



## CONE 441 Highway & Heavy Construction (Fall 2020)

: Highway planning, driver characteristics, geometric design, traffic flow and control, highway materials, pavement design, and how highways are constructed, maintained, and upgraded. Students will apply the knowledge of estimating and scheduling to heavy construction projects such as highways, bridges, approaches, pipelines, or related structures.

Prerequisites: CONE 321 and CONE 351.

**Instructor:** Ilseok “Eddie” Oh, Ph.D.  
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Texas A&M University – Commerce  
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**Office Hour:** “Virtual” office hours will be announced

**Lecture/Lab:** Web-based Class

**Required Text:** Traffic & Highway Engineering, Garber & Hoel, 5<sup>th</sup> Ed., Cengage Learning  
ISBN 9778-1-133-60515-7

### **Learning Outcomes:**

- Discuss the principles of traffic engineering
- Apply the fundamental principles of traffic flow and prepare intersection designs
- Develop geometric design of highway
- Design flexible/rigid pavement structures
- Develop construction execution strategies for heavy civil construction projects

### **Course Policies:**

- Course Requirements and Grades

Assignments & Quizzes	30%
Exam I	20%
Exam II	20%
Exam III	30%

- Grading

A	B	C	D	F
100 - 90	89 - 80	79 - 70	69 - 60	59 - 0

## Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook.

<http://www.tamuc.edu/admissions/registrar/documents/studentGuidebook.pdf>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: Netiquette <http://www.albion.com/netiquette/corerules.html>

## Academic Integrity

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

Undergraduate Academic Dishonesty 13.99.99.R0.03

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

Graduate Student Academic Dishonesty 13.99.99.R0.10

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf>

## ADA Statement

Students with Disabilities

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Texas A&M University-Commerce

Gee Library- Room 162

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

Email: [Rebecca.Tuerk@tamuc.edu](mailto:Rebecca.Tuerk@tamuc.edu)

Website: Office of Student Disability Resources and Services

<http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

## Nondiscrimination Notice

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

## Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the Carrying Concealed Handguns On Campus

document and/or consult your event organizer.

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

***“A&M-Commerce requires the use of face-coverings in all instructional and research classrooms/laboratories. Exceptions may be made by faculty where warranted. Faculty has management over their classrooms. Students not using face-coverings can be required to leave class. Repetitive refusal to comply can be reported to the Office of Students’ Rights and Responsibilities as a violation of the student Code of Conduct.”***

***“Students should not attend class when ill or after exposure to anyone with a communicable illness. Communicate such instances directly with your instructor. Faculty will work to support the student getting access to missed content or completing missed assignments.”***

**Class Topics & Schedule:**

<b>Week #</b>	<b>Week of</b>	<b>Course Topic</b>
1	24-Aug	The Profession of Transportation / Transportation Systems & Organizations
2	31-Aug	Characteristics of the Driver, the Pedestrian, the Bicyclist, the Vehicle, and the Road
3	7-Sep	Traffic Engineering Studies
4	14-Sep	Highway Safety / Principles of Traffic Flow
5	21-Sep	Intersection Design
6	28-Sep	Intersection Control / Capacity & Level of Service for Highway Segments
7	5-Oct	Capacity & Level of Service at Signalized Intersections
8	12-Oct	Exam I
9	19-Oct	Transportation Planning Process / Forecasting Travel Demand / Evaluating Transportation Alternatives
10	26-Oct	Highway Surveys & Location / Geometric Design of Highway Facilities
11	2-Nov	Highway Drainage
12	9-Nov	Soil Engineering for Highway Design / Materials for highway construction
13	16-Nov	Design of Flexible Pavements / Design of Rigid Pavements / Pavement Management
14	23-Nov	TGB
15	30-Nov	Exam II
16	7-Dec	Exam III