9
Year 6 - Fall (credits)	Credits	Year 6 - Spring (credits)	Credits
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MS-Level Elective	3	BIOL 7990 – Thesis Research	8
MS-Level Elective MS-Level Elective	3	BIOL 7990 – Thesis Research BIOL 7999 – Master's Thesis Defense	1
			1 1
MS-Level Elective	3	BIOL 7999 – Master's Thesis Defense	1 1

**PATHWAY TOTAL: 147** 

Last Updated: 10.25.2021

<sup>\*</sup> Highly recommended (will allow a student to commence work on thesis research early)