

GEOGRAPHIC INFORMATION SYSTEMS (GIS)

Career Studies Certificate

LO

Purpose: This program is designed to help students develop both the theoretical knowledge and a practical facility with GIS. Students who already hold baccalaureate or master's degrees will acquire the requisite skills and knowledge to switch careers, or to apply spatial analysis in their present workplaces. Students will be positioned to pursue additional coursework toward an associate degree and/or transfer to a four-year institution for further study in the geospatial, environmental or physical sciences; in civil engineering; in information technology; or in business/marketing at a four-year institution.

Preparation: Students are expected to understand fundamental computer applications and concepts before enrolling in GIS courses.

| One Year | | Credits |
|----------------------|---|-----------|
| 1st Semester | | |
| ¹ ENG/CST | Elective | 3 |
| GEO | 220 World Regional Geography | 3 |
| GIS | 200 Geographic Information Systems I | <u>4</u> |
| Total | | 10 |
| 2nd Semester | | |
| GIS | 201 Geographic Information Systems II | 4 |
| GIS | 295 Topics in GIS – Introduction to Remote Sensing | 4 |
| ² — | Elective | <u>3</u> |
| Total | | 11 |
| 3rd Semester | | |
| GIS | 205 Geographic Information Systems 3-Dimensional Analysis | 4 |
| GIS | 290 Internship | 1 |
| ³ — | Technical Elective | <u>3</u> |
| Total | | 8 |

Total credits for the Career Studies Certificate in Geographic Information Systems (GIS) = 29

All first-time students must take a one-credit SDV course prior to enrolling in their 16th credit at NOVA.

To be credited toward the certificate, a minimum grade of “C” for each class is required.

¹ The ENG/CST requirement may be met by ENG 111 or other ENG courses approved by your advisor, or by CST 100, 110, 115, 126, 227 or 229.

² Elective must be chosen from the following disciplines: BIO, CHM, EGR, ENV, GEO, GOL, HIS, IT, MKT, MTH, and PHY.

³ Technical elective must be chosen from the following: ENV/GIS 230, GIS Applications in Environmental Science; GEO 200, Intro to Physical Geography; GEO 210, Intro to Cultural Geography; GIS 293, Studies in Cartography for GIS; ITD 110, Web Page Design (or higher level ITD); ITN 101, Intro to Network Concepts (or higher ITN); ITP 112, Visual Basic.net (or higher ITP); MTH 163, Precalculus I (or higher); or MTH 241, Statistics I.