



# THE UNIVERSITY OF RHODE ISLAND

## Environmental Science and Management

### EL\_ESMG\_BS

120 Earned Credits Total

Student: \_\_\_\_\_

Student ID: \_\_\_\_\_

Advisor: \_\_\_\_\_

<b>Intro to URI &amp; NRS (2 credits)</b>			
Course	Semester	Credits	Grade
URI 101		1	
NRS 101		1	

<b>Intro. Professional Courses (19 credits)</b>			
Course	Semester	Credits	Grade
*EEC 105		3	
*GEO 103		4	
*NRS 100		3	
NRS 200		1	
NRS 212		4	
NRS 223		4	

<b>Basic Sciences (25-27 credits)</b>			
Course	Semester	Credits	Grade
*BIO 101, *103		4	
*BIO 102, *104		4	
*CHM 101, 102		4	
CHM 112, 114 (4); Or CMB 211 (4); Or CMB 311 (3)		3-4	
CHM 124, 126		4	
*MTH 131		3	
STA 308 (4); Or STA 409 (3)		3-4	

**Notes regarding math & chemistry:**  
 1) The prereq. for MTH131 is MTH103 or 111. Students interested in taking MTH141 (w/advisor approval) should take MTH111 prereq. instead of 103.  
 2) CHM112/114 recommended. Students opting to take CMB211 or 311 (prereq is 2 semesters of CHM), must first complete CHM124/126.

<b>Free Electives</b>			
Courses taken beyond the requirements of the major and general education to reach the 120 credits required for graduation.			
Course	Semester	Credits	Grade

<b>Experiential Learning Courses</b>			
Up to 15 credits of Experiential Learning Courses may be taken. A maximum of 6 credits of Letter Grade courses (in italics below) may be taken for Concentration credit; both Letter Grade courses and S/U courses may be used as Supporting Electives.			
NRS 395 Research Apprenticeship			1-3
NRS 397 Internship			1-6
<i>NRS 491/492 Special Projects</i>			1-3
NRS 495 Advanced Apprenticeship			3 or 6
<i>NRS 497 Cooperative Internship</i>			6-12
NRS 498 Teaching Practicum			1-3
<i>NRS 499 Senior Thesis</i>			6

\*Courses approved for general education.

**Concentration Courses (24 credits)**  
 Select at least 3 credits from each of the five categories below. To reach 24 credits, select remaining concentration credits from any of the five categories below, or from Letter Grade Experiential Learning Courses (up to 6 credits). See box below for Letter Grade (e.g. not S/U) Experiential Learning Courses.

<b>1. Biological or Ecological Sciences (minimum 3 credits)</b>			
Course	Semester	Credits	Grade
NRS 401		4	
NRS 417		4	
NRS 423, 425		4, 1	
BIO 455, 457		3, 1	

<b>2. Watersheds &amp; Environmental Quality (minimum 3 credits)</b>			
Course	Semester	Credits	Grade
NRS 412		3	
NRS 426		3	
NRS 461		4	

<b>3. Methods in Environmental Science (minimum 3 credits)</b>			
Course	Semester	Credits	Grade
NRS 409		4	
NRS 410		3	
NRS 415		3	
NRS 471		4	

<b>4. Natural Resources Management (minimum 3 credits)</b>			
Course	Semester	Credits	Grade
NRS 305		3	
*NRS 330G		3	
NRS 406		4	
NRS 407		3	

<b>5. Land Use Management (minimum 3 credits)</b>			
Course	Semester	Credits	Grade
NRS 301		3	
NRS 445		4	
*NRS 450G, 452G		3, 1	

<b>List below any Exp. Learning Concentration Courses (max 6 cr)</b>			
Course	Semester	Credits	Grade

### **Supporting Electives (18 credits)**

**At least 9 credits must be NRS courses.** Courses may be chosen from:  
 a) the supporting elective list - attached; b) Concentration courses not used for Concentration; or c) up to 9 cr. of Letter Grade or S/U Experiential Learning Courses-see box. **NRS 480 Sr. Colloquium (2 cr) is strongly recommended.**

Course	Semester	Credits	Grade

Minimum 2.0 GPA required in major for graduation.

Minimum 2.0 cumulative GPA required for graduation.

Effective: 2019 - 2020

**B.S. Environmental Science and Management - Effective Fall 2019**  
*College of the Environment and Life Sciences*

<b>Environmental Science and Management Supporting Electives</b>	
Environmental Science and Management students are required to select 18 credits of Supporting Electives. <b>At least 9 credits must be NRS courses.</b> Courses may be chosen from: a) the following list; b) Concentration courses not used for concentration credit; or c) any NRS Experiential Learning Courses. Additional courses at or above the 300 level from CELS, Engineering, GSO, and A&S may qualify as supporting electives with advisor permission.	
<i>Natural Science Supporting Electives</i>	
*NRS/GEO/EEC 234G Intro. to Water Resources (3) <i>A1, G</i>	NRS 538 Physiolog Ecol Terrestrial Vert (3)
NRS 304 Field Ornithology (3)	NRS 555 Applied Coastal Ecology (2)
NRS 309 Wildlife Mgmt Techniques Lab. (3)	NRS 567 Soil Genesis and Classification (3)
NRS 324 Mammalogy (4)	NRS 568 Recent Advances in NRS (3)
NRS/BIO/ENT 350 Field Entomology & Taxonomy (3)	BES 532 Advanced Conservation Biology (3)
NRS/BIO/ENT 388 Biology of Bees & Pollination Ecology (3)	BIO 262 Introductory Ecology (4)
NRS 351 Soil Morphology Practicum (2)	BIO 321 Plant Diversity (4)
NRS 402 Quantitative Wildlife Ecology (3)	BIO 323 Field Botany and Taxonomy (4)
NRS 403 Quantitative Wildlife Ecology Field Investigations (1)	BIO 354 Invertebrate Zoology (4)
NRS 480 Colloquium (2)	BIO 366 Vertebrate Biology (3)
NRS 482 Innovative Subsurface Remed. Tech. (4)	BIO/ENT 385 Introductory Entomology (3)
NRS 484 Environmental Hydrogeology (4)	BIO 467 Animal Behavior (3)
NRS 485: Salt Marsh Ecology (4)	*GEO 204 Earth History (4) <i>A1, B1</i>
NRS 496 International Development Seminar (3)	GEO 210 Landforms: Origin and Evolution (4)
NRS 505 Biol & Mgmt of Migratory Birds (2)	GEO 272 Intro Evolution (4)
NRS 516 Remote Sensing in Nat Res Mapping (3)	GEO 305 Global Climate Change (4)
NRS 518 Ecohydrology (3)	GEO 450 Intro To Sedimentary Geology (4)
NRS 522 Adv. GIS Analysis of Environ. Data (3)	GEO 482 Innovative Subsurface Rem Policy (4)
NRS 524 Application of Adv. Spatial Analysis (1)	GEO 483 Hydrogeology (4)
NRS 526 Microbial Ecol of Soils & Sediments (3)	GEO/NRS 484 Environmental Hydrogeology (4)
NRS 533 Landscape Pattern and Change (3)	MAF 465 GIS Applications in Coastal Mgmt (3)
NRS 534 Ecology of Fragmented Landscapes (2)	PLS 306 Landscape Mgmt and Arboriculture (4)
<i>Social Science Supporting Electives</i>	
*NRS 300 Intro. Global Issues Sustainable Devel. (3) <i>A2, C2</i>	CPL 485 Environmental Planning (3)
NRS442 Environmental Crisis Communication (3)	MAF 415 Marine Pollution Policy (3)
NRS 487 International Development Internship (1-6)	MAF 461 Coastal Zone Management (3)
EEC 205 Environmental Economics and Policy (3)	MAF 484 Environ Analysis Policy Coastal Mgmt (3)
EEC 310 Economics of Nat Res Mgmt & Policy (3)	*PSC 402 Environmental Policy and Politics (4) <i>D1</i>
EEC 432 Environmental Economics and Policy (3) <i>B4, D1</i>	PSC 403 Global Ecopolitics (4)
EEC 440 Benefit-Cost Analysis (3)	WRT 303 Public Writing (4)
CPL/LAR 434 Intro to Environmental Law (3)	WRT 304 Writing for Comm. Service (4)
CPL 410 Fund of Community Planning Practice (3)	*WRT 332 Technical Writing (3) <i>B1, B2</i>
CPL 483 Land Development (3)	*WRT 334 Science Writing (3) <i>B1, B2</i>

\*Courses approved for general education.

**B.S. Environmental Science and Management - Effective Fall 2019**

*College of the Environment and Life Sciences*

**SAMPLE Four-Year Plan**

**Freshman Year *Fall* Semester**

Course Code	Description	Cr
*NRS 100	Natural Resource Conservation	3
NRS 101	Freshman Inquiry into NRS	1
URI 101	Planning for Academic Success	1
*BIO 101/103	Principles of Biology I/ Lab	4
*MTH103, *111, or *131	Applied Precalculus, Precalculus, or Applied Calculus (based on placement)	3
	*General Education Course	3-4
		<b>15-17</b>

**Freshman Year *Spring* Semester**

Course Code	Description	Cr
NRS 223	Conservation Biology	4
*BIO 102/104	Principles of Biology II/ Lab	4
*CHM 101/102	General Chemistry I/Lab	4
*MTH 131, or *General Ed.	Applied Calculus, or General Education Course	3-4
		<b>15-16</b>

Note: MTH131 Applied Calculus is required for ESM majors. A placement exam determines if a prerequisite is needed (i.e. MTH103 or 111). Students interested in taking MTH141 Calculus I (with advisor approval) should take MTH111 instead of 103 for the prerequisite.

**Year 1 Milestones:** Complete 30 credits with a cumulative gpa of 2.0 or higher. NRS100 & NRS223 (offered fall and spring). Transfer from UC to CELS. Consider a summer internship.

**Sophomore Year *Fall* Semester**

Course Code	Description	Cr
NRS 200	Seminar in Natural Resources	1
**CHM 112/114	General Chemistry/ Lab	4
*GEO 103	Understanding the Earth	4
NRS 212	Introduction to Soil Science	4
	*General Education Course	3-4
		<b>15-17</b>

**Sophomore Year *Spring* Semester**

Course Code	Description	Cr
CHM124/126	Intro. to Organic Chemistry/Lab	4
STA 308	Introduction to Statistics	4
*EEC 105	Introduction to Resource Economics	3
	NRS Concentration	3-4
	*General Education Course	3-4
		<b>15-17</b>

\*\*CHM112/114 recommended. Students opting to take CMB211 or 311 instead (prereq is 2 sem. of CHM), must first complete CHM124/126.

**Year 2 Milestones:** Complete 60 credits with a cumulative gpa of 2.0 or higher. NRS 200 & NRS 212 (offered fall only). Meet with faculty advisor to plan junior year courses and discuss internship/research/study abroad opportunities.

**Junior Year *Fall* Semester**

Course Code	Description	Cr
	NRS Concentration	3-4
	NRS Concentration	3-4
	NRS Supporting Elective	3-4
	*General Education Course	3-4
	Free Elective	3-4
		<b>15-17</b>

**Junior Year *Spring* Semester**

Course Code	Description	Cr
	NRS Concentration	3-4
	NRS Concentration	3-4
	NRS Supporting Elective	3-4
	NRS Supporting Elective	3-4
	Free Elective	3-4
		<b>15-17</b>

**Year 3 Milestones:** Complete 90 credits with a cumulative gpa of gpa 2.0 or higher. Meet with faculty advisor to plan senior year courses, discuss internship/research opportunities, and prepare Intent to Graduate Application for fall submission.

**Senior Year *Fall* Semester**

Course Code	Description	Cr
	NRS Concentration	3-4
	NRS Concentration	3-4
	NRS Supporting Elective	3-4
	NRS Supporting Elective	3-4
	Free Elective	3-4
		<b>15-17</b>

**Senior Year *Spring* Semester**

Course Code	Description	Cr
	NRS Concentration	3-4
	NRS Concentration	3-4
	NRS Supporting Elective	3-4
	NRS Supporting Elective	3-4
		<b>15-17</b>

**Total Credits to Graduate = 120**

**Year 4 Milestones:** Complete all remaining courses and requirements. Minimum of 120 earned credits with a cumulative gpa of 2.0 or higher; and minimum 2.0 gpa in major concentration courses.

NOTE: Visit <http://web.uri.edu/nrs/undergraduate-programs/> for a list of NRS fall & spring courses and confirm with your advisor.