

# COMPUTER AIDED DRAFTING & DESIGN (CADD)

## CADD 1104, Introduction to CAD (4 Credit Hours)

*3 lecture hours per week, 3 lab hours per week, 6 contact hours per week*

Introduction to basic concepts and principles of CAD, covering basic CAD commands. This course may not be transferable to a University for use towards a 4-year degree program.

**Corequisite(s):** DRFT 1103

## CADD 1200, Adv Comp Aided Drft & Design (5 Credit Hours)

*3 lecture hours per week, 2 lab hours per week, 5 contact hours per week*

This course examines the dimensioning, blocks and attributes, section views, isometric drawings, multiview layouts, annotative objects, external references, and sheet sets. Students will learn how to use AutoCAD to dimension drawings, create section lines and graphic patterns, design symbols and attributes for multiple uses, and create sheet sets. Student drawings will be plotted or printed. This course also covers recommended drafting standards and practices for students to use for properly preparing CAD drawings.

**Prerequisite(s):** CADD 1100\* and DRFT 1000\*.

\* May be taken concurrently.

## CADD 1204, Advanced CAD (4 Credit Hours)

*3 lecture hours per week, 3 lab hours per week, 6 contact hours per week*

This course examines the dimensioning, blocks and attributes, section views, isometric drawings, multi-view layouts, annotative objects, external references, and sheet sets. Students will learn how to use AutoCAD to dimension drawings, create section lines and graphic patterns, design symbols and attributes for multiple uses, and create sheet sets. Student drawings will be plotted or printed. This course also covers recommended drafting standards and practices for students to use for properly preparing CAD drawings. This course may not be transferable to a University for use towards a 4-year degree program.

**Prerequisite(s):** (DRFT 1103 or 1000) and (CADD 1104 or 1100).

**Corequisite(s):** DRFT 1203

## CADD 1300, 3-D CADD Concepts (5 Credit Hours)

*3 lecture hours per week, 2 lab hours per week, 5 contact hours per week*

This course explores the three dimensional construction and viewing capabilities of AutoCAD. Topics covered a review of point coordinate entry and the user coordinate system (UCS). Spherical and cylindrical coordinate entry, 3D viewing and display techniques, and construction of 3D solid primitives 2D regions, 3D mesh models, solid modeling composites, and surface models are also introduced. Uses of multiple viewports for 3D constructions and creating 2D layouts are covered. Visual styles and rendering are also discussed.

**Prerequisite(s):** CADD 1200\* and PRNT 1000\*.

\* May be taken concurrently.

## CADD 1700, Plant 3D and BIM (5 Credit Hours)

*3 lecture hours per week, 2 lab hours per week, 5 contact hours per week*

This course is intended to cover the introductory knowledge of AutoCAD 2015 Plant 3D software as well as Autodesk Revit. Upon finishing this course, the student will have been exposed to the fundamental concepts which are the basis for pipe drafting as well as structural and architectural building information modeling.

**Prerequisite(s):** PTEC 1630\*, 1631\*, CADD 1300\* and DRFT 1300\*.

\* May be taken concurrently.

## CADD 2104, 3D CAD (4 Credit Hours)

*2 lecture hours per week, 4 lab hours per week, 6 contact hours per week*

This course explores the three-dimensional construction and viewing capabilities of Inventor. This course may not be transferable to a University for use towards a 4-year degree program.

**Prerequisite(s):** (CADD 1200 or 1204) and (PRNT 1000, DRFT 1300 or 1203).

**Corequisite(s):** DRFT 2103

## CADD 2213, Plant 3D (3 Credit Hours)

*3 lecture hours per week, 0 lab hours per week, 3 contact hours per week*

Introduces process piping design using the Autodesk Plant 3D software. This course may not be transferable to a University for use towards a 4-year degree program.

**Prerequisite(s):** ((DRFT 2103 or 1500) and (CADD 2104 or 1300)) or (CADD 1300, DRFT 1300, PTEC 1630 and 1631).

**Corequisite(s):** CADD 2223 and CADD 2233

## CADD 2223, Civil 3D (3 Credit Hours)

*3 lecture hours per week, 0 lab hours per week, 3 contact hours per week*

Introduces civil drafting using the Autodesk Civil 3D software.

**Prerequisite(s):** (DRFT 2103 or 1500) and (CADD 2104 or 1300).

**Corequisite(s):** CADD 2213 and CADD 2233

## CADD 2233, Revit and Advanced Steel (3 Credit Hours)

*3 lecture hours per week, 0 lab hours per week, 3 contact hours per week*

Introduces structural drafting field using the Autodesk Revit and Advanced Steel softwares.

**Prerequisite(s):** (DRFT 2103 or 1500) and (CADD 2104 or 1300).

**Corequisite(s):** CADD 2213 and CADD 2223