

# COMPUTER AIDED DESIGN (CAD)

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## **CAD 201. Fundamentals of Graphical Communication**

Credits: 3

Typically Offered: FALL/SPR

This course is designed to acquaint students with the fundamentals of graphical communication in engineering related fields. Students will learn fundamental engineering drafting techniques and apply them through a combination of hand drafting and sketching, two-dimensional computer aided drafting and three-dimensional parametric modeling. Additional topics include use of scales, interpretation of engineering and architectural plans, dimensioning, lettering and text, orthographic projections, geometric dimensioning and tolerancing, ASME Y14.5 standard, parametric modeling, drawings and assemblies.

## **CAD 212. Introduction to Building Modeling**

Credits: 3

Prerequisite: CAD 201 or departmental approval.

Typically Offered: SPRING

This course is designed to acquaint students with 3-D modeling and design, plan production, and designer collaboration using Revit software. Other course topics include recommended detailing and drafting standards and practices used on architectural and engineering projects.

## **CAD 213. Introduction to Civil Drafting**

Credits: 3

Prerequisite: CAD 201 or departmental approval.

Typically Offered: FALL

This course introduces students to the fundamental concepts of civil engineering and surveying 3-D software techniques using AutoCAD Civil3D. Students learn how to work with points, how to create, analyze and modify TIN surfaces, how to develop survey sites, profiles, roads, corridors, pipe networks, cross-sections, and how to manage survey data. Students also learn how to create 2-D and 3-D civil engineering production drawings.