

UNDERGRADUATE MAJOR: B.S. in Environmental Science with 7-12 Life or Physical Science Teacher Education Program 2021-2022

CREDITS REQUIRED IN MAJOR: 72

FOUNDATION/REQUIRED MAJOR COURSES

COURSE NUMBER	COURSE NAME	CREDIT S	PREREQUISITES
ESP 101	Fundamentals of Environmental Science	3	Co-requisite: ESP 102.
ESP 102	Fundamentals of Environmental Science Lab	1	Co-requisite: ESP 101.
ESP 125	Introduction to Environmental Ecology	3	ESP 101/102 or BIO 105/106. Co-requisite: ESP 126.
ESP 126	Introduction to Environmental Ecology Lab	1	ESP 101/102 or BIO 105/106. Co-requisite: ESP 125.
ESP 150	Field Immersion (a long weekend camping course)	3	ESP major/minor or permission of instructor.
ESP 197	Research Skills Lab	1	
ESP 203	Environmental Communication	3	College Writing, ESP 101/102 and sophomore standing
ESP 207	Atmosphere: Science, Climate, and Change	3	CHY 113
ESP 280	Research and Analytical Methods	4	ESP 101/102, ESP 197, and ESP 125/126 or one semester chemistry lecture/lab.
ESP 340	Environmental Regulations	3	none
ESP 400 OR EDU 445	Internship (between junior and senior year) OR Student Teaching	3	Sophomore standing or higher, faculty approval of host organization, work plan, and completed "Internship Approval" Form, or permission of instructor.

SELECT One "tools course" from the following:

MAT 120	Introduction to Statistics	4	
MAT 220	Statistics for the Biological Sciences	4	MAT 152
GEO 108	Introduction to ArcGIS	3	
GEO 308	GIS Applications I	4	
ITP/EGN 210	Technical Writing	3	ENG 100

NON MAJOR REQUIREMENTS: 21.5 – 22 Credits

CHY 113	Principles of Chemistry I	3	Pre- or co-requisite: successful completion of MAT 108 or equivalent.
CHY 114	Laboratory Techniques I	1	Co-requisite: CHY 113
CHY 115	Principles of Chemistry II	3	Grade of C or better in CHY 113
CHY 116	Laboratory Techniques II	1	Co-requisite: CHY 115
CHY 233 OR 251/252	Analytical Chemistry w/Lab	5	Grade of C or better in CHY 115 and CHY 116
CHY 251	Organic Chemistry I	3	C or better in CHY 115
CHY 252	Organic Chemistry Lab I	2	C or better in CHY 116; CHY 251 or concurrent
MAT 152	Calculus A	4	MAT 140 or appropriate score on the College Level Math exam (for MAT 152)
ESP 360	Water Quality Assessment and Control	4	One semester of Chemistry lecture/lab or instructor permission
ESP 260 OR 412	Soil and Water Conservation Engineering	3	Completed QR
ESP 412	Field Ecosystem Ecology	4	ESP 125/126 or BIO 203

SELECT Physics OR Biology Lecture and Lab:

PHY 111	Elements of Physics I	4	
PHY 114	Introductory Physics Laboratory I	1	Concurrent registration in PHY 111 or PHY 121

OR

BIO 105	Biological Principles I: Cellular Biology	3	
BIO 106	Biological Principles I Laboratory	1.5	Grade of C- or higher or concurrent enrollment in BIO 105.

MAJOR ELECTIVES: 9-12 CREDITS

Choose three environmental science classes 200-level or higher.

MAJOR COURSES OVERLAPPING IN THE CORE:

CORE AREA	COURSE NUMBER	COURSE NAME	REQUIRED BY MAJOR?
SE	ESP 101	Fundamentals of Environmental Science	Yes
SE	ESP 102	Fundamentals of Environmental Science Laboratory	Yes
SE	ESP 125	Introduction to Environmental Ecology	Yes
SE	ESP 126	Introduction to Environmental Ecology Lab	Yes
EISRC	ESP 200	Environmental Planning	No, but may be selected
EISRC	ESP 212	Environmental Ethics	No, but may be selected
EISRC	ESP 308	Global Environmental Problems and Sustainability	No, but may be selected
INT	ESP 275	Energy Use and Societal Adaptation	No, but may be selected
QR	MAT 120	Introduction to Statistics	No, but may be selected
QR	MAT 152	Calculus A	Yes
SE	PHY 111	Elements of Physics	No, but can be selected
SE	PHY 114	Introductory Physics Laboratory I	No, but can be selected
SE	CHY 113 CHY 114	Principles of Chemistry I Laboratory Techniques I	Yes

PROFESSIONAL EDUCATION PRE-INTERNSHIP REQUIREMENTS (15 credits):

COURSE NUMBER	COURSE NAME	CREDITS	PREREQUISITES
EDU 100	Exploring Teaching	3	none
EDU 225	Child and Adolescent Development	3	WRI1
EDU 305	Foundations of Cultural and Linguistic Diversity	3	EDU 225
EDU 222	Foundations of Language and Literacy Development	3	EDU 225 and Teacher Education Pathway
SED 235	Students with Exceptionalities in General Education	3	

PROFESSIONAL EDUCATION PRE-INTERNSHIP RECOMMENDED COURSES (6 credits):

COURSE NUMBER	COURSE NAME	CREDIT S	PREREQUISITES
SED 300	Ethics and Youth with Exceptionalities	3	none
EDU 310	Purpose of Schooling in a Democracy	3	WRI1

PROFESSIONAL EDUCATION REQUIREMENTS (24 credits):

COURSE NUMBER	COURSE NAME	CREDIT S	PREREQUISITES
EDU 445	Student Teaching	6	Teacher education program, EDU 442
EDU 442	Seminar in Teaching, Learning, Assess	3	Teacher education program, Jr. Standing
EDU 501	Secondary Science Methods	3	Teacher education program, EDU 442
EDU 414	Improving Teaching in Content Areas	3	Teacher education program, EDU 442
EDU 410	Creating Positive Learning Environments	3	Teacher education program, EDU 442
EDU 546	Testing and Assessment I	3	Teacher education program, EDU 442
EDU 547	Testing and Assessment II	3	Teacher education program, EDU 546

Academic Requirements

The minimum academic requirements to be a student in good standing in the Secondary Teacher Education Pathway are as follows:

- A grade of B- or better in all professional education coursework.
- A grade of C or better in content courses required for the area of teacher certification.
- An overall GPA of 3.0 or better.

Failure to maintain the above requirements may result in program dismissal. Appeals may be made in writing to the Director of Educator Preparation.

Students are required to complete and show documentation of the fingerprinting process outlined by the Maine Department of Education: <http://www.maine.gov/doe/cert/fingerprinting>.

Recommendation for Certification

Graduates who successfully complete all the Secondary Teacher Education Pathway requirements are eligible for recommendation for teacher certification in Maine. In order to be recommended for certification, students must complete the Recommendation for Certification form. Students who fail to meet the academic or professional requirements for the Secondary Teacher Education Pathway or

choose not to pursue teacher certification may withdraw from the pathway and graduate with their major.

NOTE--Course requirements are subject to change based upon changes in teacher certification regulation.

CORE CURRICULUM CODES

WRI 1 – Writing, Reading, & Inquiry 1

WRI 2 – Writing, Reading, & Inquiry 2

WRI 3 – Writing, Reading, & Inquiry 3

QR – Quantitative Reasoning

CE – Creative Expression

SCA – Socio-cultural Analysis

CI – Cultural Interpretation

SE – Science Exploration

EISRC – Ethical Inquiry, Social Responsibility, & Citizenship

DIV – Diversity

INT – International

EL – Engaged Learning

CAP – Capstone

Revised 3.15.21