CAD/MECHANICAL ENGINEERING TECHNOLOGY, A.A.S.

Entry Time

Fall

Award

Associate of Applied Science degree
2 years (5 terms including summer)

The CAD/Mechanical Engineering Technology curriculum prepares students for entry-level positions as mechanical engineering technicians and provides skills for those already in the field to gain advancement to designer status. Students focus on engineering fundamentals and the means of conveying design intent from drawing layouts and symbols through geometric dimensioning and tolerancing. Industry standard CAD software is taught during all four semesters of the program to enhance employment opportunities. Competency in engineering fundamentals is built through courses in statics, strength of materials, kinematics, hydraulics, dynamics and machine design. A student can transfer credits from this program to U of I, UNI or William Penn University and work toward a B.S. in manufacturing, applied studies or industrial technology.

Industry Endorsements students can earn include the Solidworks and 3D Printing certificate.

Career Opportunities

- engineering technician
- test lab technician
- CAD operator/designer
- technical writer
- mechanical engineering assistant

Degree Requirements

Term 1		
Fall		**Credit Hours**
CAD-110	Intro to PSM	2
DRF-141	Engineering Drawings	2
DRF-142 or EGT-400	Engineering Design I or PLTW - Introduction to Engineering Design	3
MAT-745	Technical Mathematics I	4
PHY-190	Physics I	3
	Term Totals:	**14**
Term 2		
Spring		
CAD-140	Parametric Solid Modeling I	3
DRF-143	Engineering Design II	3
EGT-125	Applied Statics	4
MAT-746	Technical Mathematics II	4
PHY-192	Physics II	3
	Term Totals:	**17**
Term 3		
Summer		
Communications Course [1]		3
Humanities or History/Culture Course (https://creditcatalog.kirkwood.edu/aas-degree-humanities-requirement/)		3
MGT-145 or PSY-111	Human Relations in Management or Intro to Psychology	3
	Term Totals:	**9**
Term 4		
Fall		
CAD-141	Parametric Solid Modeling II	3
CAD-168	Introduction to 3D Printing	2
EGT-124	Strength of Materials	4
EGT-132	Kinematics	4
EGT-148	Hydraulics and Basic Circuits	3
MFG-202	Manufacturing Processes	2
	Term Totals:	**18**
Term 5		
Spring		
CAD-147	Parametric Solid Modeling III	3
CAD-237	Geometric Dimensioning and Tolerancing	3
EGT-136	Dynamics	4
EGT-185	Design Project	3
EGT-195	Machine Design	3
Communications Course [1]		3
	Term Totals:	**19**
	Program Totals:	**77**

[1] Students planning to transfer to a four-year college or university should consider substituting some or all of the following courses into the CAD/MET curriculum:
ENG-105 Composition I **and**
ENG-108 Composition II: Technical Writing **or**
ENG-106 Composition II **for**
-------- Communications Electives

Optional Courses

Code	Title	Credit Hours
CAD-928	Independent Study	1
CAD-924	Honors Project	1

EGT-410	PLTW - Principles of Engineering	3
DRF-924	Honors Project	1