

# Computer-Aided Mechanical Design

## THE PROGRAM

Manufacturing and many other industries' success pivots on well-designed parts and systems. Creating the components that keep industry producing is the responsibility of professionals trained in mechanical design. Students who pursue an Associates of Applied Sciences (A.A.S.) degree in Computer-Aided Mechanical Design, serve as the front line of parts and machine design, preparing the technical drawings necessary to create products successfully. Requires 64 credit hours.

Computer-Aided Design (CAD) is drafting in the digital age, using CAD software to easily and efficiently explore design possibilities. Creating drawings electronically allows for quicker, more precise manipulation of the design. The most successful CAD professionals are well grounded in traditional drafting skills and proficient in the latest CAD technology.

This degree program prepares students for employment as mechanical design drafters or computer-aided design operators. Course content places emphasis on mechanical design. Working drawings are completed on the computer using industry standard software.

The CAD Program is part of the Architecture & Construction Career Cluster: Careers in designing, planning, managing, building and maintaining the built environment. For more information, visit [www.careertech.org/career-clusters/](http://www.careertech.org/career-clusters/)

## CAREER OPPORTUNITIES

Program graduates in northern Illinois are finding entry level employment opportunities with starting salaries between \$28,000-\$38,000 per year which is close to predictions by [www.salary.com](http://www.salary.com).

Students are increasingly being encouraged to look at a future as technology instructors in secondary and post-secondary educational institutions due to a current teacher shortage.

Students continuing on to universities in colleges of engineering benefit from taking this program first.



# Computer-Aided Mechanical Design

## FIRST YEAR

### Fall Semester

CAD 110	Orientation to CADD	(1)
CAD 120	Technical Graphics/CAD	(3)
CAD 151	Fundamentals 2-D CAD - AutoCAD	(3)
CAD 152	Intermediate 3-D CAD - AutoCAD	(3)
MAT 150	College Algebra OR higher level math	(3-4)
COM 100	Oral Communication	(3)

### Spring Semester

CAD 112	Technical Illustration	(3)
CAD 153	Adv. Computer-Aided Drafting/ Mechanical	(4)
CAD 221	Descriptive Geometry	(3)
CAD 231	Geometric Dimensioning & Tolerancing	(2)
ENG 103	Composition I	<b>OR</b>
ENG 109	Intro to Technical Report Writing	(3)
	CAD Elective	(3)

## SECOND YEAR

### Fall Semester

CAD 171	Fundamentals of CAD - SolidWorks	(3)
CAD 210	Principles of Consumer Design	(3)
CAD 251	3-D CAD Modeling/Rendering/Animation	(3)
MT 215	Manufacturing Processes I	(2)
PHY 150	Introductory Physics	(3)
PHY 151	Introductory Physics Laboratory	(1)

### Spring Semester

CAD 253	Computer-Aided Mechanical Design	(3)
MT 152	Machine Shop Math II	<b>OR</b>
MAT 155	Trigonometry	(3)
	Social Science <b>OR</b> Humanities Elective	(3)
	CAD/CIS Elective	(6)

## ELECTIVES

CAD 131	Print Reading for Construction Trades	(3)
CAD 154	Adv. Computer-Aided Drafting/ Architectural	(4)
CAD 172	Intermediate CAD/SolidWorks	(3)
CAD 211	Design Problems	(4)
CAD 259	CAD Customization/Management	(3)
CAD 270	Drafting and Design Internship	(.5-3)

## ADDITIONAL SOURCES OF INFORMATION

### DEPARTMENT

Bernard Pupino, Coordinator  
 Phone: 815-825-2673  
 bpupino@kish.edu

### STUDENT SERVICES

Advising  
 815-825-9375

## ASSOCIATE IN APPLIED SCIENCE (A.A.S.) DEGREE REQUIREMENTS

1. Complete specific course and program requirements for A.A.S. degree as outlined in the Career/Occupational Programs section of the catalog. Each curriculum identifies the specific course requirements needed to complete an A.A.S. degree.
2. Meet the residency requirement: a minimum of 15 credit hours in 100/200 level Kishwaukee College course work, applicable to the degree, for each degree earned.
3. Fulfill the grade point average requirement of an overall 2.000 GPA in all required and elective course work applicable to the specific degree program requirement.
4. Resolve any incomplete grades in Kishwaukee College course work applicable to the degree.
5. Apply for graduation in the Student Services office or through myKC.

### Non-Discrimination/Affirmative Action Policy

It is the policy of Kishwaukee College not to tolerate sexual harassment in any form nor to discriminate on the basis of sex, age, race, creed, religion, national origin, disability status, or sexual orientation in its educational programs, activities, or employment practices. Kishwaukee College complies with the Age Discrimination in Employment Act of 1975. Inquiries regarding compliance may be directed to the Director of Human Resources at Kishwaukee College: 815-825-9370.

### Accessibility Assistance

Individuals needing accommodations to access the courses, programs, services, or activities publicized in this catalog should contact the Disability Services Coordinator, Room A1317, regarding course accommodations or the office of a college staff member sponsoring the program, service, or activity for which there is accessibility concern. Voice: 815-825-2931.