

Geographic Information Systems – Applications Specialist Post Grad



Fleming College

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The Geographic Information Systems Application Specialist is the “wizard” who provides technical expertise to produce effective and useful plans and project reports through the applied use of technology.

Program Code: GIA

Credential: Ontario College Graduate Certificate

Start Date: September

Location: Lindsay

Please note: This program is 10 months duration.

PROGRAM HIGHLIGHTS

GIS Application Specialists help various agencies and government do effective planning to manage all aspects of the environment and community life. For example, you might work on natural resources, agriculture, or community health projects. You'll be collecting information, and then distilling it to be put into a form that specialists and technicians can use.

- In this post-graduate, intensive GIS program you will use current, high-end technology tools to collect, store, manipulate, analyze, interpret, and communicate geographic information within a variety of disciplines.
- Fleming's leadership in this field has been recognized by industry, government and business through their support in establishing the Geomatics Institute at Fleming.
- These outstanding partnerships offer students access to the latest computer hardware, software, data resources and field technology used in the industry today, as well as unprecedented learning and employment opportunities.
- You will have plenty of opportunities to practice your skills in a work-like setting, with a student to computer ratio of one-to-one.

Not sure which of our two GIS Ontario College Graduate Certificate programs is right for you? The common first semester in the GIS Applications Specialist and GIS Cartographic Specialist programs gives you a good overview and understanding of the technologies and diverse skills particular to careers in these fields. Subject to enrolment capacity, you can pursue specialized study in the program of your choice in semester two.

In addition to acquiring a hands-on, firm foundation using GIS technology tools, you will have many opportunities to build on your teamwork, team building, project management, problem-solving and critical thinking skills. Since employers are seeking these broad-based transferrable skills, this experience working in technology teams will give you an edge in the workplace.

This three-semester program starts in September with a 15-week semester ending in December, continues in January with another 15-week semester ending in April, and concludes with a seven-week semester starting in May and ending in June.

WHY CHOOSE FLEMING

Our track record and our constant evolution to provide the latest in technology and quality teaching are two very good reasons to consider Fleming's Geographical Information Systems Application Specialist program. Fleming was the first college to offer GIS training in Ontario, and has been doing so for over 20 years – all other college GIS programs have only been established in the last few years. We're constantly upgrading and changing our program to suit the current and future demands of the field. For instance, new courses in remote sensing, web applications and Global Positioning Systems (GPS) for spatial data are included in the curriculum. As well, graduates of this program receive an Ontario College Graduate Certificate – a credential that recognizes the comprehensive and advanced level of study required in this program.

WORK EXPERIENCE

You'll spend a significant part of your time in the program doing experiential work – putting theory into practice. A co-operative GIS project in the final semester involves cross-disciplinary teams from the GIS Applications Specialist and Cartographic Specialist programs working together on a project for a business, government, or industry client.

IS THIS YOU?

Knowing your way around a computer, hardware and software, is definitely high on the list of skills you need to succeed in this field. You should also possess the following:

- interest in ongoing education and upgrading
- creativity
- perseverance (there are many challenges)
- willingness to work hard (a 40 – 60 hour work week in the program)
- energy and persistence
- analytical skills
- problem solving ability

CAREER OPPORTUNITIES

There's a consistently high placement rate within six to 12 months of graduating, with an average starting salary in the \$35,000.00-\$45,000.00 range in Canada. On graduation, when combined with your previous education/work experience, you could work in positions as diverse as GIS programmer/analyst, applications specialist/consultant, ecosystem IT manager, utilities manager, database manager, GIS systems operator, and land information manager. The options for career change are strong. You can go back to your previous profession and apply your GIS studies there, or make a move into a new career.

MINIMUM ADMISSION REQUIREMENTS

Higher Secondary Certificate or Standard XII with a minimum 50% average. Minimum English language proficiency: IELTS: 6.0.

A post-secondary degree or advanced diploma in Science or Technology.

Although traditionally GIS training accompanied a degree or diploma in natural resources, with exponential growth in the field of GIS sciences, applicable backgrounds now range from forestry to marketing, from resource extraction to municipal planning, from health care to law enforcement. Previous GIS experience, while helpful, is not required for admission.

Recommended:

Since GIS is a field of study that makes extensive use of computer hardware and software technology, students entering the GIS-Applications Specialist program must be familiar with computers. While not required, advantageous skills include: introductory level statistics, or finite mathematics, database and computer programming experience.

RELATED PROGRAMS

Computer related programs that might be of interest to you include GIS – Cartographic Specialist and Geomatics Technician.

Continued on reverse

**GEOGRAPHIC INFORMATION SYSTEMS –
APPLICATIONS SPECIALIST**

**CURRICULUM
PROGRAM**

CODE

SEMESTER 1

GIS Database Principles
Geodesy
Geovisualization I
Problem Solving and Programming
Remote Sensing and Image Analysis
Spatial Analysis I
Surveying and CAD Mapping
Web Design and Programming

GEOM0065
GEOM0104
GEOM0102
GEOM0067
GEOM0066
GEOM0103
SURV0021
GEOM0101

SEMESTER 2

Advanced Remote Sensing
Customization of GIS Applications
Environmental Modeling
GIS Co-operative Project Planning and
Management
GIS Database Development
Spatial Analysis II
Web GIS Development

GEOM0075
GEOM0073
GEOM0105
GEOM0068
GEOM0070
GEOM0109
GEOM0099

SEMESTER 3

GIS Co-operative Project
GIS Data Management
Survey Camp

APST0062
GEOM0111
APST0087