

INTRODUCTION TO COMPUTER AIDED DRAFTING  
GRADES 11-12  
(1 Semester)

COURSE OVERVIEW:

Introduction to CAD is designed to give student experiences in basic house design and mechanical drafting using the computer. The students will design a small, affordable home and do various three view and pictorial drawings.
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UNITS OF INSTRUCTION:

- UNIT I - Introduction to Computer Network Operation
- UNIT II - Introduction to Drafting and Computer Aided Drafting
- UNIT III - Sketching
- UNIT IV - Orthographic Views
- UNIT V - Dimensioning
- UNIT VI - Pictorial Drawings
- UNIT VII - Fundamentals of Housing and Design
- UNIT VIII - Basic Housing Design Evaluation
- UNIT IX - Residential Planning and Design
- UNIT X - Room Planning - Sleeping Area
- UNIT XI - Room Planning - Living Area
- UNIT XII - Room Planning - Service Area

STUDENT OUTCOMES:

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| <ol style="list-style-type: none"><li>1. Students will become familiar with computer network operation and terminology.</li><li>2. Students will create drawings by freehand sketching and by using computer software.</li><li>3. Students will design and draw a single-family home.</li></ol> |
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MAJOR LEARNING EXPERIENCES TO ACHIEVE OUTCOMES:

1.	Students will complete various freehand sketches including single view, multiview and pictorial drawings.
2.	Students will complete various CAD mechanical drawings including multiview and pictorial drawings.
3.	Students will design and draw a single-family home including kitchen and bath design, furniture layout, and site plan.
4.	Students will demonstrate through various assessments an understanding of the concepts and vocabulary of mechanical and architectural drafting.

ADOPTED TEXT OR PRINCIPAL MATERIALS USED:

Kicklighter. *Architecture - Residential Drawing and Design*. South Holland: Goodheart-Wilcox Company, 2000.

French, Svensen, Helsel, Urbanick, *Mechanical Drawing, 12<sup>th</sup> Edition*; McGraw-Hill, 1997.

(10-03-03)

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