# Geospatial Information Science and Technology

## Minor

The minor in Geospatial Information Science and Technology (GIST) has been approved by three departments at UC Berkeley. The Departments of Environmental Science, Policy, and Management in the College of Natural Resources, City and Regional Planning in the College of Environmental Design, Geography in the College of Letters and Science all offer minors in GIST which includes courses across campus. These programs serve students in geography and other social sciences, archeology, environmental science, policy and management, city and regional planning, humanities, architecture, landscape architecture and environmental planning, civil and environmental engineering, public policy, and environmental public health. The minor is open to all majors at UC Berkeley.

## Declaring the Minor

The Geospatial Information Science and Technology minor is available to any current UC Berkeley student in good academic standing. The deadline to complete this minor program is before your degree at UC Berkeley has posted. For more information, please visit https://nature.berkeley.edu/advising/minors/gist

Students who have a strong interest in an area of study outside their major often decide to complete a minor program. These programs have set requirements and are noted officially on the transcript in the memoranda section, but they are not noted on diplomas.

## General Guidelines

**Completing the Geospatial Information Science and Technology Minor Program:**

1. Students must complete one required prerequisite and at least five upper division courses. At least three upper division courses must be selected from the restricted elective list.
2. Students must check with their home college for overlap restrictions between majors and minors.
3. All courses must be taken for a letter grade and the cumulative minor GPA must be 2.0 or higher.

## Requirements

**Prerequisite, select 1 course from the following list.**

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| ESPM 72 | Introduction to Geographic Information Systems |
| GEOG 80 | Digital Worlds: An Introduction to Geospatial Technologies |

For additional preparation, students might consider optional prerequisites of COMPSCI 10 The Beauty and Joy of Computing or ENGIN 7 Introduction to Computer Programming for Scientists and Engineers.

**Upper Division Courses - Restricted Elective Courses: Select at least 3 courses from the following list.**

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| ESPM 164 | GIS and Environmental Science |
| ESPM 173 | Introduction to Ecological Data Analysis |
| GEOG 183 | Cartographic Representation |
| GEOG 185 | Earth System Remote Sensing |
| GEOG 187 | Geographic Information Analysis |
| LD ARCH C177 | GIS and Environmental Spatial Data Analysis |
| LD ARCH/ GEOG C188 | Geographic Information Systems |

**Upper Division Courses - Additional Elective Courses: Select final upper division courses from the lists above or below.**

Undergraduate Courses

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| COMPSCI 160 | User Interface Design and Development |
| CY PLAN 110 | Introduction to City Planning |
| EPS 101 | Field Geology and Digital Mapping |
| ESPM 137 | Landscape Ecology |
| ESPM 172 | Photogrammetry and Remote Sensing |
| ESPM/ ENVECON C183 | Forest Ecosystem Management |
| LD ARCH 110 | Ecological Analysis |
| LD ARCH 130 | Sustainable Landscapes and Cities |

Graduate Courses (Graduate courses may be used with consent of instructor and with completion of necessary prerequisites.)

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| CY PLAN 204C | Analytic and Research Methods for Planners: Introduction to GIS and City Planning |
| CY PLAN 255 | Urban Planning Applications of Geographic Information Systems |
| ESPM 210 | Spatial Data Analysis for Natural Resources |
| ESPM 271 | Advanced Remote Sensing of Natural Resources |
| ESPM 290 | Special Topics in Environmental Science, Policy, and Management (If topic is Applications in Remote Sensing. There may be other 290 courses, but this is the only one approved.) |
| GEOG 282 | Geographic Information Systems: Applications in Geographical Research |
| LD ARCH 221 | Quantitative Methods in Environmental Planning |
| PB HLTH 272A | Geographic Information Science for Public and Environmental Health |
| PUB POL 290 | Special Topics in Public Policy (Special Topics in Public Policy: Spatial Data and Analysis (There may be other 290 courses, but this is the only one approved.)) |