MET 131 MET Computer Aided Drafting 1

Course Description: An introduction to mechanical drafting and computer aided drafting. Topics include: geometric construction, orthographic projection, dimensioning, section views, and auxiliary views.

Prerequisites(s): AFL 085 and MAT 120, or appropriate placement test scores

Corequisite(s): No corequisite

Lecture Hours: 2	Lab Hours: 3	Credit Hours: 3
Lab Fee: 105	Supplemental Fee: 0	Purpose:
☒ Transfer Assurance Guide Course (TAG)	☐ Transfer Module Course (TM)	
Course Format: Lec/Lab	Grading: A/B/C/D/F/I	
Delivery Method: □ Web	□ Hybrid	☒ Classroom
Semesters Offered: ☒ Fall	☒ Spring	☒ Summer

Course Primary Text:

Title: Tools for Design Using Autodesk Inventor 2019 and AutoCAD 2019	Edition: 1st
Author(s): Randy Shih	
Publisher: SDC Publications	

Supplemental Materials:

Additional Problems will be distributed by the instructor

Course Outcomes:

1	The student will be able to apply knowledge, techniques, skills and modern tools of the discipline to produce accurate engineering drawings and models.
2	The student will have the ability to apply a knowledge of mathematics, science, engineering, and Technology to produce complete drawings and models.
3	The student has the ability to communication technical information through drawings
4	The student will demonstrate a commitment to quality, timeliness, and continuous improvement

Course Topics:

Week 1	Basics of pencil sketching
Week 2	Sketching: Orthographic projection & dimensioning
Week 3	AutoCAD: Getting started in CAD. Two-dimensional drawings, dimensions
Week 4	AutoCAD: Two-dimensional drawings with dimensions, Exam #1
Week 5	AutoCAD: Orthographic drawings, dimensions, layers, linetypes
Week 6	AutoCAD: Multi-view drawings, tolerances, holes, Exam #2
Week 7	Inventor: Intro. to solid modelling, basic models
Week 8	Inventor: Creating & dimensioning drawings
Week 9	Inventor: Hole types, adding & subtracting mat'l, fillets
Week 10	Inventor: Advanced modelling
Week 11	Inventor: Exam #3, Revolve, mirror, section views
Week 12	Inventor: Creating Assembly models
Week 13	Inventor: Creating assemblies with balloons & parts lists
Week 14	Inventor: Assembly drawings
Week 15	Inventor: Assemblies, Exam #4

Methods of Evaluation/Assessment

□ Formative: ☒ Summative

List assessment activities (e.g. quizzes, discussions, essays, research papers, debates, oral presentations, exams):

60% of course grade is in-class assignments
30% of course grade is from four exams
10% of course grade is for class-participation

Course Keeper: M.DeVore Date Completed: 8/11/18