

ENG 1304.001: Engineering Graphics

Fall 2026

Syllabus

Instructor:

Robert P Smith

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940-315-0450

Office: TBD

Office Hours: T/Th 1:45-3:15 pm

or by appointment

Course Information

Day/Time: T/Th 12:15 – 1:35 pm

Location: NTDP F175

Description: Fundamentals and principles of engineering drafting practices used in technical processes.

Structure: Usually, one chapter will be covered per week. There will be a total of 10 chapters and 8 lab assignments that cover basic and advanced sketching along with 3D and assembly modeling.

Attendance: Attendance is required and will be checked at random days/times throughout the semester. If an absence is expected and excused, communication prior to the absence is preferred but understandably not always possible.

Objective understanding:

Materials:

Required: A flash drive of sufficient size for in-class activities and exams

Optional: Tickoo, Sham. *SolidWorks 2019 for Designers*. Cadcam Technologies. 2019.

Grading:

A: 89.5 – 100%

D: 59.5 – 69.49%

B: 79.5 – 89.49%

F: < 59.5%

C: 69.5 – 79.49%

<i>Assignment</i>	<i>Points Possible</i>	<i>Percentage of Final Grade</i>
<i>Lab-1</i>	<i>100 points</i>	<i>3%</i>
<i>Lab-2</i>	<i>100 points</i>	<i>3%</i>
<i>Lab-3</i>	<i>100 points</i>	<i>3%</i>
<i>Lab-4</i>	<i>100 points</i>	<i>3%</i>
<i>Lab-5</i>	<i>100 points</i>	<i>3%</i>
<i>Midterm-1 test</i>	<i>200 points</i>	<i>15%</i>
<i>Lab-6</i>	<i>100 points</i>	<i>3%</i>
<i>Lab-7</i>	<i>100 points</i>	<i>3%</i>
<i>Lab-8</i>	<i>100 points</i>	<i>3%</i>
<i>Midterm-2 test</i>	<i>200 points</i>	<i>15%</i>
<i>Attendance</i>	<i>100 points</i>	<i>6%</i>
<i>Course Project</i>	<i>100 points</i>	<i>15%</i>
<i>Final Exam</i>	<i>300 points</i>	<i>25%</i>
<i>Total Possible</i>		<i>100%</i>

Submissions are handled through Canvas. Any submissions attempted outside of Canvas without express, prior consent will receive a substantial base-grade reduction of 50%. No late submissions are accepted without an approved academic excuse.

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

- i. Utilize standard drawing and modeling practices
- ii. Proficiently employ SolidWorks features
- iii. Properly dimension objects in intelligible forms
- iv. View 3D objects
- v. Assemble projects from multiple parts
- vi. Generate usable schematic drawings of parts and assemblies
- vii. Communicate a project design with the assistance of a group

ABET Student Learning Outcomes (SO)

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 meet 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 judgments, 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.

ENGR 1304 CLO	ABET EAC Student Outcomes						
	1	2	3	4	5	6	7
i	X						X
ii	X						X
iii	X		X				X
iv	X						
v	X						
vi	X		X				
vii	X	X	X	X	X		

Academic Dishonesty:

There is a zero-tolerance policy for academic dishonesty. Cheating of whatsoever will result in an automatic 'F' in this course and the matter will be turned over to the appropriate student disciplinary committee.