

LANSING COMMUNITY COLLEGE

Computer, Engineering/Manufacturing Industrial Technologies

Curriculum Code: 0178
(Effective Fall 2018 –
Summer 2023)

Civil Technology A.A.S. Pathway

Civil engineering technicians apply theory and principles of civil engineering in planning, designing, and overseeing the construction and maintenance of structures and facilities in the highway system. They may work at construction or survey sites, offices or in testing labs with engineers, surveyors, supervisors, managers, or skilled trade workers. The successful civil engineering technician must have a working knowledge of college algebra and trigonometry, civil drafting, communications, construction materials, surveying, and must be computer literate. Civil engineering technicians work for construction, engineering, and architecture firms, government agencies, mapping agencies, and private petroleum and mining companies. Not all courses in this program transfer to all colleges. Students planning to transfer should see an academic advisor before enrolling in any course.

For More Information

Contact the Civil Technology Program at the West Campus Building, Room M103, telephone number (517) 483-5338 or Student Services West Campus, West Campus Building, Room M106, telephone number (517) 267-5452.

Semester I	Course Title	Prerequisites	Credit/Billing Hours
Program of Study Requirements			
<i>Students who have completed ELTE 102, HVAC 102, METS 102 or WELD 102 with a grade of 2.0 or higher may substitute one of these courses for DCTM 102.</i>			
CIVL 101	Civil Drafting	None	3 / 4
CIVL 120	Surveying	Minimum 2.0 in MATH 114 or Math Level 5	4 / 6
DCTM 100	Intro to the Built Environment	Reading Level 4 and Writing Level 4 and (Math Level 4 or minimum 2.0 in MATH 105 or MATH 106)	3 / 4
DCTM 102	Industrial/Construction Safety	Reading Level 3 and Writing Level 2	2 / 3
DCTM103	Codes and Specifications	Reading Level 4 and Writing Level 4 and (Math Level 4 or minimum 2.0 in MATH 105 or MATH 106)	3 / 3
Credits			15 / 20

Semester II	Course Title	Prerequisites	Credit/Billing Hours
Math Core Area - <i>Select 1</i>			
MATH 115	Technical Math II	(Minimum 2.0 in MATH 114 within 2 years or Math Level 5 within 2 years) and Reading Level 5	4 / 4
Writing Core Area - <i>Select 1</i> <i>ENGL 124-Technical Writing is highly recommended but any of the Writing Core classes will be accepted.</i>			
ENGL 121	Composition I	Reading Level 5 and Writing Level 6 or (Reading Level 4 and Writing Level 4 and ENGL 099 concurrently)	4 / 4
ENGL 124	Technical Writing	Reading Level 5 and Writing Level 6 or (Reading Level 4 and Writing Level 4 and ENGL 099 concurrently)	3 / 3
Program of Study Requirements			
CIVL 110	Density Certification	None	2 / 2
CIVL 124	Route Survey	Minimum 2.5 in CIVL 120 and Math Level 5	4 / 6
CIVL 141	Site Inspection	Reading Level 3 and Writing Level 2 and (Math Level 4 or minimum 2.0 in MATH 105 or MATH 106)	3 / 3
Credits			16-17 / 18-19

Semester III	Course Title	Prerequisites	Credit/Billing Hours
Communication Core Area - <i>Select 1</i>			
COMM 110	Oral Comm in the Workplace	Reading Level 5 and Writing Level 6 or (Reading Level 4 and Writing Level 4 and ENGL 099 concurrently)	3 / 3
COMM 120	Dynamics of Communication	Reading Level 5 and Writing Level 6	3 / 3
COMM 130	Fund of Public Speaking	Reading Level 5 and Writing Level 6	3 / 3
Global Perspectives and Diversity Core Area - <i>Select 1</i>			
GEOG 200	World Regional Geography	Reading Level 5 and Writing Level 6 and (Math Level 4 or minimum 2.0 in MATH 105 or MATH 106)	4 / 4
MGMT 234	Diversity in the Workplace	Reading Level 5 and Writing Level 6	3 / 3
SOCL 120	Introduction to Sociology	Reading Level 5 or (Reading Level 4 and ENGL 099 concurrently)	4 / 4
Program of Study Requirements			
GRET 210	Global Positioning Systems	None	3 / 4
Discipline Related Electives - <i>Select 2</i> <i>Courses may not be duplicated</i>			
CIVL 131	Traffic Technology	None	3 / 3
CIVL 135	Soils Technology	Minimum 2.0 in MATH 114 or Math Level 5	3 / 3
CIVL 136	Hydrology & Highway Technology	None	5 / 5
METS 140	Rigging	Minimum 2.0 in (METS 102 or DCTM 102 or ELTE 102 or HVAC 102 or WELD 102 or concurrently) and Reading Level 3 and Writing Level 2 and (Math Level 4 or minimum 2.0 in MATH 105 or MATH 106)	3 / 4.5
Credits			15-18 / 16-20.5

Semester IV	Course Title	Prerequisites	Credit/Billing Hours
Science Core Area - <i>Select 1</i>			
BIOL 120	Environmental Science	(Reading Level 5 or ENGL 099 concurrently) and Writing Level 6	4 / 6
GEOL 230	Environmental Geology	Reading Level 5 and Writing Level 6 and Math Level 4	4 / 6
ISCI 131	Integrated Physical Science	Reading Level 5 and Writing Level 6 and Math Level 4 or minimum 2.0 in MATH 105 or MATH 106	4 / 6
Program of Study Requirements			
CIVL 143	Site Dsgn & Layout/Civil Techn	Minimum 2.0 in CIVL 101	3 / 4
CIVL 241	Statics/Strength of Materials	Minimum 2.0 in MATH 114 or Math Level 5	4 / 5
Discipline Related Electives - <i>Select 1</i> <i>Courses may not be duplicated</i>			
CIVL 131	Traffic Technology	None	3 / 3
CIVL 135	Soils Technology	Minimum 2.0 in MATH 114 or Math Level 5	3 / 3
METS 140	Rigging	Minimum 2.0 in (METS 102 or DCTM 102 or ELTE 102 or HVAC 102 or WELD 102 or concurrently) and Reading Level 3 and Writing Level 2 and (Math Level 4 or minimum 2.0 in MATH 105 or MATH 106)	3 / 4.5
Credits			14 / 18-19.5
Semester V	Course Title	Prerequisites	Credit/Billing Hours
Program of Study Requirements <i>Students will need to talk to a program advisor before enrolling in the Civil Technology Internship.</i>			
CIVL 290	Civil Technology Internship	Department Approval	2 / 2
Credits			2 / 2
Total Credits			62-66 / 74-81