

B.S. Applied Ecology & Environmental Science – Molecular Ecology & Biotechnology

This is not an official list of degree requirements. Adjustments may be required due to curriculum changes.

First Year

Fall

Course	Prerequisite	Credit
FW1050 – Natural Resource Professional (<i>Essential Education: Seminar</i>)		2
FW2010 – Vegetation of North America		4
FW2051 – Field Techniques		2
BL1400 – Principles of Biology (<i>Essential Education: Science</i>)		3
BL1410 – Principles of Biology Lab	BL1400 (C)	1
UN1015 – Composition (<i>Essential Education</i>)		3
Total		15

Spring

Course	Prerequisite	Credit
CH1150 – University Chemistry I (<i>Essential Education: STEM</i>)	Math Placement	3
CH1151 – University Chemistry I lab	CH1150 (C)	1
MA1135 – Calculus for Life Science (<i>Essential Education: Math</i>)	Math Placement	4
<i>Essential Education: Foundations of the Human World</i>		3
<i>Essential Education: SHAPE</i>		3
<i>Essential Education: Activities</i>		1
Total		15

Second Year

Fall

Course	Prerequisite	Credit
FW3020 – Forest Ecology	FW2010 (C), FW2051 (C)	3
FW3330 – Soil Science (<i>Essential Education: STEM</i>)	CH1150/51	4
MA2720 – Statistical Methods	MA1030 or MA1032	4
PH1110 – College Physics I	MA1031 or MA1032 or placement	3
PH1111 – College Physics I Lab	PH1110 (C)	1
<i>Essential Education: Arts & Culture</i>		3
Total		18

Spring

Course	Prerequisite	Credit
FW2100 – Intro to Biochemistry	CH1150	3
FW3075 – Intro to Biotechnology		3
FW3200 – Biometrics & Data Analysis	FW2051 & MA2720	4
FW3540 – Intro to GIS	MA2720 (C)	4
<i>Essential Education: Communication Intensive</i>		3
Total		17

Third Year

Fall

Course (taken as block at Ford Center)	Prerequisite	Credit
FW3012 – Survey of Silviculture	FW2010 & FW2051	2
FW3170 – Land Measurements/GPS	FW3540	1
FW3180 – Geomorphology, Landscapes, and Ecosystems		2
FW3190 – Multi-Resource Assessment	FW2051 & FW3020 & FW3200	3
FW3600 – Wildlife Habitat		3
FW3800 – Insect Ecology		2
FW3840 – Forest Health		3
Total		16

Spring

Course	Prerequisite	Credit
FW3320 – Forest Genetics & Genomics		3
FW4710 – Environmental Biogeochemistry	CH1150	3
<i>Essential Education: Experience</i>		3
<i>Essential Education: Intercultural Competency</i>		3
<i>Essential Education: Activities</i>		1
Total		13

Fourth Year

Fall

Course	Prerequisite	Credit
FW4800 – Communications for Nat Res		2
BL3330 – Intro to Genomics	FW3320	3
BL3490 – Principles of Ecology & Evolution	BL1400/1410	4
Free Elective		3
<i>Essential Education: Activities</i>		1
Total		13

Spring

Course	Prerequisite	Credit
FW4120 – Tree Physiology		3
FW4128 – Conservation Genetics	BL1400/1410	3
Free Elective		3
Free Elective		3
Total		12

NOTE:

Prerequisite courses:

- The prerequisite course must be successfully completed PRIOR to taking the subsequent course. Concurrent Prerequisites ~ (C) ~ may be taken at the same time, although it is not necessary if the prerequisite course is completed first. Required Corequisite courses that MUST be taken together in the same semester. See your academic advisor for questions.

Essential Education Requirements:

- 24 total credits. Required courses are UN1015-Composition (3 credits), a Foundations in the Human World course (3 credits), a Communication Intensive course (3 credits), an Arts & Culture course (3 credits), an Intercultural Competency (3000+) course (3 credits), a SHAPE course (3 credits), an Essential Education Experience (3000+) course (3 credits), and 3 credits of Activities for Wellbeing and Success. Activities for Well-being and Success: Mainly physical education courses with some additions. Three credits are required for graduation. These credits will be included as earned hours and may be used to determine full-time enrollment status.