



## **Geospatial Science Technician A.A.S.**

Career Community: Computer Technology and Networking

Curriculum Code: 0224

Effective: Fall 2022 – Summer 2027

### **Description**

Geospatial Science combines computer technology, mapping technologies, aerial photography, and satellite imagery with the most current environmental resource management and environmental analysis software. Geographic Information Systems (GIS) technicians work with computer drafting, design, database management, graphic design, and computer analysis. Environmental technology requirements include a working knowledge of natural systems and related regulations and their assessment, planning, restoration, and management. GIS technicians are employed with engineering and design firms, state and federal agencies, environmental firms, parks and recreation departments, and with municipalities and local government units. Students completing this curriculum may also be eligible to apply for the Certificate of Achievement in Geospatial Science (0834). Not all courses in this program transfer to all colleges. Students planning to transfer should see an academic advisor before enrolling in any course.

### **Milestone**

In addition to the required General Education courses in Math and English, completion of GSCI 110 with a 2.0 or higher is a key component for success in completing this program. Knowledge obtained in these courses is the foundation for learning in other required courses. Students are encouraged to contact their faculty if they need additional assistance with learning the concepts presented in these courses.

### **Additional Information**

Students beginning this pathway in Spring Semester will need to start with the Semester II GRET courses. Semester I GRET and CIVL courses are only offered in Fall Semester.

### **Contact Information**

Contact the Geospatial Science Program, West Campus Building, Room M103, telephone number 517-267-6406 or Student Services West Campus, West Campus Building, Room M106, telephone number 517-267-5452.

### **General Education - Applied Degrees, Recommended Courses**

(For the full list of options, see [General Education](#))

- English Composition or Applied English – *Select one*  
ENGL 121, Composition I, 4 credits / 4 billing hours

- English Composition (Second Course)/Communications and Applied Communications – *Select one*  
COMM 110, Communication in the Workplace, 3 credits / 3 billing hours
- Humanities and Fine Arts or Social Sciences or Applied Social Sciences – *Select one*  
GEOG 200, World Regional Geography, 4 credits / 4 billing hours
- Mathematics or Applied Mathematics – *Select one*  
MATH 115, Technical Math II, 4 credits / 4 billing hours
- Natural Sciences Lab or Applied Science and Technology Lab – *Select one*  
GEOL 230, Environmental Geology, 4 credits / 6 billing hours

### Program of Study Required Courses

Course Code	Course Title	Credit / Billing Hours
CITA 133	Microsoft Access Database	3 / 3
CITP 110	Intro to Programming-Python	4 / 4
GSCI 100	Intro to Geospatial Tech	3 / 3
GSCI 110	Beginning ArcGIS	3 / 5
GSCI 120	Advanced ArcGIS	3 / 5
GSCI 210	Global Positioning Systems	3 / 4
GSCI 240	Cartography in GIS	3 / 4
GSCI 241	Remote Sens/AirPhoto Interpret	3 / 4
GSCI 260	Automating Workflows in GIS	3 / 4
GSCI 264	Web GIS	3 / 4
GSCI 271	Parcel Mapping	3 / 5
GSCI 275	GIS Proj Mgmt & Implementation	3 / 4

### Program of Study Required Courses, Limited Choice – *Select three courses*

Course Code	Course Title	Credit / Billing Hours
CITA 110	Intro to Microsoft Office	3 / 3
CITA 126	Microsoft Excel	3 / 3
CITP 130	Intro to Mobile App Devel	3 / 3
CITP 190	Intro to Programming in JAVA	4 / 4
CITW 160	Web Development HTML & CSS	3 / 3
CITW 165	Web Development JavaScript	3 / 3

### Minimum Total Credit Hours

65 credits / 79 billing hours

## Recommended Course Sequence

Semester I
Gen Ed – English Composition or Applied English
Gen Ed – Mathematics or Applied Mathematics
CITA 133
GSCI 100
GSCI 210

Semester II
Gen Ed – English Composition (Second Course)/ Communications or Applied Communications
Gen Ed – Humanities and Fine Arts or Social Sciences or Applied Social Sciences
GSCI 110 – Milestone Course
GSCI 240
Limited Choice

Semester III
Gen Ed – Natural Sciences Lab or Applied Science and Technology Lab
CITP 110
GSCI 120
GSCI 260
GSCI 271

Semester IV
GSCI 241
GSCI 264
GSCI 275
Limited Choice
Limited Choice

*LCC makes every effort to limit revisions to the pathways during their effective timeframe. However, the College reserves the right to update certificate and degree title changes, and make course changes as needed, without prior notice.*