

# LANSING COMMUNITY COLLEGE

## CURRICULUM GUIDE

Geographic Information Systems and Geospatial Technology  
Associate in Applied Science Degree

Curriculum Code: 0224 (Effective Fall 2016 – Summer 2021)

Geographic Information Systems and Geospatial Technology 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 Geographic Information Systems (0224). **Not all courses in this program transfer to all colleges.** Students planning to transfer should see an academic advisor before enrolling in any course.

### PREREQUISITES

Students should see [Course Descriptions](#) for course prerequisite information. See [Academic Assessment and Placement Testing for Student Success](#) for skills assessment and advising information.

### INFORMATION

Contact the Geographic Information Systems Program, West Campus Building, Room M103, telephone number (517) 483-5338 (Website: [www.lcc.edu/design/geographic/](http://www.lcc.edu/design/geographic/)) or Student Services West Campus, West Campus Building, Room M106, telephone number (517) 267-5452.

### REQUIREMENTS

**TOTAL: 56 CREDITS**

CODE	TITLE	CREDIT HOURS
CITA 110	Intro to Microsoft Office	3
CITA 133	Microsoft Access Database	3
CITP 110	Intro to Computer Programming	4
CIVL 101	Civil Drafting	3
GEOG 200	World Regional Geography	4
GEOL 230	Environmental Geology	4

GRET 100	GIS Principles & Applications	3
GRET 110	Beginning ArcGIS Desktop	3
GRET 120	Advanced ArcGIS	3
GRET 210	Global Positioning Systems	3
GRET 240	Cartography in GIS	3
GRET 241	Remote Sens/AirPhoto Interpret	3
GRET 260	Automating Workflows in GIS	3
GRET 271	Parcel Mapping	3
GRET 275	GIS Proj Mgmt & Implementation	3
MATH 115	Technical Math II	4
WRIT 121	Composition I	4

### LIMITED CHOICE REQUIREMENTS

**TOTAL: 12-14 CREDITS**

Complete the indicated number of credits from **EACH CHOICE** listed below.

#### CHOICE 1: [General Education Core Areas](#)

**3-4 Credits**

(Click the link above for information on how to fulfill these requirements. Core area proficiency exams, where appropriate, are available for each core area.)

Communication Core Area	3-4
Global Perspectives and Diversity Core Area (See Note 1)	0
Mathematics Core Area (See Note 1)	0
Science Core Area (See Note 1)	0
Writing Core Area (See Note 1)	0

#### CHOICE 2: **Additional Related Courses**

**9-10 Credits**

CITA 126	Microsoft Excel	3
CITP 190	Intro to Programming in JAVA	4
GRET 220	Hydrological Systems	3
GRET 264	Web GIS	3
GRET 277	Advanced GIS Data Structures	3

#### **MINIMUM TOTAL**

**68**

#### NOTE:

1. Students completing "REQUIREMENTS" have fulfilled the requirements for this Core area.

## SUGGESTED COURSE SEQUENCE

Students should see course descriptions to find out when departments plan to offer courses. Students who for any reason are unable to follow the course sequence suggested below (for example, those who are part-time, have transferred in courses from another school, or have prerequisites to fulfill) should contact an academic advisor for help with adjustments.

I	II	III	IV
CITA 110	GEOL 230	CITP 110	GRET 241
CITA 133	GRET 110	GEOG 200	GRET 260
CIVL 101	GRET 240	GRET 120	GRET 275
GRET 100	MATH 115	GRET 271	Lim.Ch.1
GRET 210	WRIT 121	Lim.Ch.2	Lim.Ch.2
		Lim.Ch.2	