



Mechanical Engineering (MECH) 100-01: Graphics 1 (Online Lecture)

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 – No Meeting Location
CO-REQUISITES:	MECH 100L Laboratory (Note: a separate course) MECH 100L Information (Online) C. Pooler MECH 100L-01 M 5:30-8:20 PM M. Mione MECH 100L-02 W 5:30-8:20 PM

Course Description and Goals

Graphics 1 is the first course in Engineering Graphics which includes the fancy stuff, computer aided drafting or computer aided design (CAD), but also the old school method of hand sketching.

Sketching techniques is covered in lecture and exercised in the homework. The CAD software is SolidWorks, the bulk of which is covered in MECH 100L. The generic issues of CAD are covered in MECH 100 and include visualization, design intent, construction and assembly methods, and design communication.

A necessary skill is visualization, the mental task of converting 2-D representation to 3-D and vice-versa. The PSVTR (Purdue Spatial Visualization Test—Rotation), a useful tool to enhance this skill, is frequently used in a modified form.

Course Content Learning Outcomes – Student learning objectives

<u>Student Learning Outcome</u>	<u>Description</u>	<u>Course Objective</u>	<u>Methods of Assessment</u>
Content Knowledge	Students will demonstrate knowledge and concepts related to:	<ul style="list-style-type: none"> ... Enhanced sketching and visualization skills though the PSVT:R - Purdue Spatial Visualization Test: Rotations tests. 	<ul style="list-style-type: none"> Weekly timed quizzes
<u>Student Learning Outcome (Cont.)</u>	<u>Description (Cont.)</u>	<u>Course Objective (Cont.)</u>	<u>Methods of Assessment (Cont.)</u>
	Students will demonstrate	<ul style="list-style-type: none"> ... Principles of mechanical component design. 	<ul style="list-style-type: none"> Periodic Quizzes related to the weekly

Content Knowledge	knowledge and concepts related to:	<ul style="list-style-type: none"> • ... The meaning of design intent. • ... Drawing standards. • ... The proper use of dimensioning and tolerancing. • ... The basic principles of GD&T. • ... The principles and connection of design to sustainable engineering and manufacturing. 	Lectures and Readings. <ul style="list-style-type: none"> • Midterm Test. • Final Test. • Homework assignment.
		<ul style="list-style-type: none"> • ... The basic techniques of hand sketching. 	<ul style="list-style-type: none"> • Periodic Sketching Homework.

Course Usage of Blackboard Learn

Copies of the course syllabus and major assignments may 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/Readings

Required:	Lieu, D.K., and Sorby, S.A., Visualization, Modeling, and Graphics for Engineering Design, Cengage Publishers, 2016. ISBN: 978-1-2851-7295-8.
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Communication

If you need to meet or contact me, please attend office hours or email. Please use my contact information listed on the first page to communicate, and do not go through the Blackboard channels. For laboratory-based concerns, it is also suggested that you seek out your laboratory instructor for assistance.

In the event that I need to contact the class (schedule, assignment, 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 via the communication protocol described above. The schedule is posted on Blackboard and is updated if changes happen.

Homework assignments are due by a set date and time, all of which are on the Assignment submission or the page prior to starting a Test/Quiz/PSVT-R. The assignments assigned in Week 1 will be due at the end (Friday 11:59 PM) of the 2nd week of class. Starting Week 2 all assignments will be due on Mondays by 11:59 PM.

Homework assignments are to be done by hand and will be submitted on Blackboard by either scanning your work with a scanner or your phone or taking a **CLEAR** picture of your work. Refer to the “Homework Requirements” document for formatting. Work is considered late if it is not submitted before its due date and time. Late work will only be considered for credit if the Late Assignment Policy Agreement is filled out and meets its criteria. This Agreement can be found on Blackboard.

Assigned readings are to be completed before that week’s lecture. Online lectures will be used to review topics covered within the reading and expand on the topics through real-world applied examples. To ensure that students are conducting their assigned readings, there will be quizzes posted on BBL that will test their knowledge of the presented material.

Quizzes and PSVT:R Exercises will remain open after the week they are assigned and due. They can be retaken for study purposes. The first attempt is the grade that is recorded. Late Quizzes and PSVT:R will not be accepted. They should be taken on a computer to ensure that the images within the Quizzes and PSVT:R will show correctly. Taking them on a mobile device can result in them not working correctly.

Course Grade Breakdown:

Homework /Participation	25%
PSVT:R Exercises	10%
On-line Quizzes	15%
Midterm Exam	25%
Final Exam	<u>25%</u>
	100%

Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	F
	93.33	90.00	86.67	83.33	80.00	76.67	73.33	70.00	65.00	60.00	0.00

MECH 100 and MECH 100L are two (2) separate classes. They are graded separately and the work, scores, and final grades for each course do not affect the other.

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/sid/integrity.shtml>.

Campus Policy in Compliance with the American Disabilities Act

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Students with disabilities requesting accommodations must register with the DSS Office (Disability Support Services) to establish a record of their disability.

Special accommodations for exams require ample notice to the testing office and must be submitted to the instructor well in advance of the exam date.

IT Support Services (<http://www.csuchico.edu/itss>)

The CAD lab with SolidWorks installed is located in OCNL 438. Other (non-CAD) 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.

Student Services (<http://www.csuchico.edu/current-students>)

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.

Americans with Disabilities Act (<http://www.csuchico.edu/arc>)

If you need course adaptations or accommodations because of a disability or chronic illness, or if you need to make special arrangements in case the building must be evacuated, 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

530-898-5959

Student Services Center 170

arcdept@csuchico.edu

Student Learning Center (<http://www.csuchico.edu/slc>)

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 University Writing Center has been combined with the Student Learning Center.