LANDSCAPE ANALYSIS OPTION

This option is offered within the following major(s):

- Natural Resources - College of Forestry (http://catalog.oregonstate.edu/college-departments/forestry/forest-ecosystems-society/natural-resources-bs-hbs)

Also available via Ecampus.

This option prepares students to work with Geographic Information Science technology in a natural resource field such as wildfire ecology, land use planning, forestry, ecological restoration, and more. The pairing of the technical skills of GIScience with a disciplinary knowledge in a natural resource area will prepare students for the practical application of technical skills in the real world.

In addition, this specialty option will allow students to earn the GIScience Undergraduate Certificate through the College of Earth, Ocean, and Atmospheric Sciences concurrently with their BS degree through the College of Forestry. The student will apply to the GIS Certificate Program as well as the Natural Resources Program.

Students should contact Kuuipo Walsh (kuuipo.walsh@oregonstate.edu), GIScience Certificate Program Director, to enroll in the GIS Certificate Program.

No S/U grades are accepted for the GEO courses that are counted for the GIS Certificate.

No more than 24 credits from one department; no more than 20 lower-division credits.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FE 208</td>
<td>FOREST SURVEYING</td>
<td>4</td>
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<tr>
<td>GEOG 201</td>
<td>*FOUNDATIONS OF GEOSPATIAL SCIENCE AND GIS</td>
<td>4</td>
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<tr>
<td>GEOG 360</td>
<td>GISCIENCE I: GEOGRAPHIC INFORMATION SYSTEMS AND THEORY</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 370</td>
<td>GEOVISUALIZATION: CARTOGRAPHY</td>
<td>4</td>
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<tr>
<td>GEOG 480</td>
<td>REMOTE SENSING I: PRINCIPLES AND APPLICATIONS</td>
<td>4</td>
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Geographic Information Science Electives

Select 2 courses from below  6-8

- CE 413 GIS IN WATER RESOURCES
- CROP 414 PRECISION AGRICULTURE
  - or HORT 414 PRECISION AGRICULTURE
- ECE 468 DIGITAL IMAGE PROCESSING
- ENSC 410 ENVIRONMENTAL SCIENCE INTERNSHIP
  - or FOR 410 INTERNSHIP
  - or GEO 410 INTERNSHIP
  - or GEOG 410 INTERNSHIP
- FE 209 FOREST PHOTOGRAMMETRY AND REMOTE SENSING
- FE 310 FOREST ROUTE SURVEYING
- FW 303 SURVEY OF GEOGRAPHIC INFORMATION SYSTEMS IN NATURAL RESOURCE
- GEOG 361 GISCIENCE II: ANALYSIS AND APPLICATIONS
- GEOG 371 GEOVISUALIZATION: WEB MAPPING
- GEOG 451 PLANNING PRINCIPLES AND PRACTICES FOR RESILIENT COMMUNITIES
- GEOG 462 GISCIENCE III: PROGRAMMING FOR GEOSPATIAL ANALYSIS
- GEOG 463 GISCIENCE IV: SPATIAL MODELING
- GEOG 464 GEOSPATIAL PERSPECTIVES ON INTELLIGENCE, SECURITY, AND ETHICS
- GEOG 472 GEOVISUALIZATION: GEOVISUAL ANALYTICS
- GEOG 481 REMOTE SENSING II: DIGITAL IMAGE PROCESSING
- RNG 430 APPLIED GIS IN RANGELAND SCIENCE
- SOIL 468 SOIL LANDSCAPE ANALYSIS

Choose a minimum of 12–14 credits in a disciplinary area related to GIScience to reach a minimum of 40 credits in the option.

Students will be required to submit an academic plan for completion of the option which will be approved by the Natural Resources Program Director.

Total Hours  38-42

* Baccalaureate Core Course (BCC)
^ Writing Intensive Course (WIC)

Option Code: 689