



Mechanical Engineering (MECH) 100L- Graphics 1 Laboratory

Course Syllabus – Spring 2021

INSTRUCTOR:	Matthew Mione Campus Office: O’Connell 423 Campus Phone: 530-898-4960 mmione@csuchico.edu Zoom Office Hours: TR 12:00 – 1:00 PM and by appointment Zoom link will be on Blackboard
CLASS	Online MECH 100L-03 W 5:30-8:20 PM
CO-REQUISITES:	MECH 100

Course Description and Goals

This course is an introduction to engineering graphics through the use of SolidWorks. Which include overviews of the following concepts: orthographic projection, auxiliary views, isometric views, dimensioning, tolerancing, drawing standards, working standards, and solids modeling.

Course Content Objectives

Upon the successful completion of this course, students will gain understanding of the following:

- Create ANSI standard orthographic drawings with all necessary components in accordance with current industry standards using SolidWorks CAD software.
- Understand the principles of mechanical component design.
- Understand the principles solid modeling.
- Understand the drawing standards for the department.
- Understand the use of dimensioning, tolerancing, and basic GD&T in drawings.
- Understand the principles and connection of design to sustainable engineering and manufacturing.

Student Learning Outcomes

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

- Develop a working knowledge of the manufacturing, and mechanical design processes.
- Apply ANSI drafting standards in the creation of mechanical drawings using SolidWorks tools.
- Implement the appropriate types and styles of drawing views given the assigned models.
- Illustrate an ability to design a system or component; to meet the assigned needs given environmental, social, political, ethical, health and safety, manufacturability, and sustainability-based inputs.
- Understand professional and ethical responsibility.
- Have the ability to communicate effectively both digitally and interpersonally.
- Show an ability to function on multidisciplinary teams.
- Use SolidWorks tools to accurately illustrate design intent.

Course Usage of Blackboard Learn

Copies of the course syllabus and all assignments will be found on Blackboard Learn. You are responsible for **regularly checking** the online resources, which is accessed through the Chico State Portal at <http://portal.csuchico.edu>. Support materials for the course will be provided via the portal and it is expected that you will either have hardcopies or electronic access to the materials during in-class activities.

Required Texts and Equipment

Textbook

Beginner's Guide to SolidWorks 2018 – Level 1, A. Reyes, SDC Publications, 2018.
ISBN 978-1630571481

Used copies of the 2020, 2019 and 2017 editions of this text are acceptable to use.

2020 Version: ISBN 978-1630573058

2019 Version: ISBN 978-1630572204

2017 Version: ISBN 978-1630570637

SolidWorks Software

The version of SolidWorks which is used in the lab is also available to download at no cost to your laptop or desktop. To do so, follow the instructions, "Downloading SolidWorks", on Blackboard Learn for the course.

Equipment

It is advisable to buy a set of Digital Calipers of adequate quality for use outside of the Lab. They can be purchased locally at Harbor Freight and online at your favorable online equivalent. It is not necessary to spend over \$50.00.

Classroom Protocol

It is expected that students are in-class prior to each class, as the class will start promptly at the scheduled time. Any homework class assignments are due at the start of the class and must be submitted on Blackboard.

Communication

If you need to meet or contact the instructors outside of class hours please attend office hours or email mmione@csuchico.edu.

In the event that I need to contact the class members for matters between class meetings (schedule, assignment, or class changes, etc.), it will be done via your university email account linked to the Portal. University policy requires students to monitor campus email accounts and it is suggested that you set up email forwarding if you have another preferred email account.

Dropping and Adding

You are responsible for understanding the policies and procedures about add/drops, academic renewal, etc. found <http://www.csuchico.edu/catalog/>. You should be aware of the deadlines and penalties for adding and dropping classes. I do not handle adding into the course, you need to see or email our MMEM Administrative Support Coordinator, Martha Layne (mlayne@csuchico.edu), to do so. You are the only one responsible for dropping the class.

Assignments and Grading Policy

Assignments are due according to the class schedule and are subject to change depending on course progress through the semester. Changes to the schedule will be announced during class or via the communication protocol described above.

Homework assignments are due at the start of the class. Every assignment has its deadline and lateness policy. Homework is due at the beginning of the lab but is accepted up to **11:59 PM that day** (10% grade deduction). An In-Class assignment is due before the end of the day of that it was assigned. The deadline for the RE Project is fixed—a late submission receives a zero grade.

Drawing and Part files are submitted to Blackboard. Often, they will be separate submissions. **Failure to submit the Part file to Blackboard results in a zero grade for that assignment.** It is your responsibility to upload the proper file to proper Blackboard submission before the assigned deadline.

Assigned readings or movie viewing are to be completed before class. Class discussion period will be used to review topics covered within the reading, clarify student questions, and expand on the topics through real-world applied examples.

Course Grade Breakdown:

In-Class	25%
Quizzes	7.50%
Homework	25%
Certification Test	7.50%
Midterm Exam	15%
RE Project (Final)	<u>20%</u>
	100%

>=	93.33	90.00	86.67	83.33	80.00	76.67	73.33	70.00	65.00	60.00	00.00
	A	A-	B+	B	B-	C+	C	C-	D+	D	F

Certified SolidWorks Associate Certification (CSWA)

This is an industry standard certification for the course. This is a 3-hour test and will be accessible the last 3 weeks of the course (including Finals Week). Students will get one (1) test voucher to take the certification test. The score that the student receives on the certification test will be curved for the class. This certification must be passed prior to attempting any other SolidWorks Certifications.

General Information

1. Class announcements regarding tests, class cancellations, etc., will be done via the student WildcatMail email account as required per University policy. If the student has another preferred email provider, the student may set up automatic forwarding of the student WildcatMail to that address via www.csuchico.edu/itss
2. The student should expect to **spend at least 4 hours per week** outside of class for lab assignments.
3. All lab CAD assignments must use the department CAD standards for drawings format for title block, revision table and Bill of Material table in the drawing. The standard templates are available Lab's Blackboard site.
4. ECC students may download SolidWorks 2020/21 to a laptop or desktop. Note: SolidWorks only works in a Windows environment, so installing it on an Apple is possible but difficult and installing it on a Chromebook is not possible.
5. Students can work together on CAD assignments but copying another student's work is not allowed. *University policies, due process, and sanctions for academic dishonesty are followed.*

COVID-19 Face Mask Requirement

In compliance with the [California Department of Public Health](#) state mandate, Chico State requires that all students, staff, and faculty, wear a face covering in all indoor spaces on campus, including classrooms, labs, studios, and offices, and outside when physical distancing is not possible. Accordingly, all students are required to wear a face mask covering the nose and mouth in order to participate in this course. Failure to comply with this requirement will result in a referral to Student Conduct, Rights, and Responsibilities and disciplinary action being taken against you by the University.

Individuals unable to wear a face covering due to a medical condition should contact the [Accessibility Resource Center](#) by phone at (530) 898-5959 or by email at arcdept@csuchico.edu.

For more information about the state mandate, please visit the [Chico State COVID-19 News & Information](#) page.

University Policies and Campus Resources

Academic integrity

Students are expected to be familiar with the University's Academic Integrity Policy. Your own commitment to learning, as evidenced by your enrollment at California State University, Chico, and the University's Academic Integrity Policy requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the Office of Student Judicial Affairs. The policy on academic integrity and other resources related to student conduct can be found at: <http://www.csuchico.edu/sjd/integrity.shtml>.

IT Support Services

Computer labs for student use are located on the first and fourth floor of the Meriam Library, Room 116 and 450, Tehama Hall Room 131, and the Bell Memorial Union (BMU) basement. You can get help using your computer from IT Support Services; contact them through their website, <http://www.csuchico.edu/itss>. Additional labs may be available to students in your department or college.

Student Services

Student services are designed to assist students in the development of their full academic potential and to motivate them to become self-directed learners. Students can find support for services such as skills assessment, individual or group tutorials, subject advising, learning assistance, summer academic preparation and basic skills development. Student services information can be found at: <http://www.csuchico.edu/current-students>.

Americans with Disabilities Act

If you need course adaptations or accommodations because of a disability or chronic illness, please make an appointment with me as soon as possible, or see me during office hours. Please also contact Accessibility Resource Center (ARC) as they are the designated department responsible for approving and coordinating reasonable accommodations and services for students with disabilities. ARC will help you understand your rights and responsibilities under the Americans with Disabilities Act and provide you further assistance with requesting and arranging accommodations.

Accessibility Resource Center

<http://www.csuchico.edu/arc>

530-898-5959

Student Services Center 170

arcdept@csuchico.edu

Student Learning Center

The mission of the Student Learning Center (SLC) is to provide services that will assist CSU, Chico students to become independent learners. The SLC prepares and supports students in their college course work by offering a variety of programs and resources to meet student needs. The SLC facilitates the academic transition and retention of students from high schools and community colleges by providing study strategy information, content subject tutoring, and supplemental instruction. The SLC is online at <http://www.csuchico.edu/slc>. The University Writing Center has been combined with the Student Learning Center.