

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

CET 2212 Transportation

Students learn and apply design components of modern roadway and other transportation systems.

Course Purpose:

The objective of this course is for students to gain a solid understanding of the principles of highway engineering and traffic analysis. The concepts introduced in this class will be enforced with practical problems based on real world situations.

Type of Course: Theory/Lab

Credit Hours: 2; Total clock hours of theory per semester: 30;

Total clock hours of lab per semester: 15; Total clock hours of clinical per semester: none.

Class Length: Full Semester

Class Days and Times: 8:30 am – 9:25 am MW

Prerequisites: MATH 1613 Trigonometry, SURV 2303 Surveying I

Instructor Name: Casey Campbell **Instructor Phone:** (918) 293-5263

Office: Hospitality Services (AKA Culinary Arts building on campus map), Rm. 14

Instructor Email: casey.campbell@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: Posted on office door.

School Name: Engineering Technologies

School Main Phone: (918) 293-5151

REQUIRED TEXT, REFERENCES, AND MATERIALS

Texts: Traffic Engineering 4th ED, Roess, Prassas, and McShane, Prentice Hall, 9780136135739

Cost: *Bookstore Price - \$223.70*

References: None

Materials: Scientific Calculator

HP 35s (Recommended) *Bookstore Price - \$60.00*

TI-30xa (Sufficient) *Bookstore Price - \$13.20*

External Data Storage Device *Bookstore Price - \$8.70*

Field Book *Bookstore Price - \$5.75*

Notebooks *Bookstore Price - \$3.05*

Engineers Scale *Bookstore Price - \$2.70*

Writing Utensils *Bookstore Price - \$0.95*

Uniform/Tools: None

Estimated Cost for Materials: \$ 81.15 (Recommended) / \$ 34.35 (Sufficient)

Estimated Cost for Uniform/Tools: \$ 0

Optional Resources: AutoCAD Civil 3D *Free Student Software Download*

Upon completion of the course, students should:

	Course Objectives	Assessment of Objectives	University Student / ABET Outcome Assessment
*	Use civil/surveying software to design superelevation;	Lab	University Outcome #1
*	Calculate the costs of borrow and overhaul represented by the mass diagram;	Exam	University Outcome #2
*	Demonstrate an understanding of horizontal and vertical curves as they pertain to alignment geometry;	Exam	University Outcome #4
*	Apply principles found in the MUTCD to various traffic control situations;	Lab	University Outcome #6
*	Identify the level of service for a highway based on AASHTO standards;	Exam	University Outcome #19
**	Applies mathematical principles to achieve analytical or numerical solution;	Homework	ABET Outcome b2
**	Identifies constraints on the design problem, and establishes criteria for acceptability and desirability of solutions;	Homework	ABET Outcome d1
**	An ability to identify, analyze, and solve broadly-defined engineering technology problems;	Homework	ABET Outcome f

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. If applicable, a double asterisk (**) above indicates this assignment is used in the ABET assessment of student learning in the Civil Engineering Technology Program.

COURSE ACTIVITIES

In this course students will:

- *Participate in class discussions and activities.*
- *View videos that depict the various concepts.*
- *Contribute to a course Service Learning project.*
- *Participate in group and individual presentations.*
- *Compile a portfolio of work produced.*
- *Take examinations.*
- *Complete reading assignments.*
- *May be required to do quizzes.*

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

Syllabus Quiz	1%
Quizzes	20%
Assignments	19%
Labs	20%
Mid Term Exam	20%
<u>Final Exam</u>	<u>20%</u>
Total	100%

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

AutoCAD Civil 3D, Microsoft Excel

AUTHORIZED TOOLS

All quizzes and written assignments are to be completed independently; no collaboration with classmates is permitted and any instance of such will be considered academic dishonesty.

LATE WORK

All assignments and Tests will have specific due dates and are expected to be completed and turned in before class time on that date. Students will be given ample time to complete all tasks before they are due. No late assignments or test will be accepted, any work turned in after it's designated due date WILL NOT be graded and result in a zero. There will be NO MAKEUP WORK offered for this course.

TESTING

Students should report to class on time to allow the maximum time for taking the exam. You will not receive additional time due to tardiness. You are not allowed to have additional resources out during exams and cell phones must be off and put away.

OTHER LAB AND CLASSROOM POLICIES

Emails: All emails sent to the instructor will require the course name, prefix, number and section number in the subject line (*Example.* SURV 1011 – Introduction to Surveying 60348). Emails without the required information will be sent back.

Assignments: All assignments require name, date, and assignment number if expected to be graded.

SYLLABUS ATTACHMENT

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

Course Schedule			
Course Outline Schedule	Topic	Assignment	Due Date
Week 1	Chapter 2 Minimum Radius & Stopping Sight Distance	Homework / Lab Work	Beginning Week 2
Week 2	Chapter 2 Application	Homework / Quiz	Beginning Week 3
Week 3	Chapter 3 Horizontal Curves	Homework / Lab Work	Beginning Week 4
Week 4	Chapter 3 Horizontal Curve Sight Distance	Homework / Quiz	Beginning Week 5
Week 5	Chapter 3 Vertical Curves	Homework / Lab Work	Beginning Week 6
Week 6	Chapter 3 Vertical Curve Sight Distance	Homework / Quiz	Beginning Week 7
Week 7	Review	Mid-Term Exam	End Week 7
Week 8	Chapter 3 Introduction to Superelevation	Homework / Lab Work	Beginning Week 9
Week 9	Chapter 3 Superelevation Calculations	Homework / Quiz	Beginning Week 10
Week 10	Chapter 4 Introduction to Traffic Control Devices	Homework / Lab Work	Beginning Week 11
Week 11	Chapter 5 Traffic Stream Characteristics	Homework / Quiz	Beginning Week 12
Week 12	Chapter 9 Volume Studies and Characteristics	Homework / Lab Work	Beginning Week 13
Week 13	Chapter 16 Two Lane Highways	Homework / Quiz	Beginning Week 14
Week 14	Review	Final Exam	End Week 14
Week 15	Finish Labs	Lab Work	End Week 15

Schedule is subject to change at instructor discretion.