GATEWAY TECHNICAL COLLEGE **Effective 2013/2014**	**Career Cluster ►** Science, Technology, Engineering & Mathematics	**Career Pathway ►** Engineering & Technology	**CIVIL ENGINEERING TECHNOLOGY – FRESH WATER RESOURCES** **(10-607-9)** *Associate of Applied Science Degree* **Most Courses Offered at iMET Center**

Δ 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
		607-132	*	Structural Mechanics	Prereq: 804-114	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
		806-134	*	General Chemistry	Prereq: 804-107	4	3-2
		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
		607-181	*	Hydrology and Conservation		2	2-0
		607-182	*	Sampling and Testing	Prereq: 806-134	2	1-2
		607-183	*	Fresh Water Treatment		3	2-2
		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		607-154	*	Sewer and Water Systems		2	2-0
		607-184	*	Environmental Impact		2	2-0
		607-185	*	Waste Water Treatment		3	2-2
		607-186	*	Erosion Control		2	1-2
		801-197		Technical Reporting	Prereq: 801-136	3	3-0
Electives		***Take 6 elective credits. Any associate degree level course may be taken as an elective.***				***6***	

Suggested Electives:

614-108 Residential Code (1 Cr)
614-114 Commercial Code (2 Cr)
607-152 Elements of Inspections (3 Cr)
607-129 Future Trends (2 Cr)
607-119 Civil Technology/Internship (1 Cr)

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

Program Total Required ***70***

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PROGRAM DESCRIPTION

Civil Engineering Technology - Fresh Water Resources 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 fresh water, from rainfall to testing to cleaning. 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 4 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 Fresh Water Resources.

PROGRAM LEARNING OUTCOMES

Graduates of the Fresh Water Resources Program should be able to:

1. Exhibit skills in multiple CAD environments.
2. Measure field locations
3. Develop 3D computer models, maps, and drawings based field measurements.
4. Exhibit proper sampling and testing skills.
5. Acquire fresh water knowledge to aid in obtaining appropriate certifications.
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
2. Communicate clearly and effectively
3. Demonstrate essential computer skills
4. Demonstrate essential math skills
5. Develop job seeking skills
6. Respect themselves and others as a member of a diverse community
7. Think critically and creatively
8. Work cooperatively
9. Value learning

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 transcript.

GRADUATION REQUIREMENTS

1. 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 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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You may call Student Services at 1-800-247-7122 for additional information.
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.

My advisor is _____. My advisor’s contact information is _____.