

Heavy Equipment Vehicle Operator

Description

The Heavy Equipment Vehicle Operator (HEVO) program is a short-term program designed to prepare individuals for employment as professional heavy equipment operators and tractor-trailer drivers. Program content includes instruction in general construction site safety, operation of diesel-powered heavy equipment and tractor trailer rigs, identification of common equipment/vehicle components, defensive driving skills, actual driving on rural, urban and interstate highways, cargo handling, tractor trailer backing and maneuvering, and equipment/vehicle inspections and logging. Students are eligible to test for a CDL license upon successful completion of the program.

Program Learning Objectives

1. Demonstrate general construction site safety and worksite safety with all heavy equipment & tractor trailer rigs.
2. Demonstrate ability to identify, inspect and operate diesel powered heavy equipment and tractor trailer rigs.
3. Demonstrate defensive driving skills on rural, urban and interstate highways.
4. Demonstrate ability to back and maneuver tractor trailer rigs.
5. Demonstrate ability to prepare logs, trip plans and load documents according to laws and regulations.
6. Demonstrate general knowledge concerning mathematical formulas for construction trades, civil drawings, types of soils, and determining foundation grades.

Curriculum

Course #	Course Title	Lecture/ Lab Hours	Credit Hours	Clock Hours
LEAD 1003	Work Readiness	2/2	3	90
WKSF 1003	Industrial Workplace Safety	2/2	3	90
HCVO 1013	Orientation to the Construction Trade	2/2	3	90
HCVO 1023	Introduction to Earth Moving	2/4	4	150
CTC - Heavy Equipment Operations - Level I			13	420
HCVO 1133	Construction Technology & Equipment	2/4	4	150
HCVO 1143	Soils & Machinery	2/4	4	150
CTC - Heavy Equipment Operations - Level II			21	720
CTDP 1053	Commercial Vehicle Operations & Regulations	3/1	3	75
CTDP 1064	Commercial Vehicle Operations II	1/5	4	165
CTS - Heavy Equipment Vehicle Operator			28	960

Course Descriptions

CTDP 1053 Comm Vehicle Op & Regulations

An introductory course that includes work ethics, pay, and other occupational descriptions. Also included are associated work problems, rules, procedures, and other regulations associated with operating a commercial vehicle in most highways' situations.

CTDP 1064 Comm. Vehicle Operations II

A hands-on class that lets the student practice the behind the wheel range (backing and shifting) and then on the public roads.

HCVO 1013 Orientation to Constr. Trade

Provides a comprehensive overview of heavy equipment uses, operator responsibilities, career opportunities, and safety principles associated with the operation of heavy equipment. Students are introduced to safety guidelines for the operation, maintenance, and transportation of heavy equipment.

HCVO 1023 Introduction to Earth Moving

Provides an overview of basic heavy equipment, along with their different models, applications, and common attachments. Basic instruction for the safe operation and preventive maintenance on each type of equipment, including proper mounting, startup procedures, and basic movements of the machine and its attachments. Covers operation of utility tractors and heavy-duty articulated tractors as used in the construction industry. Introduces the concepts of elevations and grading, the use and interpretation of grade stakes, and the basic process of grading construction sites, distance measuring, and finish grades.

HCVO 1133 Construction Tech & Equipment

Identifies proper methods for setting grades, interpreting grade stakes, and reading site plans to ensure that earthmoving work meets specifications. Covers formulas and methods used to compute cut and fill requirement on a job, and illustrates techniques used to quickly estimate excavations. Covers the uses of forklifts on construction sites. Covers uses, inspection, operator maintenance, and operation of dump trucks used to carry loads on public highways.

HCVO 1143 Soils and Machinery

Describes the types of used in site preparation, as well as the safe practices associated with the operation of scrapers. Includes procedures for using loaders in excavation, grading, and demolition work. Describes the many uses of skid steers and attachments available for these machines. Discusses how soil conditions affect equipment performance and explains techniques for working with various types of soils.

LEAD 1003 Work Readiness

This course is designed to prepare for job readiness by reviewing the skills necessary for employment, including time management, communication, teamwork, and professionalism. The student will engage in a variety of skill-building activities, create a resume, participate in a simulated interview process, and review basic math and English skills necessary for their chosen program of study.

WKSF 1003 Industrial Workplace Safety

This course will provide an overview of the construction industry by examining organizational structures and systems, safety regulations and agencies, construction documents, office and field organizations, and the various construction crafts and trades. This course will focus on the basic knowledge and skills needed in the construction industry by studying safety, math, hand tools, power tools, rigging, blueprint reading, communication, and employability.