### General CALS distribution requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDAE 208</td>
<td>Agricultural Policy and Ethics</td>
</tr>
<tr>
<td>PSS 100</td>
<td>Home &amp; Garden Horticulture</td>
</tr>
<tr>
<td>or PSS 201</td>
<td>SU: Intro to Agroecology</td>
</tr>
</tbody>
</table>

### Core distribution requirements for the major (which also fill CALS distribution requirements):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCOR 102</td>
<td>SU: Ecology and Evolution</td>
</tr>
<tr>
<td>MMG 101</td>
<td>Microbiol &amp; Infectious Disease</td>
</tr>
<tr>
<td>or PSS 106</td>
<td>Entomology &amp; Pest Mgmt</td>
</tr>
</tbody>
</table>

### Environmental Science minimal basic science/quantitative courses (which also fill college core requirements):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCOR 011</td>
<td>Exploring Biology</td>
</tr>
<tr>
<td>or BIOL 001</td>
<td>Principles of Biology</td>
</tr>
<tr>
<td>BCOR 012</td>
<td>Exploring Biology</td>
</tr>
<tr>
<td>or BIOL 002</td>
<td>Principles of Biology</td>
</tr>
<tr>
<td>PSS 161</td>
<td>SU: Fundmntls of Soil Science</td>
</tr>
<tr>
<td>or GEOL 055</td>
<td>Environmental Geology</td>
</tr>
</tbody>
</table>

### Concentration requirement: fourteen to seventeen credits in one of the following Focus Areas:

- Agriculture and the Environment
- Conservation Biology and Biodiversity
- Ecological Design
- Environmental Analysis and Assessment
- Environmental Biology
- Environmental Geology
- Environmental Health
- Global Environmental and Climate Change
- Water Resources

Students may elect to petition to develop a Self-Designed curriculum track.

### CONCENTRATION REQUIREMENTS

#### Agriculture and the Environment Concentration

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSS 162</td>
<td>Soil Fertility &amp; Conservation</td>
</tr>
</tbody>
</table>

Choose a minimum of 11 additional credits from the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PBIO 109</td>
<td>Plant Systematics</td>
</tr>
<tr>
<td>MMG 220</td>
<td>Environmental Microbiology</td>
</tr>
<tr>
<td>PSS 106</td>
<td>Entomology &amp; Pest Mgmt</td>
</tr>
<tr>
<td>PSS 112</td>
<td>Weed Ecology &amp; Management</td>
</tr>
<tr>
<td>PSS 117</td>
<td>Plant Pathology</td>
</tr>
<tr>
<td>PSS 143</td>
<td>Forage and Pasture Mgmt</td>
</tr>
<tr>
<td>PSS 156</td>
<td>Permaculture</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>PSS 232</td>
<td>Biological Control</td>
</tr>
<tr>
<td>ENSC 195</td>
<td>Internship</td>
</tr>
<tr>
<td>ENSC 196</td>
<td>Undergraduate Research</td>
</tr>
<tr>
<td>PSS 212</td>
<td>SU: Advanced Agroecology</td>
</tr>
<tr>
<td>PSS 261</td>
<td>Soil Morph Class &amp; Land Use</td>
</tr>
<tr>
<td>PSS 264</td>
<td>Chemistry of Soil &amp; Water</td>
</tr>
<tr>
<td>PSS 268</td>
<td>Soil Ecology</td>
</tr>
<tr>
<td>PSS 269</td>
<td>Soil/Water Pollution/Bioremed</td>
</tr>
</tbody>
</table>

A maximum of 3 credits of ENSC 195 or ENSC 196 may apply toward the 11 elective credits with advisor approval.

### Conservation Biology and Biodiversity Concentration

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>WFB 224</td>
<td>Conservation Biology</td>
<td>4</td>
</tr>
</tbody>
</table>

Choose ONLY one of the following:

- PBIO 109 Plant Systematics
- FOR 021 Dendrology
- WFB 130 Ornithology
- WFB 232 Ichthyology

Choose a minimum of 6-7 additional credits from the following courses:

- ASCI 171 Zoos, Exotics & Endang Species
- BCOR 101 Genetics
- BCOR 102 SU: Ecology and Evolution
- PBIO 108 Morph & Evo of Vascular Plants
- FOR 122 Forest Ecosystem Analysis
- ENSC 195 Internship
- ENSC 196 Undergraduate Research
- MMG 220 Environmental Microbiology
- NR 289 Advanced Ecological Design
- PSS 127 Greenhouse Operations & Mgmt
- PSS 137 Landscape Design Fundamentals
- PSS 162 Soil Fertility & Conservation
- PSS 238 Ecological Landscape Design
- PSS 154 Composting Ecology & Mgmt
- PSS 156 Permaculture
- PSS 212 SU: Advanced Agroecology
- PSS 268 Soil Ecology
- PSS 269 Soil/Water Pollution/Bioremed
- PRT 230 Ecotourism

A maximum of 3 credits of ENSC 195 or ENSC 196 may apply toward the 11 elective credits with advisor approval.

### Ecological Design Concentration

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NR 288</td>
<td>Ecol Design &amp; Living Technol</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose a minimum of 11 additional credits from the following courses:

- CDAE 102 Sustainable Community Dev
- CDAE 170 Green Building Energy Systems
- CDAE 191 Independent Study
- CDAE 237 Economics of Sustainability
- CDAE 267 Strat Plan: Comm Entrepreneurs
- CE 132 SU: Environmental Systems
- CE 151 SU: Water & Wastewater Engr
- ENVS 188 SU: Sustainability Science
- ENSC 195 Internship
- ENSC 196 Undergraduate Research
- MMG 220 Environmental Microbiology
- NR 289 Advanced Ecological Design
- PSS 127 Greenhouse Operations & Mgmt
- PSS 137 Landscape Design Fundamentals
- PSS 162 Soil Fertility & Conservation
- PSS 238 Ecological Landscape Design
- PSS 154 Composting Ecology & Mgmt
- PSS 156 Permaculture
- PSS 212 SU: Advanced Agroecology
- PSS 268 Soil Ecology
- PSS 269 Soil/Water Pollution/Bioremed
- PRT 230 Ecotourism

A maximum of 3 credits of ENSC 195 or ENSC 196 may apply toward the 11 elective credits with advisor approval.

### Environmental Analysis and Assessment Concentration

Choose a minimum of 14 credits from the following courses:

- CHEM 121 Quantitative Analysis
- PBIO 223 Fundamentals of Field Science
- CE 132 SU: Environmental Systems
<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 151</td>
<td>SU: Water &amp; Wastewater Engr</td>
</tr>
<tr>
<td>CE 254</td>
<td>Environmental Quantitive Anal</td>
</tr>
<tr>
<td>CHEM 131</td>
<td>Inorganic Chemistry</td>
</tr>
<tr>
<td>CHEM 165</td>
<td>Intro Physical Chemistry</td>
</tr>
<tr>
<td>CHEM 221</td>
<td>Instrumental Analysis</td>
</tr>
<tr>
<td>FOR/NR 146/GEOG 185</td>
<td>Remote Sensing of Natural Res</td>
</tr>
<tr>
<td>ENSC 195</td>
<td>Internship</td>
</tr>
<tr>
<td>ENSC 196</td>
<td>Undergraduate Research</td>
</tr>
<tr>
<td>GEOL 235</td>
<td>Geochemistry of Natural Waters</td>
</tr>
<tr>
<td>MMG 220</td>
<td>Environmental Microbiology</td>
</tr>
<tr>
<td>NR 143</td>
<td>Intro to Geog Info Systems</td>
</tr>
<tr>
<td>or NR 243</td>
<td>GIS Practicum</td>
</tr>
<tr>
<td>PSS 261</td>
<td>Soil Morph Class &amp; Land Use</td>
</tr>
<tr>
<td>PSS 264</td>
<td>Chemistry of Soil &amp; Water</td>
</tr>
</tbody>
</table>

A maximum of 3 credits of ENSC 195 or ENSC 196 may apply toward the 14 elective credits with advisor approval.

### Environmental Biology Concentration

- **BCOR 102**  SU: Ecology and Evolution  4

Choose a minimum of 12 additional credits from the following courses:

- **BIOL 209**  Field Zoology of Arthropods
- **BIOL 217**  Mammalogy
- **BIOL 254**  Population Genetics
- **BIOL 264**  Community Ecology
- **BIOL 269**  Plant-Animal Interactions
- **BIOL 271**  Evolution
- **BIOL 276**  Behavioral Ecology
- **NR 250**  Limnology
- or **NR 280**  Stream Ecology
- **PSS 268**  Soil Ecology
- **ENSC 195**  Internship
- **ENSC 196**  Undergraduate Research

A maximum of 3 credits of ENSC 195 or ENSC 196 may apply toward the 12 elective credits with advisor approval.

### Environmental Geology Concentration

Choose a minimum of 14 credits from the following courses:

- **GEOL 101**  Field Geology
- **GEOL 116**  Glacial Geology
- **GEOL 135**  Environmental Geochemistry
- **GEOL 151**  Geomorphology
- or **GEOG 144**  Geomorphology
- **GEOL 201**  Advanced Field Geology
- **GEOL 217**  Vermont Field Geology
- **GEOL 234**  Global Biogeochemical Cycles
- **GEOL 235**  Geochemistry of Natural Waters
- **NR 143**  Intro to Geog Info Systems
- or **GEOG 184**  Geog Info: Cnpts & Applic
- **ENSC 195**  Internship
- **ENSC 196**  Undergraduate Research

A maximum of 3 credits of ENSC 195 or ENSC 196 may apply toward the 14 elective credits with advisor approval.

### Environmental Health Concentration

- **NR/ENVS/HLTH 107**  SU: Human Health & the Envirnmt  3

Choose a minimum of 11 additional credits from the following courses:

- **ANTH 288**  Anthro Research Global Health
- **BCOR 101**  Genetics
- **BIOC 201**  Fundamentals of Biochemistry
- **BIOC 275**  Adv Biochem of Human Disease
- **BIOL 261**  Neurobiology
- **CHEM 142**  Organic Chemistry 2
- **ENSC 195**  Internship
- **ENSC 196**  Undergraduate Research
- **ENVS 195**  Special Topics (When topic is Emerging Technologies and Human Health)
- **MMG 101**  Microbiol & Infectious Disease
- **NFS 114**  Human Health in the Food Syst
- **NR 143**  Intro to Geog Info Systems
- **NURS 200**  SU: Health and Sustainability
- **PH 304**  Environmental Public Health
PH 308  Environmental Public Health 2
PHRM 201  Introduction to Pharmacology
PHRM 240  Molecules & Medicine
PHRM 272  Toxicology
STAT 200  QR: Med Biostat&Epidemiology

A maximum of 3 credits of ENSC 195 or ENSC 196 may apply toward the 11 elective credits with advisor approval.

**Global Environment and Climate Change Concentration**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR/NR 146/</td>
<td>Remote Sensing of Natural Res</td>
</tr>
<tr>
<td>GEOG 185</td>
<td></td>
</tr>
<tr>
<td>or NR 143</td>
<td>Intro to Geog Info Systems</td>
</tr>
</tbody>
</table>

Choose a minimum of 11 additional credits from the following courses:

- CE 132  SU: Environmental Systems
- ENSC 195  Internship
- ENSC 196  Undergraduate Research
- ENSC 274  SU: Climate Chg: Sci & Percept
- GEOG 140  Biogeography
- GEOG 143  Climatology: Concepts & Tools
- GEOG 148  Global Environmental Change
- GEOG 153  The Circumpolar Arctic
- GEOG 244  Adv Top: Global Change
- GEOG 245  Adv Top: Human Env Interactions (The Anthropocene)
- GEOG 246  Adv Top: Climate&Water Resource (Climatology and Natural Hazards)
- GEOG 246  Adv Top: Climate&Water Resource (Paleoclimatology)
- GEOL 151/| Geomorphology |
- GEOG 144 |   |
- GEOL 234  Global Biogeochemical Cycles
- NR 102   SU: Water as a Natural Resource
- or GEOG 145  SU: Geography of Water
- NR 220  Landscape Ecology
- PSS 261  Soil Morph Class & Land Use

A maximum of 3 credits of ENSC 195 or ENSC 196 may apply toward the 11 elective credits with advisor approval.

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**Water Resources Concentration**

Choose a minimum of 14 credits from the following courses:

- ENSC 195  Internship
- ENSC 196  Undergraduate Research
- GEOG 246  Adv Top: Climate&Water Resource (Snow Hydrology)
- GEOL 135  Environmental Geochemistry
- GEOL 235  Geochemistry of Natural Waters
- NR 102   SU: Water as a Natural Resource
- or GEOG 145  SU: Geography of Water
- NR 143  Intro to Geog Info Systems
- NR 250  Limnology
- NR 280  Stream Ecology
- PSS 269  Soil/Water Pollution/Bioremedi
- WFB 161  Fisheries Biology & Techniques

A maximum of 3 credits of ENSC 195 or ENSC 196 may apply toward the 14 elective credits with advisor approval.