

COMPUTER AIDED DRAFTING (CADT)

CADT 101 Introduction to Computers1 Credit

Introduction to hardware and software including operating systems, word processing, spreadsheets, desktop publishing and presentation software.

CADT 105 Print Reading - Residential, Commercial, Industrial3 Credits

Reading and interpreting blueprints for residential, commercial, and industrial construction, including site plans. How to do a project take-off and project site layout.

CADT 106 Computer Aided Design3 Credits

Basic principles of computer aided design through the development of practical drawing problems using a computer. One one-hour lecture and two one and one-half laboratories per week.

CADT 107 Advanced Computer Aided Design3 Credits

Advanced work in computer aided drafting principles including 2-D, 3-D, shading, etc. One one-hour lecture and two one and one-half hour laboratories per week.

Prerequisites: CADT 106, or permission of instructor.

CADT 108 CAD - Mechanical3 Credits

Offers the student basic principles of computer aided drafting through the development of practical drawing problems using CAD software on the computer. One one-hour lecture and two one and one-half laboratories per week.

CADT 109 CAD-Mechanical Engineering3 Credits

Advanced work in computer aided drafting principles including 2-D and 3-D shading, solid based modeling and parametric modeling. One one-hour lecture and two one and one-half hour laboratories per week.

CADT 110 CAD Application4 Credits

This course offers the student an opportunity to apply skills and knowledge gained in earlier courses. The student will work on computer aided drawings relating to their career field of interest and advice of faculty. Internship or cooperative education may be substituted with approval of advisor. Two one-hour lectures and two one and one-half hour laboratories per week.

Prerequisites: CADT 107 and CADT 109.

CADT 130 CAD-Civil3 Credits

Civil drafting will explore the aspects of current day mapping and topography, instruments, conventions and practices, contours, traverses, profiles, surveying, and photogrammetry through CAD drawings. Students will be introduced to GIS, graphical interface systems. One one-hour lecture and two one and one-half hour laboratories per week.

CADT 135 CAD Civil II3 Credits

Exploration of advanced aspects of current day mapping and topography. An in-depth instruction on road plan and profiles, cut and fill techniques and further instruction using skills from CADT 130.

Prerequisites: CADT 130.

CADT 140 Architectural Theory and Structural Materials3 Credits

Elementary design strategies, theories and methods for architectural documents. Students will use appropriate computer software to meet professional standards, apply properties of architectural components and materials to develop buildable assemblies, and analyze an architectural process drawing for compliance. Codes, standards, and testing will be emphasized, including an introduction to mechanical, electrical, plumbing and systems requirements.

CADT 141 Structural Materials3 Credits

This course will identify the properties and applications of the materials of industry. Codes, standards and testing will be emphasized in the fields of architecture. There will be an introduction to mechanical, electrical, plumbing and systems requirement.

Corequisites: CADT 140 and CADT 142.

CADT 142 CAD - Residential Architecture3 Credits

Residential Architectural CAD will provide the student with a realistic residential project that will begin with schematic design and take him/her through to construction documents. Construction documents will include: site plan, floor plan, exterior elevations, foundation plan, floor framing plan, roof framing plan, building section, and a variety of construction details. One one-hour lecture and two one and one-half hour laboratories per week.

CADT 143 CAD-Commercial Architecture3 Credits

Commercial Architectural CAD will emphasize the creation of commercial project plans that will begin with schematic design and continue through to construction documents. Construction documents will include site plan, foundation floor slab plan, roof framing plan, building section and a variety of construction details. One one-hour lecture and two one and one-half hour laboratories per week.

CADT 150 Advanced Images - Introduction to Animation4 Credits

Advanced work in computer aided drafting principles including 3-D renderings and animation techniques. One one-hour lecture and two one and one-half hour laboratories per week.

CADT 195 Independent Study1-3 Credits

Course may be taken multiple times up to maximum of 6 credit hours.

CADT 196 Topics1-3 Credits

Course may be taken multiple times up to maximum of 15 credit hours.

CADT 210 Project3 Credits

Exploration of computer aided drawings relating to Building Information Modeling. Teaches the concepts and principles of creating 3D parametric models of mechanical, electrical and plumbing systems from engineering design through construction documentation.

CADT 296 Topics1-3 Credits

Course may be taken multiple times up to maximum of 15 credit hours.