

UTILITIES TECHNOLOGY (UT)

UT-2000 Equipment Operations I 3 Credits

Introduction to the operations of directional bore machines, hydrovac units, excavating machines, and related equipment for construction of utility systems. Maintenance, equipment inspection, and safety procedures will be covered. Students will perform basic operations of excavation through dedicated lab activity. Students need to be 18 years of age or older due to equipment used during lab activities per Occupational Safety and Health Administration (OSHA) regulations.

Lecture: 1 hour. Laboratory: 6 hours

Prerequisite(s): CNST-1290 Construction Print Reading and CNST-1751 Construction Safety; or departmental approval

UT-2010 Equipment Operations II 3 Credits

Operations of compact equipment and machines for construction of utility systems. Machine operations, maintenance, equipment inspection, and safety procedures will be covered. Students will perform basic and advanced operations of excavation through dedicated lab activity. Students need to be 18 years of age or older due to equipment to be used during lab activities per Occupational Safety and Health Administration (OSHA) regulations.

Lecture: 1 hour. Laboratory: 6 hours

Prerequisite(s): CNST-1290 Construction Print Reading; and CNST-2050 Advanced Construction Safety, or concurrent enrollment; and CNST-2230 Gas Pipeline Systems or concurrent enrollment; and CNST-2240 Water and Wastewater Systems, or concurrent enrollment, or departmental approval

UT-2100 Aerial Construction 3 Credits

Introduction to common construction methods used in aerial construction with a focus on communication lines. Students learn to work with materials for overhead communication and electrical systems. Students will demonstrate working knowledge of pole climbing and aerial lifts involving installation, repair, removal of guy assemblies, and additional pole hardware. Lab activities to reinforce/ demonstrate concepts. Students need to be 18 years of age or older due to equipment used during lab activities per Occupational Safety and Health Administration (OSHA) regulations.

Lecture: 1 hour. Laboratory: 6 hours

Prerequisite(s): CNST-1290 Construction Print Reading; and CNST-2050 Advanced Construction Safety, or concurrent enrollment; or department approval.

UT-2200 Underground Construction I 3 Credits

Develop a working knowledge of construction specifications for buried and underground utility systems and practice construction methods in dedicated lab activities. Focus on gas, water, sewer, and communications utilities. Site restoration and safety protocols will be reviewed. Students will perform operations for horizontal directional drilling, basic excavation, and basic maintenance of utility pipes through dedicated lab activity. Students need to be 18 years of age or older due to equipment use during lab activities, per Occupational Safety and Health Administration (OSHA) regulations.

Lecture: 1 hour. Laboratory: 6 hours

Prerequisite(s): UT-2000 Equipment Operations I or concurrent enrollment; and CNST-2050 Advanced Construction Safety, or concurrent enrollment; and CNST-2090 Utility Locating and Traffic Flagging

UT-2210 Underground Construction II 3 Credits

Capstone course in Utilities Technology program. Working practice of construction methods for buried and underground utility systems by dedicated lab activities. Advanced methods for gas, water, sewer and communications utilities. Site restoration and safety protocols will be demonstrated. Students will perform operations for horizontal directional drilling, excavation, installation and maintenance of utility pipes. Students need to be 18 years of age or older due to equipment used during lab activities, per Occupational Safety and Health Administration (OSHA) regulations.

Lecture: 1 hour. Laboratory: 6 hours

Prerequisite(s): UT-2000 Equipment Operations I, and UT-2200 Underground Construction I, and CNST-2050 Advanced Construction Safety