

Northwestern School Corporation  
Engineering & Technology Education Curriculum  
Course Outline

Introduction to Engineering and Design

Introduction to computer aided drafting

- Commands

- Keys

- Functions

Flat view drawing

- Use of icons for speed and accuracy

- Reading a working drawing

- Dimensioning

- Creating layers and colors

- Utilizing borders

Three view drawing

- Front, side, Top views

- Back, side, Top views

- Construction lines

- Hidden lines

- Drawing alignment

Isometric view drawing

- Changing drawing parameters

- Drawing isometric circles / lines

- Trim lines for 3D appearance

Architectural drawing

- Floor Plan

- Elevation

- Room layouts

- Plotting

Design Project

- Rube Goldberg Activity

- Sketching and drawing

- Brainstorming

- Redesigning and improving

- Producing a product

Final Exam Semester 1

Introduction to 3D drafting

- Commands

- Keys

- Functions

Solids drawing

- Use of AutoCAD icons for speed and accuracy

- Reading a working drawing
- Creating layers and colors
- Exploded Assembly drawing
  - Construction lines
  - Drawing alignment
  - Utilize layers and colors
- Ping Pong Ball Challenge
  - Design
  - Build
  - Test
  - Review
- Architectural Design Project (ArchiCAD)
  - Sketching and drawing
  - Brainstorming
  - Redesigning and improving
  - Floor plan
  - Elevation
  - Creating a solid drawing model
  - 3D walkthroughs
  - Creating room snap shots
- Explore alternative CAD software programs
- Final Exam Semester 2