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

CET 4213 RE-ENFORCED CONCRETE DESIGN

Students learn and apply their knowledge of principles of reinforced concrete to analyze and design structural members with various types of forces.

Course Purpose:
This class shows you how concrete is used in the civil engineering world and how to design/mix concrete and run various test on concrete to calculate its strength.

Type of course: *Theory/Lab*
Credit Hours: 3; Total hours of theory per semester: 45;
Total hours of lab for the semester: 15; Total hours of clinical per semester: 0.
Class length - *Full Semester*
Class days and times: *TR 2:00 – 4:25pm times are CST*
Prerequisites: *CET 3113*

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*

School Name: School of Engineering Technologies **Division's Main Phone:** 918-293-5150

REQUIRED TEXT, REFERENCES, AND MATERIALS

Texts:	*Reinforced Concrete Design*, 8th edition, Aghayere/Limbrunner, Pearson, 2014, ISBN # 9780132859295	Approx.	$189.20
References:	ACI 318-11 Concrete Code (see Instructor)	Approx.	$80.00
	ASTM References		$10.00
Materials:	Engineering paper, Scientific Calculator, Notebook, Pen or pencils.		
Uniform/Tools:	None		
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
Design and evaluate a concrete footing for given loads.	Homework, Exam*
Specify appropriate ASTM standard details for a various test.	Lab
Produce the compressive strength of concrete based on ASTM standards.	Lab
Create a project presentation using computer software.	Project
Design and/or analyze a concrete beam for flexure and shear	Homework
Specify the correct amount of rebar needed in a concrete slab.	Homework
Design an efficient and effective column for a given load.	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 assignment is used in the university assessment program.

(Please asterisk the assignment above if utilized for the assessment assignment.)

COURSE ACTIVITIES

In this course students will:
(Please list the specific activities in the course)

- *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: *(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.)*

Homework..... 20%
Quizzes……20%
Midterm..... 15%
Final…….15%
Lab ……..10%
Class Project and
Presentation…….10%
Class Notebook...10%
Total……100%

OSUIT
Grading Scale

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

Optional Exam….**
*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. ** See testing

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 are to be completed with no references; exams will be open ACI code and textbook only 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

Tests will be open ACI code and textbook but closed notes. **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

(*Indicate any rules/guidelines for your course.)*

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	Concrete	Assignments	**Assignment Due**
Week 1	Tuesday, Sept. 05, 2017			
	Thursday, Sept. 07, 2017	Ch 1 - Intro and Mix Design	Ch 1 – 2, 4, 10	
Week 2	Tuesday, Sept. 12, 2017	Ch 1 - Mechanics		
	Thursday, Sept. 14, 2017	Ch 2 - Singly reinforced beams	*Ch 2 - 1a, 6, 8a, 21, 30*	**Ch 1 HW**
Week 3	Tuesday, Sept. 19, 2017	Ch 2 - Slabs		
	Thursday, Sept. 21, 2017	Ch 2 Quiz, Ch 3 - T beams	*Ch 3 – 6, 10, 18*	
Week 4	Tuesday, Sept. 26, 2017	Ch 3 - Doubly Reinforced Beams		**Ch 2 HW**
	Thursday, Sept. 28, 2017	Ch 3 Quiz, Ch 4 - Shear in Beams	Ch 4 – 1, 4, 10	
Week 5	Tuesday, Oct. 03, 2017	Ch 4 - Shear in Beams		**Ch 3 HW**
	Thursday, Oct. 05, 2017	Ch 4 Quiz		**Ch 4 HW EOC**
Week 6	Tuesday, Oct. 10, 2017	**Test Review, Get ASTM's**		
	Thursday, Oct. 12, 2017	**Test 1**		
Week 7	Tuesday, Oct. 17, 2017	Ch 5 - Development length, splices, Lab prep, ASTM's	*Ch 5 – 4, 7, 10*	
	Thursday, Oct. 19, 2017	Ch 5 Quiz, ASTM quiz, Mix design, Ch 7 - Serviceability		
Week 8	Tuesday, Oct. 24, 2017	mix day	Ch 7 – 1a, 3, 5	**Ch 5 HW**
	Thursday, Oct. 26, 2017	No Class		
Week 9	Tuesday, Oct. 31, 2017	Ch 7 – Serviceability, 7 day breaks Discuss Presentations		
	Thursday, Nov. 02, 2017	Ch 7 Quiz, Ch 8 - Walls	Ch 8 – 1 (use excel), 3, 6 (use enercalc)	
Week 10	Tuesday, Nov. 07, 2017	Ch 8 – Walls, 14 day breaks		**Ch 7 HW**
	Thursday, Nov. 09, 2017			
Week 11	Tuesday, Nov. 14, 2017			**Ch 8 HW**
	Thursday, Nov. 16, 2017	Ch 8 Quiz, Ch 9 – Columns quiz, 21 day break	*Ch 9 – 1, 4, 7*	
Week 12	Tuesday, Nov. 21, 2017	Ch 10 - Footings	Ch 10 – 4, 5 (use enercalc)	**Ch 9 HW**
	Thursday, Nov. 23, 2017	Ch 10 – Footings, 28 day breaks		
Week 13	Tuesday, Nov. 28, 2017			**Ch 10 HW EOC**
	Thursday, Nov. 30, 2017	Project Presentations		
Week 14	Tuesday, Dec. 05, 2017	Final Test Review		
	Thursday, Dec. 07, 2017	**Final Test**		
Week 15	Tuesday, Dec. 12, 2017	**Optional Exam**		
	Thursday, Dec. 14, 2017			
	Friday, Dec. 15, 2017	**Graduation**		
	All quizzes and homework are due at the beginning of class unless noted end of class (EOC) Schedule is subject to change at instructor discretion.			