

**NorthWest Arkansas Community College**  
**Division of Business and Computer Information**

**DRFT 2123 – Advanced Engineering Graphics (F)**

Catalog Description:

This is an advanced graphic communication course that uses 3D parametric modeling software to design parts and assemblies. Several software packages currently used in industry will be introduced. Solid models and their associated working drawing sets will be produced. Problem solving, collaboration, and engineering design are the central features of this course. Outside lab time will be required.

Prerequisites:

DRFT 1244, and DRFT 2533 OR DRFT 2333

Credit hours/Contact Hours/Load hours:

3/3/3

Target Audience/Transferability:

This course is required for the AAS degree in CAD with the mechanical design option. DRFT 2123 is non-transferable.

Student Learning Outcomes:

Students will:

- Define the major components of a complete set of working drawings
- Create a parametric model and the complete set of working drawing needed for production
- Render a parametric model for presentation
- Visualization and the 3D model
- Articulate the importance of accuracy and efficiency in design
- Reverse engineer a common object
- Design a solution an engineering technical problem

Topics:

- Definition and purpose of working drawings
- Part identification and standard parts
- Details and assemblies
- Accuracy and documentation change procedures
- The design process and collaborative engineering
- Industry standards for electronic, piping, welding, and structural drawings

Forms of Assessment:

- Completion of several drawing assignments
- Portfolio
- Final Project

