

Associate of Applied Science Degree in General Engineering Technology: Computer-Aided Drafting Specialization

AREA: General Engineering Technology:
Computer-Aided Drafting Specialization

DEGREE: Associate of Applied Science Degree

LENGTH: Four semesters (two-year) program

PURPOSE: Skills in computer-aided drafting (CAD) are increasingly valuable and sought in the workplace. This curriculum is designed to provide a thorough preparation in drafting, emphasizing the use of computers and, in particular, computer-aided design and drafting. Communication skills and problem-solving skills are also emphasized, both of which are critical to success in the workplace. This program is particularly valuable for those who wish to gain employment in technical support careers or for those who need to upgrade skills within their current fields.

OCCUPATIONAL OBJECTIVES: CAD operator, CAD technician, drafting technician, engineer's aid or other related positions

TRANSFER GUIDELINES: Although this program is not designed as a transfer program, it does include many courses which will transfer into engineering technology programs at select four-year institutions. This allows students who eventually develop a desire to transfer the opportunity to transfer about two-thirds or more of the credit earned. How much credit is actually transferable depends on the transfer institution selected. Students should work closely with an advisor if and when they develop an interest in transferring.

PROGRAM REQUIREMENTS: This curriculum integrates courses in civil engineering technology, mechanical engineering technology, drafting, architecture, computer programming and general education. Students entering the program must have algebra I and geometry skills, or be willing to improve those skills through developmental studies. Technical electives should be selected in consultation with an assigned advisor. Upon satisfactory completion of the curriculum, graduates will be awarded the associate of applied science degree in general engineering technology with a computer-aided drafting specialization. Transfer opportunities for associate of applied science degrees, if existing, are very specific in nature. Students enrolling in an applied science degree with plans to transfer should explore opportunities with an advisor.

Course#	Title	Credits
First Semester		
ARC 130	Materials and Methods of Construction	3
EGR 110	Engineering Graphics	3
ENG 111	College Composition I	3
MEC 111	Materials for Industry	3
MTH 115	Technical Math I or Approved Higher Level of Math ¹	3
SDV 100	College Success Skills	1
Total		16
Second Semester		
ARC 221	Architectural CAD Applications Software I	3
CAD 241	Parametric Solid Modeling I	3
EGR 216	Computer Methods in Engineering and Technology	3
MEC 112	Processes of Industry	3
MTH 158	College Algebra or Approved Higher Level Math ¹	3
	Technical Elective ³	3
Total		18
Third Semester		
ARC 222	Architectural CAD Applications Software II	3
CAD 242	Parametric Solid Modeling II	3
CIV 171	Surveying I	3
EGR 206	Engineering Economics	3
PED/HLT	Physical Education or Health	1
	Technical Elective ³	3
Total		16
Fourth Semester		
CIV 172	Surveying II	3
ENG 112/115	College Composition II or Technical Writing	3
IND 145	Introduction to Metrology	3
	Social Science Elective ²	3
	Humanities Elective ⁴	3
Total		15
Program Total		65

¹ Approved higher level math courses include: MTH 163/164, MTH 271/272, MTH 173/174. Students should check with program faculty.

² Students may select social science electives from approved list on page 41.

³ An approved list of Technical Electives is available on page 43.

⁴ Students may select humanities electives from approved list on page 41.