

Undergraduate Certificate in Geographic Information Science

Department of Geography and Environmental Studies

The Undergraduate Certificate in GIScience program consists of 4 required and 3 elective courses. Individuals seeking the certificate must already be students at the University of Colorado Colorado Springs in any department or any major. To be eligible for the certificate, students must earn at least 26 credits of which at least 15 must be from the required courses and at least 11 from the elective courses. A grade of at least a "C" must be earned for all the certificate courses.

Applying for the Undergraduate GIScience Certificate

Students shall complete an application to be submitted to the certificate coordinator. The application will include demographic information (name, phone and e-mail), the courses taken and grades received.

4 Required courses (15 credits)

1. Digital Earth (GES 2050) – 3 credits
2. Introduction to Cartography (GES 3050) – 4 credits
3. Introduction to GIS (GES 4050) – 4 credits
4. Students are required to take **one** of the following advanced courses. The other two can be taken as elective courses.
 - a. Advanced GIS (GES 4080) – 4 credits
 - b. Internet GIS (GES 4120) – 4 credits
 - c. Programming GIS (GES 4130) – 4 credits

3 electives from the following courses (11-12 credits)

1. Statistical Analysis in Geography (GES 4000) – 4 credits
2. Introduction to Remote Sensing (GES 4060) – 4 credits
3. Advanced GIS (GES 4080) – 4 credits
4. Image Processing (GES 4090) – 4 credits
5. GPS with GIS (GES 4100) – 3 credits
6. Internet GIS (GES 4120) – 4 credits
7. Programming GIS (GES 4130) – 4 credits