

SYLLABUS:

Semester: Summer 2020

Course Name: MCE 180 Computer Aided Engineering I(2 credits)

Prerequisites: None

Meeting Time: Mon/Wed 4:10p-5:45p(a)

Location: Remote

Professor: Daniel Izadnegahdar(Daniel), d.izadnegahdar@csuohio.edu

Technology Assistants(s):

(contact for help concerning solidWorks installation)

- Louis T. Dregely(Loo), l.dregely@csuohio.edu

Description:

MCE 180 is a CAD class designed to help students visualize 3D shapes in space and represent them using solidworks. A series of methods and software tools will be used to represent sketches into mechanical components, mechanical components into mechanical drawings, and mechanical drawings into assembly drawings or BOMs. Students will also be exposed to manufacturing processes and standards commonly used in the industry. These skill sets will help students clearly communicate their designs to suppliers and more effectively implement value-adding mechanisms to the industry.

Objectives:

- Visualize 3D shapes in space.
- Sketch orthographic views, isometric views, and dimensioning.
- Create computer models, detail drawings, and assembly BOMs in solidworks.

Policies:

- **Grading:**

numerical grade range		
min (inclusive)	max (exclusive)	letter grade
93	100	A
90	93	A-
87	90	B+
83	87	B
80	83	B-
77	80	C+
73	77	C
60	73	D
0	60	F

grade weight		
weight	exam	qty
30%	homework	5
30%	midterm exam	1
40%	final exam	1

- **Withdrawal:** See CSU Academic Calendar for last day to add or withdraw.
- **Oswald:** All class files and submissions will occur through an application called "Oswald", which is found through this link: bit.ly/iamoswald
- **Exams:** Exams are open-notes and open-book but cell phones and laptops are not allowed. See exam sheet(s) for detailed instructions. Students are encouraged to save frequently during exams so that computer crashes won't affect their progress.
- **Homework:** All homework and projects are due at the time indicated on the chart at the end of this syllabus. The late penalty for homework is 15% per day it is late. All homework and projects must be submitted before the final exam day. The lowest HW grade of all 5 HW assignments will be dropped for the final grade. solidworks is not backwards compatible i.e. solidworks 2012 files can't be opened with solidworks 2010.

Use the solidworks version of the school computers or earlier for the grading team to access your files.

- **Make-up/Extensions:** All students are expected to take each exam at the scheduled time and turn in homework at the expected deadlines. Accommodations may be made for illness, emergency, or unavoidable conflicts. Written documentation supporting the need for makeup must be signed by the appropriate person (physician, employer, or parent) with the appropriate contact information: name, e-mail, and telephone number. Notes must document the duration of time to exempt the student from the late penalty. Students approved for disability accommodations and assistance must request the CSU Office of Disabilities to e-mail the instructor with an approval letter.
- **Cheating:** All submissions go through a cheating assessment to assure files were not copied from other students or past classes.

Textbook:

- (Optional) Paul Tran, **Solidworks 2020 – Basic Tools**, Schroff Development Corp (SDC) 2019
- (Optional) Kristie Platenberg, **Engineering Graphics Essentials, 5th Edition**, Schroff Development Corp (SDC) 2016

Supplies (required):

- none (use your gmail google drive to save your files)

Schedule and Topics:

ld	semester	class	session	sequence	location	date	startTime	endTime	submission	main	side	topic	teacher
3254	summer2020	mce180	a	1	wh203	5/18/2020	4:10:00 PM	5:45:00 PM	n/a	ce01	sp01	orthographic projection	dan
3255	summer2020	mce180	a	2	wh203	5/20/2020	4:10:00 PM	5:45:00 PM	n/a	ce02	sp38	isometric projection	dan
3256	summer2020	mce180	a	3	wh203	5/25/2020	4:10:00 PM	5:45:00 PM	n/a	n/a	n/a	memorial day (no class)	dan
3257	summer2020	mce180	a	4	wh203	5/27/2020	4:10:00 PM	5:45:00 PM	hw01	ce03	sp13 + sp22	sectioning	dan
3258	summer2020	mce180	a	5	wh203	6/1/2020	4:10:00 PM	5:45:00 PM	hw02	ce04	n/a	general dimensioning	dan
3259	summer2020	mce180	a	6	wh203	6/3/2020	4:10:00 PM	5:45:00 PM	n/a	ce05	n/a	hole dimensioning	dan
3260	summer2020	mce180	a	7	wh203	6/8/2020	4:10:00 PM	5:45:00 PM	hw03	ce06	sp14	tolerancing	dan
3261	summer2020	mce180	a	8	wh203	6/10/2020	4:10:00 PM	5:45:00 PM	n/a	sg01	sp28	exam review	dan
3262	summer2020	mce180	a	9	wh203	6/15/2020	4:10:00 PM	5:45:00 PM	me01	n/a	n/a	midterm exam	dan
3263	summer2020	mce180	a	10	wh203	6/17/2020	4:10:00 PM	5:45:00 PM	n/a	ce07	sp37	features i	dan
3264	summer2020	mce180	a	11	wh203	6/22/2020	4:10:00 PM	5:45:00 PM	n/a	ce08	sp11	features ii	dan
3265	summer2020	mce180	a	12	wh203	6/24/2020	4:10:00 PM	5:45:00 PM	n/a	ce09	sp06 + sp33	part drawings	dan
3266	summer2020	mce180	a	13	wh203	6/29/2020	4:10:00 PM	5:45:00 PM	hw04	ce10	sp21 + sp39	assemblies	dan
3267	summer2020	mce180	a	14	wh203	7/1/2020	4:10:00 PM	5:45:00 PM	n/a	ce11	sp07 + sp08	assembly drawings	dan
3268	summer2020	mce180	a	15	wh203	7/6/2020	4:10:00 PM	5:45:00 PM	hw05	sg02 + ce12	sp26 + sp32	exam review + patterns + configurations	dan
3269	summer2020	mce180	a	16	wh203	7/8/2020	4:10:00 PM	5:45:00 PM	fe01	fe01	n/a	final exam	dan