



SYLLABUS
MENG 1132-102: ENGINEERING GRAPHICS
(Required Course)
Fall 2019

Instructor: Dr. Zeki Ilhan

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Office Hours: Monday: 02:00 pm – 5:00 pm
Wednesday: 11:00 am – 2:00 pm
Thursday: 10:00 am – 1:00 pm
Friday: 11:00 am – 12:00 pm

Teacher Assistant: Mr. Andrew Harrison (andrewharrisonc@gmail.com)

Course Schedule: Thursday: 2:00 pm – 4:50 pm

Class Location: McCoy Hall 207

CATALOG DESCRIPTION

Essentials of drafting and blueprint reading: orthographic projections, sectional views, pictorial drawing, geometric and dimensional tolerancing, finishing symbols. Introduction to sketching, computer-aided-drafting, and technical graphs.

COURSE PRE-REQUISITES

None

REQUIRED TEXTBOOK

Introduction to Solid Modeling Using SolidWorks 2019, by Howard and Musto, McGraw Hill.

Reference Textbook:

Technical Drawing with Engineering Graphics, Giesecke, et al., Prentice Hall.

TOPICS COVERED

- Basic and advanced part modeling in SolidWorks
- Orthographic views, section views
- Engineering drawings
- Assembly drawings
- Dimensioning, tolerancing and standards

Additional material may be covered as time permits.

GRADING

The overall grade for the course will be based on the scores earned on the homework assignments, exams, term project and the attendance. Exams (2 midterms and a final) account for 60% of the course grade, weekly homework assignments constitute 20%, while the term project and attendance each account for 10% of the final grade. The overall score for the course is determined as follows.

Table 1: Percentage contribution of each assignment.

Assignments	Contribution
Test 1	20%
Test 2	20%
Final Exam	20%
Homework	20%
Term Project	10%
Attendance	10%
TOTAL	100%

FINAL EXAM

Thursday, December 12, 1:00 pm – 3:00 pm

COURSE ORGANIZATION AND ASSESMENT

- **Course Format:**
This course consists of one 170-minute session each week. Class time will cover both theoretical concepts and technical drawing exercises using SolidWorks. Expect to spend appropriate amount of time outside of class to review/redo the in-class drawing exercises.
- **Class Attendance:**
You are expected to attend class regularly and are responsible for notes, drawing exercises, homework assignments, projects and exams missed while absent. Attendance (or lack thereof) directly affects the course grade. **Attendance is considered very important in this course, and counts for 10% of the grade.**
- **Student Attitude:**
Once class starts, the use of cell phones, conducting private discussions, using the computer for anything that is not directly related to the course, and making derogatory remarks about your classmates or instructor will not be accepted and may result in your dismissal from the class. Poor attitude directly affects the course grade.
- **Midterm Progress Reports:**
In order to help students keep track of their progress toward course objectives, the instructor for this class will provide a Midterm Progress Report for at-risk students through their WebWorld account. Midterm grades will not be reported on the students' transcript; nor will they be calculated in the cumulative GPA. They simply give students an idea of where they stand at the midpoint of the semester. Students earning below a C at the midway point should schedule a meeting with the professor and seek out tutoring.

- **Evaluation Method:**
Your performance will be tested regularly throughout the semester by weekly homework assignments, one semester project, three exams and attendance as outlined in Table 1.
- **Late Assignments:**
Homework assignments must be turned in **on the due date, at the beginning of class.** Once class starts, late assignments will **NOT** be accepted. **Printing issues are not a valid excuse for late homework.** Print at home (perhaps saving the SolidWorks model files in .pdf format) or the student center, library, or in the lab. **Bring a digital device (flash drive etc.) with storage capability to each class and save all classwork at least until final grades are posted. Save files often throughout each class period; issues with the unsaved material are not a valid excuse for late homework.**
- **Exam Make-up:**
Make-up exams will be given only in case of an emergency (accompanied by a doctor's report) or a major conflict due to a scheduled athletic event or a conference.
- **General Study Guidelines:**
Plan on spending few hours outside of class each week to review the material and to work on homework assignments. Do not wait until the last day to start the homework or to prepare for exams. Utilize office hours throughout the semester whenever you need help about the assignments or the course material.

GENERAL EDUCATION STATEMENT

Students in this course must demonstrate their proficiency in oral and written communication through written homework assignments, exams and the term project.

ACADEMIC INTEGRITY POLICY

Scholastic dishonesty will not be tolerated and will be prosecuted to the fullest extent. You are expected to have read and understood the current issue of the student handbook regarding student responsibilities & rights, and the intellectual property policy information about procedures and what constitutes acceptable on-campus behavior.

DISABILITY SUPPORT SERVICES

If you have a documented disability that will impact your work in this class, please contact me to discuss your needs.

DISCLAIMER STATEMENT

Information contained in this syllabus, other than grading policies, may be subject to change with advance notice, as deemed appropriate by the instructor.

Senate Bill 11 passed by the 84th Texas Legislature allows licensed handgun holders to carry concealed handguns on campus, effective August 1, 2016. Areas excluded from concealed carry are appropriately marked, in accordance with state law. For more information, please refer to [campus carry rules and policies](#)

COURSE LEARNING OBJECTIVES AND RELATIONSHIP TO STUDENT OUTCOMES

Table 2: Course learning objectives related to the ABET criteria (1-7)

Outcome-Related Course Learning Objectives	1	2	3	4	5	6	7
Students will be acquainted with primary and principal views, and the properties thereof, used in engineering graphics.	X	X	X			X	
Students will be able to use SolidWorks software to create 3-D models of parts.	X	X	X				
Students will be able to use SolidWorks to produce 2-D multi-view engineering drawings of mechanical parts.	X	X	X				
Students will be able to use parametric modeling techniques.	X	X	X				
Students will be acquainted with sectional views, and the properties thereof, used in engineering graphics.	X	X	X			X	
Students will be able to use SolidWorks to create mechanical assemblies and assembly drawings.	X	X	X				
Students will be introduced to the concepts of dimensioning and tolerance.	X	X				X	

Table 3: Detailed interpretations of the ABET criteria (1-7) listed in Table 2.

ABET Criteria	Interpretation
1	an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2	an ability to apply engineering design to produce solutions that meets specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3	an ability to communicate effectively with a range of audiences.
4	an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgements, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5	an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6	an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7	an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.