### CIVIL ENGINEERING TECHNOLOGY-HIGHWAY TECHNOLOGY

**Associate of Applied Science Degree**
Most Courses Offered at iMET Center

<table>
<thead>
<tr>
<th>Suggested Sequence</th>
<th>Course Number</th>
<th>Course Title</th>
<th>Requisites</th>
<th>Credits</th>
<th>Hrs/Wk</th>
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<tbody>
<tr>
<td>Semester 1</td>
<td>607-103</td>
<td>Introduction to Civil Engineering &amp; Architecture</td>
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<tr>
<td></td>
<td>607-169</td>
<td>Surveying Basics</td>
<td>Prereq: 834-110 (See Note 1)</td>
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<tr>
<td></td>
<td>607-170</td>
<td>AutoCAD for Construction Science</td>
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<td></td>
<td>804-115</td>
<td>College Technical Math 1</td>
<td>Prereq: 834-110 (See Note 1)</td>
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<td></td>
<td>809-198</td>
<td>Psychology, Introduction to</td>
<td>Prereq: 838-105 (See Note 1)</td>
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<tr>
<td>Semester 2</td>
<td>607-102</td>
<td>Conflict Resolution in CET</td>
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<td>607-132</td>
<td>Structural Mechanics</td>
<td>Prereq: 804-114</td>
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<td>607-136</td>
<td>Construction Project Management</td>
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<td>607-187</td>
<td>3D CAD: Digital Terrain Modeling</td>
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<td>614-150</td>
<td>3D CAD: Building Information Modeling</td>
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<td>801-136</td>
<td>English Composition 1</td>
<td>Prereq: 831-103 (See Note 1)</td>
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<td>Semester 3</td>
<td>607-117</td>
<td>Geographical Information Systems I</td>
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<td>607-127</td>
<td>Civil Engineering Drafting</td>
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<td>607-173</td>
<td>Surveying Fundamentals</td>
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<td>806-154</td>
<td>General Physics 1</td>
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<td>809-196</td>
<td>Sociology, Introduction to</td>
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<td>Semester 4</td>
<td>607-150</td>
<td>Survey Construction/ Route/ Highway</td>
<td>Prereq: 607-173</td>
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<td>607-152</td>
<td>Elements Inspections/ Contacts/ Specification</td>
<td>Prereq: 607-128</td>
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<td>607-154</td>
<td>Sewer and Water Systems</td>
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<td>801-197</td>
<td>Technical Reporting</td>
<td>Prereq: 801-136</td>
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<td>Electives</td>
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<td>Take 6 elective credits. Any associate degree level course may be taken as an elective.</td>
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<td>6</td>
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**Suggested Electives:**
- 607-174 Land Surveying – Data Processing (2 Cr)
- 607-134 Steel Design and Detailing (2 Cr)
- 607-119 Civil Technology/Internship (1 Cr)
- 607-129 Future Trends-Civil/Architecture (2 Cr)
- 607-135 Reinforced Concrete Design and Detailing (2 Cr)

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

**Program Total Required**
70
PROGRAM DESCRIPTION
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 of the Civil Engineering Technology Program should 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.
9. Utilize essential computer skills
10. Demonstrate essential math skills
11. Demonstrate essential communication skills
12. Work co-operatively
13. Work independently
14. Act responsibly
15. Respect themselves and others as a member of a diverse community
16. Value learning
17. Think critically and creatively
18. Work cooperatively
19. Learn independently
20. Demonstrate essential math skills
21. Demonstrate essential computer skills
22. Work co-operatively
23. Act responsibly
24. Respect themselves and others as a member of a diverse community
25. Value learning
26. Think critically and creatively
27. Work cooperatively
28. Learn independently

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 submit official high school, GED, or HSED transcript.
3. Students must complete reading, writing, math, and computer skills placement assessments.

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.
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.

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.

EQUAL OPPORTUNITY/ACCESS EDUCATOR / EMPLOYER

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 __________________________.