

# CE361 Introduction to Transportation Engineering

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**Course Information**

Fall 2017

MWF 8:30-9:20AM

Room 2051 WALC

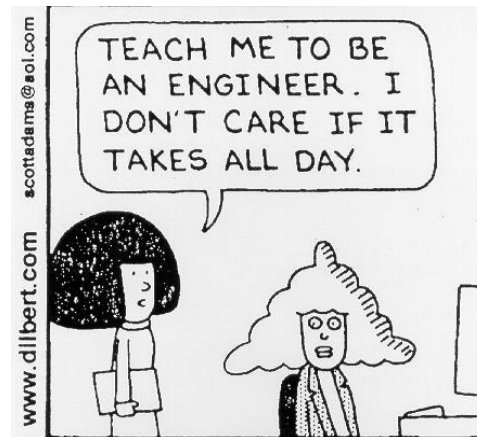
## Course Description

This course will introduce the student to the fundamentals of transportation engineering – from planning and design to operations. The multimodal nature of transportation will be demonstrated by studying non-highway modes. The relationship of transportation to other disciplines – even disciplines outside engineering – will become clear. Perhaps most important, the student will see how a transportation engineer can practice the profession in today's world.

## Prerequisites (if needed)

There are none, but it is helpful to have taken ...

- CE203 Principles & Practice of Geomatics
- Probability and Statistics
- Cash flow analysis



## Learning Outcomes

By the end of this course, the student will be able to...

1. Analyze transportation-related problems using methods that constitute standard practice.  
(While doing so, define and explain the most common terms and abbreviations used in transportation engineering.)
2. Identify, collect, and apply data to analyze transportation problems.
3. Explain the role of transportation in today's society and the community.

## Required Text

"Fundamentals of Transportation Engineering", by Jon D. Fricker and Robert K. Whitford, 5<sup>th</sup> printing of 2<sup>nd</sup> edition, available in University Bookstore. Beware of older versions still available online.

## Class Schedule

A schedule of classes, with topics, reading assignments, links to web pages for each class, and other information will be posted on Blackboard Learn. It is subject to change.

## Grading

The final grades in CE361 have been awarded on a curve so that the class composite "GPA" is approximately 3.00. If a class is

- A. (50%) Three tests. Each test will be based on the objectives of the lessons covered in the corresponding one-third of the course. The tests are not "cumulative", but the student is expected to retain basic concepts and terminology from earlier parts of the course.
  - i. Two 60-minute evening tests (15% each).
    - Test 1 6:30-7:30 PM on Wed. 27 September 2017 in Room 114 PHYS
    - Test 2 8:00-9:00 PM on Thu. 9 November 2017 in Room 114 PHYS
  - ii. 1.5-hour Test 3 during Week 16 (20%)
- b. (45%) Homework Assignments, Group Projects, and Quizzes.
  - ◆ All quizzes together will count as one HW.
  - ◆ Each homework assignment submitted by a group of students will count as one HW. HWs for which this is permissible (or required) will be clearly labeled as such.
  - ◆ If a Group Project will count as a double HW, it will be clearly labeled as such.
- c. (5%) Professionalism and Participation. This includes a student's conduct in class and the clarity with which that student's assignments are prepared.

## Course Requirements

- A. *Integrity or Academic Dishonesty.* The Student Code of Honor applies. See especially Part 5, Section III-B-1 of University Regulations. Students found to be violating these provisions can be (and have been) given a failing grade and reported to the Dean of Students. Another good source of guidance can be found at <https://www.purdue.edu/odos/academic-integrity/>. *Purdue prohibits "dishonesty in connection with any University activity. Cheating, plagiarism, or knowingly furnishing false information to the University are examples of dishonesty." [Part 5, Section III-B-2-a, Student Regulations] Furthermore, the University Senate has stipulated that "the commitment of acts of cheating, lying, and deceit in any of their diverse forms (such as the use of substitutes for taking examinations, the use of illegal cribs, plagiarism, and copying during examinations) is dishonest and must not be tolerated. Moreover, knowingly to aid and abet, directly or indirectly, other parties in committing dishonest acts is in itself dishonest." [University Senate Document 72-18, December 15, 1972]*
- B. *Attendance.* Arrange absences and anticipate problems in advance. Use phone or electronic mail to notify me. If you leave a telephone message, include your phone number. Although attendance is not taken, unexcused absences will be noted. Quizzes missed because of an unexcused absence will receive a score of zero. The University policy for attendance is shown below.

*Students are expected to be present for every meeting of the classes in which they are enrolled. Only the instructor can excuse a student from a course requirement or responsibility. When conflicts or absences can be anticipated, such as for many University sponsored activities and religious observations, the student should inform the instructor of the situation as far in advance as possible. For unanticipated or emergency absences when advance notification to an instructor is not possible, the student should contact the instructor as soon as possible by email, or by contacting the main office that offers the course. When the student is unable to make direct contact with the instructor and is unable to leave word with the instructor's department because of circumstances beyond the student's control, and in cases of bereavement, the student or the student's representative should contact the Office of the Dean of Students.*

The link to the complete policy and implications can be found at:

[http://www.purdue.edu/studentregulations/regulations\\_procedures/classes.html](http://www.purdue.edu/studentregulations/regulations_procedures/classes.html)

- C. *Class participation.* After the first week, I will call upon students and expect them to contribute, based on the reading assignment for that day (or previous days), so student participation is not optional.
- D. *Professionalism.*
- Clarity in written work: state assumptions, cite references, etc. This is especially important in work submitted to the "Mythaca County Engineer" or other hypothetical clients.
  - Because professionalism involves proper social behavior, baseball caps may not be worn in the CE361 classroom. Also keep your cell phones from ringing.



- E. *Preparedness.* Assignments must be submitted before the start of class on the due date. Ten percent of an assignment's full value will be deducted for each day that assignment is overdue. For example, a 50-point assignment loses 5 points per day. For homework assignments (cf. projects) submitted after graded assignments are returned to class or the solutions are posted, no points can be earned. Late submittals will be graded for your benefit, even after no points are possible.

## How to Succeed in This Course

It is difficult to get an "F" in CE361, but about one student per semester manages to do it. The best way to an "F" is to not submit written assignments, when homeworks are worth 45 percent of the course grade and homework grades tend to be high.

I am happy to answer questions – in class, by email or in my office -- about what is being covered in class or on assignments, but please do not ask them at the last minute. There

may be occasions in which I will not be able to answer your question by email immediately. Some questions are better handled in person rather than by email. See also "[Guidelines for Written Work](#)" and "[Initial HW Rubric for CE361](#)".

## Policies

### General Course Policies

See "Course Requirements" above.

### Use of Copyrighted Materials

If you use "secondary" information to help you complete an assignment, cite your source(s) in such a way that I will be able to retrieve them myself.

*Students are expected, within the context of the Regulations Governing Student Conduct and other applicable University policies, to act responsibly and ethically by applying the appropriate exception under the Copyright Act to the use of copyrighted works in their activities and studies. The University does not assume legal responsibility for violations of copyright law by students who are not employees of the University.*

*A Copyrightable Work created by any person subject to this policy primarily to express and preserve scholarship as evidence of academic advancement or academic accomplishment. Such works may include, but are not limited to, scholarly publications, journal articles, research bulletins, monographs, books, plays, poems, musical compositions and other works of artistic imagination, and works of students created in the course of their education, such as exams, projects, theses or dissertations, papers and articles.*

You may want to refer to the University Regulations on policies:

<http://www.purdue.edu/policies/academic-research-affairs/ia3.html>

### Grief Absence Policy for Students

*Purdue University recognizes that a time of bereavement is very difficult for a student. The University therefore provides the following rights to students facing the loss of a family member through the Grief Absence Policy for Students (GAPS). GAPS Policy: Students will be excused for funeral leave and given the opportunity to earn equivalent credit and to demonstrate evidence of meeting the learning outcomes for missed assignments or assessments in the event of the death of a member of the student's family.*

See the University's website for additional information:

[http://www.purdue.edu/studentregulations/regulations\\_procedures/classes.html](http://www.purdue.edu/studentregulations/regulations_procedures/classes.html)

### Violent Behavior Policy

*Purdue University is committed to providing a safe and secure campus environment for members of the university community. Purdue strives to create an educational environment for students and a work environment for employees that promote educational and career goals. Violent Behavior impedes such goals. Therefore, Violent Behavior is prohibited in or on any University Facility or while participating in any university activity.*

See the University's website for additional information:

<http://www.purdue.edu/policies/facilities-safety/iva3.html>

**Emergencies**

*In the event of a major campus emergency, course requirements, deadlines and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances beyond the instructor's control. Relevant changes to this course will be posted onto the course website or can be obtained by contacting the instructors or TAs via email or phone. You are expected to read your @purdue.edu email on a frequent basis.*

See the University's website for additional information:

[https://www.purdue.edu/ehps/emergency\\_preparedness/](https://www.purdue.edu/ehps/emergency_preparedness/)

**Accessibility and Accommodations**

Purdue University strives to make learning experiences as accessible as possible. If you anticipate or experience physical or academic barriers based on disability, you are welcome to let me know so that we can discuss options. You are also encouraged to contact the Disability Resource Center at: [drc@purdue.edu](mailto:drc@purdue.edu) or by phone: 765-494-1247.

**Nondiscrimination**

*Purdue University is committed to maintaining a community which recognizes and values the inherent worth and dignity of every person; fosters tolerance, sensitivity, understanding, and mutual respect among its members; and encourages each individual to strive to reach his or her own potential. In pursuit of its goal of academic excellence, the University seeks to develop and nurture diversity. The University believes that diversity among its many members strengthens the institution, stimulates creativity, promotes the exchange of ideas, and enriches campus life.*

*Purdue University prohibits discrimination against any member of the University community on the basis of race, religion, color, sex, age, national origin or ancestry, genetic information, marital status, parental status, sexual orientation, gender identity and expression, disability, or status as a veteran. The University will conduct its programs, services and activities consistent with applicable federal, state and local laws, regulations and orders and in conformance with the procedures and limitations as set forth in [Executive Memorandum No. D-1](#), which provides specific contractual rights and remedies. Any student who believes they have been discriminated against may visit [www.purdue.edu/report-hate](http://www.purdue.edu/report-hate) to submit a complaint to the Office of Institutional Equity. Information may be reported anonymously.*

You may want to refer students to Purdue's nondiscrimination statement:

[http://www.purdue.edu/purdue/ea\\_eou\\_statement.html](http://www.purdue.edu/purdue/ea_eou_statement.html)

**Disclaimer**

This syllabus is subject to change.