1. Announcements
   a. Safety office update
      i. Results of a failed state inspection has implemented new rules across campus
         1. New Hazardous Waste Regulations and new training requirements
         2. Make sure all of those working in your lab are trained by October 1st
         3. Let Angela know if you have students who are not on campus right now and will need lab safety training so we can coordinate with the safety office
         4. Follow-up with safety office regarding REC & AES regarding whether or not follow same waste and training procedures
   b. AES Equipment and GRA RFPs
      i. Requests for proposals (RFPs) are being finalized and will be out soon to request funds for new equipment or GRAs
      ii. New Preference System involved
         1. For both RFPs preference will be given to faculty who are involved with REC collaboration or who are willing to propose an additional project to enhance SNRS teaching. Examples would include taking extra teaching responsibility, modifying an existing course, or putting a current course online.
   c. Hastings Hall
      i. HR Lease in Bison Block is running out in 2020
         1. Hastings is identified as new location for HR
            a. Would require herbarium, student cubicles, collections, and research space to move
         2. Hultz could potentially accommodate some space for student cubicles, herbarium, and collections
            a. Morrill Hall and/or Ladd Hall may have some space that would be made available for SNRS use
            b. Lab currently occupied by ABEN faculty in Hultz could potentially be converted to pollinator lab
   d. Post-tenure Review
      i. A Post-tenure review process is now in place and required as part of the PTE process of SNRS, CAFSNR, and NDSU.
         1. The updated SNRS PTE guidelines outlines the procedure and all procedures are in line with the post-tenure review process outlined in CAFSNR and NDSU guidelines.
2. Faculty are expected to be reviewed as part of the post-tenure review process every five years after the faculty is tenured.
3. Frank will start this process for our full faculty members, potentially either doing all the reviews this Fall or split over the next few years.
4. The review will consist of the last five annual reviews and a summary review document that Frank will create. The document will highlight the faculty’s impacts and possibly their future goals.
   a. Hoping to start in January, but no official timeline at this point.

e. Leah Position
   i. Replacement of Leah was approved at the college level, but not approved at Provost level
      1. Position was created to assist with the SOILS 210 lab sections as well as assist with MNRM
      2. Additional plans are being created for SOILS 210 to deal with this change.

2. SNRS Undergraduate Curriculum
   a. One overall degree with 6 undergraduate emphasis areas
      i. All emphases will currently fall under NRM program
         1. NRM name may change in the future
      ii. Additional minor changes are expected in the near future.
         1. For example, ENT 741 will be moved to an undergraduate level course
         2. Additional name changes will be discussed and submitted
         3. Possible changes to prefixes will also be discussed.
      iii. There has been talk with Animal Sciences and Biological Sciences about encompassing their courses into some of these emphases, and receiving support from them
         1. Animal Sciences has supported changes, meeting set up with Biological Sciences to get their support.
   b. Vote to approve the 6 emphasis areas (more than half of faculty were in attendance, so quorum was met)
      i. Devan made a motion to table the voting
      ii. Aaron second the motion to table the voting
      iii. Frank called 5 minute discussion regarding the changes
      iv. Motion to table the voting failed
   c. Jack made a move to approve changes and implement the 6 new emphasis areas
      i. Shawn second Jack’s motion to approve changes
      1. Motion carried to approve undergraduate curriculum
      2. Undergraduate curriculum changes passed

Adjourned
# Bachelor of Science Degree

## Sample Plan of Study

- Plan of studies will vary for each student depending on start year, individual goals, applicable transfer credit, and course availability.

<table>
<thead>
<tr>
<th></th>
<th>Fall</th>
<th>Spring</th>
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<tbody>
<tr>
<td><strong>ENGL 110 – College Comp. I</strong></td>
<td>3</td>
<td>BIOL 151 – General Biology II</td>
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<tr>
<td><strong>BIOL 150 – General Biology I</strong></td>
<td>3</td>
<td>BIOL 151L – General Biology II Lab.</td>
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<td><strong>BIOL 150L – General Biology I Lab.</strong></td>
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<td>ENGL 120 – College Comp. II</td>
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<tr>
<td><strong>NRM 150 – Major Introduction</strong></td>
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<td>Hum. &amp; Fine Arts Elective</td>
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<tr>
<td><strong>NRM 225 (G) – Natural Resources &amp; Agroecosystems</strong></td>
<td>3</td>
<td>Math 103 – College Algebra</td>
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<td><strong>RNG 136 – Intro to Range Management</strong></td>
<td>3</td>
<td>Wellness Elective</td>
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<tr>
<td><strong>COMM 110 – Fund. Of Public Speaking</strong></td>
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<td>PLSC 110 – World Food Crops</td>
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<tr>
<td><strong>ECON 201(G) (SBS) – Principles of Micro.</strong></td>
<td>3</td>
<td>SOIL 210 – Intro. to Soil Science</td>
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<tr>
<td><strong>ENT 210 – Insects, Humans &amp; Environment</strong></td>
<td>3</td>
<td>STATS 330 - Intro. Statistics</td>
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<tr>
<td><strong>RNG 213 - Rangeland Sampling Techniq.</strong></td>
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<td>3</td>
<td>ENT 431 (spring, odd) – Principles of Integrated Pest Management</td>
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<td><strong>ENGL 321, 324, or 459</strong></td>
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<td>ENT 470 (spring, odd) – Insect Ecology</td>
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<td><strong>ENT 350 – General Entomology</strong></td>
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<td>RNG 452 or GEOG 455 - GIS</td>
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<td><strong>PLSC elective (200, 300, 400)</strong></td>
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<td>SOIL 351 (spring, odd) – Soil Ecology</td>
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<td><strong>BIOL 475 – Conservation Biology</strong></td>
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<td>BIOL 380, 460, or RNG 450</td>
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<td>Emphasis Electives (CAFSNR or BIOL 300, 400)</td>
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**Total credits to graduate: 120**

Gen Ed requirements for Category D (Cultural Diversity) and G (Global Perspectives) can be fulfilled by taking approved courses that also qualify for other Gen Ed or curriculum requirements.
### Name TBD

**Emphasis: Environmental Sustainability and Outreach**

**Bachelor of Science Degree**

**Sample Plan of Study**

- Plan of studies will vary for each student depending on start year, individual goals, applicable transfer credit, and course availability.

<table>
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<th>Plan of study</th>
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<tr>
<td>Fall</td>
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<tr>
<td>BIOL 150 – General Biology I</td>
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<tr>
<td>NRM 225 (G) – Natural Resources &amp; Agrosystems</td>
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<td>Math 103 – College Algebra</td>
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<td>RNG 136 – Intro to Range Management</td>
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<td>BIOL 364 – General Ecology</td>
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<td>NRM 421 – Environmental Outreach Methods</td>
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<td>POLS/SOC/EMGT 200+</td>
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<tr>
<td>NRM 401 (fall even) – Urban-Ecosystem Mgmt</td>
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<td>NRM 420 - Scenarios in NRM</td>
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<td>NRM/RNG/SOIL 462 - Rangeland Planning Analysis</td>
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**Total credits to graduate: 120**

Gen Ed requirements for Category D (Cultural Diversity) and G (Global Perspectives) can be fulfilled by taking approved courses that also qualify for other Gen Ed or curriculum requirements.
## Name TBD

**Emphasis: Rangeland Ecology**  
**Bachelor of Science Degree**

### Sample Plan of Study

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<td>ANSC 114 – <em>Intro. Animal Science</em></td>
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<td>BIOL 150L – <em>General Biology I Lab.</em></td>
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<td>ENGL 120 – <em>College Comp. II</em></td>
</tr>
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<td>NRM 225 (G) – <em>Natural Resources &amp; Agrosystems</em></td>
<td>3</td>
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<td>Math 103 – <em>College Algebra</em></td>
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<tr>
<td>ECON 201(G) (SBS) - <em>Principles of Micro.</em></td>
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<td>STATS 330 - <em>Intro. Statistics</em></td>
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<td>ENT 210 – <em>Insects, Humans &amp; Environment</em></td>
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<td>BIOL 364 – <em>General Ecology</em></td>
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<td>BIOL 460 - <em>Plant Ecology</em></td>
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<td>PLSC 380 – <em>Principles of Plant Physiology</em></td>
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<td>RNG 452 or GEOG 455 - GIS</td>
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<td>RNG 453 (spring) or 454 (fall)</td>
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<td>RNG 451 (spring, even) – <em>Ecology of Fire-Dependent Ecosystems</em></td>
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**Total credits to graduate: 120**

Gen Ed requirements for Category D (Cultural Diversity) and G (Global Perspectives) can be fulfilled by taking approved courses that also qualify for other Gen Ed or curriculum requirements.
# Name TBD

**Emphasis: Rangeland Livestock Production**  
**Bachelor of Science Degree**

## Sample Plan of Study

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<tr>
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<th>Second Year</th>
<th>Credits</th>
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<tr>
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<td>ANSC 223 – Intro. Animal Nutrition</td>
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<td>COMM 110 – Fund. of Public Speaking</td>
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<td>EMGT 101 or POLS Elective (SBS)</td>
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<td>ECON 201(G) (SBS) - Principles of Micro.</td>
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<td>RNG 456 (fall, even) – Range Habitat Manag.</td>
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<td>SOIL 217 – Intro. Meteorology &amp; Climatology</td>
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<th>Spring</th>
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<tr>
<td>ANSC 357 – Animal Genetics</td>
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<tr>
<td>NRM 431 – NEPA &amp; Environ. Impact Assessment</td>
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<td>RNG 450 – Range Plants</td>
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<td>PLSC 320 – Principles of Forage Production</td>
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<td>SNRS Elective</td>
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<td>RNG 458 (fall, odd) – Grazing Ecology</td>
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<td>SNRS Elective</td>
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<tr>
<td>SOIL 351, 410, or 444</td>
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**Total credits to graduate: 120**

Gen Ed requirements for Category D (Cultural Diversity) and G (Global Perspectives) can be fulfilled by taking approved courses that also qualify for other Gen Ed or curriculum requirements.
### Name TBD

**Emphasis: Soil Science**

**Bachelor of Science Degree**

**Sample Plan of Study**

- Plan of studies will vary for each student depending on start year, individual goals, applicable transfer credit, and course availability.

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<tr>
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<td><strong>Fall</strong></td>
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<td>Math 103 – College Algebra</td>
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<td>ECON 201(G) (SBS) - Principles of Micro.</td>
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<td>BIOC 260 or CHEM 240 or MICR 202 &amp; 202L</td>
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<td>ENT 210 – Insects, Humans &amp; Environment</td>
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<td>NRM 421 – Environmental Outreach Methods</td>
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<td>PHIL 215(D) or 225 (H&amp;FA)</td>
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<td>RNG 452 or GEOG 455 - GIS</td>
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<td>RNG 213 - Rangeland Sampling Techniq.</td>
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<td>SOIL 351 – Soil Ecology</td>
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<td>PLSC 225 or RNG 300/400 Elective</td>
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<td>SOIL 444 – Soil Genesis &amp; Survey</td>
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<td>SOIL 410 – Soils &amp; Land Use</td>
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<td>SOIL/NRM 454 – Wetland Resources Mgt</td>
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<td>SOIL 322 – Soil Fertility &amp; Fertilizers</td>
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**Total credits to graduate: 120;**

Gen Ed requirements for Category D (Cultural Diversity) and G (Global Perspectives) can be fulfilled by taking approved courses that also qualify for other Gen Ed or curriculum requirements.
Name TBD
Emphasis: Water, Wildlife, and Habitat Management
Bachelor of Science Degree

Sample Plan of Study

- Plan of studies will vary for each student depending on start year, individual goals, applicable transfer credit, and course availability.

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<td>BIOL 150 – General Biology I</td>
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<td>RNG 213 - Rangeland Sampling Techniq.</td>
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**Total credits to graduate: 120**

Gen Ed requirements for Category D (Cultural Diversity) and G (Global Perspectives) can be fulfilled by taking approved courses that also qualify for other Gen Ed or curriculum requirements.
### ESO Emphasis

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<td>COMM 133</td>
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<td>COMM 316</td>
<td>Conflict Communication</td>
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<td>ECON 482</td>
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<td>EMGT 101</td>
<td>Emergencies, Disasters, and Catastrophes</td>
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<td>EMGT 261</td>
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<td>EMGT 262</td>
<td>Disaster Mitigation</td>
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<td>Disaster Response</td>
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<td>EMGT 264</td>
<td>Disaster Recovery</td>
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<td>EMGT 410</td>
<td>Comprehensive Emergency Management Planning</td>
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<td>EMGT 481</td>
<td>Disaster Analysis</td>
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<td>The Geology of Climate Change and Energy</td>
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<td>Hydrogeology</td>
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<td>Environmental Law and Policy</td>
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<td>Environmental Outreach Methods</td>
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<td>NRM 453</td>
<td>Rangeland Resource/Watershed Management</td>
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<td>PLSC 110</td>
<td>World Food Crops</td>
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<td>PLSC 219</td>
<td>Introduction to Prairie &amp; Community Forestry</td>
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<td>POLS 215</td>
<td>Problems and Policies In American Government</td>
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<td>POLS 442</td>
<td>Global Policy Issues</td>
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<td>RNG 451</td>
<td>Ecology of Fire-Dependent Ecosystems</td>
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<td>RNG 456</td>
<td>Range Habitat Management</td>
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<td>RNG 458</td>
<td>Grazing Ecology</td>
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<td>SOC 115</td>
<td>Social Problems</td>
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<td>SOC 431</td>
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<td>SOC 439</td>
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<td>Introduction to Meteorology &amp; Climatology</td>
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PLSC Electives 200, 300, or 400 6 credits

**PLSC 210** Horticulture Science (F)

PLSC 219 Introduction to Prairie and Community Forestry

**PLSC 315** Genetics (F, S)

**PLSC 323** Principles of Weed Science (S)

**PLSC 350** Sugarbeet Production (F/2)

**PLSC 355** Woody Landscape Plants (F)

**PLSC 365** Herbaceous Landscape Plants (F/O/2)

**PLSC 370** Landscape Management (F/O)

**PLSC 375** Turfgrass Management (F/O)

**PLSC 412** Nursery Production and Management (S/O)

**PLSC 415** Vegetable Crop Production (S/O)

**PLSC 416** Fruit Crop Production (F/E)

**PLSC 422** Greenhouse Production and Management (S/E)

**PLSC 425** Potato Science (F/O/2)

**PLSC 431** Intermediate Genetics (F)

**PLSC 433** Weed Biology and Ecology (S/E)

**PLSC 455** Cropping Systems: An Integrated Approach (S)

Emphasis Electives (CAFSNR or Bio 300 or 400) ** PLSC 300 or 400 can also be used here**

BIOL 359 Evolution

BIOL 463 Animal Behavior

BIOL 476 Wildlife Ecology and Management

MICR 202 Introductory Microbiology

MICR 452 Microbial Ecology

MICR 463 Clinical Parasitology

NRM 401 Urban Ecosystems

NRM 402 Rivers and Streams

NRM 420 Sustainable Scenarios

NRM 431 NEPA

NRM 453 Watersheds

NRM 454 Wetlands

PLSC 315 Genetics

RNG 450 Range Plants

RNG 460 Plant Ecology

SOIL 410 Soils and Land Use
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<td>BIOL 252</td>
<td>Plant and Animal Diversity</td>
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<td>BIOL 271</td>
<td>Wildlife Ecology and Conservation: An Undergraduate Research Course</td>
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<td>BIOL 359</td>
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<td>BIOL 454</td>
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<td>BIOL 460</td>
<td>Animal Physiology</td>
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<td>BIOL 461/RNG 460</td>
<td>Plant Ecology</td>
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<td>BIOL 462</td>
<td>Physiological Ecology</td>
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<td>Animal Behavior</td>
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<td>BIOL 472</td>
<td>Structure and Diversity of Plants and Fungi</td>
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<td>BIOL 477</td>
<td>Wildlife and Fisheries Management Techniques</td>
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<td>Introductory Microbiology</td>
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<td>NRM 401</td>
<td>Urban-Ecosystem Management</td>
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<td>NRM 420</td>
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<td>Soil Ecohydrology and Physics</td>
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<td>SOIL 410</td>
<td>Soils and Land Use</td>
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Natural Resources Management (exploring options)
Bachelor of Science Degree
Sample Plan of Study – Degree Overview

- Plan of studies will vary for each student depending on start year, individual goals, applicable transfer credit, and course availability.
- By Second year student should decide on Emphasis Area (see back) which will help determine classes for “Emphasis Area Credits”

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<tr>
<td>CHEM 121 – General Chemistry I</td>
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<td>NRM 421 – Env. Outreach Methods</td>
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<td>Emphasis Area Credits</td>
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<td>NRM/RNG/SOIL 462 – Rangeland Planning &amp; Analysis (Capstone)</td>
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**Total credits to graduate: 120**
Gen Ed requirements for Category D (Cultural Diversity) and G (Global Perspectives) can be fulfilled by taking approved courses that also qualify for other Gen Ed or curriculum requirements.

<table>
<thead>
<tr>
<th>Water, Wildlife, and Environmental Management</th>
<th>Environmental Sustainability &amp; Outreach</th>
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<tr>
<td>Required 50 credits</td>
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<tr>
<td>BIOL 364 – General Ecology</td>
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<tr>
<td>BIOL 475 OR 476</td>
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<td>ECON 481 – Natural Resource Economics</td>
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<td>HIST 434 OR 435 – US or World Env. History</td>
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<td>NRM 264 – NRM Systems</td>
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<td>NRM 402, 454, OR SOIL 410</td>
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<td>NRM 431 – NEPA and Env. Assessment</td>
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<td>Required: 26 additional emphasis credits</td>
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<tr>
<td>Rangeland Ecology</td>
<td>Rangeland Livestock Production</td>
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<tr>
<td>ANSC 114 – Intro to Animal Science</td>
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<td>BIOL 364 – General Ecology</td>
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<td>BIOL 452, 454, 456, or 458</td>
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<td>RNG 460 – Plant Ecology</td>
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<td>BIOL 475 or 476</td>
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<td>NRM 431 – NEPA and Env. Assessment</td>
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<td>RNG 450 – Range Plants</td>
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<td>RNG 451 – Ecology of Fire-Dependent Ecosystems</td>
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<tr>
<td>NRM 453 or 454 – Watersheds or Wetlands</td>
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<td>RNG 456 - Range Habitat Management</td>
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<td>RNG 458 - Grazing Ecology</td>
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<td>SOIL 217 – Intro to Meteorology and Climatology</td>
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<td>SOIL 351, 410, or 444</td>
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<td>Soil Genesis and Survey</td>
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