<u>**Oklahoma State University Institute of Technology**</u>
<u>**Face-to-Face Common Syllabus**</u>
Summer 2017

<u>**CET 3533 ENGINEERING MATHEMATICS**</u>
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.

Type of course: *Theory*
Credit Hours: 3; Total hours of theory per semester: 45;
Total hours of lab for the semester: 0; Total hours of clinical per semester: 0.
Class length - *Full Semester*
Class days and times: *TR 9:00 – 10:25pm (CST)*
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: *MWF 8:30-9:15am, TR 12:30-3:30pm or by appointment*

<u>**Division Name: Engineering Technologies**</u>   <u>**Division's Main Phone:**</u> 918-293-5150

<u>**REQUIRED TEXT, REFERENCES, AND MATERIALS**</u>

Texts:	*Excel Supplement,* Custom book available only in the bookstore
	Approx. $85
	Statistics/Linear Algebra Supplement, Custom book available only in the bookstore
	Approx. $135

References:	None
Materials:	Engineering paper, Scientific Calculator, pens, notebook
	Notebook, Pen or pencils.
<u>**Uniform/Tools:**</u>	NA

Estimated Cost for Materials: $50.00
Estimated Cost for Uniform/Tools: $ 0.00

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:

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.

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 before the start of class and hard copies** are due at the beginning of class as assigned unless otherwise noted. Quizzes will take place at the beginning of class when they occur unless noted otherwise. It is important that you plan to attend every scheduled 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. 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.

UNIVERSITY & COURSE EXPECTATIONS
It is the responsibility of each OSUIT student to read, abide by and maintain a copy of the syllabus for this course. Syllabi are available on the OSUIT website.

Students understand that excerpts or portions of their work may be utilized for institutional assessment purposes. The purpose of institutional assessment is for verification of student learning and program improvement. Every effort will be made to keep this information confidential.

AMERICANS WITH DISABILITIES ACT (ADA)

According to the Americans with Disabilities Act, each student with a disability is responsible for notifying the University of his/her disability and requesting accommodations. If you think you have a qualified disability and need special accommodations, you should notify the instructor and request verification of eligibility for accommodations from the Office of Academic Accommodations/LASSO Center. Please advise the instructor of your disability as soon as possible, and contact The LASSO Center, to ensure timely implementation of appropriate accommodations. Faculty have an obligation to respond when they receive official notice of a disability but are under no obligation to provide retroactive accommodations. To receive services, you must submit appropriate documentation and complete an intake process during which the existence of a qualified disability is verified and reasonable accommodations are identified. The LASSO Center is located on the 3rd floor of the Noble Center. You may call 918.293.4855 for more information or fax documentation to 918.293.4853.

ACADEMIC DISHONESTY

Academic dishonesty or misconduct is neither condoned nor tolerated at OSUIT. Any student found guilty of academic dishonesty or misconduct shall be subject to disciplinary action. Academic dishonesty and/or misconduct includes, but is not limited to, the following actions: (1) Plagiarism: the representation of previously written, published, or creative work as one's own; (2) Unauthorized collaboration on projects; (3) Cheating on examinations; (4) Unauthorized advance access to exams; (5) Fraudulent alteration of academic materials; (6) Knowing cooperation with another person in an academically dishonest undertaking. Students are required to actively protect their work against misuse by others. For details, refer to The OSUIT Student Handbook (Student Rights and Responsibilities Governing Student Behavior) available online at http://www.osuit.edu/academics/forms/student_rights_responsibility.pdf.

ATTENDANCE POLICY FOR FACE-TO-FACE COURSES

A primary component of OSUIT's Mission is "to prepare and sustain a diverse student body as competitive members of a world-class workforce." Regular and consistent attendance not only aids in academic success, dependable attendance is a requirement in today's real-world employment; therefore, regular and consistent attendance is a requirement in all OSUIT courses.

Definitions: Absent: Failing to attend all or a significant portion of a class or lab session.

A. Students may not be marked as absent if missing class for situations such as, but not limited to
1. participating in a required university activity such as a field trip;
2. fulfilling a military obligation;
3. a mandatory court appearance;
4. death in the immediate family;
5. extreme illness or accident to oneself or immediate family. Instructors, at their discretion, may require proof of such events.

B. It is the responsibility of the student to contact and inform the instructor and/or department in advance of such excused absences whenever possible.

Tardy: Arriving late to class as defined by the individual class instructor. Faculty, at their discretion, may equate three tardies to equal one absence.

Procedures:

Early Intervention

A. Any student who misses 10% of an individual course (or earlier at faculty discretion) during a regular fifteen-week semester, or the equivalent portion of time in a shorter session, will have their name submitted by that course instructor to the OSUIT Early Alert System for retention intervention.

B. At the point the Early Alert is issued, the student *must* meet with their assigned faculty advisor or designated faculty/staff member within seven (7) academic calendar days for counseling on how to improve their attendance and academic success.

Excessive Absences

A. The University reserves the right to administratively withdraw any student from an individual course who misses 20% of that course, whether excused or unexcused, and, in the opinion of the instructor, the student does not have a reasonable opportunity to be successful in the course.

B. Students should be aware any of the following may impact their financial aid:
   1. being administratively withdrawn from a course
   2. dropping a course
   3. their last date of attendance in a course

Please see OSUIT Policy 2-021 for full details and procedures.

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I have read and understand this syllabus, and agree to abide by the policies, procedures and guidelines specified therein.

_____ **_____**

Printed Name   **Student ID Number (this is not your SSN)**

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Student Assessment Release

I agree that Oklahoma State University Institute of Technology may excerpt some of my work to be utilized for institutional assessment purposes. The purpose of institutional assessment is for verification of student learning and program improvement. I recognize that every effort will be made to keep this information confidential and that my name will not be associated with my work.

_____   _____
Printed Name   Student ID Number (this is not your SSN)

_____   _____
Signature   Date

Name:_____

       (2 points each)
1.   What percentage are the quizzes worth?

2.   What percentage is the final worth?

3.   If you will be absent on quiz/test days what must you do?

4. In case of emergencies or if the instructor needs to contact you, the best email address AND phone numbers are:

Email:_____

Phone:_____

5. By signing the line below I agree that I have read and completely understand the syllabus provided.

_____

	ENGINEERING MATH	Assignment
Tuesday, May 09, 2017	Intro to Excel - Ch 1	Syllabus homework Independent Project 1-5, Independent Project 1-6 - due 5/16
Thursday, May 11, 2017	ADVISORY MEETING NO CLASS	
Tuesday, May 16, 2017	Excel Ch 2	Guided Project 2-2, Independent Project 2-5 - due 5/18
Thursday, May 18, 2017	Excel - Ch 3	Guided Project 3-3, Independent Project 3-4, due 5/23
Tuesday, May 23, 2017	Excel Ch 4	Independent Project 4-4, Independent Project 4-5,due 5/25
Thursday, May 25, 2017	Excel Ch 5	Independent Project 5-4, Independent Project 5-5, due 5/30
Tuesday, May 30, 2017	Excel Ch 6	Independent Project 6-4, Independent Project 6-5, due 6/1
Thursday, June 01, 2017	Excel Ch 7	Independent Project 7-4, Independent Project 7-5, due 6/6
Tuesday, June 06, 2017	Excel Ch 9	Guided project 9-3, Independent Project 9-6, due 6/8
Thursday, June 08, 2017	Statistics Ch 1	In Section 1.2 - #10, 12 - due by 6/13
Tuesday, June 13, 2017	Statistics Ch 2	In Section 2.2 - #8a,b and Section 2.3 - #1 - due 6/15
Thursday, June 15, 2017	Statistics Ch 3	In Section 3.1 - #7 and Section 3.2 - #3 - due 6/20
Tuesday, June 20, 2017	Statistics Ch 4	In Section 4.1 - #7, Section 4.2 - #5, Section 4.3 - #1, and Section 4.8 - #5 (bonus) - due 6/22
Thursday, June 22, 2017	Statistics Ch 5	In Section 5.2 - #9, Section 5.4 - #1, Section 5.5 - #1a due 7/11
Tuesday, June 27, 2017	No Class - Summer Break	
Thursday, June 29, 2017	No Class - Summer Break	
Tuesday, July 04, 2017	No Class - Summer Break	
Thursday, July 06, 2017	No Class - Summer Break	
Tuesday, July 11, 2017	Statistics Ch 6	In Section 6.1 - #5, Section 6.2 - #1, Section 6.4 - #3 due 7/13
Thursday, July 13, 2017	Statistics Ch 8	In Section 8.1 - #7a, b (use excel) - due 7/12 End of Class
Tuesday, July 18, 2017	Statistics	
Thursday, July 20, 2017	Statistics Review	
Tuesday, July 25, 2017	Statistics Test	
Thursday, July 27, 2017	Linear Algebra Ch 1	Section 1.1 #9a - due 8/1
Tuesday, August 01, 2017	Linear Algebra Ch 2	Section 2.1 #2a, 3c, 4a, Section 2.2 #1a due 8/3
Thursday, August 03, 2017	Linear Algebra Ch 2	Section 2.3 #1a, 1g, Section 2.4 #2a, 2f - due 8/8
Tuesday, August 08, 2017	Linear Algebra Ch 3	Section 3.1 #1g, Section 3.2 #1a - due 8/10
Thursday, August 10, 2017	Linear Algebra Ch 4	Section 4.1 #1a, 1e, Section 4.2 #13a, 13c - due 8/10 End of Class
Tuesday, August 15, 2017	Linear Algebra Review	
Thursday, August 17, 2017	Linear Algebra Test	
Tuesday, August 22, 2017		
Thursday, August 24, 2017		
Friday, August 25, 2017	GRADUATION	

Schedule is subject to change at instructor discretion.