

COCONINO COMMUNITY COLLEGE
COURSE OUTLINE

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Revised by: Dave Bowman
Status: Permanent

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A. Identification:

1. Subject Area: Drafting (DFT)
2. Course Number: 110
3. Course Title: Technical Drafting and CAD Fundamentals
4. Credit Hours: 3
5. Course Description : Technical drafting fundamentals, supported by introductions to CAD, enabling the familiarization and visualization of drafting principles, standards, tools, and techniques. Two lecture. Two lab.
*Course is available to Dual Enrollment Students Only.

B. Course Goals:

This course will enable students to become proficient in Technical Drafting skills and techniques and will introduce them to basic CAD commands and procedures. Using a step-by-step approach, students will become familiar with board drafting fundamentals which are necessary for a thorough understanding of Computer Aided Drafting (CAD).

C. Course Outcomes: Students will:

1. demonstrate freehand and computer generated lettering techniques;
2. create freehand and computer generated sketches of technical objects;
3. visualize an object before it is constructed on paper or a computer screen;
4. read drawings for necessary information;
5. identify different types of drafting paper, various scales used in constructing technical drawings, and utilize various line types, and utilize various drafting tools and equipment;
6. create geometric constructions, multi-view (3-view) drawings, developments (3D Models), sections, auxiliary views, isometrics, perspectives, dimensioned drawings, design and working drawings;
7. prepare accurate and neat drawings using proper board and CAD techniques;
8. and demonstrate use of coordinate systems and use of limits and scale factors.

D. Course Content will include :

1. freehand and computer lettering and generated sketches;
2. drafting tools and equipment;
3. line types;
4. view projection;
5. object visualization;
6. drawing scales;
7. 3D models;
8. dimensions;
9. reading a drawing;
10. coordinate systems;
11. and limits and scale factors.