

Degree Requirement Checklist for Geography Master Degree



Department of Geosciences
Oregon State University

1. Background Requirements

Does the audit of this student's record specify the need to take any of the following minimum background coursework? If the audit specifies any of these courses, they are to be taken for undergraduate credit early in the program. They may not be audited or taken for graduate credit. They must be taken on a graded bases (not S/U or P/N).

- GEO 201 - Physical Geography
- ST 351 - Introduction to Statistical Methods
- GEO 300 – Sustainability for the Common Good
- GEO 360 - Cartography

2. Exit Requirements

Does the audit of this student's record specify the need to take any of the following exit requirements coursework? Although students may take undergraduate courses to meet exit requirements, this could inordinately delay completion of the master's degree. The courses listed above may be used to simultaneously meet exit requirements and graduate program requirements.

Field work (GEO 548 or substitute approved by major professor)

- GEO 548 – Field Research in Geomorphology and Landscape Ecology

Physical Geography (Choose from below or substitute approved by major professor)

- GEO 531 – Applied Climatology
- GEO 532 – Applied Geomorphology
- GEO 539 – Topics in Physical Geography
- GEO 546 – Advanced Landscape Ecology
- GEO 582 – Geomorphology of Forests and Streams
- GEO 583 – Snow Hydrology

Resource Geography (Choose from below or substitute approved by major professor)

- GEO 520 – Geography of Resource Use
- GEO 521 – Humans and Their Wildlife Environment
- GEO 523 – Land Use
- GEO 524 – International Water Resources Management
- GEO 525 – Water Resources Management in the United States
- GEO 526 – Third-World Resource Development
- GEO 529 – Topics in Resource Geography
- GEO 551 – Environmental Site Planning
- GEO 552 – Principles and Practices of Rural and Resource Planning
- GEO 553 – Resource Evaluation Methods/EIS

Remote Sensing/Image Processing (Choose from below or substitute approved by major professor)

- GEO 544 – Remote Sensing
- GEO 566 – Digital Image Processing

Geographic Information Systems (Choose from below or substitute approved by major professor)

- GEO 565 – Geographic Information Systems and Science
- GEO 580 – Advanced GIS Applications in the Geosciences

Statistics (ST 511 or substitute such as GEO 541 approved by major professor)

- ST 511 – Methods of Data Analysis
- GEO 541 – Spatio-Temporal Variation in Ecology and Earth Science

3. **Program Requirements**

The total program must have at least 45 graduate course hours (48 for non-thesis students). The combination of exit, major and minor program requirements must list at least 30 graduate hours in geography including the common set of core classes listed below.

- GEO 501 – Research Paper (3 credits) or GEO 503 – Thesis (6 credits)
- GEO 507 – Seminar: Geographic Research (1 credit)
[Repeat 3 times; one must be taken concurrently with GEO 515]
- GEO 515 – History and Philosophy of Geography (3 credits)*
- GEO 518 – Geoscience Communication (3 credits)*
- GEO 548 – Field Research in Geomorphology and Landscape Ecology (3 credits)*
- GEO 534 – Field Geography of Oregon (3 credits)* [Highly recommended but not required]
- Professional Experiences (2) Research Proposal Presentation Grant Proposal

Every student must complete a major program of study including at least 27 credits. The major areas of study are geographic information science, physical geography or resource geography. The specific courses selected must meet the approval of the major professor and program director.

A minor program of study is NOT required. However, if a student desires a minor, many are available on the OSU campus, including an integrated minor that combines fields around a student-designated theme (such as physical geography or resource geography). These minors must consist of at least 15 credits. There is also the graduate certificate in geographic information science at 19 credits. The following list is helpful in guiding the selection of geography courses for inclusion in major and minor programs:

Internship

GEO 510 – Internship [Three credits of internship may be used in the graduate program when a student has chosen the non-thesis option.]

Geographic Information Science

- GEO 541 – Spatio-Temporal Variation in Ecology and Earth Science*
- GEO 544 – Remote Sensing
- GEO 545 – Computer-Assisted Cartography
- GEO 560 – Multimedia Cartography
- GEO 565 – Geographic Information Systems and Science
- GEO 566 – Digital Image Processing
- GEO 580 – Advanced GIS Applications in the Geosciences*
- GEO 585 – Advanced Remote Sensing and Digital Image Processing*
- GEO 599 – Special Topics

Resource Geography

- GEO 520 – Geography of Resource Use
- GEO 521 – Humans and Their Wildlife Environment
- GEO 522 – Reconstructing Historical Landscapes
- GEO 523 – Land Use
- GEO 524 – International Water Resources Management
- GEO 525 – Water Resources Management in the US
- GEO 526 – Third-World Resource Development
- GEO 529 – Topics in Resource Geography
- GEO 552 – Principles and Practices of Rural and Resource Planning

Physical Geography

GEO 531 – Applied Climatology
GEO 532 – Applied Geomorphology
GEO 534 – Field Geography of Oregon*
GEO 539 – Topics in Physical Geography
GEO 546 – Advanced Landscape Ecology*
GEO 548 – Field Research in Geomorphology and Landscape Ecology*
GEO 581 – Glacial Geology*
GEO 582 – Geomorphology of Forests and Streams*
GEO 583 – Snow Hydrology*
GEO 593 – Topics in Quaternary Geology

*500 level only course. In other departments, related 500 level only courses are listed below. You may petition the Graduate School to accept a 400/500 course as 500 level only if you include the syllabus of the course with a clear statement of learning outcomes for graduate students.

FOR 520 – Advanced Aerial Photos and Remote Sensing
FOR 521 – Spatial Analysis of Forested Landscapes
FOR 523 – Quantitative Analysis in Social Science
FOR 558 – Concepts of Forest Recreation Planning and Management
FOR 561 – Forest Policy Analysis

MRM 525 – Special Topics in Marine Resource Management

OC 678 – Satellite Oceanography

ST 565 – Time Series and Spatial Statistics

CS 549 – Selected Topics in Information-Based Systems
CS 553 – Scientific Visualization