

GEOGRAPHIC INFORMATION SYSTEMS CERTIFICATE

Division: Social Sciences

PROGRAM CODE: 1C07825

The **Geographic Information Systems Certificate** provides students with endorsed entry-level skills for the rapidly growing GIS field. Our certificate is the only general purpose GIS certificate approved by the California State Chancellor's office. To earn this certificate, students must complete the required courses as listed with a grade of C or better. At least 50% of all course work must be completed at Cypress College. This certificate is inclusive of Tiers 1-4 in the U. S. Department of Labor's Geospatial Industry Competency Model of June 1, 2010. This certificate requires a total of 25-27 units.

| Code | Title | Units |
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| Required Geographic Information System courses (12 units): | | |
| GEOG 230 C | Introduction to GIS | 3 |
| GEOG 231 C | GIS: Spatial Analysis | 3 |
| GEOG 232 C | GIS: Analysis and Modeling | 3 |
| GEOG 233 C | GIS: Advanced Internship | 3 |
| Spatial Courses (3 units): | | |
| GEOG 100 C | World Geography | 3 |
| | or GEOG 100HC Honors World Geography | |
| GEOG 160 C | Cultural Geography | 3 |
| Spatially-Related Courses (3-5 units): | | |
| ANTH 102 C | Cultural Anthropology | 3 |
| | or ANTH 102HC Honors Cultural Anthropology | |
| ANTH 103 C | Introduction to Archaeology (formerly ANTH 203 C) | 3 |
| ASTR 116 C | Introduction to Astronomy | 3 |
| | or ASTR 116HC Honors Introduction to Astronomy | |
| ATC 174 C | Destinations: Americas/Europe | 3 |
| ATC 175 C | Destinations: Africa/Pacific | 3 |
| BIOL 103 C | Environmental Science | 3 |
| BIOL 122 C | Marine Biology | 4 |
| GEOG 100 C | World Geography | 3 |
| | or GEOG 100HC Honors World Geography | |
| GEOG 102 C | Physical Geography | 3 |
| GEOG 130 C | California Geography | 3 |
| GEOG 140 C | Weather and Climate | 3 |
| GEOG 160 C | Cultural Geography | 3 |
| GEOG 202 C | Field Geography - Physical | 1 |
| GEOG 260 C | Economic Geography | 3 |
| GEOL 100 C | Physical Geology | 3 |
| | or GEOL 100HC Honors Physical Geology | |
| GEOL 120 C | Geology of California | 3 |
| GEOL 130 C | Introduction to Oceanography | 3 |
| GEOL 190 C | Environmental Geology | 3 |
| HS 147 C | Survey of Disease | 3 |
| MKT 222 C | Principles of Marketing | 3 |
| MKT 224 C | International Marketing | 3 |

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| Spatial Courses with Lab (4 units): | | 4 |
| GEOG 102 C | Physical Geography | 3 |
| GEOG 102LC | Physical Geography - Lab | 1 |
| GEOG 202 C | Field Geography - Physical | 1 |
| GEOL 100 C | Physical Geology | 3 |
| | or GEOL 100HC Honors Physical Geology | |
| GEOL 101 C | Physical Geology Laboratory | 1 |
| Computer Programming Skills courses (3 units): | | 3 |
| CIS 211 C | Introduction to Programming | 3 |
| CIS 229 C | Introduction to XML Programming | 3 |
| CIS 236 C | Introduction to Oracle: SQL and PL/SQL | 3 |
| CIS 247 C | Python Programming | 3 |
| Total Units | | 25-27 |