COCONINO COMMUNITY COLLEGE
COURSE OUTLINE

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A. Identification:

1. Subject Area: Drafting (DFT)
2. Course Number: 200
3. Course Title: AutoCAD 3D
4. Credit Hours: 3
5. Course Description: This course furthers a student's mastery of CAD by exploring how to unlocking the power of 3D through the use of advanced AutoCAD applications. *Course is available to Dual Enrollment Students Only. Prerequisite: DFT 150. Two lecture. Two lab.

B. Course Goals:

Introduce the student to the power of 3D and its application capabilities in the creation of advanced designs.

C. Course Outcomes: Students will:

1. create 3D drawings from 2D advance features; create hard copies; create and use basic 3D wireframe modeling;
2. become familiar with advanced solid modeling extensions;
3. demonstrate the creation of a third dimension from a 2D drawing;
4. incorporate point filters and 3D face in a 3D drawing;
5. apply user coordinate functions; assemble dynamic viewing;
6. illustrate render drawings in 3D space;
7. construct parametric modeling assemblies;
8. utilize predefined primitives to create 3D entities;
9. generate Boolean operations to create composite solids;
10. create 3D revolutions and wireframe modeling in 3D space;
11. demonstrate solids, surfaces, and predefined primitives;
12. create view ports in the paper space;
13. utilize advances tailoring techniques for creating advanced solid modeling projects;
14. calculate property information of 3D objects;
15. and perform advanced 3D CAD method.

D. Course Content will include:

1. the third dimension;
2. X/Y/Z Point filters;
3. user coordinate system;
4. patterns and solid shapes;
5. advanced plotting techniques;
6. 3D wireframe techniques;
7. AME drafting techniques;
8. dynamic view facility;
9. 3D revolutions; advanced 3D wireframe modeling;
10. creating and editing 3D primitives;
11. shading and rendering;
12. regions, solid modeling, and predefined primitives;
13. utilizing Boolean operations;
14. tailoring and realizing the potential of solid modeling;
15. and viewport in paper space to a plotter