

Computer Aided Design and Drafting

Departments of Applied Technology, CIS/
Electronics, and Administration of Justice

Dean Terry Davis, M.H.A., Office 1000K, 619-482-6551

Department Chair David Preciado, A.A.

General Description

Designed to provide students with the skills and technical knowledge requested by employers using Computer Aided Design and Drafting (CADD) in a variety of disciplines. This program focuses on the development of CADD skills and problem-solving strategies in the development of two- and three-dimensional models. Additional engineering options allow students to acquire advanced CADD skills in areas of special interest.

The CADD technology associate in science degree prepares the student for various job opportunities in a wide variety of disciplines. There is an increasing demand for competent engineering technicians knowledgeable in the use and application of CADD software. Students planning to enroll in a four-year college engineering program will benefit greatly by developing CADD skills used in most engineering departments.

Career Options

Below is a sample of the career options available for the computer aided design major. Some require a certificate of achievement and most require an associate in science degree: mechanical, aeronautical, structural, and civil engineering. New areas of use can be found in animation, simulation, and theatrical departments. While drafting boards are still in use, a large number of companies have integrated drafting boards with monitors and computers, requiring that today's engineers, designers, and draftsmen possess both essential drafting and CADD competencies.

Degree/Certificate Options

Associate in Science Degree: Career/Technical

Computer Aided Design and Drafting	A2571
Design Technology	A2572

Certificates of Achievement

Computer Aided Design and Drafting—Advanced	A2576
Design Technology	A2577

Certificate of Proficiency

Computer Aided Design and Drafting—Basic	02569
--	-------

Consult with a counselor to develop a Student Education Plan (SEP), which lists the courses necessary to achieve your academic goal.

ASSOCIATE IN SCIENCE DEGREE

Computer Aided Design and Drafting

Career/Technical (Major Code: A2571)

Designed to provide students with the skills and technical knowledge requested by employers using CADD in a variety of departments. The program focuses on the development of CADD skills and problem solving strategies in the development of two- and three-dimensional models. Additional engineering options allow students to acquire advanced CADD skills in areas of special interest.

CAD 220	Introduction to CADD/CAM Systems	3
CAD 222	CAD Mechanical Design I	3
ENGR 110	Engineering Design and Graphics	3
CAD 223	CAD Detailing and Dimensioning	3
CAD 224	CAD Mechanical Design II	3
MATH 104	Trigonometry	3
Total units		18

Recommended Electives: CAD 240, 272, 276.

To earn an associate degree, additional general education and graduation requirements must be completed. See page 51.

Design Technology

Career/Technical (Major Code: A2572)

Designed to provide the student with a sound background in CADD and design elements related to the field of mechanical engineering. The program trains the student in use of CADD software and stresses the fundamentals of design and related topics. Design and presentation software are available to enrolled students. Additional engineering options allow students to acquire, develop, and enhance skills in areas of special interest.

ENGR 101	Introduction to Engineering Careers	1
ENGR 110	Engineering Design and Graphics	3
ARCH 200	Introduction Computer Aided Design	3
OR		
CAD 220	Introduction to CADD/CAM Systems	3
MATH 104	Trigonometry	3
ARCH 205	Advanced Architectural CAD	3
OR		
CAD 222	CAD Mechanical Design I	3
Complete 6 units from electives		6
Total units		19

Electives: CAD 223, 224, 240, 272, 276.

To earn an associate degree, additional general education and graduation requirements must be completed. See page 51.



Some courses within this program may require additional coursework that must be completed prior to enrollment in those courses. Please consult the individual course listings for prerequisites and any other limitations on enrollment.

CERTIFICATES

Computer Aided Design and Drafting—Basic

Certificate of Proficiency

Career/Technical (Major Code: 02569)

CAD 220	Introduction to CADD/CAM Systems	3
CAD 222	CAD Mechanical Design I	3
CAD 223	CAD Detailing and Dimensioning	3
CAD 224	CAD Mechanical Design II	3
ENGR 110	Engineering Design and Graphics	3
Total units		15

Computer Aided Design and Drafting—Advanced

Certificate of Achievement

Career/Technical (Major Code: A2576)

CAD 220	Introduction to CADD/CAM Systems	3
CAD 222	CAD Mechanical Design I	3
CAD 223	CAD Detailing and Dimensioning	3
CAD 224	CAD Mechanical Design II	3
ENGR 110	Engineering Design and Graphics	3
MATH 104	Trigonometry	3
Total units		18

Design Technology

Certificate of Achievement

Career/Technical (Major Code: A2577)

ENGR 101	Introduction to Engineering Careers	1
ENGR 110	Engineering Design and Graphics	3
ARCH 200	Introduction to Computer Aided Design	3
OR		
CAD 220	Introduction to CADD/CAM Systems	3
MATH 104	Trigonometry	
ARCH 205	Advanced Architectural CAD	3
OR		
CAD 222	CAD Mechanical Design I	6
Complete 6 units from electives		
Total units		19

Electives: CAD 223, 224, 240, 272, 276.