

Lakeland

COMMUNITY COLLEGE

PROGRAM GUIDE

Applied Studies Division

Civil Engineering Technology/ Construction Management

- Associate of Applied Science Degree in Civil Engineering Technology
- Associate of Applied Science Degree in Construction Management

Opportunity
starts **HERE**
lakelandcc.edu

Civil Engineering/ Construction Management (CIVT)



Graduates with degrees in civil engineering technology and construction management gain the education they need to find rewarding careers in many relevant fields across the nation.

Civil engineering technology (CET) students study architectural drafting and design; construction estimating and scheduling; construction administration and inspection; applied hydraulics and environmental technology; soil mechanics and foundations; concrete and masonry design and construction; structural steel and timber construction; and surveying field practice and computer applications. Construction management (CM) students gain an education in materials testing; drafting and design; construction estimating and scheduling; construction administration and inspection; contract law, building codes and standards; safety regulations; site planning and development; and business and financial management principles.

Job Outlook

Job demand for qualified CET or CM technicians is expected to remain strong because of growth and advances in production and design. In addition, many technicians in these fields are nearing retirement, creating more job openings for those wishing to enter or advance their careers. Job titles for construction management graduates include: construction and building inspector, jobsite superintendent, project manager, cost estimator, drafter, facility manager, surveyor, cartographer, and photogrammetrist. Civil engineering technology graduates find employment as architects, engineers, constructors and surveyors.

Career Opportunities

Upon completion of Lakeland's degree programs, graduates have the training needed to gain immediate employment. Companies continually approach Lakeland's CIVT department wishing to hire graduates. Graduates of the programs are working for a variety of organizations, including: surveying, engineering and architectural firms; federal, state, county, and city engineers and building code departments; contractors: project management firms; residential builders; and construction material testing laboratories.

Lakeland's Program

Lakeland's CIVT program prepares students with a solid foundation for independent educational and professional growth as well as encourages and prepares the graduates to continue their formal education toward completion of a baccalaureate degree. Lakeland's CIVT department currently offers Associate in Applied Science degrees in construction management and civil engineering technology. The civil engineering technology degree program is accredited by the Engineering Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ETAC/ABET). Students can also chose from four certificate programs with specializations in: architectural technology, construction management, facilities management, and surveying technology.

The Lakeland Advantage

- Expert classroom instruction and hands-on training using state-of-the-art equipment and software.
- Paid cooperative education field experience, and visits to area organizations and project sites to gain greater knowledge of the field first-hand.
- Membership in the Civil Engineering Technology Student Association CETSA - a student chapter of the Northeast Chapter of the American Institute of Constructors (AIC), a national organization (website: aicnet.org) representing individual constructors around the country.
- Programs that effectively blend relevant construction and business courses.

Lakeland Community College Admission Requirements

For admission into Lakeland, students must be a high school graduate or have obtained a high school diploma equivalency. Please consult Lakeland Community College's Enrollment Guide (available on Lakeland's website at lakelandcc.edu/enrollment) for specific admissions requirements and procedures.



To further your education, Lakeland's Holden University Center offers a variety of bachelor's degree programs from a number of four-year colleges and universities offering you the opportunity to *stay here and go far!* Visit lakelandcc.edu/uc to explore your options.



Civil Engineering Technology

First Semester:

CIVT 1011	Construction Methods and Materials	3
CIVT 1012	Reading Construction Drawings	1
ENGL 1110*	English Composition I (A)	3
OR		
ENGL 1111	English Composition I (B)	
ENGR 1000	Introduction to Engineering Technology	2
FYEX 1000	First Year Experience	1
MATH 1101	Technical Mathematics I	4
PHYS 1100	Applied Physics I	3
		17

Second Semester:

CIVT 1016	Civil Drafting	3
MATH 1201	Technical Mathematics II	4
MECT 1150	Technical Communications	3
MECT 2110	Engineering Mechanics I	3
PHYS 1200	Applied Physics II	3
		16

Summer Semester:

CIVT 2111	Surveying I	2
CIVT 2112	Surveying II	2
		4

Third Semester:

CIVT 1021	Construction Materials Testing	2
CIVT 2017	Construction Estimating and Scheduling	3
CIVT 2019	Applied Hydraulics	3
MECT 2230	Strength of Materials	3
Choose course(s) from the Arts and Humanities Electives list		3
		14

Fourth Semester:

CIVT 2026	Soils and Foundations	3
CIVT 2027	Concrete and Masonry Construction	3
CIVT 2028	Steel and Timber Construction	3
CIVT 2029	Environmental Technology	3
Choose course(s) from the Technical Electives list		2
		14
		Program Total: 65

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

Technical Electives: minimum 2 credits

BUSM 2100	Business Law I	3
CIVT 1019	Architectural Building Codes and Standards	2
CIVT 1025	Architectural Design	3
CIVT 1028	Mechanical and Electrical Systems	2
CIVT 2020	Green Building and LEED' Rating System	3
CIVT 2024	Construction Administration and Inspection	3
CIVT 2025	Safety in Construction	2
CIVT 2030	Introduction to GPS Satellite Surveying	2
ENGR 2800	Engineering Co-op Experience	2
GEOG 1700	Geographic Information Science I	3
GEOG 2700	Geographic Information Science II	4

Arts and Humanities Electives: minimum 3 credits

ARTS 1120, 2220, 2230; ENGL 2250, 2260, 2280, 2290; HUMX 1100, 1200; MUSC 1200, 1215, 1800, 2200, 2250; PHIL 1500, 2000; PHOT 1000

Construction Management

First Semester:

CIVT 1011	Construction Methods and Materials	3
ENGL 1110*	English Composition I (A)	3
OR		
ENGL 1111	English Composition I (B)	
ENGR 1000	Introduction to Engineering Technology	2
FYEX 1000	First Year Experience	1
MATH 1001**	Introduction to Technical Mathematics	4
OR		
MATH 1650	College Algebra	
(1st 8 weeks)		
CIVT 1012	Reading Construction Drawings	1
(2nd 8 weeks)		
CIVT 1019	Architectural Building Codes and Standards	2
		16

Second Semester:

BUSM 1300	Introduction to Business	3
CIVT 1016	Civil Drafting	3
CIVT 1021	Construction Materials Testing	2
MECT 1150	Technical Communications	3
PHYS 1100***	Applied Physics I	3
OR		
PHYS 1610	General Physics I	5
		14-16

Third Semester:

BUSM 1620	Introduction to Entrepreneurship	3
BUSM 2100	Business Law I	3
CIVT 1410	Building Construction I	3
CIVT 2018	Construction Estimating	3
CIVT 2025	Safety in Construction	2
Choose course(s) from the Arts and Humanities Electives list		3
		17

Fourth Semester:

BUSM 1400	Professional Personal Selling	3
CIVT 2016	Scheduling and Building Information Modeling	3
CIVT 2020	Green Building and LEED' Rating System	3
CIVT 2024	Construction Administration and Inspection	3
Choose course(s) from the Social & Behavioral Sciences list		3
		15
		Program Total: 62-64

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

**Students planning to transfer to Kent State University must take MATH 1650.

***Students planning to transfer to Kent State University must take PHYS 1610.

Arts and Humanities Electives: minimum 3 credits

ARTS 1120, 2220, 2230; ENGL 2250, 2260, 2280, 2290; HUMX 1100, 1200; MUSC 1200, 1215, 1800, 2200, 2250; PHIL 1500, 2000; PHOT 1000

Social and Behavioral Sciences Electives: minimum 3 credits

ANTH 1160; ECON 1150, 2500, 2600; GEOG 1500, 1600, 2500; HIST 1150, 1250, 2150, 2250; POLS 1300, 2500; PSYC 1500; SOCY 1150

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Civil Engineering Technology Certificates

These certificates help students gain valuable experience in a specialization. Cooperative education will play an integral role in the students experience and growth.

- Construction Management
- Facility Management

Construction Management Certificate (4131)

BUSM 2100.....	Business Law I.....	3
CIVT 1011.....	Construction Methods and Materials.....	3
CIVT 1012.....	Reading Construction Drawings.....	1
CIVT 1016.....	Civil Drafting.....	3
CIVT 1019.....	Architectural Building Codes and Standards.....	2
CIVT 1021.....	Construction Materials Testing.....	2
CIVT 2016.....	Scheduling and Building Information Modeling.....	3
CIVT 2018.....	Construction Estimating.....	3
CIVT 2020.....	Green Building and LEED' Rating System.....	3
CIVT 2024.....	Construction Administration and Inspection.....	3
CIVT 2025.....	Safety in Construction.....	2
ENGR 1000.....	Introduction to Engineering Technology.....	2
ENGR 2800.....	Engineering Co-op Experience.....	1
MATH 1001.....	Introduction to Technical Mathematics.....	4
PHYS 1100.....	Applied Physics I.....	3

Certificate Total: 38

For more information about our graduation rates, the median debt of students who completed the program, and other important information, please visit [lkn.lakelandcc.edu/go/ge?q=4131](http://lakelandcc.edu/go/ge?q=4131).

Facility Management Certificate (4141)

BUSM 2100.....	Business Law I.....	3
CIVT 1011.....	Construction Methods and Materials.....	3
CIVT 1012.....	Reading Construction Drawings.....	1
CIVT 1016.....	Civil Drafting.....	3
CIVT 1019.....	Architectural Building Codes and Standards.....	2
CIVT 1028.....	Mechanical and Electrical Systems.....	2
CIVT 2017.....	Construction Estimating and Scheduling.....	3
CIVT 2024.....	Construction Administration and Inspection.....	3
CIVT 2025.....	Safety in Construction.....	2
ENGR 1000.....	Introduction to Engineering Technology.....	2
ENGR 2800.....	Engineering Co-op Experience.....	1
MATH 1001.....	Introduction to Technical Mathematics.....	4
MECT 1150.....	Technical Communications.....	3

Certificate Total: 32

For more information about our graduation rates, the median debt of students who completed the program, and other important information, please visit [lkn.lakelandcc.edu/go/ge?q=4141](http://lakelandcc.edu/go/ge?q=4141).

For more information





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Curriculum and program requirements are subject to change. Find the most up-to-date information in the college catalog, available on the website at lakelandcc.edu.



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Quality Education
Lakeland prepares you for a high-demand career or for transfer to a four-year college or university. Professors at Lakeland are experts in their fields with real-world experience. Small class sizes allow for personalized attention.
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Affordable Tuition
Save thousands on your college education. Lakeland's tuition is about one-third the cost of most four-year schools. Financial assistance is available, including federal and state grants, scholarships, loans, and work study employment.
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Convenience
Lakeland offers convenient day, evening and weekend class times, and a growing number of online courses. The main campus in Kirtland is only 20 miles northeast of Cleveland. Classes are also offered in Madison.
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Focus on Students
Lakeland offers a variety of student services to help you succeed, such as counseling, tutoring, wireless computer labs, career services, free parking, and affordable child care.

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.

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