

LANSING COMMUNITY COLLEGE

CURRICULUM GUIDE

Civil Technology

Associate in Applied Science Degree

Curriculum Code: 0178 (Effective Fall 2007 – Summer 2012)

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 or counselor before enrolling in any course.

PREREQUISITES

Students should see *Course Descriptions* or *Course Offerings* for course prerequisite information. See the *Assessment and Placement Testing* section for skills assessment and advising information.

INFORMATION

Contact the Environmental, Design and Building Technologies Department, West Campus Building, Room M103, telephone number (517) 483-5338 (Website: <http://www.lcc.edu/cmt/civil/>) or Student Services West Campus, West Campus Building, Room M106, telephone number (517) 267-5510.

REQUIREMENTS

TOTAL: 41 CREDITS
CREDIT HOURS

| CODE | TITLE | |
|---------|----------------------------------|---|
| CIVL100 | Introduction to Civil Technology | 3 |
| CIVL101 | Civil Drafting (See Note 1) | 3 |
| CIVL120 | Surveying | 4 |
| CIVL124 | Route Survey | 4 |
| CIVL132 | Construction Materials | 4 |
| CIVL200 | Civil Mathematics | 4 |
| CIVL241 | Statics/Strength of Materials | 5 |
| GRET203 | Beginning MicroStation | 3 |
| MATH114 | Technical Math I | 4 |
| MATH115 | Technical Math II | 4 |
| WRIT124 | Technical Writing | 3 |

LIMITED CHOICE REQUIREMENTS

TOTAL: 19-24 CREDITS

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

CHOICE 1: General Education Core Areas

10-13 Credits

(See *General Education Core Requirements* 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 | 3-4 |
| Mathematics Core Area (See Note 2) | 0 |
| Science Core Area | 4-5 |
| Writing Core Area (See Note 2) | 0 |

CHOICE 2: Civil Technology Specialty (Choose one subchoice) 9–11 Credits

Subchoice 2A: Public Industry Track

| | | |
|---------|----------------------------------|---|
| CIVL131 | Traffic Technology | 3 |
| CIVL135 | Soils Technology | 3 |
| CIVL136 | Hydrology and Highway Technology | 5 |

Subchoice 2B: Private Industry Track

| | | |
|---------|--|---|
| CIVL141 | Site Inspection | 3 |
| CIVL142 | Construction Specifications | 3 |
| CIVL143 | Site Design/Layout for Civil Technicians | 3 |

MINIMUM TOTAL 60

NOTES:

1. Basic mechanical drafting skills are necessary for this course and may be demonstrated by a score of 80% or better on the Drafting Placement Test or by passing LAND100 or METD100 with a 2.5 minimum grade.
2. Students completing "REQUIREMENTS" have fulfilled the requirements for this Core area.
3. Students who are interested in practical field experience may apply for the Student Civil Technician Co-op Program. Contact the Environmental, Design and Building Technologies Department at 483-1336.

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 or counselor for help with adjustments.

| I | II | III | IV |
|----------|-----------|------------|-----------|
| CIVL100 | CIVL101 | GRET203 | CIVL124 |
| MATH114 | CIVL120 | MATH115 | CIVL132 |
| Lim.Ch.1 | CIVL200 | WRIT124 | CIVL241 |
| Lim.Ch.2 | Lim.Ch.1 | Lim.Ch.1 | Lim.Ch.2 |
| | | Lim.Ch.2 | |