



Civil Engineering Technology-Highway Technology (10-607-4)

Associate of Applied Science
Effective 2019/2020



The course sequence shown on this sheet is the recommended path to completion of the program and reflects how courses are regularly scheduled. Courses will be scheduled in the terms indicated here. Courses may be taken out of sequence as long as requisites are met.

✓	Course Number		Course Title	Requisites	Notes	Credits	Terms Offered
	607-141	*OR	Construction Basics		6	2	FA
	607-103		Introduction to Civil Engineering & Architecture				
	607-104	*	Building Material & Construction Method			3	FA
	804-135	OR	Quantitative Reasoning	Prereq: 834-109	1	3	FA, SP, SU
	804-115		College Technical Math 1	Prereq: 834-110		5	
	607-169	*	Surveying Basics		1	2	FA
	607-102	* *	Conflict Resolution in CET		6	2	FA
	607-136	*	Construction Project Management			2	FA
	607-132	*	Structural Mechanics	Prereq: 804-135		3	SP
	607-139	*	Material Testing and Inspection	Prereq: 607-104		4	SP
	801-136	*	English Composition 1	Prereq: 831-103	1,6	3	FA, SP, SU
	607-128	*	Construction Estimating	Prereq: 804-135 Coreq: 801-136		3	SP
	607-170	*	AutoCAD for Construction Science		6	2	SP
	607-187	*	3D CAD: Digital Terrain Modeling			2	SU
	614-150	*	3D CAD: Building Information Modeling			2	SU
	809-195		Economics	Prereq: 838-105		3	FA, SP, SU
	607-117	*	Geographical Information Systems I			2	FA
	607-127	*	Civil Engineering Drafting	Prereq: 607-187; 801-136		3	FA
	607-173	*	Surveying Fundamentals	Prereq: 607-169; 187; 804-135		3	FA
	607-189		Geospatial Data Processing	Prereq: 607-169		2	FA
	809-198		Psychology, Introduction to	Prereq: 838-105	1,5,6	3	FA, SP, SU
	801-197		Technical Reporting	Prereq: 801-136		3	FA, SP, SU
	607-150	*	Survey Construction/ Route/ Highway	Prereq: 607-173; 801-136		4	SP
	614-138	*	3D Modeling and Virtualization	Prereq: 614-150; 607-187		1	SP
	607-154	*	Sewer and Water Systems	Prereq: 607-104; 804-135		2	SP
	607-166	*	Capstone: CET-Highway Technology	Prereq: Instructor Consent Coreq: 607-150; 154		1	SP
	607-129		Future Trends in Construction Science	Prereq: 607-104; 141; 169		2	SP
	614-102		Construction Project Management 2	Prereq: 607-136		2	SP
	Minimum Program Total Credits Required						64



= Milestone Course. Faculty have identified this course as providing a strong foundation for your success throughout the program. Courses should be taken in the order shown to help you stay on track and graduate on time.

Civil Engineering Technology – Highway Technology (10-607-4)

Civil Engineering Technology – Highway Technology 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 2nd year focuses on aspects specific to Highway and Public Works. 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 Highway Technology.

Program Learning Outcomes

Graduates will be able to:

1. Utilize graphic techniques to produce engineering drawings.
2. Conduct standardized field and laboratory testing on civil engineering materials.
3. Utilize modern surveying methods for land measurements and/or construction layout.
4. Estimate material quantities and costs for civil engineering projects.
5. Utilize geometric elements to develop corridors.
6. Design storm systems to meet given design requirements.
7. Determine forces and stresses in elementary structural systems.
8. Employ productivity software to solve technical problems.

Core Abilities

Gateway's nine core abilities are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will be able to:

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

Admission Requirements

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

Graduation Requirements

1. Minimum 64 credits with an average of 2.0 or above.
 2. *Average of 2.0 ("C") or above for these major courses.
- For a complete list of Graduation Requirements, check the Student Handbook.

Program Offerings

	Location(s)	Starting Term(s)
Days & Evenings	iMET, Elkhorn	FA

Notes

1. A satisfactory placement test score (or successful remediation) is required prior to enrollment. See an advisor for details.
2. 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.
3. Classes offered at Elkhorn Campus via NODAL delivery. See www.gtc.edu for details.
4. The programs in the Construction Science Group include: Civil Engineering Tech: Highway Technology, Architectural-Structural Engineering Technician, and Civil Engineering Technology: Fresh Water Resources.
5. Transfer credits in Social Science may substitute for this course. See an advisor for details.
6. A credit for prior learning assessment is available for this course. For more information, please contact cfpl@gtc.edu.

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 My Gateway 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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