

Certificate of Achievement – Diesel Technology

Student Learning Outcomes

The Diesel Technology Certificate of Achievement Program is designed for the student who desires a highly technical and challenging field.

Because of the intensity of the program, students will be very close to AAS degree completion and are encouraged to pursue the degree.

Graduates of the Diesel Technology certificate program will have the knowledge and skills to:

- Analyze and solve problems related to heavy equipment operation.
- Identify diesel engine design and maintain, repair, and troubleshoot them.
- Demonstrate proper use of tools related to the repair and maintenance of heavy equipment.
- Identify, repair, and maintain mobile equipment with hydraulic systems.
- Perform safely in the work environment, meeting and obeying all workplace safety requirements.

Formal admission to this program is required. Refer to page 86 for an outline of admission standards.

| General Education Requirements | | Credits |
|--------------------------------|-----------------------------------------------------------------|---------|
| INT 100 | GBC Orientation..... | 0.5 |
| | English/Communications. Determined by placement testing..... | 3 |
| | ENG 100, 101, 103, or 107 | |
| | Computation — Any course with a MATH prefix..... | 3 |
| | Human Relations BUS 110 (recommended)..... | 1-3 |

| Program Requirements | | Credits |
|----------------------|------------------------------------------------------|---------|
| DT 100 | Shop Practices..... | 2 |
| DT 101 | Basic Diesel Engines..... | 4 |
| DT 102 | Basic Vehicle Electronics..... | 8 |
| DT 105 | Mobile Air Conditioning..... | 2 |
| DT 106 | Heavy Equipment Transmission and Power Train..... | 7.5 |
| DT 201 | Diesel Brakes and Pneumatics..... | 2.5 |
| DT 215 | Electronic Diesel Engines..... | 8 |
| IT 208 | Fluid Power..... | 8 |
| WELD 136 | Welding for the Maintenance Technician I..... | 3 |
| WELD 235 | Welding for the Maintenance Technician II..... | 3 |

SUGGESTED COURSE SEQUENCE Certificate of Achievement— Diesel Technology

| FALL—1st Semester | | Credits |
|---------------------|--|------------------|
| INT 100 | | 0.5 |
| DT 100 | | 2 |
| DT 101 | | 4 |
| DT 102 | | 8 |
| DT 215 | | 8 |
| WELD 136 | | 3 |
| COMPUTATION* | | 3 |
| ENGLISH* | | 3 |
| HUMAN RELATIONS* | | 1-3 |
| TOTAL | | 32.5-34.5 |
| SPRING—2nd Semester | | Credits |
| DT 105 | | 2 |
| DT 106 | | 7.5 |
| DT 201 | | 2.5 |
| IT 208 | | 8 |
| WELD 235 | | 3 |
| TOTAL | | 23 |

Refer to page 85. Minimum Credits: 55.5

Certificate of Achievement Requirements Summary

| | Credits |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| GBC Orientation (select programs) | 0.5 |
| English/Communications..... | 3 |
| Computation | 3 |
| Computation includes the ability to: | |
| <ul style="list-style-type: none"> • Interpret mathematical models • Represent mathematical information symbolically, visually, numerically, and verbally • Estimate and check answers | |
| Must be included as a course or demonstrate how computation components are embedded in other required courses for a Certificate. | |
| Minimum Certificate Requirements | 23 |
| (See program for specific requirements) | |
| Human Relations | 1-3 |

A minimum of 30 total credits is required. Many programs require more.

Career and Technical Education Admission

Admission standards for the Associate of Applied Science and Certificate of Achievement in the Career and Technical Education (CTE) area for disciplines in Diesel Technology, Electrical Systems Technology, Instrumentation Technology, Industrial Millwright Technology, and Welding Technology are listed below.

Application Deadline: March 1

Prospective students are required to formally apply for admission to the Career and Technical Education (CTE) Department. To do so:

1. The prospective student needs to pick up a CTE Department Admissions Application form from the CTE Department (not from Admissions and Records), fill it out, and return it to the CTE Department by March 1. (Please make sure to declare a major on this form.) The CTE department is located in DCIT 255.
2. Along with the CTE Department Admissions Application form, the student needs to submit to the CTE Department:
 - a. Three letters of recommendation.
 - b. A resumé.
 - c. A letter of intent.
 - d. High school transcripts or HSE scores if applicable, military training records if applicable, and/or higher education records if applicable.

- e. By March 1, the prospective student needs to submit ACT or SAT scores or take the placement tests for mathematics and English at the GBC Academic Success Center in Elko or at any GBC Center.

Admission Criteria

The Career and Technical Education Department will admit a limited number of students to the CTE Department area programs each year. Admission is on a competitive basis. When there are more qualified applicants than there are available spaces in the programs, preference will be given to those with the highest qualifications. Meeting minimum application criteria does not guarantee admission to the program. Those students who meet or exceed the minimum criteria but who are not admitted may reapply in future years. Please check with the program advisor for more information.

Associate of Applied Science Degree

The Associate of Applied Science (AAS) degree is designed for persons who desire education for an occupation or a technical career. The courses and programs of the AAS degree aim to prepare students for entry-level employment. Students also use the career and technical education programs to upgrade themselves in the positions they hold. Many persons enroll in career and technical courses to improve their abilities and understanding of everything from management to welding, from financial planning to computing.

In general, career and technical courses are not meant to satisfy requirements of lower-division baccalaureate programs, but do prepare students for GBC’s Bachelor of Applied Science degree. The career and technical education programs provide a generous component of liberal education coursework which is meant to develop intellectual curiosity and which promotes creative thought. The general education courses are university transfer courses.

Important Note:

Some courses offered at Great Basin College may not be used for an Associate of Arts, Associate of Science, or Bachelor of Arts degree. These courses may not be transferable to other Nevada colleges. These courses are identified in the catalog course descriptions with the following notation:

This course cannot be used for an Associate of Arts (A.A.), Associate of Science (A.S.), a Bachelor of Arts (B.A.) degree, or Bachelor of Science (B.S.), and may not be transferable for other baccalaureate degrees in Nevada.

These courses are identified with a “class attribute” in the online course schedule with the following notation: Non-transferable for an NSHE baccalaureate degree.