

COMPUTER AIDED DRAFTING (CAD) - ASSOCIATE OF APPLIED SCIENCE OPTION (AASO)

Description

The Computer Aided Drafting (CAD) Associate of Applied Science Option prepares students for entry-level employment in the drafting field. Students prepare for advanced CAD applications through an introductory set of CAD-based curriculum. Students will gain experience using dedicated architectural, civil, and mechanical software. The program also integrates focused computer information systems skills in networking, web development, and hardware. These courses provide a foundation for design, software use, and computer management.

Program Learning Outcomes

Upon successful completion of the program, students will be able to:

1. Integrate fundamental theoretical and conceptual considerations in design process and problem solving.
2. Present professional demeanor and attitude individually and collectively as a team member.
3. Recognize and follow professional protocol for industry standards appropriate to course level.
4. Demonstrate cogent oral, written, drafting, and computational skills appropriate to the course content and course level.
5. Demonstrate the ability to communicate effectively with peers, end users, and management about a broad spectrum of information technology concepts.
6. Demonstrate currency in information technology knowledge and skills through continuous education and research.

Entrance Requirements

Academic Entrance Requirements

Recommended:

- High school diploma or GED
- Completion of WR 065 Rhetoric and Critical Thinking II or higher or minimum placement Wr/Comm Level 7
- Completion of MTH 060 Beginning Algebra or higher or minimum placement Math Level 10
- Basic computer competency or CIS 010 Computer Keyboarding and CIS 070 Introduction to Computers: Windows

Other Entrance Requirements

All enrolled program students may have to pass a criminal history checks (CHC) as a condition of their acceptance into a worksite for cooperative work experience. Students who do not pass the CHC may not be eligible to complete requirements at affiliated practicum sites or be hired for some professional positions. Students who believe their history may interfere with their ability to complete the program of study should contact the program director or department chair.

Additional Program Costs (beyond standard tuition/fees and textbooks)

Material Costs

Recommended:

- 32+ GB portable storage (USB or SSD drive): \$20 - \$100
- A desktop (approximately \$800 - \$1200) or laptop (approximately \$1200 - \$1800) computer capable of running the latest version of the Windows operating system and the latest version of Microsoft Office
- Reliable high-speed internet access

Course Requirements

Course	Title	Credits
Core Courses		
CIS 101	Information Technology Orientation	3
CIS 122	Introduction to Programming	4
CIS 124	IT Fundamentals	4
CIS 131	Software Applications	4
CIS 135DB	Database Theory/SQL	4
CIS 140	A+ Essentials I	4
CIS 145	A+ Essentials II	4
CIS 179	Networking Essentials	4
CIS 183C	Introduction to Cybersecurity	4
CIS 195	Web Development I	4
CIS 244	Information Systems Analysis	4
CIS 279WC	Windows Client	4
or CIS 179L	Linux Essentials	
CIS 297	CIS Professional Capstone	4
Computer Aided Drafting Option		
CIS 125A1	AutoCAD 1	4
CIS 125A2	AutoCAD 2	4
CIS 135A1	AutoDESK Revit 1	4
CIS 135A2	AutoDESK Revit 2	4
CIS 135C1	AutoDESK Civil 3D	4
CIS 135S1	SolidWorks 1	4
CIS 135S2	SolidWorks 2	4
Other Required Courses		
BA 214	Business Communications	3-4
or WR 227Z	Technical Writing	
COMM 111Z	Public Speaking	4
or COMM 218Z	Interpersonal Communication	
or COMM 219	Small Group Communication	
Human Relations:		3-5
MTH 102	Applied Technical Mathematics (or choose one course from the foundational requirements math list)	4
WR 121Z	Composition I	4
Total Credits		97-100

Advising Notes

Planning is important. Most option courses are offered once per academic year and may need to be taken in sequence. Some core classes are offered once every two years. It is important to check [Class Search](#) regarding class availability before registering. Students may

take non-program support courses any term to build skills related to prerequisites.

This program is designed for students planning to enter their chosen career upon graduation. Often only selected credits are considered transferable to public or private baccalaureate institutions.

Computer Aided Drafting courses are offered exclusively Online and Remote.

Performance Standards

- Academic Requirements:
 - Students must have a 2.0 cumulative GPA to earn a COCC certificate or degree.
 - All courses in the program must be completed with a grade of C or higher.
- Additional Requirements:
 - All COCC students enrolled in the Computer Information Systems program (which includes requirements for Cooperative Work Experience) may have to pass Criminal History Checks (CHC) as a condition of their acceptance into a work site. Students who do not pass the CHC may not be eligible to complete requirements at affiliated practicum sites or be hired for some professional positions. Students who believe their history may interfere with their ability to complete the program of study should contact the program director.

WR 227Z or BA 214	Technical Writing or Business Communications	3-4
Credits		15-16
Fifth Term		
CIS 135A2	AutoDESK Revit 2	4
CIS 135S1	SolidWorks 1	4
CIS 244	Information Systems Analysis	4
CIS 279WC or CIS 179L	Windows Client or Linux Essentials	4
<u>Human Relations:</u>		3-5
Credits		19-21
Sixth Term		
CIS 122	Introduction to Programming	4
CIS 135DB	Database Theory/SQL	4
CIS 135S2	SolidWorks 2	4
CIS 297	CIS Professional Capstone	4
Credits		16
Total Credits		97-100

Sample Plan

First Term		Credits
CIS 124	IT Fundamentals	4
CIS 125A1	AutoCAD 1	4
CIS 140	A+ Essentials I	4
CIS 145	A+ Essentials II	4
Credits		16
Second Term		
CIS 101	Information Technology Orientation	3
CIS 125A2	AutoCAD 2	4
CIS 179	Networking Essentials	4
CIS 183C	Introduction to Cybersecurity	4
Credits		15
Third Term		
CIS 135C1	AutoDESK Civil 3D	4
CIS 195	Web Development I	4
MTH 102	Applied Technical Mathematics	4
WR 121Z	Composition I	4
Credits		16
Fourth Term		
CIS 131	Software Applications	4
CIS 135A1	AutoDESK Revit 1	4
COMM 111Z or COMM 218Z or COMM 219	Public Speaking or Interpersonal Communication or Small Group Communication	4