

Oklahoma State University Institute of Technology
Face-to-Face Common Syllabus
 Summer 2017

CET 3113 – STRUCTURAL ANALYSIS

Students learn and apply concepts of stress, strain and deformation of bodies in tension, compression, shear, bearing and torsion. This course includes the study of basic analysis and design of columns, beams, cables and arches, as well as lateral loads and slope/deflection theory.

Type of course: *Theory*

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

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

Class length - Full Semester

Class days and times: *MW 2:00 – 3:25pm CST*

Prerequisites: CET 2113, Math 2144.

Instructor Name: Adrian Lee

Instructor Phone: (918) 293-5073

Office: Bld 300 Rm 146

Instructor email: adrian.lee@okstate.edu

Instructor's Office Hours: *MWF 8:30-9:15am, TR 12:30-3:30pm or by appointment.*

Division Name: Engineering Technologies

Division Phone: (918) 293-5150

REQUIRED TEXT, REFERENCES, AND MATERIALS

Texts: *Structural Analysis Supplement, Custom book available only in the bookstore* Approx.\$135

References: None

Materials: Ampad Engineer's Computation Pad, Scientific Calculator, Notebook, Pen or pencils.

Uniform/Tools: None

Estimated Cost for Materials: \$ 25.00

Estimated Cost for Uniform/Tools: None

Upon completion of the course, students should:

Course Objectives	Assessment of Objectives
Calculate various types of loads	Quiz, Homework
Find forces in cables and arches	Quiz, Homework
Draw influence lines	Quiz, Homework
Solve statically indeterminate problems	Quiz, Homework
Specify the appropriate method to solve statically indeterminate problem	Quiz, Exam*

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.*

EVALUATION - GRADES WILL BE BASED ON THE QUALITY AND COMPLETION OF THESE TASKS:

Class Quizzes.....20%
Homework.....20%
Class Activities...10%
Unit Exams..... 30%
Final Exam..... *15%
Notebook.....5%
Optional Exam....**

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.

**Optional Exam is a comprehensive replacement test. This exam is to replace the lowest exam throughout the semester. This test will only replace a previous test if scored higher, it does not count if a worse grade is achieved on this test.

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](tel:918.293.4855) for more information or fax documentation to [918.293.4853](tel: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

MW Classes		
DATE	STRUCTURAL ANALYSIS	
Monday, May 08, 2017	Syllabus review, and quiz	
Wednesday, May 10, 2017	ch2 tributary areas and loads/ wind and seismic loads	Ch 2 - 6, 10, 17
Monday, May 15, 2017	ch2 quiz	
Wednesday, May 17, 2017	ch2 homework due	
Monday, May 22, 2017	ch 6/7 cables and arches	P6.4 and P7.1 (6.1 and 7.14 are bonus)
Wednesday, May 24, 2017	ch 6/7 quiz	
Monday, May 29, 2017	ch 6/7 homework due	
Wednesday, May 31, 2017	ch 6/7 - review	
Monday, June 05, 2017		
Wednesday, June 07, 2017	Midterm Test	
Monday, June 12, 2017	ch 8 influence lines	P8.3, 8.11, 8.13
Wednesday, June 14, 2017	ch 8 quiz	
Monday, June 19, 2017	ch 8	
Wednesday, June 21, 2017	ch 8 homework due	
Monday, June 26, 2017	No Class - Summer Break	
Wednesday, June 28, 2017	No Class - Summer Break	
Friday, June 30, 2017	No Class - Summer Break	
Monday, July 03, 2017	No Class - Summer Break	
Wednesday, July 05, 2017	No Class - Summer Break	
Friday, July 07, 2017	No Class - Summer Break	
Monday, July 10, 2017	ch 9a Slope/Deflection Double Integration	P9.10a by Double Integration, 9.8 by Conjugate Beam, 9.15 by Moment Area.
Wednesday, July 12, 2017	ch 9a Quiz, ch 9b Slope/Deflection Conjugate Beam	
Monday, July 17, 2017	ch 9b Quiz, ch 9c Slope/Deflection Moment Area	
Wednesday, July 19, 2017	ch 9c Quiz	
Monday, July 24, 2017	ch9 homework due	
Wednesday, July 26, 2017	ch 13 Moment Distribution	P13.1, 13.7 **Find reactions for both problems but don't draw shear/moment diagrams.
Monday, July 31, 2017	ch 13 quiz	
Wednesday, August 02, 2017	ch 13 homework due	
Monday, August 07, 2017		
Wednesday, August 09, 2017	review	
Monday, August 14, 2017	Final Test	
Wednesday, August 16, 2017		
Monday, August 21, 2017	opt. test	
Wednesday, August 23, 2017		
Friday, August 25, 2017	Graduation	

Schedule is subject to change at instructor discretion.