Geographic Information Systems
Global Positioning System
Certificate of Achievement

**REQUIRED**
- GEOG 125 Introduction to Geographic Information Systems
- GEOG 126 Advanced Geographic Information Systems
- GEOG 129 Field Data Acquisition and Management
- GEOG 160 Introduction to Remote Sensing
- GEOG 162 Map Design and Visualization

**PLUS at least 6 units from**
- COMSC 101 Computer Literacy
- COMSC 110* Introduction to Programming
- COMSC 120 SQL Programming
- COMSC 172 UNIX and Linux Administration
- COMSC 255 Programming with Java

**PLUS at least 6 units from**
- ANTHR 126 Introduction to Archeological Field Methods
- BIOSC 126 Ecology and Field Biology
- BIOSC 170 Environmental Science
- ENGTC 126 Computer Aided Design and Drafting AutoCAD
- GEOG 120 Physical Geography
- GEOG 124 Thinking and Communicating Geospatially
- GEOG 129 Occupational Work Experience Education in GEOG
- GEOG 160 Introduction to Geographic Information Systems
- GEOG 162 Map Design and Visualization
- GEOG 166 GIS Engineering Applications
- GEOG 175 GIS Certification Materials
- GEOG 182 Advanced GIS Applications
- GEOG 195 GIS Capstone Design Project
- GEOG 225 Internship in Geographic Information Systems
- GEOG 229 GIS Consulting and Project Management
- GEOG 240 GIS Applied Design and Implementation
- GEOG 250 GIS Data and Database Management
- GEOG 255 GIS Certification Materials
- GEOG 260 GIS Application Development
- GEOG 265 GIS Computer Graphics
- GEOG 270 GIS Certification Materials
- GEOG 280 GIS Advanced Design and Implementation
- GEOG 295 GIS Capstone Design Project
- GEOG 320 GIS Advanced Application Development
- GEOG 325 GIS Advanced Computer Graphics
- GEOG 330 GIS Advanced Design and Implementation
- GEOG 340 GIS Advanced Application Development
- GEOG 350 GIS Advanced Computer Graphics
- GEOG 360 GIS Advanced Design and Implementation
- GEOG 370 GIS Advanced Application Development
- GEOG 380 GIS Advanced Computer Graphics
- GEOG 390 GIS Advanced Design and Implementation
- GEOG 420 GIS Advanced Application Development
- GEOG 425 GIS Advanced Computer Graphics
- GEOG 430 GIS Advanced Design and Implementation
- GEOG 440 GIS Advanced Application Development
- GEOG 450 GIS Advanced Computer Graphics
- GEOG 460 GIS Advanced Design and Implementation
- GEOG 470 GIS Advanced Application Development
- GEOG 480 GIS Advanced Computer Graphics
- GEOG 490 GIS Advanced Design and Implementation
- GEOG 520 GIS Advanced Application Development
- GEOG 525 GIS Advanced Computer Graphics
- GEOG 530 GIS Advanced Design and Implementation
- GEOG 540 GIS Advanced Application Development
- GEOG 550 GIS Advanced Computer Graphics
- GEOG 560 GIS Advanced Design and Implementation
- GEOG 570 GIS Advanced Application Development
- GEOG 580 GIS Advanced Computer Graphics
- GEOG 590 GIS Advanced Design and Implementation
- GEOG 620 GIS Advanced Application Development
- GEOG 625 GIS Advanced Computer Graphics
- GEOG 630 GIS Advanced Design and Implementation
- GEOG 640 GIS Advanced Application Development
- GEOG 650 GIS Advanced Computer Graphics
- GEOG 660 GIS Advanced Design and Implementation
- GEOG 670 GIS Advanced Application Development
- GEOG 680 GIS Advanced Computer Graphics
- GEOG 690 GIS Advanced Design and Implementation
- GEOG 720 GIS Advanced Application Development
- GEOG 725 GIS Advanced Computer Graphics
- GEOG 730 GIS Advanced Design and Implementation
- GEOG 740 GIS Advanced Application Development
- GEOG 750 GIS Advanced Computer Graphics
- GEOG 760 GIS Advanced Design and Implementation
- GEOG 770 GIS Advanced Application Development
- GEOG 780 GIS Advanced Computer Graphics
- GEOG 790 GIS Advanced Design and Implementation
- GEOG 820 GIS Advanced Application Development
- GEOG 825 GIS Advanced Computer Graphics
- GEOG 830 GIS Advanced Design and Implementation
- GEOG 840 GIS Advanced Application Development
- GEOG 850 GIS Advanced Computer Graphics
- GEOG 860 GIS Advanced Design and Implementation
- GEOG 870 GIS Advanced Application Development
- GEOG 880 GIS Advanced Computer Graphics
- GEOG 890 GIS Advanced Design and Implementation
- GEOG 920 GIS Advanced Application Development
- GEOG 925 GIS Advanced Computer Graphics
- GEOG 930 GIS Advanced Design and Implementation
- GEOG 940 GIS Advanced Application Development
- GEOG 950 GIS Advanced Computer Graphics
- GEOG 960 GIS Advanced Design and Implementation
- GEOG 970 GIS Advanced Application Development
- GEOG 980 GIS Advanced Computer Graphics
- GEOG 990 GIS Advanced Design and Implementation

**total minimum required units** 28

**PROGRAM LEARNING OUTCOMES**
Students completing this program will be able to:
1. Analyze the inter-disciplinary applications of GIS, GPS, and remote sensing.
2. Synthesize data from various sources and different formats for spatial analyses.
3. Apply spatial tools and techniques in a research or work environment.
4. Explain the fundamentals of geospatial technologies and how they operate.

**Careers in**
- GIS technician, GIS specialist, GIS analyst, GIS programmer, GIS coordinator, GIS supervisor, GIS manager.

You need to see a Counselor for specific recommendations about courses that will best meet your educational goals. Not all courses on the map are offered every term. Consult the Catalog and the Schedule of Classes for more details.

For information about transferring, see:
https://www.dvc.edu/enrollment/transfer/index.html

For information on careers in this field see:
https://www.dvc.edu/enrollment/career-employment/index.html

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