

Architectural – Structural Engineering Technician (10-614-6)

Associate of Applied Science

Effective 2026/2027

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here. All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan. Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.). More detailed scheduling information for this program can be found at <https://www.gtc.edu/architectural-structural>. Please see your academic advisor for additional information.

I-E = iMET Center/evenings, E-E = Elkhorn/evenings, F=Fall, S=Spring, SU=Summer

Term	Course Number	Credits	Course Title	Requisites (prereq-before/ coreq-with)	Notes	I-E	E-E
1	890-155	1	Gateway to Success (G2S)		• Students are required to take this course in their first semester of enrollment. Please see an advisor for details.	F+	F
1	*607-104	3	Building Material & Construction Method		• Faculty have identified this milestone course as providing a strong foundation for success throughout the program.	F	F
1	*607-136	2	Construction Project Management		• Faculty have identified this milestone course as providing a strong foundation for success throughout the program.	F	F
1	*607-141	2	Construction Basics			F	F
1	*607-170	2	AutoCAD for Construction Sciences			F+	F
1	804-134 OR 804-115	3 5	Mathematical Reasoning OR College Technical Math 1	Prereq: 854-760 Prereq 834-110	• Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.	F	F
2	*607-102	2	Conflict Resolution in CET			S	S
2	*607-128	3	Construction Estimating	Coreq: 804-115 OR 804-134 OR 804-135; 801-136		S	S
2	*607-129	2	Future Trends Civil/Archi Tech	Prereq: 607-104; 607-141 OR 607-103		S	S
2	*607-132	3	Structural Mechanics	Prereq: 804-115 OR 804-134 OR 804-135	• Faculty have identified this milestone course as providing a strong foundation for success throughout the program.	S	S
2	*614-102	2	Construction Project Management 2	Prereq: 607-136		S	S
2	801-136	3	English Composition 1	Prereq: 831-103 OR 851-757	• Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.	S+	S

(*) Students must achieve a combined average of 2.0 ("C") or above for this major course to meet graduation requirements.

(+) Students may take this course at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.

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Term	Course Number	Credits	Course Title	Requisites (prereq-before/ coreq-with)	Notes	I-E	E-E
3	*607-148	1	Wood-Design & Detailing	Prereq: 607-132		SU	SU
3	*607-169	2	Surveying Basics			SU	SU
3	809-195	3	Economics	Prereq: 838-105 OR 851-757	• Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.	SU+	SU
3	*614-150	2	3D CAD: Building Information Modeling			SU	SU
3	*607-187	2	3D CAD: Dig Terrain Model			SU	SU
4	*607-134	2	Steel – Design and Detailing	Prereq: 607-132		F	F
4	*614-108	1	Residential Code			F	F
4	*614-110	3	Architectural Drafting – Residential	Prereq: 614-150; Coreq: 614-108		F	F
4	*614-140	3	Mechanical Systems for Buildings	Prereq: 607-104		F	F
4	809-198	3	Psychology, Introduction to	Prereq: 838-105 OR 851-757	• Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.	F+	F
4	801-197	3	Technical Reporting	Prereq: 801-136		F+	F
5	*607-135	2	Reinforced Concrete-Design & Detailing	Prereq: 607-132		S	S
5	*614-107	3	Residential and Commercial Inspection	Prereq: 607-104; 614-108 ; Coreq: 614-114		S	S
5	*614-114	2	Commercial Code			S	S
5	*614-115	3	Architectural Drafting – Commercial	Prereq: 614-150; Coreq: 614-114		S	S
5	*614-123	1	Capstone: Architectural Structural Tech	Prereq: 607-134 OR 614-100; Coreq: 614-115; 607-135 OR 614-101		S	S
5	*614-138	1	3D Modeling and Virtualization	Prereq: 614-150; 607-187		S	S

Minimum Program Total Credits Required: 65

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Architectural-Structural Engineering Technician focuses on a wide variety of aspects within the profession of 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 notes). 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 buildings, both design and structural components. 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 architecture.

Program Learning Outcomes

Graduates will be able to:

- 1 Develop Construction Documents
- 2 Evaluate Building Materials
- 3 Develop building designs
- 4 Integrate building systems

Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- 1 Communication Competence
- 2 Critical Thinking and Problem Solving
- 3 Professionalism and Career Management
- 4 Teamwork and Collaboration
- 5 Cultural Competence
- 6 Technology Competence

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year 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. The District reserves the right to modify, cancel, or relocate course offerings in response to factors such as low enrollment, resource availability, or other relevant considerations to ensure high-quality educational experiences. Students will be notified in writing and are encouraged to meet with their Academic Advisor to adjust their academic plan.

Admission Requirements

- 1 Students must submit an application and pay \$30 fee.
- 2 Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

Graduation Requirements

- 1 Minimum 65 credits with a cumulative GPA of 2.0 or above.
- 2 *Average of 2.0 ("C") or above for these major courses.
- 3 Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

Notes

- 1 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.
- 2 Classes offered at Elkhorn Campus via NODAL delivery. Please see an advisor for details.
- 3 The programs in the Construction Science Group include: Civil Engineering Tech: Highway Technology, Architectural-Structural Engineering Technician, Construction Management Technician, and Material Testing Inspector Certificate.
- 4 Students wishing to pursue Calculus courses at Gateway should take 804-115 College Technical Math 1. Please see an advisor for details.
- 5 Safety glasses may be required in various classes after the first semester. If prescription safety glasses are required, please allow sufficient time to obtain your glasses prior to the start of the 2nd semester.

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