

EGD TEK 101 – Engineering Graphics

Spring 2021 (April 12 – June 7)

Section #: 24482 LEC & 24483 LAB

Prerequisite: None

Course Description:

This course covers the principles of engineering drawings in visually communicating engineering designs and an introduction to computer-aided design (CAD). Topics include the development of visualization skills; orthographic projections; mechanical dimensioning and tolerancing practices including a brief introduction to geometric dimensioning and tolerancing (GD&T); and the engineering design process. Assignments develop sketching and 2-D and 3-D CAD skills. The use of CAD software is an integral part of the course. Instructions for Fusion 360 CAD software download will be provided to students via email or class announcements on Canvas.

Student Learning Outcomes:

Upon completion of the course, the student will be able to:

1. Create design drawings using established industry standards and the principles of orthographic projection using CAD software.
2. Interpret and apply dimensioning and tolerancing practices including geometric dimensioning and tolerancing in engineering graphics

Additional Class Objectives:

1. Develop design process plans for engineering design applications
2. Create mechanical design using CAD solid modeling

Instructor: A. Anwar – Use canvas internal message system to send me an email and I will respond by the next day. If for some reason, you are unable to access canvas, then as a last resort, you may send email me to my school email. Email:anwara@lamission.edu
Website: <http://www.lamission.edu/~anwara>

Office Hours: Instructor will be available to answer any questions you might have about the course material or assignments via email or during the scheduled office hours via the online zoom conferencing session. The online discussion session is scheduled for Thursdays from 6:00 to 7:00 PM and may change depending on student feedback for their availability.

https://ilearn.laccd.edu/courses/142197/external_tools/54207

Textbook: EGD TEK 101: Engineering Graphics Essentials
Author: Kirstie Plantenberg
Publisher: SDC Publications (www.SDCpublications.com)
ISBN: 978-1-63057-350-8

Grading: Each student's grade will be calculated as follows:
25% - Homework Assignments – Total of 7 Homework sets
35% - Take Home Midterm
10% - Lab Assignments & Discussions
30% - Final Design Project

100% Total Grade

Gradebook Access:

To view your grade in the course at any time during the semester, click on the [“Grades”](#) in [Canvas](#).

Spring 2021 IMPORTANT DATES

April 12, 2021	Instruction begins for Spring 2021
April 21, 2021	Deadline to add using an add permission code
April 21, 2021	Deadline to drop without a “W” notation
May 24, 2021	Deadline to drop with a “W” notation on record

Accommodations for DSPS students:

LAMC students with verified disabilities who are requesting academic accommodations should use the following procedure:

1. Obtain documentation of your disability from a licensed professional. You can use the [LAMC Disability Verification Form](#). Students exiting high school can use their IEP as a qualifying document.
2. Make an appointment with a Disabled Students Programs and Services (DSP&S) Counselor or Specialist to review your documentation and discuss reasonable accommodations. Please call DSP&S at (818) 364-7732 or use the Online Counter Support on the [DSP&S page](#) to schedule an eCounseling appointment.
3. Bring your disability documentation to your DSP&S eCounseling appointment, which will be held through Cranium Café. Be sure to use a laptop or computer with Chrome or

Firefox (no smart phones) and a working video camera and microphone.

4. Every semester, you are required to meet with your DSP&S Counselor to review your academic progress and accommodation letter. After meeting with them, your written accommodation agreement will be emailed to your professor(s).

Management of Stress and Mental Health:

If you, or someone you know is in distress due to pressure of succeeding in school and contending with work, financial issues, relationships, managing time effectively, getting enough sleep, etc., please visit the Student Health Center (SHC), which offers a broad range of confidential student services including counseling and mental health services. The SHC is located in the Administrative Services Building. The SHC webpage is lamission.edu/healthcenter and the phone number is 818-362-6182. The National Suicide Prevention Lifeline number is 800-273-8255.

Step 3: Bring your disability documentation to your DSPS appointment. The DSPS office is located in room 1018 of the Instructional Building.

Step 4: *Each semester*, reach written accommodation agreement with the DSPS Specialist and your instructor. To be most effective, students should complete this process by the end of the 3rd week of the semester. Tests with required accommodations must be taken at the DSPS office.

Student responsibilities:

Students are responsible for being aware of all announcements that are made in class, such as changes in exam dates, due dates of homework, and cancellation of discussion sessions due to instructor's absence. **Students are responsible for announcements made on days that they are absent.**

Students are expected to adhere to all school policies, and to abide by the standards of student conduct as described in the *2019-2020 Los Angeles Mission College Catalog on pages 53 and 54.*

Resources:

- **Bookstore:** For hours of operation, book availability, buybacks, and other info. Call (818) 364-7798 or 364-7768 or visit <http://eagleslanding.lamission.edu/>
- **Counseling Department:** For appt. and info call (818) 364-7655 or visit <https://www.lamission.edu/counseling/>
- **Extended Opportunity Programs and Services:** For appt. and info. Call (818) 364-7645 or visit <http://www.lamission.edu/eops/>
- **Financial Aid:** For info. & applications call (818) 364-7648 or visit <http://www.lamission.edu/financialaid/>
- **Library:** For info. on library hours, resources, workshops, and other services contact (818) 364-7105 or 364-7106 or <http://www.lamission.edu/library/>
- **Tutoring Services in Learning Center:**
Laboratories for Learning, Writing, Math & Science. Walk-in and appointment services offered. Call (818) 364-7754 or visit <http://www.lamission.edu/learningcenter/>

- **STEM Program:** For those interested in pursuing a science, technology, engineering and math, please call the STEM counselor at (818) 364-7600 (ext4161) or visit <http://www.lamission.edu/stem/>

Class Policies:

- 1. Attendance:** Attendance for discussion sessions for an online class is the basis for learning; without good attendance you cannot build the foundation necessary to pass a class. Unexcused absences from discussion sessions will affect your grade and learning of the subject material.
- 2. Withdrawals and Exclusions:** If you fail to login to Canvas and complete the orientation and the expected assignments during the first week of the course, you will be excluded from the course as a NO SHOW. After that, I may still drop you for lack of activity (not logging into Canvas and not submitting assignments). If you wish to drop the class, you must drop the class yourself, *officially*. Failure to do so may result in a grade of "F" in the class. A new state policy in effect as of 2012 limits students to **three attempts per course**. Receiving a grade or a "W" for a course counts as an attempt, **regardless of when the course was taken**. Withdraw by the deadline to avoid a "W". For spring 2021 the deadline to avoid a "W" is **Wednesday, April 21**.
- 3. Cell Phone:** No cell phones or other electronic devices will be allowed during exams. You may receive an F on an exam if your cell phone or other electronic devices are out during the exam.
- 4. Standards for Student Conduct:** Dishonesty, such as cheating or knowingly furnishing false information to instructors and college personnel, turning in work that is not one's own will be grounds for disciplinary action at LAMC according to the Standards of Student Conduct as described on the LAMC Catalog. The penalty may range from no credit for the assignment up to an "F" grade and disciplinary action. Students are expected to adhere to all school policies, and to abide by the standards of student conduct as described in the LAMC catalog. Any infringement upon the rights of other students in the class will not be tolerated. Please refer to [LACCD Board Rule 9800](#) for further information.
- 5. Communication Policy:** Pay attention to my emails and canvas announcement, which will be my main channel of communication with you. You can use the inbox option in Canvas to communicate with me. I will respond to emails within 24 hours with the exception of weekends and holidays.

TENTATIVE SCHEDULE

Meeting	Date	Topics & Plan	Assignment Due Dates
Week 1	April 12, 2021	Lecture 1-Introduction to Engineering Drawings	None
		Read Chapters 1 & 2	
		HW #1 is Assigned	
		Software Installation Discussion During Office Hours	
		Lab Assignment #1 is Assigned	
Week 2	April 19, 2021	Lecture 2-Sketching & Tools	HW #1 & Lab Assignment #1 Due
		Read Chapters 1 & 2	
		HW #2 is Assigned	
		Lab Assignment #2 is Assigned	
		Simple DWG Demo & Discussion During Office Hours	
Week 3	April 26, 2021	Lecture 3-DWG & Letters	HW #2 & Lab Assignment #2 Due
		HW #3 is Assigned	
		Lab Assignment #3 is Assigned	
		Discussion During Office Hours	
		Fusion 360 Video is posted	
Week 4	May 3, 2021	Lecture 4-Auxiliary Views	HW #3 & Lab Assignment #3 Due
		Read Chapters 3 & 4	
		HW #4 is Assigned	
		Lab Assignment #4 is Assigned	
		Discussion During Office Hours	
Week 5	May 10, 2021	Fusion 360 Video is posted	HW #4 & Lab Assignment #4 Due
		Lecture 5-Section Views	
		Read Chapters 9 & 10	
		HW #4a is Assigned	
		Lab Assignment #5 is Assigned	
		Discussion During Office Hours	
Week 6	May 17, 2021	Fusion 360 Video is posted	HW #4a & Lab Assignment #5 Due
		Lecture 6-Dimensioning & Tolerancing	
		Read Chapters 7, 8, 13 & 14	
		HW #5 is Assigned	
		Lab Assignment #6 is Assigned	
		Take Home Exam	
		Discussion During Office Hours	
Fusion 360 Video is posted			
Week 7	May 24, 2021	Lecture 7-Fundamentals of GD&T	HW #5, Lab Assignment #6 & Midterm Due
		Read Chapters 7 & 8	
		HW #6 is Assigned	
		Lab Assignment #7 is Assigned	
		Discussion During Office Hours	
Week 8	May 31, 2021	Fusion 360 Video is posted	HW #6 & Lab Assignment #7 Due
		Lecture 8-Solid Modeling (Extra Topic Important for Design)	
		Discussion During Office Hours	
Week 9	June 1, 2021	Final Project	Final Project Due