

Aquatic Ecosystems and Water, Climate, Energy, and Global Issues

Created using checksheet for students entering under UG Catalog 2023-2024

Updated June 2023

FIRST YEAR - FALL SEMESTER

Course	Credits	Requirement
Pathways 1 Foundational Course (Select from University Approved List)	3	Pathways 1f
WATR/GEOG 2004 Water, Environment, and Society	3	Core
MATH 1025 Elementary Calculus ¹	3	Pathways 5f
Pathways Concept 2 Course (Select from University Approved List)	3	Pathways 2
Pathways Concept 3 Course (Select from University Approved List)	3	Pathways 3
Total Credits	15	

FIRST YEAR - SPRING SEMESTER

Course	Credits	Requirement
Pathways 1 Foundational Course (Select from University Approved List)	3	Pathways 1f
BIOL 1106 Principles of Biology	3	Pathways 4
BIOL 1116 Principles of Biology Lab	1	Major
MATH 1026 Elementary Calculus ²	3	Pathways 5f
AAEC 1005 Economics of Food & Fiber ³ *	3	Pathways 3
Pathways Concept 2 Course (Select from University Approved List)	3	Pathways 2
Total Credits	16	

SECOND YEAR - FALL SEMESTER

Course	Credits	Requirement
CHEM 1035 General Chemistry	3	Pathways 4
CHEM 1045 General Chemistry Lab	1	Major
GEOG 2084 Principles of GIS (Option for Major Requirement) ⁴	3	Major
PHYS 2205 General Physics	3	Core
PHYS 2215 General Physics Lab	1	Major
BIOL 1105 Principles of Biology *	3	Restricted Elective
BIOL 1115 Principles of Biology Lab *	1	Restricted Elective
Total Credits	15	

SECOND YEAR - SPRING SEMESTER

Course	Credits	Requirement
FREC 2124 Forests, Society & Climate	3	Water Policy Specialization (Water, Climate, Energy, and Global Issues) ⁴
BIOL 2804 Ecology *	3	Restricted Elective
GEOS 1004 Earth Science: Our Past, Present, and Future *	3	Restricted Elective
Pathways Concept 6 Course (Select from University Approved List)	3	Pathways 6
Pathways Concept 7 Course (Select from University Approved List)	3	Pathways 7
Total Credits	15	

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THIRD YEAR - FALL SEMESTER

Course	Credits	Requirement
ENGL 3764 Technical Writing	3	Pathways 1a
ENSC 3604 Fundamentals on Environmental Science *	3	Core
PSCI/UAP 3344 Global Environmental Issues: Interdisciplinary Perspectives	3	Water Policy Specialization (Water, Climate, Energy, and Global Issues) ⁴
UAP 3354 Intro to Environmental Policy & Planning (Option for Major Requirement)	3	Major
Restricted Elective (Select from checksheet)	3	Restricted Elective
Total Credits	15	

THIRD YEAR - SPRING SEMESTER

Course	Credits	Requirement
FREC/WATR 3104 Principles of Watershed Hydrology	3	Core
GEOG 3104 Environmental Problems, Population, & Development	3	Water Policy Specialization (Water, Climate, Energy, and Global Issues) ⁴
Pathways Concept 5a Course (Select from University Approved List)	3	Pathways 5a
Pathways Concept 6 Course (Select from University Approved List)	3	Pathways 6
Restricted Elective (Select from checksheet)	3	Restricted Elective
Total Credits	15	

FOURTH YEAR - FALL SEMESTER

Course	Credits	Requirement
FREC/WATR 3754 Watersheds and Water Quality Monitoring	3	Core
BIOL 4004 Freshwater Ecology	4	Water Science Specialization (Aquatic Ecosystems) ⁴
GEOG/GEOS 4134 Interdisciplinary Issues and Ethics in Water Resources	3	Water Policy Specialization (Water, Climate, Energy, and Global Issues) ⁴
Free Elective	4	Free Elective
Total Credits	14	

FOURTH YEAR - SPRING SEMESTER

Course	Credits	Requirement
ALS/WATR 4614 Watershed Assessment, Management, and Policy	2	Core
FREC/WATR 4464 Water Resources Policy & Economics	3	Core
FIW 4614 Fish Ecology	3	Water Science Specialization (Aquatic Ecosystems) ⁴
BIOL/ENT 4354 Aquatic Entomology	4	Water Science Specialization (Aquatic Ecosystems) ⁴
ENSC/CESES 4314 Water Quality	3	Water Science Specialization (Other) ⁴
Total Credits	15	
Total Degree Credits	120	

¹ Students can choose MATH 1025 (3 credits) or MATH 1225 (4 credits)

² Students can choose MATH 1026 (3 credits) or MATH 1226 (4 credits)

³ Students can choose AAEC 1005 Economics of the Food & Fiber or ECON 2005 Principles of Economics

⁴ Students can choose from approved list on checksheet

* Classes noted with * are prerequisites as follows:

AAEC 1005 is a prerequisite for WATR/FREC 4464

BIOL 1105 and 1115 are prerequisites for BIOL 2804 and BIOL/ENT 4354

BIOL 2804 is a prerequisite for BIOL 4004 and BIOL/ENT 4354

GEOS 1004 is a prerequisite for GEOG/GEOS 4134

ENSC 3604 is a prerequisite for WATR/FREC 3754

CESES/ENSC 3134 is a prerequisite for FREC 4354 and FREC 4374