

CE 355 – PRINCIPLES OF TRANSPORTATION ENGINEERING

The purpose of this course is to provide students with a solid introduction to the principles of transportation engineering with a focus on highway engineering and traffic analysis. The material learned will provide the basic skill set that will allow students to solve transportation problems that are likely to appear in professional practice and on the Fundamentals of Engineering exam (FE) and the Principles and Practice of Engineering exam (PE). The material also serves as foundation for future coursework in transportation should students wish to pursue further coursework in the field.

Course website: <http://www.ctre.iastate.edu/educweb/ce355/> (Check regularly for updates!)

Tentative course schedule: Posted on the [Class Website](#)

Class Meeting Times/Place: Mon and Wed, 11:00 a.m.–11:50 a.m., Town Engr, Room 280

Instructors: Prof. Shashi Nambisan, Ph.D., P.E. Prof. Ed Kannel, Ph.D., P.E.

Office: 358 Town Engineering 380 Town Engineering

Office Hours: Monday 12:15 p.m. – 2:00 p.m., Tuesday 3:00 p.m. – 5:00 p.m.,
Tues 1:00 – 3:00 p.m., Wed: 2:00 – 4:00 p.m.; Fri 9:00 – 11:00 a.m.

Office Telephone: 515-294-5209 515-294-2861

E-mail (preferred contact): shashi@iastate.edu ekannel@iastate.edu

Grader: To be determined

Office hours: TBD.

Required Text: Fred Mannering, Walter Kilareski and Scott Washburn, "Principles of Highway Engineering and Traffic Analysis" Fourth Edition, John Wiley & Sons, 2009.

Additional References / Supplementary Materials: May be give as handouts or see [website](#).

Course Requirements:

1. *Prerequisites:* 111, 205, Phys 221, a course in statistics from the approved departmental list.
2. *Homework assignments.* The objective of these assignments is to assist in the learning of course material, so discussion of assignments among students is encouraged. There likely will be between 6 and 8 homework assignments. Each assignment will likely carry a different weight. You will have about 1 week to complete each assignment. **Assignments are due at the start of the class period on the day indicated, unless otherwise indicated by the instructor. Late assignments may be accepted and graded at the discretion of the instructor.**
3. *Reading assignments.* The objective of these assignments is to stimulate in-class discussion about real-world applications of the principles of transportation engineering. Students are expected to have reviewed the readings before the class discussion. Students also are encouraged to bring in news articles for discussion.
4. *Exams.* Two midterm exams and a final exam will be given.
5. *Quizzes* will be given upon the discretion of the instructor.

Grading policy:

In-class participation and quizzes	05%	
Homework assignments (6 to 8)	30%	
Mid-term exams 20% (each)	40%	
Final exam	25%	
	≥ 90.0% = A	≥ 70.0% = C
	≥ 86.7% = A-	no "C-" grade
	≥ 83.3% = B+	≥ 65.0% = D+
	≥ 80.0% = B	no "D-" grade
	≥ 76.7% = B-	≥ 60.0% = D
	≥ 73.3% = C+	< 60.0% = F

Policies

In order to earn a grade of “D” or better in the course, you need to satisfactorily complete all of the course requirements, and earn an aggregate score of at least 60 percent.

Academic Dishonesty

Academic dishonesty includes cheating and plagiarism. These include, but are not limited to, copying answers on tests or assignments / homework activities; plagiarism, that is appropriating another’s work as your own or using published work without giving proper credit; and having someone else conduct your academic work. Cheating includes copying from other students. You may work together on homework, labs, and projects (unless specifically told otherwise). However, the work submitted for assessment should be your own. Plagiarism includes taking information from books, journals, web pages, etc. without giving proper credit. Credit should be given to the appropriate source. **DO NOT CUT AND PASTE!** Proper referencing should be used such as citing the sources and using quotations when appropriate. This includes images taken from the web. You should provide the web address as a source.

Academic Dishonesty in any form is a violation of Iowa State University Student Disciplinary Regulations and constitutes failure to fulfill the requirements for the course. The first count of academic dishonesty will result in a failing grade for the assignment or test. A second count will result in a failing grade for the course. All instances of cheating will be referred to the Dean of Students Office. Additional information on ISU’s policy on academic dishonesty can be found in the 2009–2011 catalog (<http://www.public.iastate.edu/~catalog/2007-2009/policies.pdf>).

Incomplete Grades

Incompletes will only be considered for students who have completed approximately ¾ of the class work. If you are ill or have some emergency, please contact the instructors as soon as you can.

Accommodation of students with special needs / disabilities

Iowa State University complies with the American with Disabilities Act and Section 504 of the Rehabilitation Act.

Please address any special needs or special accommodations with the instructors at the beginning of the semester or as soon as you become aware of your needs. No retroactive accommodations will be provided in this class. Those seeking accommodations based on disabilities should contact the Student Disability Resource (SDR) office (phone 515-294-7220) to make arrangements to address your needs as related to the class. SDR is located on the main floor of the Student Services Building, Room 1076. Please request that a SDR staff member send to the lead instructor a completed Student Academic Accommodation Request (SAAR) form verifying your disability and specifying the accommodation you will need.

Keys to learning

- Attend class regularly and participate in discussions.
- Maintain notes from lecture/discussions and the readings.
- Read class notes and assigned materials.
- Submit homework assignments in a timely manner.
- Prepare for exams

No class during Thanksgiving Break (November 22, Monday and November 24, Wednesday).