

Egg Harbor Township Schools
Industrial Technology Department

CAD III (*Advanced Computer Aided Drafting & Design*)

Grades: 11-12 5 Credits

Course Description

Computer Aided Architectural Design will focus on residential homes. The student will study different house styles, standards used in room and house planning, construction practices and making a complete set of house drawings using Auto CAD.

Course Outline

- I. Introduction
 - A. Description of Course
 - B. Rules and Procedures
 - C. Independent Learning and group Learning

- II. One View Drawings – *Review (Mechanical / Engineer Drawing)*
 - A. Drawing
 - B. Auto CAD
 - C. Plotting

- III. Planning
 - A. Technology
 - B. Engineering
 - C. Designing
 - D. Procedures

- IV. Surface Development and Design
 - A. Drawing procedures
 - B. Designs
 - C. Industry related

- V. Multi-View Drawing
 - A. Review
 - B. Three views
 - C. Dimensioning
 - D. Auto CAD
- VI. General Assembly Drawings
 - A. Review
 - B. Drawing situations
 - C. Planning
 - D. Designing
- VII. Floor Plans – House Design (*Architectural Drawing*)
 - A. Review
 - B. Interior Details
 - C. Garage Apartment Plans
 - D. Elevations
 - E. Roofs, footers and etc...
- VIII. Renovation Projects
 - A. Evaluation of old houses
 - B. Redrawing – measuring
 - C. Complete Drawing s
- IX. House Design and commercial projects
 - A. Floor Plans
 - B. Basement
 - C. Elevations
- X. Future additions and applications
 - A. 3 D Software and 3 D Drawing
 - B. 3 D Printing
 - C. Applications & Models

SLO's

The student will be able to:

- Measure to the closest 1/16 of an inch using the English System of Measurement.
- Conduct him or herself in a safe manner at all times.
- Understand all safety drills and know where to go if a drill or alarm goes off during class time.
- Understand, plan, sketch and make various types of drawings properly using Auto Cad Software.
- Understand, plan, sketch and make multi view drawings properly using Auto Cad Software.
- Utilize and understand screw threads and fasteners.
- Plot properly using the Auto CAD Software.
- Understand, plan, sketch and General Assembly Drawings using Auto Cad Software.
- Identify the different style of homes in the USA.
- Understand, plan, sketch and complete a floor plans using Auto CAD Software.
- Understand, plan, sketch and complete a basement plans using Auto CAD Software.
- Understand, plan, sketch and complete all four elevations of a house, using Auto CAD Software.
- Plot properly using the Auto CAD Software.
- Understand, plan, sketch and Draw a complete set of house plans using Auto Cad Software.

- Digitally organize all Auto CAD Drawings.

Equipment and Supplies

Board Drafting

- T Squares
- Drafting Boards
- Triangles
- Scales
- Ames Lettering Guide
- Mechanical Pencils & Lead
- 9 x 12 Drafting Paper
- Drafting Dots
- Compasses

CAD

- Auto CAD Software / Computers
- Auto CAD Symbols Software
- Printers
- 11x17 paper
- 3D Printer & Supplies

Teaching Aids

- Elmo
- Projector
- Screen

