



## Diesel Equipment Technology (10-412-1)

Associate of Applied Science

**Effective 2021/2022**

*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.*

**HZ-D = Horizon Center/days, HZ-E = Horizon Center/evenings, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	HZ-D
1	890-155	1	📍 Gateway to Success (G2S)		F+
1	*412-111	2	🎓 Diesel Maintenance Fundamentals	Coreq: 804-135	F
1	*412-107	4	🎓 Diesel Electricity 1 <sup>7</sup>	Prereq: 412-111	F
1	*412-114	3	Diesel Heating, Cooling & Air Cond. <sup>7</sup>	Prereq: 412-111; 412-107	F
1	804-135	3	Quantitative Reasoning <sup>1</sup>	Prereq: 834-109	F+
2	*412-106	4	Diesel Brake Systems <sup>7</sup>	Prereq: 412-111; 412-117 OR 412-125	S
2	*412-117	3	Diesel Suspension & Steering Systems <sup>1,7</sup>	Prereq: 412-111	S
2	801-136	3	English Composition 1 <sup>7</sup>	Prereq: 831-103 OR 831-107	S+
2	801-196	3	Oral/Interpersonal Communication		S+
3	*412-112	4	Diesel Drive Trains <sup>7</sup>	Prereq: 412-111; 412-106 Coreq: 801-136	SU
3	*412-116	3	Diesel Preventative Maintenance <sup>7</sup>	Prereq: 412-111; 412-106; 412-112 OR 412-126	SU
3	*412-110	3	Diesel Fuel Systems	Prereq: 412-111; 801-136; 804-135	SU
4	*412-109	5	Diesel Engine Service <sup>7</sup>	Prereq: 412-111; 412-110	F
4	*412-108	3	Diesel Electricity 2	Prereq: 412-111; 412-107	F
4	809-196	3	Sociology, Introduction to <sup>1,7</sup>	Prereq: 838-105 OR 831-107	F+
4	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	F
4	*412-115	2	Diesel Hydraulic Systems	Prereq: 412-111	F
5	*412-113	3	Diesel Fuel Systems – Advanced	Prereq: 412-111; 412-107; 412-110; 412-108	S
5	*412-105	4	Diesel Control Systems – Advanced	Prereq: 412-111 & 412-108 & 412-109 & 412-112 OR 412-126 & 412-113 & 412-114	S
5	809-198	3	Psychology, Intro to <sup>1,6,7</sup>	Prereq: 838-105 OR 831-107	S+
5	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	S

**Minimum Program Total Credits Required: 65**

### **AVAILABLE CONCENTRATION: CONSTRUCTION EQUIPMENT REPAIR**

Instead of these courses	Take these alternates	Cr.	HZ-D
412-117 Diesel Susp. & Steering Sys.	*412-125 Const. Equip. Drive/Steer. Sys. Prereq: 412-111	3	S
412-112 Diesel Drive Trains	*412-126 Const. Equip Drive Train Prereq: 412-111; 106; 125	4	SU
412-105 Diesel Control Sys. Adv.	*412-127 Construction Hydraulic Sys. Prereq: 412-111; 108; 109; 115; 126	4	S

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, or Elkhorn.

## Diesel Equipment Technology (10-412-1)

*Diesel Equipment Technology* is a two-year repair and maintenance program designed to prepare an entry level diesel technician. Program instruction will include over the road, off road and stationary applications. Emphasis will be placed on operational fundamentals and repair of diesel engines, and diesel vehicle systems including brakes, heating, and cooling systems. Technical skills will be developed in diagnosing and repair of advanced engine and system controls.

### Program Learning Outcomes

Graduates will be able to:

1. Diagnose major systems in diesel and heavy equipment industry.
2. Repair major systems in diesel and heavy equipment industry.
3. Service major systems in diesel and heavy equipment industry.
4. Practice personal and professional work habits.
5. Document complaint, cause, and correction.

### 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:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### 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

- Minimum 65 credits with an average of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- 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](#).

### Suggested Electives

412-122 Professional Practices	461-120 Small Power Equipment
412-123 Diesel Equipment Tech. Internship	801-197 Technical Reporting
442-101 Welding Basics	809-195 Economics
442-102 Introduction to Welding	443-101 Forklift Operation & Maintenance

### Notes

1. A satisfactory placement test score (or successful remediation) is required prior to enrollment. See an advisor for details.
2. Tablet computer required for this program. See an advisor for a fact sheet describing minimum requirements.
3. Work uniforms are required. See an advisor for details.
4. Safety glasses are required in labs. If prescription safety glasses are required, allow a minimum of 90 days before the program start to obtain prescription and glasses.
5. A state issued Commercial Driver License (CDL) is not required for the program but highly recommended. Gateway Technical College will offer CDL training starting May 2019.
6. Transfer credits in Social Science may substitute for this course. See an advisor for details.
7. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto: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.