Course Syllabus for

MECH 1100 – Introduction to Mechanical Engineering I

Section	Days	Time	Instructor	TAs
001	Wed/Fri	11:00am-11:50am	Dr. Rios	Rifat, Devashish
002	Tues/Thurs	8:30am-9:20am	Dr. Park	Devashish, Meena
003	Wed/Fri	3:00pm-3:50pm	Dr. Majewicz	Rifat, Meena
501	Tues/Thurs	5:30pm-6:20pm	Dr. Rios	Rifat, Devashish

Professor Contact Information

Dr. Oziel Rios
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Dr. Ann Majewicz
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Dr. Wooram Park
Office: ECSN 2.520
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Teaching Assistant Contact Information

Name: Devashish Lingam
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Office Hours: Wednesday and Friday: 9:30am-11am
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Name: Rifat Kabir
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Office Hours: Wednesday and Friday: 12:30pm-1:30pm; Thursday: 4pm-5pm
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Name: Meenakshi Narayan
Office: ECSN 2.316
Office Hours: Monday: 10am-12pm and 3pm-5pm
Email: meenakshi.narayan@utdallas.edu

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

None.

Course Description

Introduction to professional ethics, engineering design and quantitative methods; team projects designed to replicate decision processes in real-world situations; additional preparatory topics for Mechanical Engineering.

Course Objectives and Topics

Upon successful completion of this course, you will have:

a) An appreciation of professional ethics.
b) An appreciation and practice of basic skills essential to success in ECS majors including problem solving skills, communications skills, team work.
c) An understanding of basic approaches to design and exposure to quantitative methods.

To this end, the topics to be covered include:

a) Professional Ethics
b) Problem Solving, Communication Skills, Team work
c) Introduction to Design
d) Quantitative Methods – Introduction to MATLAB

Required Textbook and Recommended Supplies

Engineering Your Future: A Comprehensive Introduction to Engineering (8th Ed.)
William C. Oakes and Les L. Leone
ISBN-13: 978-0199348015

It is strongly *recommended* you purchase a personal laptop for this course. The software we will use in this course are Microsoft Office (Word, Excel, Power Point) and Matlab. Both of these can be purchased from the UTD Technology Store (http://www.utdtechstore.com/) but you will have access to these in engineering computer labs (CN 1.206 and ECSN 4.324) and the studio computers (ECSN 2.316 and 2.318) during class time and during TA office hours.

Notes, supporting material and other resources will be posted on eLearning.

Course Structure and Schedule

In MECH 1100, you will attend two 50-minute sessions each week. A majority of class sessions will be held in the freshman studio located in **ECSN 2.316** and **2.318** as indicated in the "Location" column of schedule below were you will work on activities related to the course topics. Lectures will held in a classroom as indicated in Coursebook (coursebook.utdallas.edu).

The following is a ***tentative*** schedule of class topics. These dates are subject to change. It is your responsibility to keep up with any changes.

Week	**	TTh	WF	Topics	Location
1		**8-25** [3]	**8-26** [1]	Introduction and Syllabus; Analytic Problem Solving [Ch 7]	See Notes
	A1	**8-27** [3]	**8-28** [2]	Creative Problem Solving [Ch 7]; Read Team Work [Ch 10] on own time	See Notes
2	A2	**9-1**	**9-2**	Wind Turbine Activity	Studio
	A3	**9-3**	**9-4**	Wind Turbine Activity	Studio
3	A4	**9-8**	**9-9**	Wind Turbine Activity	Studio
	A5	**9-10**	**9-11**	Wind Turbine Activity	Studio
4	A6	**9-15**	**9-16**	Wind Turbine Activity	Studio
	A7	**9-17**	**9-18**	Wind Turbine Activity	Studio
5	A8	**9-22** [3]	**9-23** [1]	Computer Tools for Engineers [Ch 9]; Technical Communication [Ch 13]; Excel [A]; PPT [B]; MATLAB [C]	See Notes
	A9	**9-24**	**9-25**	MATLAB Activity	Studio
6	A10	**9-29**	**9-30**	MATLAB Activity	Studio
	A11	**10-1**	**10-2**	MATLAB Activity	Studio
7	A12	**10-6**	**10-7**	MATLAB Activity	Studio
	A13	**10-8**	**10-9**	MATLAB Activity	Studio
8		**10-13**	**10-14**	**No Class – Exam 1 on Monday, Oct. 12 at 7pm**	HH 2.402
	A14	**10-15** [3]	**10-16** [2]	Visualization and Graphics [Ch 8]	See Notes
9	A15	**10-20**	**10-21**	Orthographic and Isometric Drawing Activity	Studio
	A16	**10-22**	**10-23**	Orthographic and Isometric Drawing Activity	Studio
10	A17	**10-27**	**10-28**	Orthographic and Isometric Drawing Activity	Studio
	A18	**10-29**	**10-30**	Orthographic and Isometric Drawing Activity	Studio
11	A19	**11-3** [3]	**11-4** [1]	Engineering Design [Ch 12]; Project Management [Ch 11]	See Notes
	A20	**11-5**	**11-6**	Reverse Engineering Project	Studio
12	A21	**11-10**	**11-11**	Reverse Engineering Project	Studio
	A22	**11-12**	**11-13**	Reverse Engineering Project	Studio
13	A23	**11-17**	**11-18**	Reverse Engineering Project	Studio
	A24	**11-19**	**11-20**	Reverse Engineering Project	Studio
14		**11-24**	**11-25**	**No Class – Fall Break**	
		11-26	**11-27**	**No Class – Thanksgiving**	
15	A25	**12-1**	**12-2**	Reverse Engineering Project	Studio
	A26	**12-3** [3]	**12-4** [2]	**Ethics [Ch 16]**	See Notes
16		**12-8**	**12-9**	**No Class – Exam 2 on Monday, Dec. 7 at 7pm**	HH 2.402
		12-10	**12-11**	**No Class – Classes End**	
17				No Final Exam	

Notes:
Exam 1 covers Chapters 7, 9, 10, 13 and Appendices A, B, C.
Exam 2 covers Chapters 8, 11, 12.
(**) column indicates the label used for attendance in eLearning gradebook. A value of 0 indicates a missed class.
See "Grading Policy" section if you need to appeal any grade.

[1] Section 001 meets in ECSS 2.415. Section 003 meets in JSOM 2.803.
[2] Section 001 meets in JSOM 2.802. Section 003 meets in JSOM 2.903.
[3] Section 002 meets in ATC 2.302. Section 501 meets in ATC 2.302.

Important Dates

Classes begin:	August 24
Labor Day:	September 7
Last day to drop without "W":	September 9
Last day to drop with "W":	October 29
Fall break (no classes):	November 23-25
Last day of classes:	December 9
Finals week:	December 11-17

Grading Policy

[**10%**] **Class Attendance**: You are required to attend all class sessions. Your attendance grade will be determined as follows:

4 or fewer absences receive full 10% attendance credit
5-8 absences receive 0% attendance credit
9 or more absences will result in a grade of **F** in MECH 1100

Being 10-minutes late or leaving before class has ended will result in an absence for that class session. Proper documentation must be provided for excused absences (such as a doctor's note).

[**40%**] **Exams**: There will be two exams each worth 20%. Make-up exams will only be allowed for the cases of illness, attendance of a university sponsored event (such as an athletic activity) or under unusual circumstances (such as the death of a friend or family member). For each case, you are required to provide proper documentation (such as doctor's note or note from athletic advisor).

[**50%**] **Homework Assignments and In-Class Activities**: Unless otherwise stated, homework assignments and deliverables for in-class activities will be submitted in eLearning. ***No late homework assignments or in-class activities will be accepted without proper documentation - no exceptions***.

You have five business days to appeal any grade or absence (contact the instructor or TA during office hours). The five days will be counted starting from the day the assignment or exam is returned.

Your final grade will be rounded to the nearest whole number and the final letter grade will be assigned based on the following ranges:

	Plus (+)		**Minus (-)**
A	100 - 97	96 - 93	92 - 90
B	89 - 87	86 - 83	82 - 80
C	79 - 77	76 - 73	72 - 70
D	69 - 67	66 - 63	62 - 60
F		59 and below	

Course & Instructor Policies

Email must be sent from your UTD email account to the UTD email address of the instructor or TA. Please allow 24-36 hours for a response during the week. Please format your emails professionally before sending: (i) address the recipient appropriately (e.g., “Prof. Rios”, “Dr. Rios”, or “Dear Dr. Rios”), (ii) use correct grammar, capitalization, and sentence structure, and (iii) add sufficient closing (e.g., “Best regards”, or “Best wishes”).

Throughout the semester, the instructor will have intermittent, unavoidable professional travel commitments. On these days, the instructor will provide advance notice and class will be canceled or taught by a TA.

The use of laptop computers, tablets, cell phones, or other electronic devices are ***not*** allowed during lectures or exams. The use of laptops is encouraged during studio sessions.

The rules for exams are as follows:

- Only a pencil and eraser is allowed. Other materials such as books, notes, electronic devices and backpacks must be placed under your chair. You may not open your bag inside the room once the exam has begun.
- If late to an exam, remove pencil from your bag before entering the room. Quietly enter the room and wait for further instructions.

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.

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.