## Land Use, B.S., Geographic Information Systems (GIS) Concentration

**Department of Earth & Atmospheric Sciences, 303-556-3143, Science 2028**

**College of Letters, Arts, and Sciences**

This sheet applies to the 2014-15 catalog only. It does not replace the full catalog or departmental advising sheets as official statements of requirements. Students with declared majors must work with a faculty advisor on course selection and sequencing to ensure a timely graduation.

<table>
<thead>
<tr>
<th>General Studies</th>
<th>33 min</th>
<th>Students who have reached junior standing (60 hrs) should request a CAPP (graduation compliance report) and review it with a faculty advisor.</th>
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</thead>
<tbody>
<tr>
<td>Major courses</td>
<td>65</td>
<td></td>
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<tr>
<td>Electives</td>
<td>22</td>
<td></td>
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<tr>
<td>Total to graduate (min. 40 hrs upper-division)</td>
<td>120 min</td>
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**TO BE COMPLETED WITHIN FIRST 30 COLLEGE-LEVEL CREDIT HOURS**

### Written Communication

- **ENG 1010 (3 hrs)** Composing Arguments*  
- or **ENG 1008/1009 (6 hrs.)** Intro to Composition, Parts 1 & 2*
- **ENG 1020 (3 hrs)** Freshman Comp: Analysis, Research, & Documt.  
  (ENG 1020 must be completed within 45 credit hours)

### Oral Communication*

- **(3 hrs.)**

### Quantitative Literacy*

- **(3 hrs.)**

### Arts and Humanities

- **(3 hrs.)**
- **(3 hrs.)**

### Historical

- **(3 hrs.)**

### Natural and Physical Sciences

- **(3 hrs.)**
- **(3 hrs.)**

### Social and Behavioral Sciences I

- **(3 hrs.)**

### Social and Behavioral Sciences II

- **(3 hrs.)**

### Global Diversity

- **(3 hrs.)** may be satisfied within General Studies

### Multicultural Requirement

- may be satisfied in Gen Studies, major, minor, or electives

**MAJOR CORE COURSES (Please see LUS Advisor in EAS department)**

- **GEG 1220 (2 hrs)** Map Use
- **GEG 1610 (1 hr)** Introduction to Planning
- **GEL 1010 (4 hrs)** Physical Geology
- OR **GEG 1100 (3 hrs)** Introduction to Physical Geography
- **GEG 4950 (2-15 hrs)** Internship in Land Use
- OR **GEL 4950 (2-15 hrs)** Internship in Geology
- OR **ENV 4950 (2-15 hrs)** Internship in Environmental Science
- **GIS 2250 (3 hrs)** Introduction to GIS (CIS 1010 is a prereq for this)
- **MTH 1210 (4 hrs)** Introduction to Statistics

**Geographic Information Systems (GIS) Concentration:**

Students must complete each course with a grade of "C" or better. The course cannot be taken pass/fail.

- **GEG 3610 (3 hrs)** Principles of Land Use Planning
- **GIS 2710 (2 hrs)** Global Positioning Systems
- **GIS 3250 (3 hrs)** Cartography
- **GIS 4840 (3 hrs)** Remote Sensing
- **GIS 4850 (4 hrs)** Spatial Modeling in Raster
- **GIS 4860 (4 hrs)** GIS Applications
- **GIS 4870 (3 hrs)** Spatial Databases
- **GIS 4890 (3 hrs)** Advanced GIS Project

Select from the following to a total of 46 hrs.

- **GIS 4880 (variable hrs)** Current Topics in GIS: Variable Topics
- **MTH 3240 (4 hrs)** Environmental Statistics
- **CSS 1247 (4 hrs)** Introduction to Programming: Visual Basic

Because GIS is an application tool, students are required to specialize in an area of interest. A student can select one of the following interest areas (Environment, Meteorology, Planning, Resources) or design one with the approval of an LUS advisor in EAS dept or select a minor in Computer Science (School of Letters, Arts and Sciences); Computer Information Systems, General Business, International Business, Marketing (School of Business), or Criminal Justice and Criminology (School of Professional Studies).

**Areas of Interest - See catalog and work with your LUS faculty advisor in EAS**

- **Environment (19 hrs, See Catalog for approved courses)**
- OR **Meteorology (19 hrs, See Catalog for approved courses)**
- OR **Planning (19 hrs, See Catalog for approved courses)**
- OR **Resources (19 hrs, See Catalog for approved courses)**
- OR **Surveying and Mapping (19 hrs, See Catalog for approved courses)**