

## MECH 3305 – Computer-Aided Design

### Instructor Contact Information

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Name: Dr. Oziel Rios  
Office: ECSN 2.506  
Office Hours: Wednesday 9:30am-10:50am  
Phone: (972) 883-4690  
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### TA Contact Information

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Name: TBD  
Office:  
Office Hours:  
Email:

### Course Pre-requisites, Co-requisites and/or Other Restrictions

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Pre-requisite(s): MECH 1208 – Intro to Mechanical Engineering  
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

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**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. Students will understand the role of CAD in mechanical component and system design by creating geometric models and engineering drawings.
2. Students will understand the basic mathematics fundamental to CAD software.
3. Students will work in teams to design a mechanical system and fabricate a prototype of their design.

**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

### Textbooks and Materials

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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

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Final grades will be evaluated as follows:

<b>Assignments</b>	<b>20%</b>
<b>Exams</b>	<b>40%</b>
<b>Quizzes</b>	<b>10%</b>
<b>Team Project</b>	<b>30%</b>

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 and Instructor Policy

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### 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 CN 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 provided 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 10-20 minutes from the start of the class period 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 doctor's note 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 sheet (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**

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Please refer to the following website to obtain university information regarding:

- Student Conduct and Discipline
- Academic Integrity
- Copyright Information
- Email Use
- Class Attendance
- Withdrawal from Class
- Student Grievance Procedures
- Incomplete Grade Policy
- Disability Services
- Religious Holy Days
- Avoiding Plagiarism

<http://go.utdallas.edu/syllabus-policies>

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**These descriptions are subject to change at the discretion of the instructor.**