COMPUTER AIDED DESIGN (CAD)

CAD 211. Computer Aided Design I
Credits: 3
Typically Offered: FALL/SPR
This course is designed to acquaint students with computer-aided drafting using AutoCAD and Autodesk Inventor software. System interface, templates, creating/modifying/displaying 2-D and 3-D geometry and modeling, annotations (text, leaders, dimensions, tolerances, tables), blocks, orthographics, sectioning, isometrics, model/layout space usage, file management, parametric drafting, sheet sets and recommended drafting standards and practices will be introduced to students as they create 2-D and 3-D basic engineering and architectural drawings.

CAD 212. Computer Aided Design II
Credits: 3
Prerequisite: CAD 211 or departmental approval.
Typically Offered: FALL
This course is designed to acquaint students with 3-D modeling and design, plan production, and designer collaboration using Building Information Modeling (BIM) software. Other course topics include recommended detailing and drafting standards and practices used on architectural and engineering projects.

CAD 213. Computer Aided Design III
Credits: 3
Prerequisite: CAD 211 or departmental approval.
Typically Offered: SPRING
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.