# **Environmental and Ecological Sciences**

Bachelor of Science (BS.ENST)

| COIC REGUII   | ements  |  |  |   |                                  | Credits          | Notes/Ins  | structions   |
|---|---|--|--|---|----------------------------------|------------------|--|--|
| College Sem.  | Quest   | for Meaning  | CSEM 100   |   |                                  | 3                | †A student   | may be<br>take ENGL  |
| Communication<br>& Creative<br>Expression                                 | Writin Oral C Literat The Ar  | ommunication<br>cure   | ENGL 110 <sup>†</sup><br>COMM 101<br>ENGL 140-149<br>ARTS 100-149  |   |                                  | 3<br>3<br>3<br>3 | 105 and/or<br>based on pl<br>exams adm<br>prior to the<br>semester a     | MATH 100<br>lacement<br>ninistered<br>eir first            |
| Citizenship   | Histor<br>Interco<br>Global   |  | HIST 100-149<br>FREN/GERM/SPAN 100-level or S<br>ECON 150-199; GEOG 150-199; H   | •   |                                  | 3<br>3<br>3      | MATH 100<br>courses and<br>free electiv<br>††The Inte<br>Competend       | d will count<br>res.<br>rcultural                          |
| Quantitative &<br>Scientific<br>Reasoning                                 | SBM Scient<br>SBM Science   | itative Reasoning<br>ific Endeavor<br>e in Context<br>n Beh. & Soc. Inst | MATH 120 <sup>†</sup> or higher level<br>NSCI 100<br>NSCI 171-199<br>ECON 111, 112; GEOG 101, 102;                         | PS 101, PSYC 1  | 01, SOC 101                      | -<br>-<br>-<br>3 | requiremer<br>satisfied by<br>level langua<br>credits or p<br>an approve | nt can be<br>taking a 10<br>age class for<br>participating |
| Wisdom, Faith,<br>& the Good Life   | Phil. Ir<br>Theolo  | uction to Phil.<br>nvestigations<br>ogy & Wisdom<br>ogy & the Good Life  | PHIL 101<br>PHIL 170-199<br>THEO 150-159<br>THEO 160-169 <sup>2</sup>  |   |                                  | 3<br>3<br>3<br>3 | college cata<br>information  | alog for mor<br>n)<br>sfied By Maj<br>nt(s) and            |
|   |   |  |  |   | <b>Total Core Credits</b>        | 39               |  |  |
| Majo:<br>Regui  | r<br>irements   | Credits  | Major<br>Requirements  | Credits   | Elective <sup>a</sup><br>Require |                  | r  | Credits  |
| ENST 2  | 01  | 3  | BIOL 113   | 3   | HCE 101 H                        | oly Cross E      | Ехр.   | 1  |
| ENICE   |   | 4  |  | 1   |                                  |                  | 1125)  | 3-4  |
| ENST 2  | 01L   | 1  | BIOL 113L  |   |                                  | ve³ (MATF        | 1123)  |  |
| ENST 2  | 02  | 3  | BIOL 210   | 3   | Free Electi                      | ve <sup>3</sup>  | 1123)  | 3  |
| ENST 20   | 02<br>02L   | 3<br>1   | BIOL 210<br>BIOL 210L  | 3<br>1  |                                  | ve <sup>3</sup>  | 1123)  | 3  |
| ENST 20<br>ENST 3   | 02<br>02L<br>70   | 3<br>1<br>3  | BIOL 210<br>BIOL 210L<br>CHEM 113  | 3<br>1<br>3   | Free Electi                      | ve <sup>3</sup>  | 1123)  |  |
| ENST 20<br>ENST 20<br>ENST 3<br>ENST 4                                    | 02<br>02L<br>70<br>.10  | 3<br>1<br>3<br>3   | BIOL 210<br>BIOL 210L<br>CHEM 113<br>CHEM 113L   | 3<br>1<br>3<br>1  | Free Electi                      | ve <sup>3</sup>  | 1123)  |  |
| ENST 20<br>ENST 3<br>ENST 4<br>MATH                                       | 02<br>02L<br>170<br>110   | 3<br>1<br>3<br>3<br>4  | BIOL 210<br>BIOL 210L<br>CHEM 113<br>CHEM 113L<br>CHEM 114   | 3<br>1<br>3<br>1<br>3   | Free Electi                      | ve <sup>3</sup>  | 1123)  |  |
| ENST 20<br>ENST 3<br>ENST 4<br>MATH                                       | 02<br>02L<br>.70<br>.10<br>128<br>90 or 491 or 499  | 3  | BIOL 210 BIOL 210L CHEM 113 CHEM 113L CHEM 114 CHEM 114L   | 3<br>1<br>3<br>1<br>3   | Free Electi                      | ve <sup>3</sup>  | 1123)  |  |
| ENST 20 ENST 3 ENST 4 MATH ENST 4   | 02<br>02L<br>.70<br>.10<br>128<br>.90 or 491 or 499<br>Elective*  | 3  | BIOL 210 BIOL 210L CHEM 113 CHEM 113L CHEM 114 CHEM 114L CHEM 241  | 3<br>1<br>3<br>1<br>3<br>1<br>3                               | Free Electi                      | ve <sup>3</sup>  | 1123)  |  |
| ENST 20 ENST 3 ENST 4 MATH ENST 4 Major 6                                 | 02<br>02L<br>.70<br>.10<br>128<br>.90 or 491 or 499<br>Elective*<br>Elective*                                     | 3  | BIOL 210 BIOL 210L CHEM 113 CHEM 113L CHEM 114 CHEM 114L CHEM 241 CHEM 241L  | 3<br>1<br>3<br>1<br>3<br>1<br>3                               | Free Electi                      | ve <sup>3</sup>  | 1123)  |  |
| ENST 20 ENST 3 ENST 4 MATH ENST 4 Major 6 Major 6                         | 02<br>02L<br>.70<br>.10<br>128<br>.90 or 491 or 499<br>Elective*<br>Elective*<br>Elective*                        | 3  | BIOL 210 BIOL 210L CHEM 113 CHEM 113L CHEM 114 CHEM 114L CHEM 241 CHEM 241L CHEM 242                                       | 3<br>1<br>3<br>1<br>3<br>1<br>3<br>1                          | Free Electi                      | ve <sup>3</sup>  | 1123)  |  |
| ENST 20 ENST 3 ENST 4 MATH ENST 4 Major 6 Major 6 Major 6                 | 02<br>02L<br>70<br>10<br>128<br>90 or 491 or 499<br>Elective*<br>Elective*<br>Elective*<br>Elective*              | 3  | BIOL 210 BIOL 210L CHEM 113 CHEM 113L CHEM 114 CHEM 114L CHEM 241 CHEM 241L CHEM 242 CHEM 242L                             | 3<br>1<br>3<br>1<br>3<br>1<br>3<br>1<br>3                     | Free Electi                      | ve <sup>3</sup>  | 1123)  |  |
| ENST 20 ENST 3 ENST 4 MATH ENST 4 Major 6 Major 6 Major 6 Major 6 Major 6 | 02<br>02L<br>70<br>10<br>128<br>90 or 491 or 499<br>Elective*<br>Elective*<br>Elective*<br>Elective*<br>Elective* | 3  | BIOL 210 BIOL 210L CHEM 113 CHEM 113L CHEM 114 CHEM 241 CHEM 241 CHEM 242 CHEM 242L PHYS 111                               | 3<br>1<br>3<br>1<br>3<br>1<br>3<br>1<br>3<br>1<br>3           | Free Electi                      | ve <sup>3</sup>  | 1123)  |  |
| ENST 20 ENST 3 ENST 4 MATH ENST 4 Major 6 Major 6 Major 6 Major 6 Major 6 | 02<br>02L<br>70<br>10<br>128<br>90 or 491 or 499<br>Elective*<br>Elective*<br>Elective*<br>Elective*              | 3  | BIOL 210 BIOL 210L CHEM 113 CHEM 113L CHEM 114 CHEM 241 CHEM 241 CHEM 242 CHEM 242L PHYS 111 PHYS 111L                     | 3<br>1<br>3<br>1<br>3<br>1<br>3<br>1<br>3<br>1<br>3           | Free Electi                      | ve <sup>3</sup>  | 1123)  |  |
| ENST 20 ENST 3 ENST 4 MATH ENST 4 Major 6 Major 6 Major 6 Major 6 Major 6 | 02<br>02L<br>70<br>10<br>128<br>90 or 491 or 499<br>Elective*<br>Elective*<br>Elective*<br>Elective*<br>Elective* | 3  | BIOL 210 BIOL 210L CHEM 113 CHEM 113L CHEM 114 CHEM 241 CHEM 241 CHEM 242 CHEM 242L PHYS 111                               | 3<br>1<br>3<br>1<br>3<br>1<br>3<br>1<br>3<br>1<br>3           | Free Electi                      | ve <sup>3</sup>  | 1123)  |  |
| ENST 20 ENST 3 ENST 4 MATH ENST 4 Major 6 Major 6 Major 6 Major 6 Major 6 | 02<br>02L<br>70<br>10<br>128<br>90 or 491 or 499<br>Elective*<br>Elective*<br>Elective*<br>Elective*<br>Elective* | 3  | BIOL 210 BIOL 210L CHEM 113 CHEM 113L CHEM 114 CHEM 114L CHEM 241 CHEM 241L CHEM 242 CHEM 242L PHYS 111 PHYS 111L PHYS 112 | 3<br>1<br>3<br>1<br>3<br>1<br>3<br>1<br>3<br>1<br>3<br>1<br>3 | Free Electi Free Electi          | ve <sup>3</sup>  |  |  |

#### Total Credits Required for Graduation = 143

|  |   | red for Graduation – 145   |  |
|--|---|--|--|
|  | *Environmental  | Science Major Electives  |  |
| *A student must complete six of the f                          | ollowing major electives to match their inc               | lividual career goals (at least two must be fron                           | n the ENST 401 series):                          |
| BIOL 314 & 314L Microbiology                                   | ENST 255 Intro to Geog Inf Syst                           | ENST 402 Adirondack Park Ecol  | ENST 452 Envir Policy                            |
| BIOL 323 & 323L Genetics                                       | ENST 310 Comp Mod in Bio & ES                             | ENST 403 Chesapeake Bay Ecol   | SOC 212 Dynamics of Population                   |
| BIOL 349 & 349L Anim Beh                                       | ENST 320 Envir Health                                     | ENST 420 Ecotoxicology   |  |
| BIOL 430 & 430L Ecology  | ENST 340 Wildlife Nat Hist                                | ENST 430 Wildlife Ecol & Mgmt  |  |
| CHEM 243 & 243L Analy Chem (5)                                 | ENST 330 Environmental Educ                               | ENST 435 Wetland Ecol & Delin  |  |
| CHEM 244 & 244L Analy Chem (5)                                 | ENST 367 Envir Psychology                                 | ENST 440 WIldlife Techniques   |  |
| ENST 200 Earth Science   | ENST 400 Conserv Biol                                     | ENST 450 Water Quality Analysis  |  |
| *Students also have the option of pur                          | suing concentrations in Environmental Po                  | licy and Wildlife Conservation (4 courses for e                            | each concentration)                              |
| Environ  | mental Policy   | Wildlife C   | onservation                                      |
| ENST 360 Envir Law (required) ENST 452 Envir Policy (required) | PS 351 Politics of Policymaking<br>PS 425 Political Behav | ENST 401B Wildlife Nat Hist (required) ENST 401C Wlife Eco/Mgmt (required) | ENST 367 Envir Psychology<br>BIOL 349 Anim Behav |
| PS 231 Amer IntGov Rel   | ECON 356 Econ Dev & Intergov                              | ENST 401E Wildlife Tech  | BIOL 430 Ecology                                 |
| PS 232 Public Admin  | ECON 493 Wom, Pov, & Env                                  | ENST 401A Conserv Biol   |  |
| PS 333 State Politics  | ENST 314 Envir Sociology                                  | ENST 401D Ecotoxicology  |  |
| PS 351 Munic Admin   | ENST 367 Envir Psychology                                 |  |  |

## **Environmental and Ecological Sciences**

### Suggested Sequence

A suggested course sequence of degree requirements is listed below. Refer to the college catalog for course titles, descriptions, and prerequisites. Always consult your Academic Advisor when planning and scheduling your classes.

| Fall  | Credits  | Spring  | Cre    |
|---|--|---|--------|
| ENST 201 Environmental Science I  | 3  | ENST 202 Environmental Science II   |        |
| ENST 201L Environmental Science I Lab   | 1  | ENST 202L Environmental Science II Lab  |        |
| BIOL 113 Evolution & Diversity  | 3  | BIOL 210 Organisms & Their Ecosystems   |        |
| BIOL 113L Evolution & Diversity Lab   | 1  | BIOL 210L Organisms & Their Ecosystems Lab  |        |
| CHEM 113 General Chemistry I  | 3  | CHEM 114 General Chemistry II   |        |
| CHEM 113L General Chemistry I Lab   | 1  | CHEM 114L General Chemistry II Lab  |        |
| Core Course <sup>1</sup>  | 3  | Core Course <sup>1</sup>  |        |
| HCE 101 Holy Cross Experience   | 1  |   |        |
| <del></del>   | 16   |   |        |
| Summer  | Credits  |   |        |
| Fall  | Credits  | Spring  | C      |
| ENST Major Elective   | 3-4  | ENST Major Elective   |        |
| CHEM 241 Organic Chemistry I  | 3  | CHEM 242 Organic Chemistry II   |        |
| CHEM 241L Organic Chemistry I Lab   | 1  | CHEM 242L Organic Chemistry II Lab  |        |
| Core Course   | 3  | ENST 370 Environmental Seminar  |        |
| Core Course <sup>1</sup>  | 3  | Free Elective <sup>3</sup> (OR MATH 125 <sup>6</sup> Calculus)  |        |
| _ core course   | 3  | Core Course <sup>1</sup>  |        |
|   | 14-15  | Core course   | 1      |
| Summer  | Credits  |   |        |
|   |  |   |        |
| Fall  | Credits  | Spring  | (      |
| Fall FNST Major Flective  | Credits<br>3-5                                   | Spring ENST Major Elective  | C      |
| ENST Major Elective   | 3-5  | ENST Major Elective   | C      |
| ENST Major Elective PHYS 111 General Physics I  | 3-5<br>3   | ENST Major Elective PHYS 112 General Physics II   | C      |
| ENST Major Elective PHYS 111 General Physics I PHYS 111L General Physics I Lab  | 3-5<br>3<br>1                                    | ENST Major Elective PHYS 112 General Physics II PHYS 112L General Physics II Lab  | C      |
| ENST Major Elective PHYS 111 General Physics I PHYS 111L General Physics I Lab Core Course <sup>1</sup>   | 3-5<br>3<br>1<br>3                               | ENST Major Elective PHYS 112 General Physics II PHYS 112L General Physics II Lab Core Course <sup>1</sup>   | C      |
| ENST Major Elective PHYS 111 General Physics I PHYS 111L General Physics I Lab Core Course <sup>1</sup> Core Course <sup>1</sup>  | 3-5<br>3<br>1<br>3<br>3                          | ENST Major Elective PHYS 112 General Physics II PHYS 112L General Physics II Lab  | C      |
| ENST Major Elective PHYS 111 General Physics I PHYS 111L General Physics I Lab Core Course <sup>1</sup>   | 3-5<br>3<br>1<br>3<br>3<br>3                     | ENST Major Elective PHYS 112 General Physics II PHYS 112L General Physics II Lab Core Course <sup>1</sup>   |        |
| ENST Major Elective PHYS 111 General Physics I PHYS 111L General Physics I Lab Core Course <sup>1</sup> Core Course <sup>1</sup>  | 3-5<br>3<br>1<br>3<br>3                          | ENST Major Elective PHYS 112 General Physics II PHYS 112L General Physics II Lab Core Course <sup>1</sup>   |        |
| ENST Major Elective PHYS 111 General Physics I PHYS 111L General Physics I Lab Core Course <sup>1</sup> Core Course <sup>1</sup> Core Course <sup>1</sup>                                       | 3-5<br>3<br>1<br>3<br>3<br>3<br>1 <b>5-17</b>    | ENST Major Elective PHYS 112 General Physics II PHYS 112L General Physics II Lab Core Course <sup>1</sup>   |        |
| ENST Major Elective PHYS 111 General Physics I PHYS 111L General Physics I Lab Core Course <sup>1</sup> Core Course <sup>1</sup> Core Course <sup>1</sup>                                       | 3-5<br>3<br>1<br>3<br>3<br>3<br>1 <b>5-17</b>    | ENST Major Elective PHYS 112 General Physics II PHYS 112L General Physics II Lab Core Course <sup>1</sup>   | c<br>c |
| ENST Major Elective PHYS 111 General Physics I PHYS 111L General Physics I Lab Core Course <sup>1</sup> Core Course <sup>1</sup> Core Course <sup>1</sup> Summer                                | 3-5<br>3<br>1<br>3<br>3<br>3<br>15-17<br>Credits | ENST Major Elective PHYS 112 General Physics II PHYS 112L General Physics II Lab Core Course¹ Core Course¹  | :      |
| ENST Major Elective PHYS 111 General Physics I PHYS 111L General Physics I Lab Core Course <sup>1</sup> Core Course <sup>1</sup> Core Course <sup>1</sup> Summer                                | 3-5<br>3<br>1<br>3<br>3<br>3<br>15-17<br>Credits | ENST Major Elective PHYS 112 General Physics II PHYS 112L General Physics II Lab Core Course¹ Core Course¹ Spring   | :      |
| ENST Major Elective PHYS 111 General Physics I PHYS 111L General Physics I Lab Core Course <sup>1</sup> Core Course <sup>1</sup> Core Course <sup>1</sup> Summer  Fall ENST Major Elective      | 3-5 3 1 3 3 3 15-17 Credits  Credits 3-4         | ENST Major Elective PHYS 112 General Physics II PHYS 112L General Physics II Lab Core Course¹ Core Course¹  Spring ENST Major Elective  | :      |
| ENST Major Elective PHYS 111 General Physics I PHYS 111L General Physics I Lab Core Course¹ Core Course¹ Summer  Fall ENST Major Elective ENST 490 or 491 or 499                                | 3-5 3 1 3 3 3 15-17 Credits  Credits  3-4 3      | ENST Major Elective PHYS 112 General Physics II PHYS 112L General Physics II Lab Core Course¹ Core Course¹  Spring ENST Major Elective ENST 410 Environmental Sampling & Analysis       | :      |
| ENST Major Elective PHYS 111 General Physics I PHYS 111L General Physics I Lab Core Course¹ Core Course¹ Summer  Fall ENST Major Elective ENST 490 or 491 or 499 MATH 128 Stats & Data Analysis | 3-5 3 1 3 3 3 15-17 Credits  Credits  3-4 3 4    | ENST Major Elective PHYS 112 General Physics II PHYS 112L General Physics II Lab Core Course¹ Core Course¹  ENST Major Elective ENST 410 Environmental Sampling & Analysis Core Course¹ | :      |

### NOTES:

<sup>&</sup>lt;sup>1</sup>Choose one course from each of the Core Requirements listed on the reverse side.

<sup>&</sup>lt;sup>2</sup> Course may satisfy both a Major and a Core requirement. MATH 128 will satisfy the Quantitative Reasoning Core requirement, ENST 201 and 202 will satisfy the Scientific Endeavor and the Science in Context Core requirements.

 $<sup>^3</sup>$  Students may select "free electives" for personal enrichment  $\underline{\textbf{OR}}$  for Minor and/or Second Major Requirements.

PR Course has a prerequisite – check college catalog.