

Oklahoma State University Institute of Technology
Online Common Syllabus
Fall 2017

CET 3533 ENGINEERING MATHEMATICS

Students learn and apply principles of upper level math and computer skills as they relate to civil engineering technology problems. Focus is placed on linear algebra, statistics and probability, and Excel computations and programming.

Course Purpose:

This class will prepare you to use Excel, statistics, and linear algebra. These are used in industry and prepare you for the Fundamentals of Engineering Test.

Type of Course: Theory

Credit Hours: 3; Total clock hours of theory per semester: 45;

Total clock hours of lab per semester: 0; Total clock hours of clinical per semester: 0.

Class Length: Full Semester

Class Format: Hybrid

Class Days and Times: *Hybrid on campus in class dates times are CST*

12:30-1:55 PM Wednesday Sept. 6, 2017-----12:30-1:55 PM Monday Sept. 15, 2017

12:30-1:55 PM Wednesday Nov. 11, 2017-----12:30-1:55 PM Wednesday Dec. 11, 2017

Prerequisites: *MATH 2144*

Instructor Name: *Adrian Lee*

Instructor Phone: (918) 293-5073 (office)

Office: *Bld 300 Rm 146*

Instructor email: adrian.lee@okstate.edu

Contact: My preferred method of contact is email. Please allow 24-48 hours to return your correspondence during the normal work week.

Instructor's Office Hours: *See chart at end of syllabus or by appointment*

Division Name: Engineering Technologies

Division's Main Phone: 918-293-5150

REQUIRED TEXT, REFERENCES, AND MATERIALS

Texts: *Excel Supplement, available only in the bookstore, Simnet Card
Statistics/Linear Algebra Supplement, Custom book available only in the
bookstore ISBN-10# 1308098723*

References: *N/A*

Materials: Engineering paper, Scientific Calculator, pens, notebook

Notebook, Pen or pencils. Computer, Internet

Uniform/Tools: *N/A*

Estimated Cost for Materials: \$50.00

Estimated Cost for Uniform/Tools: \$ N/A

Optional Resources: You will need Microsoft office 2013 available for free through the link in current students. If you already have office 2016 please advise as some things and menus have changed from the 2013 to the 2016 version.

Upon completion of the course, students should:

Course Objectives	Assessment of Objectives
Calculate the determinant of a matrix.	Homework, Exam*
Create spreadsheets in excel with formatting and formulas.	Class Activity
Write macros in excel	Homework
Measures of central tendencies and dispersions (e.g., mean, mode, standard deviation)	Homework
Estimation for a single mean (e.g., point, confidence intervals)	Homework
Regression and curve fitting	Homework
Expected value (weighted average) in decision making	Homework
Vector spaces	Homework
Matrix operations and inverses	Homework
Systems of linear equations	Homework

Aspects of the course objective assessments may be used in the university's assessment of student learning. If applicable, an asterisk (*) above indicates this course is used in the university assessment program.

COURSE ACTIVITIES

In this course students will:

- *Participate in class discussions and activities.*
- *View videos that depict the various concepts.*
- *Compile a portfolio of work produced.*
- *Take examinations.*
- *Complete reading assignments.*
- *Complete quizzes and homework assignments.*
- *Use D2L to view assignments and grades.*
- *Use SIMNET to complete assignments.*

EVALUATION - GRADES WILL BE BASED ON THE QUALITY AND COMPLETION OF THESE TASKS: (NOTE- Please indicate the course-specific evaluations. List assignment(s) used in the university's assessment of student learning as separate line items and marked with an asterisk.)

Excel Homework and Quizzes....	30%
Statistics Homework.....	20%
Statistics Test.....	10%
Linear Algebra Homework.....	20%
Linear Algebra Test*.....	10%
Notebook.....	10%

OSUIT Grading Scale
A = 90%-100%
B = 80%-89%
C = 70%-79%
D = 60%-69%
F = 59% & below

*The student's grade for this assignment will be used in the university's assessment of student learning. A 70% competency or higher receives a Pass rating. This Pass/Fail rating is independent of the student's course grade.

Daily and/or weekly quizzes, small weekly assignments and similar type projects: Normal return time to student by next class meeting or no later than one (1) week.

Extensive assignments, large lab projects, extensive quizzes, exams and similar type projects: Normal return time to students in one (1) to two (2) weeks.

RECOMMENDED STUDENT COMPETENCIES/SKILLS

List any competencies/skills recommended for student success in the course, e.g., reading placement level, PowerPoint, etc.

AUTHORIZED TOOLS

Scientific and/or graphing calculator, textbook and notebook
Students may use any/all course materials, including books and notes, while participating in classroom activities and homework. All quizzes and exams are to be completed independently with no access to any tools other than a calculator; no collaboration with classmates is permitted and any instance of such will be considered academic dishonesty. Unauthorized collaboration on homework is also prohibited.

LATE WORK

A tentative course schedule is provided with this syllabus. **Homework will be dropboxed** and is due by the specified time as listed. Quizzes will online with set dates. It is important that you manage your time to stay on track with the class. Should you be sick or have an excused absence you **MUST** contact the instructor or make arrangements before the class period begins on that day. Excused absences include but are not limited to: participating in a required university activity such as a field trip, fulfilling a military obligations, mandatory court appearances, death in the immediate family, extreme illness or accident to oneself or immediate family. Instructors, at their discretion, may require proof of such events. Emails, texts, and phone messages will be time stamped. If you let me know you will be absent the work due that day is to be made up the next day that you attend class. Otherwise, **LATE WORK IS NOT ACCEPTED.**

TESTING

All tests are closed book and closed notes. Test will be performed on campus on the assigned dates. Tests may not be made up on other days and any missed exams will receive a zero grade. ****In addition to the final, I offer an optional exam at the end of the semester. This is the only comprehensive exam and serves several purposes. This will be a replacement for any missed unit exam. Also, should a student be unhappy with any unit exam or the final exam, you may take the optional exam to replace a lower grade. This option will NEVER hurt or lower your grade. This is only an option to help you. Should your optional exam grade not help your overall score it will not be used.**

OTHER LAB AND CLASSROOM POLICIES

N/A

ONLINE COURSE INTERACTION

OSUIT requires all online courses to include interaction between students, peers and instructors. Our online courses use a variety of tools to build a community of learners and strengthen engagement between students and their peers, as well as between students and the instructor. Communication tools used in courses may include Discussion, News, and Email. Read the syllabus completely to determine which of these methods you, your classmates and your instructor will use for interaction.

General guidelines for student conduct while interacting within an online course include: (1) Use proper language in all communications; (2) Harassment of any type will not be tolerated; (3) No jokes, insults or threats of an offensive nature.

For more information, go to: <http://osuit.edu/center/netiquette>

SYLLABUS ATTACHMENT

View the Syllabus Attachment, which contains other important information, by visiting http://osuit.edu/center/student_syllabus_information

ADRIAN LEE

FALL 2017

	7:30	8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30	12:00	12:30	1:00	1:30	2:00	2:30	3:00	3:30	4:00	4:30
M			OFFICE HOURS	OFFICE HOURS	OFFICE HOURS				LUNCH		ENGINEERING MATH (CET 3533) ONLINE			OFFICE HOURS					
T			STATICS (CET 2323) DWRC 226		OFFICE HOURS				LUNCH		STEEL (CET 3213) DWRC 153			CONCRETE (CET4213) DWRC 153					
W			OFFICE HOURS	OFFICE HOURS	OFFICE HOURS				LUNCH		ENGINEERING MATH (CET 3533) ONLINE			OFFICE HOURS					
R			STATICS (CET 2323) DWRC 226		OFFICE HOURS				LUNCH		STEEL (CET 3213) DWRC 153			CONCRETE (CET4213) DWRC 153					
F			OFFICE HOURS	OFFICE HOURS	OFFICE HOURS				LUNCH										

DATE	DATE	ENGINEERING MATH	Assignments	Assignment Due
Week 1	Monday, September 04, 2017			
	Wednesday, September 06, 2017	Syllabus, Intro to Excel - Ch 1 must be in class Reynolds Bldg Room 153	Syllabus homework Independent Project 1-5, Independent Project 1-6 ON CAMPUS	
	Sunday, September 10, 2017			HOME WORK DUE WEEK 1
Week 2	Monday, September 11, 2017	Excel Ch 2	Guided Project 2-2, Independent Project 2-5 ON CAMPUS	
	Wednesday, September 13, 2017	Excel - Ch 3	Guided Project 3-3, Independent Project 3-4	
	Sunday, September 17, 2017			HOME WORK DUE WEEK 2
Week 3	Monday, September 18, 2017	Excel Ch 4	Independent Project 4-4, Independent Project 4-5	
	Wednesday, September 20, 2017	Excel Ch 5	Independent Project 5-4, Independent Project 5-5	
	Sunday, September 24, 2017			HOME WORK DUE WEEK 3
Week 4	Monday, September 25, 2017	Excel Ch 6	Independent Project 6-4, Independent Project 6-5	
	Wednesday, September 27, 2017	Excel Ch 7	Independent Project 7-4, Independent Project 7-5	
	Sunday, October 01, 2017			HOME WORK DUE WEEK 4
Week 5	Monday, October 02, 2017	Excel Ch 9	Guided project 9-3, Independent Project 9-6	
	Wednesday, October 04, 2017			
	Sunday, October 08, 2017			HOME WORK DUE WEEK 5
Week 6	Monday, October 09, 2017	Statistics Ch 1	In Section 1.2 - #10, 12	
	Wednesday, October 11, 2017	Statistics Ch 2	In Section 2.2 - #8a,b and Section 2.3 - #1	
	Sunday, October 15, 2017			HOME WORK DUE WEEK 6
Week 7	Monday, October 16, 2017	Statistics Ch 3	In Section 3.1 - #7 and Section 3.2 - #3	
	Wednesday, October 18, 2017	Statistics Ch 4	In Section 4.1 - #7, Section 4.2 - #5, Section 4.3 - #1, and Section 4.8 - #5 (bonus)	
	Sunday, October 22, 2017			HOME WORK DUE WEEK 7
Week 8	Monday, October 23, 2017	Statistics Ch 5	In Section 5.2 - #9, Section 5.4 - #1, Section 5.5 - #1a	
	Wednesday, October 25, 2017	Statistics Ch 6	In Section 6.1 - #5, Section 6.2 - #1, Section 6.4 - #3	
	Sunday, October 29, 2017			HOME WORK DUE WEEK 8
Week 9	Monday, October 30, 2017	Statistics Ch 8	In Section 8.1 - #7a, b (use excel)	
	Wednesday, November 01, 2017	Statistics Review		
	Sunday, November 05, 2017			HOME WORK DUE WEEK 9
Week 10	Monday, November 06, 2017	Statistics Test	On Campus Test	
	Wednesday, November 08, 2017	Linear Algebra Ch 1	Section 1.1 #9a	
	Sunday, November 12, 2017			HOME WORK DUE WEEK 10

Week 11	Monday, November 13, 2017	Linear Algebra Ch 2	Section 2.1 #2a, 3c, 4a, Section 2.2 #1a	
	Wednesday, November 15, 2017	Linear Algebra Ch 2	Section 2.3 #1a, 1g, Section 2.4 #2a, 2f	
	Friday, November 17, 2017	LAST DAY TO DROP WITH A "W"		
	Sunday, November 19, 2017			HOME WORK DUE WEEK 11
Week 12	Monday, November 20, 2017	Linear Algebra Ch 3	Section 3.1 #1g, Section 3.2 #1a	
	Wednesday, November 22, 2017	NO CLASS FALL BREAK		
	Sunday, November 26, 2017	NO CLASS FALL BREAK		
Week 13	Monday, November 27, 2017	Linear Algebra Ch 4	Section 4.1 #1a, 1e, Section 4.2 #13a, 13c	
	Wednesday, November 29, 2017			
	Sunday, December 03, 2017			HOME WORK DUE WEEK 12 & 13
Week 14	Monday, December 04, 2017			
	Wednesday, December 06, 2017	Linear Algebra Review		
	Sunday, December 10, 2017			
Week 15	Monday, December 11, 2017	Linear Algebra Test	On Campus Test	
	Wednesday, December 13, 2017			
	Friday, December 15, 2017	GRADUATION		

Schedule is subject to change at instructor discretion.