

Operating Engineers Apprenticeship Readiness Pathway

Course Descriptions

CAR022: CONSTRUCTION EXPLORATIONS –Offered Fall 2022, Spring 2023

Destinations Career Academy Pathway: Manufacturing & Trades

Course Length: One semester

This course provides students with an introduction of the basic equipment used in the construction industry. Students learn about basic equipment operations and job responsibilities. This course prepares students to use concepts pertaining to safety, maintenance, mathematics and communication that Operating Engineers may experience.

MFG010: BASIC GRADE & CONSTRUCTION MATH – Offered Fall 2022, Spring 2023

Destinations Career Academy Pathway: Manufacturing & Trades

Course Length: One semester

In the construction industry, grading is the work of ensuring a level base, or a grade with a specific slope. Grade construction work is needed in almost any building project, from laying a building foundation, to landscaping, or even roadwork. In this course, you will be introduced to core equipment used in the staking process, as well as Personal Protective Equipment (PPE) used in the construction industry. Communication processes used in the construction industry for interpreting and setting grade are also an important part of this course. Finally, you will learn mathematical concepts related to the construction industry for grade staking.

MFG201: ALV Basic Construction Equipment Fundamentals - Offered Fall 2022, Spring 2023

Destinations Career Academy Pathway: Manufacturing & Trades

Course Length: One semester

In the construction industry, the proper use of heavy equipment is necessary to ensure quality work and a safe work environment. In addition being able to recognize and determine the use of specific heavy equipment, will create a more efficient work team. Heavy equipment is used in almost any construction project, from building a house to excavating for a new road. In this course, you will be introduced to core equipment used by operating engineers, as well as their maintenance needs. Communication processes used by operating engineers, rigging and signaling practices, safety awareness and mathematical concepts related to the construction industry are also covered.

MFG202: ALV Basic Maintenance of Mobile Equipment - Offered Fall 2022, Spring 2023

Destinations Career Academy Pathway: Manufacturing & Trades

Course Length: One semester

This course focuses directly on maintenance of mobile equipment through a series of engaging tutorials. A major focus of the course is on maintenance safety including such topics as LOTO. Other topics include tools and fasteners, preventative maintenance principles, engines, intake and exhaust, fuel systems, coolant systems, filters and filtration, lubrication systems, hydraulics, electrical systems, tires, and tracks and undercarriages.

***If a student does not pass an OE Pathway course, they will need to retake it before they can move onto the next course.**