



Effective 2014/2015

Career Cluster ►



Career Pathway ►

Design & Pre-Construction

**LAND SURVEY TECHNICIAN**

(10-607-7)

Associate of Applied Science Degree  
Most Courses Offered at iMET Center

△ Suggested Sequence	✓ Course Number	Course Title	Requisites	Credits	Hrs/Wk Lec - Lab
Semester 1	607-103	* Introduction to Civil Engineering & Architecture		2	1-2
	607-106	* Building Materials	Coreq: 607-107	2	1-2
	607-107	* Construction Methods	Coreq: 607-106	2	1-2
	607-169	* Surveying Basics	Prereq: 834-110 (See Note 1)	2	1-2
	607-170	* AutoCAD for Construction Sciences		2	1-2
	804-115	College Technical Math 1	Prereq: 834-110 (See Note 1)	5	5-0
	809-198	Psychology, Introduction to	Prereq: 838-105 (See Note 1)	3	3-0
Semester 2	607-102	* Conflict Resolution in CET		2	1-2
	607-128	* Construction Estimating	Prereq: 607-106; 607-107	3	2-2
	607-132	* Structural Mechanics	Prereq: 804-114 OR 804-115	3	2-2
	607-136	* Construction Project Management		2	1-2
	607-187	* 3D CAD: Digital Terrain Modeling		2	1-2
	614-150	* 3D CAD: Building Information Modeling		2	1-2
	801-136	English Composition 1	Prereq: 831-103 (See Note 1)	3	3-0
Semester 3	607-117	* Geographical Information Systems I		2	1-2
	607-127	* Civil Engineering Drafting		3	1-4
	607-173	* Surveying Fundamentals	Prereq: 607-169	3	1-4
	607-174	* Land Surveying – Data Processing	Coreq: 607-173	2	1-2
	809-196	Sociology, Introduction to	Prereq: 838-105 (See Note 1)	3	3-0
	806-154	General Physics 1	Prereq: 804-115	4	3-2
Semester 4	607-108	* Research and Boundary Location	Prereq: 607-173	3	1-4
	607-150	* Survey Construction/ Route/ Highway	Prereq: 607-173	4	2-4
	607-161	* Legal Aspects of Land Surveying	Coreq: 607-108	2	2-0
	801-197	Technical Reporting	Prereq: 801-136	3	3-0
Electives	<b>Take 6 elective credits. Any associate degree level course may be taken as an elective.</b> <b>Suggested Electives:</b> 607-154 Sewer and Water (2 Cr) 607-137 GPS Systems (2 Cr) 607-152 Elements of Inspections (3 Cr) 607-119 Civil Technology/Internship (1 Cr)			6	
	<b>Registered Land Surveyor</b>  <i>This program meets the educational requirements to become a Licensed Land Surveyor in the State of Wisconsin as long as 4 of the 6 elective credits are additional math-related credits approved by the surveying instructor of the CET program.</i>				

△ Courses may be taken out of suggested sequence as long as requisites have been met.

**Minimum Program  
Total Credits Required**

**70**



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### PROGRAM DESCRIPTION

The Land Survey Technician program focuses on a wide variety of aspects within the profession of Civil Engineering – beginning with surveying, transitioning into design, and resulting in construction. The first year classes are mostly the same for programs in the Construction Sciences Group (see Note 6). Basic skills are developed and students are exposed to all areas of the various professions. This allows the student to be able to understand and communicate across the professions, plus it allows the student to discover what area they really enjoy working in. The second year focuses on aspects specific to Land Surveying. The program is designed as a fusion of education and application; hence all the core classes are tied to real world experiences with a significant influx of participation from potential future employers. Some students use this program as a place to prepare themselves to transfer to a four year university. Most, however, use this program as a means to develop the skills that allow them to obtain a productive career in various aspects of land surveying.

### PROGRAM LEARNING OUTCOMES

Graduates of the Land Survey Technician Program should be able to:

1. Exhibit skills in multiple CAD environments, specifically AutoCAD and Revit
2. Measure field locations
3. Develop 3D computer models, maps, and drawings based field measurements.
4. Apply building codes to existing conditions and proposed designs.
5. Develop structural details for purposed conditions.
6. Differentiate between the various areas and functions within the profession.
7. Understand quantities, materials, equipment and methods used in the profession.
8. Exhibit proper and clear documentation and reporting skills
9. Exhibit individual ability to properly solve a problem
10. Work cooperatively in groups

### CORE ABILITIES

Gateway believes students need both technical knowledge and skills and core abilities in order to succeed in a career and in life. The following nine core abilities are the general attitudes and skills promoted and assessed by all Gateway programs. All Gateway graduates should be able to:

- |  |   |
|--|---|
| 1. Act responsibly                       | 6. Respect themselves and others as a member of a diverse community |
| 2. Communicate clearly and effectively   | 7. Think critically and creatively                                  |
| 3. Demonstrate essential computer skills | 8. Work cooperatively   |
| 4. Demonstrate essential math skills     | 9. Value learning   |
| 5. Develop job seeking skills            |   |

### ADMISSION REQUIREMENTS

1. Students must submit an application and \$30 fee.
2. Students must complete reading, writing, math, and computer skills placement assessments.
3. Students must submit official high school, GED, or HSED transcripts.

### GRADUATION REQUIREMENTS

1. Minimum 70 credits with an average of 2.0 or above.
2. \*A 2.0 ("C") or above for these specific major core courses.

*For a complete list of Graduation Requirements check the Student Handbook.*

### NOTES

1. A satisfactory placement test score (or successful remediation) is required prior to enrollment. See an advisor for details.
2. Any course may be taken prior to enrollment in the program, assuming prerequisites and corequisites have been satisfied (or waived with department approval).
3. This is a very intense and challenging program. Poor existing skills, especially poor math skills, can always be improved. As long as you have the heart and desire to succeed, the instructors will work with you.
4. Classes offered at Elkhorn Campus via NODAL delivery. See [www.gtc.edu](http://www.gtc.edu) for details.
5. Blackhawk Technical College students may take the majority of the core classes in this shared program via NODAL delivery at BTC's Janesville campus.
6. The programs in the Construction Science Group include: Civil Engineering Tech: Highway Technology, Land Survey Technician, Architectural-Structural Engineering Technician, and Civil Engineering Technology: Fresh Water Resources.

### OTHER INFORMATION

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for a period of two years or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult the Master Class Schedule for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

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To schedule an appointment with an advisor, please call 1-800-247-7122.

For a complete list of course descriptions (and possible online courses) for this program, please consult Web Advisor on our web page at [www.gtc.edu](http://www.gtc.edu).

My advisor is \_\_\_\_\_ My advisor's contact information is \_\_\_\_\_.