

# **ECOLOGY, EVOLUTION, & NATURAL RESOURCES (216): (120 CREDITS-includes Core)**

## **NEW 2023 VERSION**

### **CHECK LIST**

Please use the following checklist to review your courses but also check on Degree Navigator to ensure all categories are “checked” off. Courses are not offered every semester and course availability might change (this does not replace DN, but is for planning purposes only). Please contact Dr. Russell (kimberly.russell@rutgers.edu) if you have any questions.

### **GENERAL CORE REQUIREMENTS**

<b>GENERAL BIOLOGY (8-10 credits)</b>		<b>Completed</b>
01:119:115	General Biology I	<input type="checkbox"/>
01:119:116	General Biology II	<input type="checkbox"/>
01:119:117	Biological Research Lab	<input type="checkbox"/>

<b>QUANTITATIVE METHODS (1 course)</b>		<b>Completed</b>
01:640:135	Calculus I	<input type="checkbox"/>

<b>Experience-Based Education (3 credits)*</b>		<b>Completed</b>
<i>*These are all by permission</i>		
11:216:440	Practical Experience in EENR	<input type="checkbox"/>
11:216:484	Research Experience in EENR	<input type="checkbox"/>
01:090:322	Peer Instructor Education	<input type="checkbox"/>
01:556:221	Aresty Research Assistant Program	<input type="checkbox"/>
01:556:222	Aresty Research Assistant Program	<input type="checkbox"/>
11:015:301	Aresty Research Assistant Program	<input type="checkbox"/>
11:554:301	Aresty Research Assistantship	<input type="checkbox"/>
11:554:302	Aresty Research Assistantship	<input type="checkbox"/>
11:015:497	George H. Cook Scholars Program	<input type="checkbox"/>
11:015:498	George H. Cook Scholars Program	<input type="checkbox"/>
11:216:376	Practicum in Fisheries Management	<input type="checkbox"/>
11:216:377	Practicum in Forest Management	<input type="checkbox"/>
11:902:300	SEBS Internship I	<input type="checkbox"/>
11:902:301	SEBS Internship II	<input type="checkbox"/>
11:902:400	SEBS Co-op	<input type="checkbox"/>
15:255:535	Teaching Internship	<input type="checkbox"/>
05:300:200	Introduction to Education	<input type="checkbox"/>

<b>CHEMISTRY OR PHYSICS**</b>		<b>Completed</b>
01:160:161	General Chemistry	<input type="checkbox"/>
01:160:171	Introduction to Experimentation	<input type="checkbox"/>
01:750	Physics 193 OR 201 OR 203 AND 205	<input type="checkbox"/>

### **OR**

01:160:161	General Chemistry	<input type="checkbox"/>
01:160:162	General Chemistry	<input type="checkbox"/>
01:160:171	Introduction to Experimentation	<input type="checkbox"/>

### **OR**

01:750:203	General Physics (3 cr)	<input type="checkbox"/>
01:750:205	General Physics Lab (1 cr)	<input type="checkbox"/>
01:750:204	General Physics (3 cr)	<input type="checkbox"/>
01:750:206	General Physics Lab (1 cr)	<input type="checkbox"/>

### **OR**

01:750:193	Physics for the Sciences (4 cr)	<input type="checkbox"/>
01:750:194	Physics for the Sciences (4 cr)	<input type="checkbox"/>

### **OR**


01:750:201	Extended Physics (5 cr)	<input type="checkbox"/>
01:750:202	Extended Physics (5 cr)	<input type="checkbox"/>


**\*\*If you intend to go to graduate school, we cannot**

**guarantee that the potential grad program you apply to**

**will require 2 semesters of BOTH chemistry and physics**

## ECOLOGY, EVOLUTION & NATURAL RESOURCES REQUIREMENTS

Major Requirements (9 courses)		Completed
11:216:104	Topics in Ecology, Evolution, and Natural Resources	<input type="checkbox"/>
11:216:217	Principles of Natural Resource Management	<input type="checkbox"/>
11:216:351	Principles of Ecology	<input type="checkbox"/>
11:216:352	Principles of Ecology Lab	<input type="checkbox"/>
11:216:369	Analytical Methods 	<input type="checkbox"/>
11:216:431	Fundamentals of Ecological & Environmental Modeling	<input type="checkbox"/>
11:216:499	Senior Capstone	<input type="checkbox"/>
<b>AND</b>		
11:216:251	Fundamentals of Evolution	<input type="checkbox"/>
11:216:252	Fundamentals of Evolution Lab ( <b>taken with or after 251</b> )	<input type="checkbox"/>
<b>OR</b>		
11:216:486	Principles of Evolution ( <b>taken with 252</b> )	<input type="checkbox"/>
11:216:252	Fundamentals of Evolution Lab ( <b>taken with 486</b> )	<input type="checkbox"/>

Ecology (2 courses)		Completed
11:216:272	Dendrology	<input type="checkbox"/>
11:216:302	Parasite Ecology	<input type="checkbox"/>
11:216:317	Conservation Ecology 	<input type="checkbox"/>
11:216:332	Plant Ecology	<input type="checkbox"/>
11:216:360	Animal Physiological Ecology	<input type="checkbox"/>
11:216:422	Soil Organismal Diversity	<input type="checkbox"/>
11:216:450	Landscape Ecology	<input type="checkbox"/>
11:216:451	Global Change Ecology	<input type="checkbox"/>
11:216:435	Freshwater and Wetland Ecosystems*	<input type="checkbox"/>
11:216:487	Urban Ecology	<input type="checkbox"/>



Evolution (2 courses)		Completed
11:216:240	Behavioral Biology	<input type="checkbox"/>
11:216:269	Evolution of Animal Behavior	<input type="checkbox"/>


11:216:323	Ornithology	<input type="checkbox"/>
11:216:324	Invertebrate Zoology	<input type="checkbox"/>
11:216:325	Vertebrate Zoology	<input type="checkbox"/>
11:216:353	Experimental Evolution	<input type="checkbox"/>

11:216:405	Evolution of Infectious Diseases	<input type="checkbox"/>
11:216:411	Plant Diversity & Evolution ( <b>*must be taken with 412</b> )	<input type="checkbox"/>
11:216:412	Plant Diversity & Evolution Lab ( <b>*411 counted together as 1 course</b> )	<input type="checkbox"/>
11:216:441	Animal Behavior	<input type="checkbox"/>
11:216:454	Molecular Ecology	<input type="checkbox"/>
11:216:486	Principle of Evolution	<input type="checkbox"/>

Natural Resources/Techniques (2 courses)		Completed
11:216:210	Nature Journaling	<input type="checkbox"/>
11:216:274	Field Techniques	<input type="checkbox"/>
11:216:315	Conservation Techniques	<input type="checkbox"/>
11:216:320	Controversies in Sustainability	<input type="checkbox"/>
11:216:365	Arboriculture (even years)	<input type="checkbox"/>
11:216:371	Intro Remote Sensing	<input type="checkbox"/>
11:216:403	Urban Forestry	<input type="checkbox"/>
11:216:435	Freshwater and Wetland Ecosystems*	<input type="checkbox"/>
11:216:464	Wildlife Ecology & Conservation	<input type="checkbox"/>
11:216:471	Silviculture	<input type="checkbox"/>

11:216:474	Advanced Remote Sensing	<input type="checkbox"/>
11:216:475	Winter Field Ecology	<input type="checkbox"/>
11:573:232	Fundamentals of Environmental Geomatics ( <b>*taken with 233</b> )	<input type="checkbox"/>
11:573:233	Fundamentals of Environmental Geomatics Lab ( <b>*taken with 232</b> )	<input type="checkbox"/>
11:573:362	Intermediate Env. Geomatics	<input type="checkbox"/>
11:573:462	Advanced Geomatics	<input type="checkbox"/>

Additional Courses: 216 Electives (4 courses)**		Completed
11:216:101	Introduction to Ecology & Evolution 	<input type="checkbox"/>
11:216:110	Evolution, Disease & Medicine	<input type="checkbox"/>
11:216:115	Evolution Sex & Gender 	<input type="checkbox"/>
11:216:199	Trees and the Environment	<input type="checkbox"/>
11:216:210	Nature Journaling	<input type="checkbox"/>
11:216:240	Behavioral Biology	<input type="checkbox"/>
11:216:269	Evolution of Animal Behavior	<input type="checkbox"/>

11:216:272	Dendrology	<input type="checkbox"/>
11:216:274	Field Techniques	<input type="checkbox"/>
11:216:315	Conservation Techniques	<input type="checkbox"/>
11:216:317	Conservation Ecology 	<input type="checkbox"/>
11:216:320	Controversies in Sustainability	<input type="checkbox"/>
11:216:323	Ornithology	<input type="checkbox"/>
11:216:324	Invertebrate Zoology	<input type="checkbox"/>
11:216:325	Vertebrate Zoology	<input type="checkbox"/>
11:216:332	Plant Ecology	<input type="checkbox"/>

11:216:353	Experimental Evolution	<input type="checkbox"/>
11:216:360	Animal Physiological Ecology	<input type="checkbox"/>
11:216:365	Arboriculture (even years)	<input type="checkbox"/>
11:216:371	Intro Remote Sensing	<input type="checkbox"/>

11:216:403	Urban Forestry	<input type="checkbox"/>
11:216:405	Evolution of Infectious Diseases	<input type="checkbox"/>
11:216:411	Plant Diversity & Evolution (*must be taken with 412)	<input type="checkbox"/>
11:216:435	Freshwater and Wetland Ecosystems	<input type="checkbox"/>
11:216:422	Soil Organismal Diversity	<input type="checkbox"/>
11:216:441	Animal Behavior	<input type="checkbox"/>
11:216:450	Landscape Ecology	<input type="checkbox"/>
11:216:451	Global Change Ecology	<input type="checkbox"/>
11:216:454	Molecular Ecology	<input type="checkbox"/>

11:216:464	Wildlife Ecology & Conservation	<input type="checkbox"/>
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11:216:469	Wildlife Diseases	<input type="checkbox"/>
11:216:471	Silviculture	<input type="checkbox"/>
11:216:474	Advanced Remote Sensing	<input type="checkbox"/>
11:216:475	Winter Field Ecology	<input type="checkbox"/>
11:216:486	Principles of Evolution	<input type="checkbox"/>
11:216:487	Urban Ecology	<input type="checkbox"/>

Additional Courses: Approved non-216 Electives**		Completed
01:160:209	Elementary Organic Chemistry	<input type="checkbox"/>
01:160:307	Organic Chemistry	<input type="checkbox"/>
01:160:308	Organic Chemistry	<input type="checkbox"/>
01:447:380	Genetics	<input type="checkbox"/>
01:460:101	Introductory Geology	<input type="checkbox"/>
01:640:136	Calculus II	<input type="checkbox"/>
01:640:138	Calculus II for the Biological Sciences	<input type="checkbox"/>
11:067:300	Integrative Physiology	<input type="checkbox"/>
11:067:328	Animal Genetics	<input type="checkbox"/>
11:115:301	Introductory Biochemistry	<input type="checkbox"/>
11:115:423	Fundamentals of Genomics	<input type="checkbox"/>

11:370:308	Apiculture	<input type="checkbox"/>
11:370:381	Insect Biology	<input type="checkbox"/>
11:370:402	Aquatic Entomology	<input type="checkbox"/>
11:370:404	Insect Structure and Function II	<input type="checkbox"/>
11:370:409	Insect Classification	<input type="checkbox"/>
11:370:430	Urban Entomology	<input type="checkbox"/>
11:573:231	Fundamentals of Envir. Planning	<input type="checkbox"/>
11:573:232	Fundamentals of Env. Geo. (*taken with 233)	<input type="checkbox"/>
11:372:322	Land Measurement & Mapping	<input type="checkbox"/>
11:573:362	Intermediate Env. Geomatics	<input type="checkbox"/>
11:573:462	Advanced Geomatics	<input type="checkbox"/>
11:573:362	Intermediate Env. Geomatics	<input type="checkbox"/>
11:573:462	Advanced Geomatics	<input type="checkbox"/>
11:375:360	Soils and Water	<input type="checkbox"/>
11:375:407	Environmental Toxicology	<input type="checkbox"/>
11:375:411	Environmental Microbiology	<input type="checkbox"/>
11:375:421	Principle of Air Pollution	<input type="checkbox"/>
11:375:444	Water Chemistry	<input type="checkbox"/>
11:375:453	Soil Ecology	<input type="checkbox"/>
11:628:321	Ichthyology	<input type="checkbox"/>
11:628:342	Marine Conservation	<input type="checkbox"/>
11:670:201	Elements of Meteorology	<input type="checkbox"/>
11:670:202	Elements of Climate	<input type="checkbox"/>
11:670:491	Microbial Ecology & Diversity	<input type="checkbox"/>
11:776:210	Principles of Botany	<input type="checkbox"/>
11:776:305	Plant Genetics	<input type="checkbox"/>
11:776:382	Plant Physiology	<input type="checkbox"/>
11:776:400	Fungi in the Environment	<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>

**\*\* Courses are subject to change - THIS IS NOT A COMPLETE LIST! If a non-216 course is not on the list, but you would like to take it, contact Dr. Russell for approval.**