

Lakeland

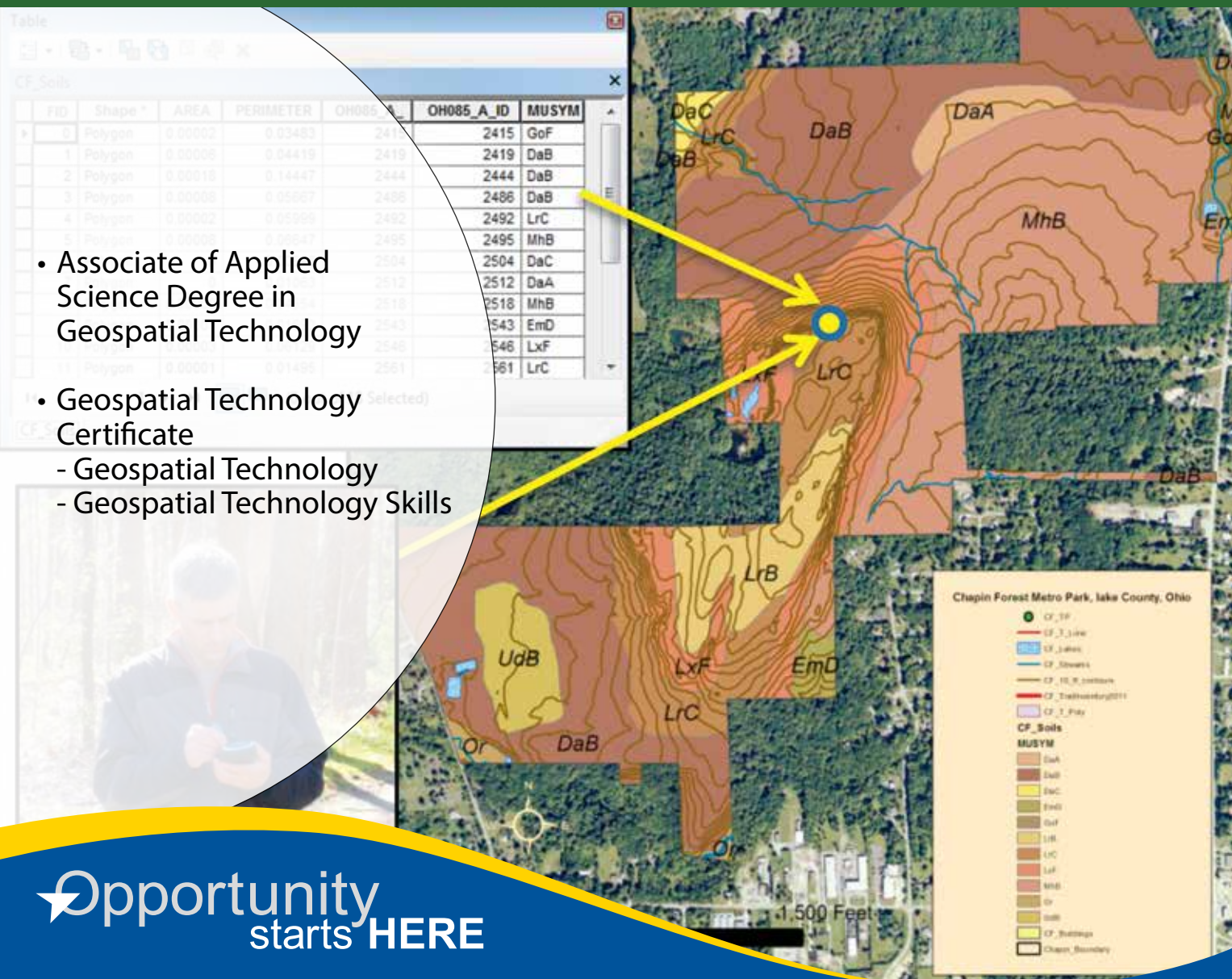
COMMUNITY COLLEGE

PROGRAM GUIDE

Arts and Sciences Division

Geospatial Technology

- Associate of Applied Science Degree in Geospatial Technology
- Geospatial Technology Certificate
 - Geospatial Technology
 - Geospatial Technology Skills



Opportunity starts **HERE**
lakelandcc.edu

Geospatial Technology



Geospatial technology includes everything in the world of mapping, location information, and imagery of the earth's surface. These technologies include Geographic Information Systems (GIS), remote sensing (imagery), Global Positioning Systems (GPS) location analysis, Unmanned Aerial System (UAS) and web and mobile mapping. People use these geospatial technologies to help answer questions and solve problems by looking at data in a way that is quickly understood and easily shared in many different career fields.

Career Opportunities

Geospatial technology is recognized by the U.S. Department of Labor as a high-growth career field. Geospatial technology can be found in a wide range of industries and service sectors throughout the country, such as:

- Construction
- Government
- Marketing
- Transportation
- Environmental Management
- Logistics
- Public Health
- Urban Planning

The Lakeland Advantage

- Both degree and certificate options are available.
- Courses are offered in traditional or hybrid formats.
- There are a wide range of career opportunities available in this field, and geospatial technology will continue to expand as practitioners make a significant impact in many areas of the economy.
- Lakeland's program offers state-of-the-art technology in a dedicated Geospatial Technology Lab.



Lakeland's Program

Lakeland's program was developed in 2011 to serve the needs of the growing geospatial industry, and is the first program in Ohio to be aligned with the U.S. Department of Labor's Geospatial Technology Competency Model (GTCM). This standard was created by the geospatial industry to create a workforce for the future.

Students may earn the Associate of Applied Science degree in order to enter the geospatial workforce; earn the certificate to apply the skills in almost any field as an "add-on" to an existing two-year, four-year or graduate degree; or as an add-on skills certificate for a current Lakeland student with another major.











The program prepares students to work with the essential applications in geospatial technology. In addition, the department of geography and geospatial technology includes a full range of geography transfer courses. Students are able to fulfill transfer and general education requirements while learning about the advanced technologies that are shaping new visions of the earth, its people and its systems.




Geospatial Technology (9680)

Associate of Applied Science Degree
























The Geospatial Technology Associate of Applied Science degree is designed to prepare students for careers in geospatial technology, including GIS technician positions in government and private industry. The geospatial industry includes jobs in geographic information systems (GIS), remote sensing, location positioning, geospatial intelligence, mapping, and related areas. Geospatial technology is recognized by the U.S. Department of Labor as a high-growth career field, and this program will prepare students to enter the geospatial industry.

Course	Title	Credit Hours
First Semester		
ENGL 1110 or ENGL 1111	English Composition I (A) ¹ or English Composition I (B)	3
FYEX 1000	First Year Experience	1
GEOG 1400	Mapping Technologies 	3
GEOG 1500	Introduction to Geography	3
GEOG 1700	Map Design and Interpretation 	3
ITIS 1005	Computer Essentials	3
	Credit Hours	16
Second Semester		
ENGL 1120 or ENGL 1121	English Composition II or English Composition II-Technical Focus	3
GEOG 1600	World Regional Geography	3
GEOG 2700	Geographic Information Science 	3
ITIS 1520	Microsoft Office Excel: Skills and Techniques 	3
MATH 1550	Statistics	4
	Credit Hours	16
Third Semester		
COMM 1000 or COMM 1100 or MECT 1150	Effective Public Speaking or Effective Interpersonal Communications or Technical Communications	3
GEOG 1550 or PSCI 1300	Physical and Environmental Geography or Earth Science	3
GEOG 2710	Spatial Data Acquisition and Management 	3
ITCS 1010	Programming Logic 	3
Select course(s) from the Technical Electives list 		3
	Credit Hours	15
Fourth Semester		
GEOG 2730	Remote Sensing 	3
GEOG 2780	Internship and Seminar in Geospatial Technology 	2
POLS 1300 or POLS 2100	U.S. National Government or State and Local Government	3
Select course(s) from the Arts and Humanities Electives list		3
Select course(s) from the Technical Electives list 		4
	Credit Hours	15
	Total Credit Hours	62

¹ English course selection is based on placement test results (ENGL 1111 English Composition I (B) is 4 credits, only 3 credits apply to the degree).

 This course is designated as a technical course in the program. Students must earn a 'C' grade or higher in the course to fulfill the college's graduation requirements policy.

Electives

Course	Title	Credit Hours
Technical Electives		
CADT 1100	Introduction to AutoCAD 	3
CADT 1500	Advanced AutoCAD 	3
CADT 2100	Introduction to SolidWorks 	3
CIVT 1012	Reading Construction Drawings 	1
CIVT 2111	Surveying I 	2
GEOG 2720	Web Mapping and Programming for GIS 	1
GEOG 2750	Spatial Analysis and Modeling 	3
GRDS 1375	Computer Graphics AI, ID and PS 	3
ITCS 1105	Web Programming I 	3
ITCS 1820	Java Programming I 	3
ITCS 1870	Python Programming I 	3
ITCS 1880	R Programming I 	3
ITDB 1400	Introduction to SQL 	2
ITDB 1405	Oracle PL/SQL Programming 	2
ITIS 1007	Principles of Information Technology and Computer Science 	3
ITIS 1108	Using an HTML Editor 	2
ITIS 1130	Introduction to Web Design 	1
ITIS 1510	Microsoft Office Word: Skills and Techniques 	3
ITIS 1530	Microsoft Office Access: Skills and Techniques 	3
ITIS 1540	Microsoft Office PowerPoint: Skills and Techniques 	2
ITON 1070	Operating Systems: Skills and Techniques 	1
ITON 1205	Network+ and Networking Essentials 	2
PHOT 1105	Basic Photography - Digital 	3
Arts and Humanities		
ARTS 1120	Art Appreciation	3
ARTS 2220	Survey of Art I	3
ARTS 2230	Survey of Art II	3
ENGL 2250	Survey of American Literature I	3
ENGL 2260	Survey of American Literature II	3
ENGL 2280	Survey of British Literature I	3
ENGL 2290	Survey of British Literature II	3
HUMX 1100	Introduction to Humanities	3
HUMX 1200	The American Experience in the Arts	3
MUSC 1200	Music Appreciation	3
MUSC 1215	World Music	3
MUSC 1800	Popular Music: Rock, Jazz, Country, and Hip-Hop	3
MUSC 2200	Music History and Literature I	3
MUSC 2250	Music History and Literature II	3
PHIL 1500	Introduction to Philosophy	3
PHIL 2000	Comparative Religion	3
PHOT 1000	History of Photography	3

Geospatial Technology Certificate (6801)

The Geospatial Technology Certificate is designed to prepare students for a career in the geospatial field. The certificate includes the geospatial core requirements of the Associate of Applied Science (AAS) major, plus advanced courses in spatial analysis and modeling, and project management in geospatial technology. Students may earn the certificate in addition to the AAS degree, and this certificate is especially designed for students who want to earn technical skills in addition to their two-year or four-year degree program in order to pursue a career in geospatial technology or a closely related field.

Students must meet specific admission requirements for this program and are advised to meet with a counselor or the program director. All prerequisite courses or their equivalent must be completed prior to acceptance in the Geospatial Technology certificate program.

Provisional admission may be granted to students currently enrolled in the prerequisite courses, as long as all courses are completed before enrollment in first semester of the certificate program. Coursework in this certificate includes prerequisites that are not included in the certificate. Students with equivalent courses, knowledge and experience may request to have prerequisites waived prior to admission to the program.

Students must complete the following courses prior to program admission:

A minimum of 30 credit hours of for-credit college-level work with GPA of at least 2.0, including all of the following courses or their equivalents (with a grade of C or better): ENGL 1110 English Composition I (A) or ENGL 1111 English Composition I (B), ITIS 1005 Computer Essentials, and one college-level mathematics course.

Course	Title	Credit Hours
First Semester		
GEOG 1700	Map Design and Interpretation	3
	Credit Hours	3
Second Semester		
GEOG 2700	Geographic Information Science	3
GEOG 2730	Remote Sensing	3
	Credit Hours	6
Third Semester		
GEOG 2710	Spatial Data Acquisition and Management	3
GEOG 2750	Spatial Analysis and Modeling	3
	Credit Hours	6
Fourth Semester		
GEOG 2780	Internship and Seminar in Geospatial Technology	2
	Credit Hours	2
	Total Credit Hours	17

For more information about our graduation rates, the median debt of students who completed the program, and other important information, please view this program's Gainful Employment information (<https://lkn.lakelandcc.edu/go/ge/?g=6801/>).

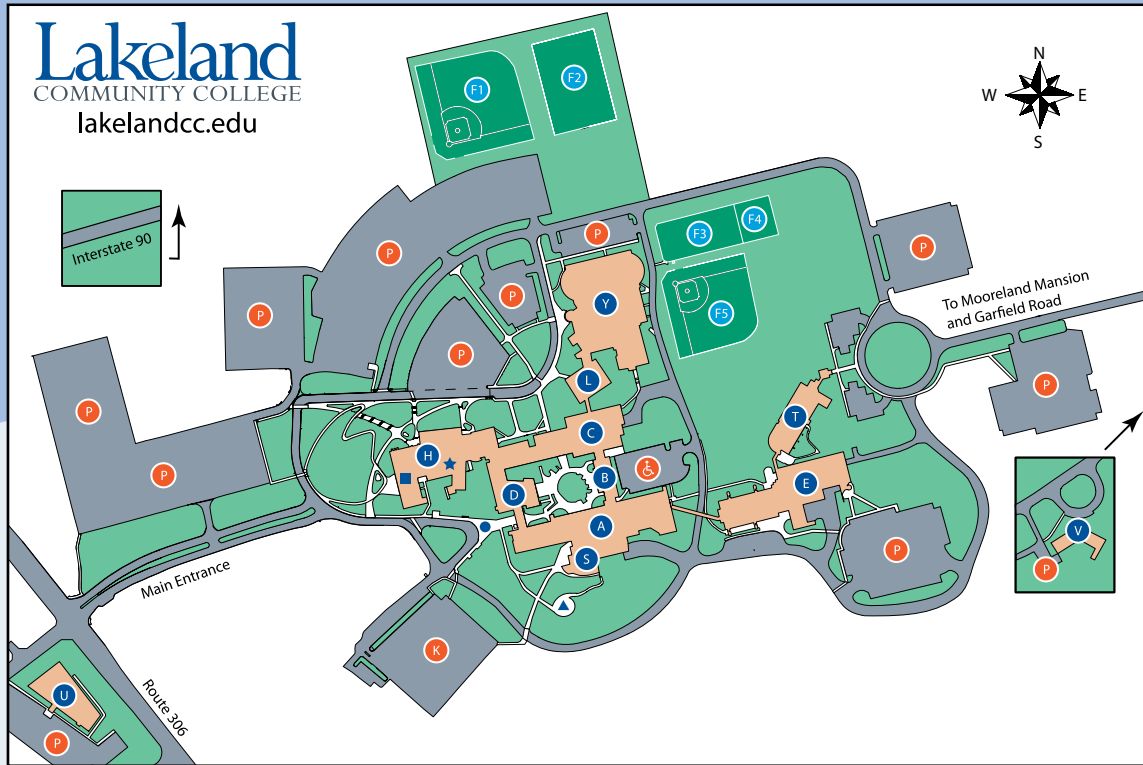
Geospatial Technology Skills Certificate (6802)

The Geospatial Technology Skills Certificate is designed to be earned in conjunction with, or after completion of a two-year degree in a related field. The certificate is especially relevant for students who plan to transfer into a bachelor's degree program where basic geospatial information systems (GIS) and remote sensing skills are in demand, such as geosciences, ecology, biology, sociology, criminal justice, urban planning, civil engineering, or a related field. The certificate does not require special admissions. Students interested in pursuing a career in the geospatial field should consider the Associate of Applied Science degree in Geospatial Technology (9680) or the Geospatial Technology Certificate (6801).

Course	Title	Credit Hours
GEOG 1400	Mapping Technologies	3
GEOG 1700	Map Design and Interpretation	3
GEOG 2700	Geographic Information Science	3
GEOG 2730	Remote Sensing	3
Certificate Total		12

NOTES:





CAMPUS MAP

- A** A-Building/
Student Service Center
- B** B-Building
- C** C-Building
- D** D-Building
- E** E-Building
- F1** Baseball Field
- F2** Soccer Field

- F3** Tennis Courts
- F4** Multi-Purpose Court
- F5** Softball Field
- H** H-Building
- K** Faculty Staff Lot
- L** Teaching Learning Center
- P** Parking
- S** S-Building/Breakers Dining
- T** T-Building

- U** Holden University Center
- V** Mooreland Mansion
- Y** Athletic & Fitness Center
- Clocktower
- ★ Dental Hygiene Clinic
- ♿ Handicap Parking
- HIVE
- ▲ Mind Ladders

Quality Education

Professors at Lakeland are experts in their fields with real-world experience. Lakeland prepares you for a high-demand career or for transfer to a four-year college or university. Access to bachelor's and graduate degrees is available on campus from partner institutions through Lakeland's Holden University Center (lakelandcc.edu/uc).

Affordable Tuition

Lakeland's tuition is about one-third the cost of most four-year schools. More than 50 percent of Lakeland students receive some form of financial assistance (lakelandcc.edu/tuition).

Convenience

Lakeland offers convenient day, evening, weekend and online courses (lakelandcc.edu/schedule).

Focus on Students

Lakeland offers a variety of student services to help you succeed, such as counseling, tutoring, computer labs, career services, free parking and affordable child care.

Opportunity starts HERE

Visit us on campus or online. Call 440.525.7900, email recruitmentcenter@lakelandcc.edu or visit lakelandcc.edu/visit for a campus tour.

Apply online: lakelandcc.edu/apply

Accreditation

Lakeland Community College is accredited through the Higher Learning Commission (HLC) and participates in the Academic Quality Improvement Program (AQIP). The Higher Learning Commission, 230 South LaSalle Street, Suite 7-500, Chicago, IL 60604-1413, phone: 800.621.7440, hlcommission.org.