

# B.S. in Environmental Science

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(120 credit minimum)

**First Year**

<b>1st Semester</b>		<b>Credits</b>
CHEM 121 or CHEM 125	Fundamentals of Chemical Principles I or General Chemistry I	3
CHEM 125A	General Chemistry Lab I	1
ENGL 101	English Composition: Introduction to Academic Writing	3
MATH 111	Calculus I <sup>a</sup>	4
BIOL 200	Concepts in Biology	4
FYS SEM	First-Year Student Seminar	0
<b>Term Credits</b>		<b>15</b>

**2nd Semester**

CHEM 122 or CHEM 126	Fundamentals of Chemical Principles II or General Chemistry II	3
CHEM 126A	Gen Chemistry Lab II	1
ENGL 102	English Composition: Introduction to Writing for Research	3
BNFO 135	Programming for Bioinformatics <sup>b</sup>	3
EVSC 125	Fundamentals of Environmental Sciences	3
BIOL 205	Foundations of Biology: Ecology and Evolution Lecture	3
BIOL 206	Foundations of Biology: Ecology and Evolution Lab	1
<b>Term Credits</b>		<b>17</b>

**Second Year****1st Semester**

EPS 202	Society, Technology, and the Environment	3
R460 103	Planet Earth	3
R460 104	Planet Earth Lab	1
CHEM 222	Analytical Chemistry	3
PHYS 102	General Physics I	3
PHYS 102A	General Physics I Lab	1
History and Humanities GER 200 level ( <a href="http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/ger-200-level/">http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/ger-200-level/</a> )		3
<b>Term Credits</b>		<b>17</b>

**2nd Semester**

CHEM 243	Organic Chemistry I	3
R460 206	Env Geology	3
R460 207	Env Geology Lab	1
CHEM 221	Analytical Chemical Methods	2
PHYS 103	General Physics II	3
PHYS 103A	General Physics II Lab	1
CHEM 210	Frontiers in Chemistry	1
<b>Term Credits</b>		<b>14</b>

**Third Year****1st Semester**

CHEM 360	Environmental Chemistry of Air Pollution and Climate Change <sup>c</sup>	3
MATH 105	Elementary Probability and Statistics	3
EVSC 340	Environmental Health and Safety	3
BIOL 201	Found of Biol: Cell & Molecula	3
BIOL 202	Found of Biol: Cell & Molecula	1

History and Humanities GER 300+ level ( <a href="http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/ger-300-level/">http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/ger-300-level/</a> )		3
<b>Term Credits</b>		<b>16</b>
<b>2nd Semester</b>		
EVSC 375	Environmental Biology <sup>c</sup>	3
EVSC 325	Energy and Environment <sup>c</sup>	3
BIOL 375 or BIOL 475	Conservation Biology <sup>c</sup> or Ecological Field Methods and Analysis	3
History and Humanities GER 300+ level ( <a href="http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/ger-300-level/">http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/ger-300-level/</a> )		3
CHEM 361	Environmental Chemistry of Water and Soil Pollution <sup>c</sup>	3
<b>Term Credits</b>		<b>15</b>
<b>Fourth Year</b>		
<b>1st Semester</b>		
EVSC 385	Environmental Microbiology <sup>c</sup>	3
EVSC 484	Environmental Analysis <sup>c</sup>	3
Technical Elective		3
Technical Elective		3
Free elective		2
<b>Term Credits</b>		<b>14</b>
<b>2nd Semester</b>		
EVSC 416	Principles of Toxicology <sup>c</sup>	3
Humanities and Social Science Senior Seminar GER ( <a href="http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/hss-capstone/">http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/hss-capstone/</a> )		3
Technical Elective		3
Technical Elective		3
<b>Term Credits</b>		<b>12</b>
<b>Total Credits</b>		<b>120</b>

a Students who do not place initially into Math 111 must take the prerequisite(s) first and catch up to the math sequence ASAP.

b CS 113 is also acceptable, but it has a pre-requisite of CS 100, adding 3 more credits unless AP or transfer credit is obtained.

c 33 credits of these courses must be taken at NJIT, Rutgers-Newark, or Essex County College by all students.

## Technical Electives

Code	Title	Credits
<b>Chemistry</b>		
CHEM 244	Organic Chemistry II	3
CHEM 473	Biochemistry	3
CHEM 231	Physical Chemistry I	3
<b>Environmental Science</b>		
EVSC 490	Special Topics in Environmental Science	3
<b>Biology</b>		
BIOL 222	Evolution	3
BIOL 375	Conservation Biology	3
BIOL 475	Ecological Field Methods and Analysis	3
R216 330	Plant Physiology	4
R120 370	Plant Ecology	3
R120 371	Field Study Plant Ecology	3
R216 381	Ecological History of North Am	3
R120 470	Field Ecology	3
R120 481	Marine Biology	4
BIOL 352	Genetics	3
<b>Civil and Environmental Engineering</b>		

CE 342	Geology	3
<b>Science, Technology and Society</b>		
STS 362	Environmental Economics	3
STS 360	Ethics and the Environment	3
STS 363	Sustainability Studies	3
STS 364	Sustainability Policy and Practice	3
<b>Geology Courses</b>		
R460 331	Oceanography	3
R460 427	Hydrogeology	3
<b>Mathematics</b>		
MATH 112	Calculus II	4

*This curriculum represents the maximum number of credits per semester for which a student is advised to register. A full-time credit load is 12 credits.*

*First-year students are placed in a curriculum that positions them for success which may result in additional time needed to complete curriculum requirements. Continuing students should consult with their academic advisor to determine the appropriate credit load.*