

Northwest Arkansas Community College
Business and Computer Information Systems Division

Discipline Code

DRFT

Course Number

2183

Course Title

AutoCAD Civil 3D

Catalog Description

This course introduces students to civil engineering concepts and theory through practicing the standard tools of AutoCAD Civil 3D. The student will learn about survey document basics and tools such as surface creation using points, understanding bearing and distance tools, and the use of survey figures. Design tools will also include feature line creation, parcel tools, corridors, alignment and profile creation, and pipe and pressure network creations.

Prerequisites

DRFT 2114

Credit Hours

3 credit hours

Contact hours

45 contact hours

Load hours

3 load hours

Semesters Offered

Spring

ACTS Equivalent

None

Grade Mode

A-F

Learning Outcomes

Students will:

- Demonstrate an understanding of civil engineering basics and how they apply to real world construction techniques
- Create a survey using data gained from real site data

- Create parcels of land using the parcel creation tool
- Create a simple existing and proposed surface from civil design set documentation
- Design simple road centerline corridors with assembly road sections
- Use alignments to create surface plan and profiles
- Demonstrate a basic understanding of stormwater, sanitary, and water pipe networks and pressure networks

General Education Outcomes Supported

None

Standard Practices

Topics list

- Civil engineering core basics
- Civil 3D tools as it relates to survey data
- Civil 3D basics and tools for design professionals.
- General utility design using pipe and pressure networks
- Stormwater design and preliminary calculations

Learning activities

Assessments

- Technical drawing and modeling assignments
- Projects

Grading guidelines

- A = 90-100%
- B = 80-89%
- C = 70-79%
- D = 60-69%
- F = 0-59%