

MECH 3305 – Computer-Aided Design

Professor Contact Information

Dr. Oziel Rios

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When sending an email, make sure to include the class and section number (ex. MECH 3105.101). Grades will only be discussed in person during office hours. If you have a time conflict, it is your responsibility to schedule an appointment that is convenient for both you and the instructor.

TA Contact Information

Name: TBD
Sections:
Office:
Office Hours:
Email:

Contact or attend the office hours of the TA assigned to your section. When sending emails, make sure to include the class and section number (ex. MECH 3105.101). Grades will only be discussed in person during office hours. If you have a time conflict, it is your responsibility to schedule an appointment that is convenient for both you and the TA.

Course Pre-Req, Co-Req and Other Restrictions

Pre-requisite(s): MECH 1208 – Intro to Mechanical Engineering II
ENGR 2300 – Linear Algebra for Engineers
Pre or Co-requisite: CS 1325 – Intro to Programming (or CE/CS/TE 1337)
Co-requisite: MECH 3105 – Computer Aided Design Laboratory
Other Restrictions: None

Course Description and Learning Outcomes

Description: Lecture course. Course material includes an introduction to Computer-Aided Mechanical Design (CAMD) tools and their applications to mechanical systems design. Topics include sketching, 3D modeling, parametric curve and surface modeling, assembly modeling and engineering drawings.

Learning Outcomes:

1. Be able to create 3D geometric models, assemblies, and engineering drawings that are suitable for manufacturing.
2. Be able to determine degrees of freedom of sketches and assemblies.
3. Be able to generate fabrication packages to represent mechanical assemblies ready for traditional and emerging manufacturing processes.

4. Be able to function effectively in teams to generate concepts and prototypes for the design of mechanical assemblies.

Topics Covered:

1. Role of CAD in mechanical design
2. Sketching
3. Solid modeling
4. Engineering drawings
5. Assembly modeling
6. Parametric curves and surfaces

Required Textbooks and Materials

There is no required textbook for this course.

Other: Lecture slides will be uploaded to eLearning on the Friday after the topic has been covered. These slides do not replace your notes.

Grading Policy

Final grades will be evaluated as follows:

Assignments	20%
Exams	40%
Quizzes	10%
Team Project	30%

You have five business days to appeal any grade (contact the instructor). The five days will be counted starting from the day the item in question is returned or the grade has been provided in eLearning.

Final letter grades will be assigned according to the following ranges. This guideline is subject to change at the discretion of the instructor.

A+	$97 \leq x$	C+	$77 \leq x < 80$
A	$93 \leq x < 97$	C	$73 \leq x < 77$
A-	$90 \leq x < 93$	C-	$70 \leq x < 73$
B+	$87 \leq x < 90$	D+	$67 \leq x < 70$
B	$83 \leq x < 87$	D	$63 \leq x < 67$
B-	$80 \leq x < 83$	D-	$60 \leq x < 63$
		F	$60 > x$

Course Policies

Email

Email must be sent from your UTD email account to UTD email address of the instructor or TA. Please allow 24-36 hours for a response during the week.

Lecture

Lecture will be held in the CAD lab. Upon logging in to the computer, you must open CREO Parametric 2.0 or another software as instructed. Cell phones, iPods, laptops or other devices are not allowed in class. Talking during lectures, surfing the web or social media sites is disruptive to those around you and is not allowed.

Assignments and Projects

The assignments and project must be submitted to eLearning (or the instructor) by the time indicated on the assignment or as indicated by the instructor. **No late assignments will be accepted** without proper documentation (doctor's notice, etc.).

Quizzes

Quizzes will be given randomly throughout the semester and will last 20-30 minutes from the start of the class period or as indicated by the instructor. Failure to complete the quiz within the allotted time will result in a **0** grade. **No makeup quizzes** will be given without proper documentation (doctor's notice, notice of university sponsored/related event, etc.).

Make-up Exams

If missing an exam due to a university sponsored/related event, a make-up exam will be provided. Instructor approval must be granted *before* the exam date. If an exam is missed due to illness, the student must produce a note from his or her doctor which states the student was unable to attend the exam and include the phone number for the doctor's office.

Rules for Exams

1. Whenever possible, an empty seat should be left between each student during an exam.
2. Only a pencil, eraser, straightedge, **three** 8.5"x11" formula sheets (front and back) and the required textbook (lab) are allowed. If you have purchased an eBook, only the application required to view your book is allowed to be open in your computer. Other materials such as lecture slides, notebooks and backpacks must be placed at the front of the room or under your chair. You may not open your bag inside the room once the exam has begun.
3. Exam materials will be passed out at the beginning of class or as soon as all extraneous materials are placed in the front of the room or under your chair.
4. Turn-off your cell phone.
5. If late to an exam, remove any necessary materials (pencil, etc.) from your bag before entering the room. Quietly enter the room and wait for further instructions.

Academic Dishonesty

Academic dishonesty will not be tolerated and will result in a grade of **F** in this course.

University Policies

Academic Integrity: The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrates a high standard of individual honor in his or her scholastic work.

Academic Dishonesty: Academic dishonesty can occur in relation to any type of work submitted for academic credit or as a requirement for a class. It can include individual work or a group project. Academic dishonesty includes plagiarism, cheating, fabrication, and collaboration/collusion. In order to avoid academic dishonesty, it is important for students to fully understand the expectations of their

professors. This is best accomplished through asking clarifying questions if an individual does not completely understand the requirements of an assignment.

Academic dishonesty will not be tolerated. All suspected cases of academic dishonesty will be sent to the Office of Judicial Affairs (see <http://www.utdallas.edu/deanofstudents/managing/>). If it is determined that academic dishonesty occurred you will receive a grade of **F** in this course.

Sharing Confidential Information: Students considering sharing personal information in email, in person, or within assignments or exams should be aware that faculty members and teaching/research assistants are required by UT Dallas policy to report information about sexual misconduct to the UT Dallas Title IX Coordinator. Per university policy, faculty have been informed that they must identify the student to the UT Dallas Title IX Coordinator. Students who wish to have confidential discussions of incidents related to sexual harassment or sexual misconduct should contact the Student Counseling Center (972-883-2527 or after hours 972-UTD-TALK or 972-883-8255), the Women's Center (972-883-8255), a health care provider in the Student Health Center (972-883-2747), the clergyperson (or other legally recognized religious advisor) of their choice, or an off-campus resource (i.e., rape crisis center, doctor, psychologist). Students who are sexually assaulted, harassed, or victims of sexual misconduct, domestic violence, or stalking, are encouraged to directly report these incidents to the UT Dallas Police Department at 972-883-2222 or to the Title IX Coordinator at 972-883-2218. Additional information and resources may be found at <http://www.utdallas.edu/oiec/title-ix/resources>.

Technical Support: If you experience any issues with your UT Dallas account, contact the UT Dallas Office of Information Technology Help Desk: assist@utdallas.edu or call 972-883-2911. UT Dallas provides eLearning technical support 24 hours a day/7 days a week. The services include a toll free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service. Please use this link to access the UTD eLearning Helpdesk: <http://www.utdallas.edu/elearning/eLearningHelpdesk.html>.

Student Conduct and Discipline: The University of Texas System (Regents' Rule 50101) and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UT Dallas online catalogs (<http://catalog.utdallas.edu>).

For a full list of university policies, please visit <http://go.utdallas.edu/syllabus-policies>.

THE INFORMATION IN THIS DOCUMENT IS SUBJECT TO CHANGE AT THE DISCRETION OF THE INSTRUCTOR.