UCONN | COLLEGE OF AGRICULTURE, HEALTH AND NATURAL RESOURCES

PLAN OF STUDY FORM

Catalog Year 2019-2020

ENVIRONMENTAL SCIENCES

DIRECTIONS

- This Plan of Study (plan) is used as a *worksheet* during initial registration and every subsequent semester to determine minimum requirements and progress toward completing the degree. A *preliminary plan* is developed and submitted to the advisor by the end of the sophomore year (or equivalent time for transfer students).
- **A final plan must be approved by advisor and the department head, and submitted to the Degree Auditor in the Registrars Office (1st floor, Wilbur Cross Building) no later than the end of the tenth week of classes of the semester prior to the anticipated semester of graduation.**
- Students must complete all major and general education course requirements and earn:
  At least 120 credits toward the degree
  At least a 2.0 Cumulative Grade Point Average (CGPA)
  At least a 2.0 Grade Point Average for ALL courses listed in the 36 Credit Requirement
- University of Connecticut General Education Requirements (GER), are outlined in the Academic Regulations section of the *Undergraduate Catalog*. Only approved courses may be used to meet requirements.
- Students should use their Academic Requirements Report (accessible in Student Admin) along with the Plan of Study to view their graduation requirements and assess status toward degree. Students must be attentive to credit restrictions (repeated courses, out of sequence classes, etc.). Courses taken Pass/Fail may NOT be used to meet any requirements.

STUDENT AND DEGREE INFORMATION

Must be filed out complete on your final plan of study. *Select One:* ☐ *Preliminary Plan* ☐ *Final Plan*

Name _____ Student I.D.: _____
First Middle Last

Phone #: _____ Email Address: _____

Current Address: _____
Street City/Town State Zio Code

Month and Year of Anticipated Graduation: ☐ May ☐ August ☐ December Year: _____

Are you pursuing a double major in CAHNR: ☐Yes ☐ No If YES, submit Double Major Attachment with final plans of study

Please list below any minors that you plan to earn and submit a final minor plan of study with your final major plan of study.

_____

At the completion of semester you intend to graduate, will you have earned 120 or more credits? ☐Yes ☐No

APPROVAL SIGNATURES

_____ _____
Student Signature Date

_____ _____
Advisor Signature Date

_____ _____
Department Head's Signature Date

The final plan of study must be submitted to the Registrar's Office in the Wilbur Cross Building.
Please remember to keep a copy of the plan for your records.

PART I: GENERAL EDUCATION REQUIREMENTS (GER) [1]

Courses approved to meet GER are outlined in the Academic Regulations section of the *Undergraduate Catalog*.

Courses in Content Areas 1-3 must be in 6 different departments.
One course from Content Area 4 may be used to fulfill a requirement in Content Areas 1-3.

	Content Area	Dept.	Course No.	Credits	Semester/Year	Grade
☐	Foreign Languages (3 years single language in high school) OR pass second course in first-year college sequence					
☐	_____	_____	_____	_____	_____ /_____	_____
	_____	_____	_____	_____	_____ /_____	_____
	ENGL 1010 or 1011	_____	_____	_____	_____ /_____	_____
	"W" Course	_____	_____	_____	_____ /_____	_____
	"W" Course *(within major)*	_____	_____	_____	_____ /_____	_____
	"Q" Course	_____	_____	_____	_____ /_____	_____
	"Q" Course *(MATH or STAT)*	_____	_____	_____	_____ /_____	_____
	Environmental Literacy (total 3 credits)	_____	_____	_____	_____ /_____	_____
1	Arts & Humanities *(total 6 credits)*	_____	_____	_____	_____ /_____	_____
		_____	_____	_____	_____ /_____	_____
2	Social Sciences *(total 6 credits)*	_____	_____	_____	_____ /_____	_____
		_____	_____	_____	_____ /_____	_____
3	Science & Technology *(total 6 credits – include one 4-credit laboratory course)*	_____	_____	_____	_____ /_____	_____
		_____	_____	_____	_____ /_____	_____
4	Diversity & Multiculturalism *(total 6 credits – one must be "International" course)*	_____	_____	_____	_____ /_____	_____
		_____	_____	_____	_____ /_____	_____

Computer Technology Competency: See major requirements

Information Literacy Competency: See major requirements

PART II: INDIVIDUAL COURSE REQUIREMENTS OF ENVIRONMENTAL SCIENCES MAJOR[1]

Courses in this section that are numbered 2000-level or above may also be used to meet the 36 Credit Requirement (Part III).

ALL of required courses in Basic (Natural) Sciences:

Dept.	No.	Course Title	Credits	Semester/Year	Grade
BIOL	1107	Principles of Biology I	4	_____ /_____	_____
BIOL	☐ 1108 ☐ or 1110	Principles of Biology II or Introduction to Botany	4	_____ /_____	_____
CHEM	☐ 1127Q and 1128Q ☐ or 1124Q, 1125Q and 1126Q	General Chemistry or Fundamentals of General Chemistry	_____	_____ /_____	_____
MATH	1131Q	Calculus I	4	_____ /_____	_____
MATH	1132Q	Calculus II	4	_____ /_____	_____
PHYS	☐ 1201Q and 1202Q ☐ or 1401Q and 1402Q	General Physics or General Physics with Calculus	8	_____ /_____	_____
STAT	☐ 1000Q ☐ or 1100Q ☐ or 3025Q	Intro to Statistics or Elementary Concepts of Statistics or Statistical Methods (Calculus Level I)	_____	_____ /_____	_____
NRE	1000	Environmental Science	3	_____ /_____	_____

*ARE 1150, ECON 1200 or 1201, GEOG 2300, GSCI 1050, and MARN 1002 are pre-requisites for several upper division course concentration options. It is the student's responsibility to ensure that all pre-requisites in the catalog for concentration courses have been satisfied.

Required Sophomore Seminar Course:

Dept.	No.	Course Title	Credits	Semester/Year	Grade
ENVS	2000	Integrating Humans and the Environment	3	_____ /_____	_____

Required Capstone Course:

Dept.	No.	Course Title	Credits	Semester/Year	Grade
NRE	4000W	Natural Resources Planning and Management	3	_____ /_____	_____

Required Internship or Research Experience (1-6 credits): *(approved by advisor)*

Dept.	No.	Course Title	Credits	Semester/Year	Grade
_____	_____	_____	_____	_____ /_____	_____

Writing Competency: Students must pass NRE 4000W for required 2000-level or above course approved by major.
Computer Technology Competency: Students must pass NRE 4000W.
Information Literacy Competency: Students must pass NRE 4000W.

In addition, all students majoring in Environmental Sciences must declare and fulfill the requirements of a concentration in a discipline associated with the program before graduation. Approved concentrations are listed on the following pages:

ENVIRONMENTAL SCIENCES

SUSTAINABLE SYSTEMS CONCENTRATION

Students must complete at least two courses from each of the following Knowledge Competencies. The same course cannot be used to fulfill more than one knowledge competency.

Resource Management – TWO of the following:

Dept.	No.	Course Title	Credits	Semester/Year	Grade
EEB	☐ 2208	Introduction to Conservation Biology	3		
GEOG	☐ 3340	Environmental Planning and Management	3		
MARN	☐ 3030	Coastal Pollution and Bioremediation	3		
NRE	☐ 2010	Natural Resources Measurements	3		
NRE	☐ 2215	Introduction to Water Resources	3		
NRE	☐ 2345	Introduction to Fisheries and Wildlife	3	_____ /_____	_____
NRE	☐ 2600	Global Sustainable Natural Resources	3		
NRE	☐ 3105	Wetlands Biology and Conservation	3		
NRE	☐ 3125	Watershed Hydrology	3	_____ /_____	_____
NRE	☐ 3155	Water Quality Management	3		
NRE	☐ 3305	African Field Ecology & Renewable Resource Mgmt	4		
NRE	☐ 3335	Wildlife Management	3		
NRE	☐ 3345/W	Wildlife Management Techniques	4		
NRE	☐ 3500	Exurban Silviculture	4		
NRE	☐ 3535	Remote Sensing of the Environment	3		
NRE	☐ 4335	Fisheries Management	4		
NRE	☐ 4575	Natural Resource Applications of GIS	4		

Ecological Systems – TWO of the following:

Dept.	No.	Course Title	Credits	Semester/Year	Grade
EEB	☐ 2244/W	General Ecology	_____		
EEB	☐ 3247	Freshwater Ecology	4	_____ /_____	_____
EEB	☐ 4230W	Methods of Ecology	4		
EEB/MARN	☐ 3230/3014	Marine Biology	3	_____ /_____	_____
NRE	☐2255	Forest Ecology	3		
NRE	☐ 3205	Stream Ecology	3		
NRE	☐ 4340	Environmental Toxicology	3		

Students must complete at least one course from each of the following Knowledge Competencies. The same course cannot be used to fulfill more than one knowledge competency.

Built Systems – ONE of the following:

Dept.	No.	Course Title	Credits	Semester/Year	Grade
AH	☐ 3175	Environmental Health	3		

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Dept.	No.	Course Title	Credits	Semester/Year	Grade
GEOG	☐ 2400	Introduction to Sustainable Cities	3	_____ /_____	_____
NRE	☐ 3265	Sustainable Urban Ecosystems	3		
LAND	☐ 3230W	Environmental Planning and Landscape Design	3		

Governance & Policy – ONE of the following:

Dept.	No.	Course Title	Credits	Semester/Year	Grade
AH	☐ 3174	Environmental Laws, Regulations and Issues	3	_____ /_____	_____
ARE	☐ 2235	Marine Economics and Policy	3		
ARE	☐ 3434	Environmental and Resource Policy	3		
ARE	☐ 3437	Marine Fisheries Economics and Policy	3		
ARE	☐ 4438	Valuing the Environment	3		
ARE	☐ 4462	Environmental and Resource Economics	3		
ECON/MAST	☐ 2467	Economics of the Oceans	3		
GEOG	☐ 3320W	Environmental Evaluation & Assessment	3		
MAST/POLS	☐ 3832	Maritime Law	3		
NRE	☐ 3000	Human Dimensions of Natural Resources	3		
NRE	☐ 3201	Conservation Law Enforcement	3		
NRE	☐ 3245	Environmental Law	3		
POLS	☐ 3412	Global Environmental Politics	3		
SOCI	☐ 3407/W	Energy, Environment, and Society	3		

Ethics, Values, & Culture – ONE of the following:

Dept.	No.	Course Title	Credits	Semester/Year	Grade
ANTH	☐ 3339	Cultural Designs for Sustainability	3	_____ /_____	_____
ENGL	☐ 3240	American Nature Writing	3		
ENGL	☐ 3715	Nature Writing Workshop	3		
GEOG	☐ 3410	Human Modification of Natural Environments	3		
HIST	☐ 3540	American Environmental History	3		
HIST	☐ 3542	New England Environmental History	3		
JOUR	☐ 3046	Environmental Journalism	3		
PHIL	☐ 3216	Environmental Ethics	3		
SOCI	☐ 2701	Sustainable Societies	3		
SOCI	☐ 2705	Sociology of Food	3		
SOCI	☐ 2709/W	Society and Climate Change	3		
SOCI	☐ 3407/W	Energy, Environment, and Society	3		

Economics & Business - ONE of the following:

Dept.	No.	Course Title	Credits	Semester/Year	Grade
ARE	☐ 2235	Marine Economics and Policy	3		
ARE	☐ 4305	Role of Agriculture and Natural Resources in Economics Development	3	_____ /_____	_____
ARE	☐ 4438	Valuing the Environment	3		
ARE	☐ 4444	Economics of Energy and the Environment	3		
ARE	☐ 4462	Environmental and Resource Economics	3		
ECON	☐ 3473	Economic Development	3		
ECON/MAST	☐ 2467	Economics of the Oceans	3		
ECON	☐ 3466	Environmental Economics	3		

GLOBAL CHANGE CONCENTRATION

Students must complete at least two courses from each of the following Knowledge Competencies. The same course cannot be used to fulfill more than one knowledge competency.

Climate Change and its Impacts - TWO of the following:

Dept.	No.	Course Title	Credits	Semester/Year	Grade
GEOG	☐ 3400	Climate and Weather	3		
GEOG	☐ 4300	Advanced Physical Geography	3	_____ /_____	_____
GSCI	☐ 3010	Earth History and Global Change	3		
MARN	☐ 3000	The Hydrosphere and Global Climate	3	_____ /_____	_____
NRE	☐ 3115	Air Pollution	3		
NRE	☐ 3146	Climatology	3		
NRE	☐2600	Global Sustainable Natural Resources	3		
NRE	☐ 4170	Climate-Human-Ecosystem Interactions	3		

Land and Ocean Use and its Impacts - TWO of the following:

Dept.	No.	Course Title	Credits	Semester/Year	Grade
EEB	☐ 2208	Introduction to Conservation Biology	3		
GEOG	☐ 3310	Fluvial Geomorphology	3	_____ /_____	_____
GEOG	☐ 3410	Human Modifications of Natural Environments	3		
GSCI	☐ 3020	Earth Surface Processes	3	_____ /_____	_____
GSCI/MARN	☐ 3230	Beaches and Coasts	3		
MARN	☐ 3001	Marine Sciences II	4		
MARN	☐ 3030	Coastal Pollution and Bioremediation	3		
MARN	☐ 4066	River Influences on the Marine Environment	3		
NRE	☐ 2215	Introduction to Water Resources	3		

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Dept.	No.	Course Title	Credits	Semester/Year	Grade
NRE	☐ 2345	Introduction to Fisheries and Wildlife	3		
NRE	☐ 2600	Global Sustainable Natural Resources	3		
NRE	☐ 3105	Wetlands Biology and Conservation	3		
NRE	☐ 3115	Air Pollution	3		
NRE	☐ 3155	Water Quality Management	3		
NRE	☐ 4340	Ecotoxicology	3		
NRE/GSCI	☐ 4135/4735	Introduction to Ground Water Hydrology	4		

Natural Science - TWO of the following:

Dept.	No.	Course Title	Credits	Semester/Year	Grade
CHEM	☐ 4370	Environmental Chemistry – Atmosphere	3		
CHEM	☐ 4371	Environmental Chemistry – Hydrosphere	3		
EEB	☐ 2244/W	General Ecology	4		
EEB	☐ 2245/W	Evolutionary Biology	4		
EEB	☐ 3247	Freshwater Ecology	4		
EEB/MARN	☐ 3230/3014	Marine Biology	3	_____ /_____	_____
EEB/GSCI	☐ 4120	Paleobiology	4		
GEOG	☐ 2300	Introduction to Physical Geography	3	_____ /_____	_____
GSCI	☐ 4110	Sedimentology	3		
GSCI	☐ 4210	Glacial Processes and Materials	3		
MARN	☐ 2002	Marine Science I	3		
MARN	☐ 2060	Introduction to Coastal Meteorology	3		
MARN	☐ 3003Q	Environmental Reaction and Transport	4		
MARN	☐ 4030W	Marine Biogeochemistry	3		
MARN	☐ 4060	Physical Oceanography	3		
NRE	☐ 2455	Forest Ecology	3		
NRE	☐ 3125	Watershed Hydrology	3		
NRE	☐ 3145	Meteorology	3		
NRE	☐ 3205	Stream Ecology	3		
SPSS	☐ 2120	Environmental Soil Science	3		
SPSS	☐ 3420	Soil Chemistry Components	4		

Students must complete at least one course from each of the following Knowledge Competencies. The same course cannot be used to fulfill more than one knowledge competency.

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Methods - ONE of the following:

Dept.	No.	Course Title	Credits	Semester/Year	Grade
CE	☐ 2251	Probability and Statistics in Civil Engineering	3		
CE/ENVE/ GSCI	☐ 3530 ☐ 3710	Engineering and Environmental Geology	3		
EEB	☐ 3266	Field Herpetology	3		
EEB	☐ 4230W	Methods of Ecology	4		
EEB	☐ 4262	Field Methods of Ornithology	3		
GEOG	☐ 3500Q	Geographic Data Analysis	4	_____ /_____	_____
GEOG/GSCI	☐ 4230	GIS & Remote Sensing for Geoscience Applications	3		
GEOG/MARN	☐ 3505	Remote Sensing of Marine Geography	3		
GSCI/NRE	☐ 4735 ☐ 4135	Introduction to Ground-Water Hydrology	4		
MARN	☐ 3003Q	Environmental Reaction and Transport	4		
NRE	☐ 2000	Introduction to Geomatics	4		
NRE	☐ 2010	Natural Resources Measurements	3		
NRE	☐ 3305	African Field Ecology & Renewable Resource Mgmt	4		
NRE	☐ 3345/W	Wildlife Management Techniques	4		
NRE	☐ 3535	Remote Sensing of the Environment	3		
NRE	☐ 4335	Fisheries Management	4		
NRE	☐ 4475	Forest Management	4		
NRE	☐ 4535	Remote Sensing Image Processing	3		
NRE	☐ 4544	Application of Surveying for Natural Resources	3		
NRE	☐ 4545	Geodesy	3		
NRE	☐ 4575	Natural Resource Applications of GIS	4		
NRE	☐ 4665	Natural Resources Modeling	3		
PHYS	☐ 2400	Mathematical Methods for the Physical Sciences	3		
STAT	☐ 2215Q	Introduction to Statistics II	3		
STAT	☐ 3025Q	Statistical Methods – Calculus Level 1	3		

Governance & Policy - ONE of the following:

Dept.	No.	Course Title	Credits	Semester/Year	Grade
AH	☐ 3174	Environmental Laws, Regulations and Issues	3		
ARE	☐ 2235	Marine Economics and Policy	3		
ARE	☐ 3434	Environmental and Resource Policy	3		
ARE	☐ 3437	Marine Fisheries Economics and Policy	3		
ARE	☐ 4438	Valuing the Environment	3		

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Dept.	No.	Course Title	Credits	Semester/Year	Grade
ARE	☐ 4462	Environmental and Resource Economics	3		
ECON/MAST	☐ 2467	Economics of the Oceans	3		
EVST/POLS	☐ 3412	Global Environmental Politics	3		
GEOG	☐ 3320W	Environmental Evaluation & Assessment	3		
MAST/POLS	☐ 3832	Maritime Law	3		
NRE	☐ 3000	Human Dimensions of Natural Resources	3	_____ /_____	_____
NRE	☐ 3201	Conservation Law Enforcement	3		
NRE	☐ 3245	Environmental Law	3		
SOCI	☐ 3407/W	Energy, Environment, and Society	3		

HUMAN HEALTH CONCENTRATION

ALL of the following:

Dept.	No.	Course Title	Credits	Semester/Year	Grade
AH	☐ 3021	Environment, Genetics and Cancer	3	_____ /_____	_____
AH	☐ 3175	Environmental Health	3	_____ /_____	_____
AH	☐ 3275	HAZWOPER	3	_____ /_____	_____
ANSC	☐ 4341	Food Microbiology and Safety	3	_____ /_____	_____
MCB	☐ 2610	Fundamentals of Microbiology	4	_____ /_____	_____

TWO of the following totaling 6 or more credits:

Dept.	No.	Course Title	Credits	Semester/Year	Grade
ANSC	☐ 4642	Food Microbiology Laboratory	1		
MCB	☐ 2400	Human Genetics	3	_____ /_____	_____
MCB	☐ 3010	Biochemistry	5		
MCB	☐ 3011	Human Metabolism and Disease	2	_____ /_____	_____
MCB	☐ 3201	Gene Expression	3		
MCB	☐ 3633	Pathogenic Microbiology	4		
MCB	☐ 4211	Basic Immunology	3		
PVS	☐ 2100	Anatomy and Physiology of Animals	4		

ONE of the following:

Dept.	No.	Course Title	Credits	Semester/Year	Grade
AH	☐ 3570	Health and Safety Management in the Workplace	3		
AH	☐ 3571	Health Hazards in the Workplace	3		
AH	☐ 3573	Health and Safety Standards in the Workplace	3	_____ /_____	_____
AH	☐ 3574	Ergonomics	3		
PVS	☐ 4300	Principles of Pathobiology	3		

UCONN | COLLEGE OF AGRICULTURE, HEALTH AND NATURAL RESOURCES

ONLINE PLAN OF STUDY FORM ATTACHMENT

PART III: 36 CREDIT REQUIREMENT FOR ALL MAJORS[1]

Each student is required to successfully complete at least 36 credits of courses that are numbered 2000-level or above in or relating to their major. These courses may also be used to meet other requirements. This group of courses must:

1. Total not less than 36 credits
2. Be numbered 2000 or above
3. Be approved by student's advisor and department head
4. Be taken at the University of Connecticut[2]
5. Include two or more departments
6. Include at least 15 credits from departments in the College of Agriculture, Health and Natural Resources
7. Have a combined Grade Point Average of at least 2.0
8. Not include more than 6 credits (combined) of Independent Study, Internship, or Field Studies (if included, these courses must be taken at the University of Connecticut)
9. Not be taken on Pass/ Fail (P@ / F@)
10. Not include more than 6 credits of Satisfactory/Unsatisfactory (S/U) coursework

Dept.	No.	Credits	Semester/Year	Grade
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Dept.	No.	Credits	Semester/Year	Grade
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Credits from departments in CAHNR (15 required): _____

(CAHNR subject codes include AGNR, AH, ANSC, ARE, DGS, DIET, ENVS, EVST, HORT, KINS, LAND, MLSC, NRE, NUSC, PLSC, PVS, SOIL, SPSS, TURF)

Total Credits in 36 credit group: _____

[1]Courses taken on Pass/Fail may NOT be used to meet any requirements.

[2]**Residence Requirement.** It is expected that advanced course work in the major will be completed at the University of Connecticut. However, students may be eligible to use up-to six credits from other institutions in the 36-credit group if approved by their advisor and department head. These credits must be identified as courses comparable to specific University of Connecticut courses and cannot include internships, special topics, or non-specific discipline credits. Transfer students must complete at least 30 credits of 2000-level or higher course work at the University of Connecticut, including at least 15 credits in College of Agriculture, Health and Natural Resources courses.