GEOGRAPHIC INFORMATION SCIENCE CERTIFICATE

Also available via Ecampus.

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Oregon State University offers an undergraduate and graduate certificate in Geographic Information Science. Geographic Information Science ("GIScience") is a discipline that combines theory and principles underlying:

- geospatial data collection (remotely sensed imagery from satellites, aircraft, and drones, social media, telemetry, GPS, etc.);
- technologies to manage, analyze, and visualize geospatial data (geographic information systems);
- computational, statistical, and mathematical methods to analyze and model geospatial data (machine learning, Big Data, spatial statistics, spatial modeling, geovisual analytics, etc.);
- digital cartography and geovisualization (the science and practice of creating maps); and
- cognitive, social, and environmental implications of GIScience (professional ethics, privacy, digital divide, etc.).

The OSU GIScience certificate can help lead to certification as a nationally-recognized geographic information systems (GIS) professional (GISP). GIS professionals are in high demand for jobs in government, NGOs, and the private sector, and have rewarding careers in natural resource management, online and interactive mapping, business, planning, and many others.

Certificate Code: C540

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<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>
</tr>
<tr>
<td>GEOG 370</td>
<td>CARTOGRAPHY</td>
<td>4</td>
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<td>GEOG 480</td>
<td>REMOTE SENSING I: PRINCIPLES AND APPLICATIONS</td>
<td>4</td>
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Select one course from the following: 3-4

- GEOG 360 | GISCIENCE I: GEOGRAPHIC INFORMATION SYSTEMS AND THEORY
- FE 257 | GIS AND FOREST ENGINEERING APPLICATIONS
- CE 202 | CIVIL ENGINEERING: GEOSPATIAL INFORMATION AND GIS

Electives: Select 7-8 credits from the following:

- CE 413 | GIS IN WATER RESOURCES
- CROP 414/HORT 414 | PRECISION AGRICULTURE
- ECE 468 | DIGITAL IMAGE PROCESSING

- Baccalaureate Core Course (BCC)

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