COMPUTER AIDED DESIGN & DRAFTING (CADD)

CADD 130 Fundamentals of AutoCAD 3 Units
This course is a Computer-Aided Drafting and Design (CADD) course in which the students will learn the fundamentals of using AutoCAD software. The students will learn basic CADD techniques that are used to draw and edit drawing entities; manipulate screen displays; write text; lay out drawings; print and plot drawings; apply dimensions; and manage drawing files. An introduction to computer use will be included in this course and previous knowledge of computers or computer programming is not required.

Lecture Hours: 1 Lab Hours: 6 Repeatable: No Grading: O
Recommended: Basic computer skills
Advisory Level: Read: 3 Write: 3 Math: 3
Transfer Status: CSU Degree Applicable: AA/AS
CSU GE: None IGETC: None District GE: None
Credit by Exam: Yes

CADD 133 Fundamentals of Autodesk Inventor 3 Units
This course covers a feature-based, solid modeling tool intended for people who want to create and develop mechanical designs in a 3-D environment. It is a computer-aided drafting and design (CADD) course wherein the students will learn the fundamentals of Autodesk Inventor software.

Lecture Hours: 1 Lab Hours: 6 Repeatable: No Grading: O
Recommended: Basic Computer Skills
Advisory Level: Read: 3 Write: 3 Math: 3
Transfer Status: None Degree Applicable: AS
CSU GE: None IGETC: None District GE: None

CADD 134 Advanced CADD Modeling Using Solidworks 3 Units
This course is a continuation of the 3-D modeling with a focus on advanced SolidWorks. Topics include advanced model creation techniques, sheet metal design, bottom-up assemblies, use of design elements, and creation of presentations.

Lecture Hours: 1 Lab Hours: 6 Repeatable: No Grading: L
Prerequisite: CADD 133 or CADD 139 with C or better
Advisory Level: Read: 3 Write: 3 Math: 3
Transfer Status: None Degree Applicable: AS
CSU GE: None IGETC: None District GE: None

CADD 136A Fundamentals of Creo 2 Units
This course introduces students to Creo Parametric as an integrated CADD package of advanced 3D modeling tools and 2D drafting/drawing capabilities that help conceptualize, design, and document mechanical products. This course is a basic computer aided drafting and design (CADD) course where the students will use Creo Parametric software.

Lecture Hours: None Lab Hours: 6 Repeatable: No Grading: L
Advisory Level: Read: 3 Write: 3 Math: 3
Transfer Status: None Degree Applicable: AS
CSU GE: None IGETC: None District GE: None
Credit by Exam: Yes

CADD 139 Fundamentals of Solidworks 3 Units
This course covers a feature-based, solid modeling tool intended for people who want to create and develop mechanical designs in a 3-D environment. This course is a Computer-Aided Drafting and Design (CADD) course wherein the students will learn the fundamentals of Solidworks software.

Lecture Hours: 1 Lab Hours: 6 Repeatable: No Grading: O
Recommended: Basic computer knowledge
Advisory Level: Read: 3 Write: 3 Math: 3
Transfer Status: None Degree Applicable: AS
CSU GE: None IGETC: None District GE: None

CADD 140A Technical Graphics - Using CAD Tools 3 Units
This course is a beginning level CADD course focusing on standard concepts of technical graphics communication. The fundamental concepts of orthographic projection, sketching, section views, auxiliary views, dimensioning practices, and drawing annotations used in a variety of technical applications will be covered. Students will explore the learning process through a series of design situations, industry scenarios, and projects. Students will be introduced to multiple CAD tools.

Lecture Hours: 1 Lab Hours: 6 Repeatable: No Grading: O
Prerequisite: CADD 133 or CADD 139 with C or better
Advisory Level: Read: 3 Write: 3 Math: 3
Transfer Status: None Degree Applicable: AS
CSU GE: None IGETC: None District GE: None

CADD 140B Advanced Technical Graphics - Using CAD Tools 3 Units
This is an advanced CADD course focusing on the application of drafting concepts using orthographic projection, dimensioning practices, and geometric tolerancing. Strong emphasis is put on the type of design and industrial applications which can be found in the real world. Creating models, drawings and assembly drawings in CAD programs will be covered in this course. This course also teaches creation of basic multi-part assemblies, constraint-driven assembly animation, and generation of detailed production drawings.

Lecture Hours: 1 Lab Hours: 6 Repeatable: No Grading: O
Prerequisite: CADD 140A with C or better
Advisory Levels: Read: 3 Write: 3 Math: 3
Transfer Status: None Degree Applicable: AS
CSU GE: None IGETC: None District GE: None

CADD 141 Design and Analysis Using Solidworks 3 Units
This course is geared towards students who want to learn engineering design while learning 3D modeling using SolidWorks. This course focuses on applying SolidWorks as a design tool. Design steps, geometrical tolerancing, and the creation of detail and assembly drawing documentation will be covered. Analysis of current design practices and/or manufacturing processes will be included through research of standards, catalogs, data sheets, drawings, and other reference sources.

Lecture Hours: 1 Lab Hours: 6 Repeatable: No Grading: O
Prerequisite: CADD 133 or CADD 139 with C or better
Recommended: CADD 134 and CADD 140A or equivalent coursework or work experience
Advisory Level: Read: 3 Write: 3 Math: 3
Transfer Status: None Degree Applicable: AS
CSU GE: None IGETC: None District GE: None

CADD 142 Geometrical Dimensioning and Tolerancing 3 Units
This course provides training in modern dimensioning and tolerancing based on ASME Y14.5-2009 standards. Emphasis will be given to geometric dimensioning and tolerancing concepts, tolerance studies, general dimensioning and tolerancing theory and techniques.

Lecture Hours: 2 Lab Hours: 3 Repeatable: No Grading: L
Prerequisite: CADD 133 or CADD 139 with C or better
Recommended: CADD 134
Advisory Level: Read: 3 Write: 3 Math: 3
Transfer Status: None Degree Applicable: AS
CSU GE: None IGETC: None District GE: None