



DMT 1110

Division: Career and Technical Education

Department: Transportation Technology

Course: DMT 1110

Title: Computer and Shop Skills

Catalog Description:

This course will instruct students on the basic use of computers and their applications in heavy duty mechanics. Shop safety, hand tools, precision measuring, forklift operation, and hazardous materials training will all be presented in some detail. Students will be required to pass a written safety exam before they are allowed to work in the lab.

General Education Requirements: N/A

Semesters Offered: TBA

Credit/Time Requirement: Credit: 4; Lecture: 2; Lab: 5

Clock/Hour Requirements: 113

Offered for Non-Credit: Yes

Prerequisites: N/A

Corequisites: N/A

Justification:

Students must complete the course to function safely and effectively in the heavy duty mechanics field. Occupational, Safety, and Health Administration (OSHA), Mine Engineering Safety Administration (MESA), and other safety agencies require this type of training before employees go to work. This curriculum was developed using the nationally recognized Automotive Service Excellence (ASE) task lists, manufacturer training materials, and advisory committee input.

Student Learning Outcomes:

Upon successful completion, students should be able to:

- use a typical personal computer to perform shop information retrieval and reporting functions
- show safe work practices with hand tools, power tools, and forklifts
- handle hazardous materials found in a typical diesel shop
- measure components and parts with precision measuring tools
- identify and use typical fasteners.

Content:

Course objectives will be accomplished by providing students with learning experiences in the following subject areas:

- career opportunities in heavy duty mechanics/safety program
- operating a personal computer
- basic keyboarding skills
- basic computer terminology
- service information systems
- use of factory service training systems
- introduction to networking.

General Education Outcomes:

Applied Education Outcomes:

1) Students will acquire entry-level skills specific to and appropriate for employment in their chosen field of study.

Students will complete the class task list. Students will keep a file that contains service reports and book work. All work will be graded by instructor as to merit.

2) Students will become aware of industry specific certification and develop skills sufficient to acquire the same.

The instructor will post certification he/she possesses and explain same to students. (Note most certifications are not available to students without four years of experience.)

3) Students will demonstrate safe practices and awareness of potential hazards in their field of expertise.

Students will work in the diesel lab under the supervision of the instructors.

4) Students will demonstrate interpersonal skills specific to the skills and environment inherent in their field.

Students will work in a team environment on lab and customer projects.

Key Performance Indicators:

Student Learning Outcomes will be assessed by two or more of the following Key Performance Indicators:

- written assignments
- lab exercises
- quizzes and tests
- performance in subsequent courses.

Representative Text and/or Supplies:

- Bennett, Sean, *Medium/Heavy Duty Truck Engines, Fuel and Computerized Management Systems*, current edition, Thomson/Delmar Learning.

Optimum Class Size: 10

Maximum Class Size: 20

Signatures:

I hereby submit this course syllabus:

Robert Boyer, BS, Instructor

I hereby find this course consistent with the goals and resources of the Transportation Technology Department:

Brent Reese, BS, Associate Professor, Chair

I hereby find this course consistent with the goals and resources of the Career and Technical Education Division:

Michael P. Medley, MBA, Assistant Professor, Dean

I have discussed the need for library resources related to this class with the person submitting the syllabus:

Lynn Anderson, MLIS, Technical Services Librarian (Main Campus)

Michelle Olsen, MLS, Campus Librarian (Richfield Campus)