

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 (kuiuipo.walsh@oregonstate.edu), *GIScience Certificate Program Director*, to enroll in the GIScience Certificate Program.

Option Code: 689

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

A minimum of 40 credits with 20 upper-division credits are required.

Code	Title	Credits
Option Requirements ^{1,2}		
Measurements (4 credits)		
FE 208	FOREST SURVEYING	4
Geographic Information Science Required Courses (16 credits)		
GEOG 201	*FOUNDATIONS OF GEOSPATIAL SCIENCE AND GIS	4
GEOG 360	GISCIENCE I: GEOGRAPHIC INFORMATION SYSTEMS AND THEORY	4
GEOG 370	CARTOGRAPHY	4
GEOG 480	REMOTE SENSING I: PRINCIPLES AND APPLICATIONS	4
or FE 444	FOREST REMOTE SENSING AND PHOTOGRAMMETRY	
Geographic Information Science Electives (6-8 credits)		
Select two courses from the following:		6-8
CE 413	GIS IN WATER RESOURCES	
CROP 414/HORT 414	PRECISION AGRICULTURE	
FE 209	FOREST PHOTOGRAMMETRY AND REMOTE SENSING	
FE 310	FOREST ROUTE SURVEYING	
FE 423	UNMANNED AIRCRAFT SYSTEM REMOTE SENSING	
FW 303	SURVEY OF GEOGRAPHIC INFORMATION SYSTEMS IN NATURAL RESOURCE	
GEOG 361	GISCIENCE II: ANALYSIS AND APPLICATIONS	
GEOG 371	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	SATELLITE IMAGE ANALYSIS	
NR 410	INTERNSHIP	
SOIL 468	SOIL LANDSCAPE ANALYSIS	
Natural Resource Electives (12-14 credits)		
Select a minimum of 12–14 credits in a disciplinary area related to GIScience		12-14
Total Credits		40-42

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Baccalaureate Core Course (BCC)

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Writing Intensive Course (WIC)

1

Up to 6 credits of appropriate internships, projects or study abroad may be used to fulfill requirements in this option as approved by petition

2

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

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