CE6470: TRANSPORT ECONOMICS & FINANCE
Spring 2016
Lectures: 11:00am-12:15pm T/Th, Wilsdorf Hall 101
Dr. T. Donna Chen

Office Hours
Wednesdays 1:00 to 4:00pm in Thornton D203
Or, by appointment: 924-6224 (Office phone number) & tdchen@virginia.edu

Course Description & Prerequisites
This course is intended to be a comprehensive introduction to transportation economic principles and analysis methods. The class will introduce basic economic theory of supply, demand, and pricing, as well as illustrate such concepts through transportation applications and case studies. We examine the costs and benefits of transportation systems, paying special attention to who wins and who loses in transportation finance.

There are no official prerequisites for this course, but students are expected to be very familiar with calculus and comfortable with many statistical concepts (e.g., general regression). A knowledge of basic transportation planning principles (pre- or co-enrollment in CE6410) is also useful.

Texts & Supplementary Readings
The bulk of material covered in this class comes from:


An electronic PDF version of this text is available through the class’s Collab website. Students can also purchase a physical copy at http://www.amazon.com/The-Economics-Transportation-Systems-Practitioners/dp/061571479X Class lecture notes and required supplementary readings will also be made available on the Collab website. Additional supplementary texts that students may wish to reference include:


Students with little or no background in economics may also wish to acquire a copy of:

Grading
For purposes of grading, the performance of students enrolled in this course will be assessed using the following scoring system:

- Class Participation & Discussion 10%
- Homework Assignments 20%
- In-Class Midterm (Tentatively 3/3) 25%
- Case Study/Paper Critique & Presentation 10%
- Research Paper (Including Prospectus & Final Presentation) 35%
- [Co-Teaching Extra Credit] [5%]

Class Participation & Discussion
Regular attendance and participation in class discussions is a vital part of critical understanding of course materials. Attending class and actively participating in discussions will both enhance your experience in the course and your grade.

Homeworks
Homework problem sets must be handed in at the beginning of the period in which they are due. After this time, they will be considered late and given no credit unless extenuating circumstances are documented.

In-Class Midterm
The midterm is tentatively scheduled for 3/3. No makeup exams are allowed unless extenuating circumstances are documented.

Case Study/Paper Critique
Each student is responsible for presenting a case study or a critique on a research paper pertaining to the various transportation economics topics outlined in the course. The choice of the case study and research paper is completely up to the student (instructor can make suggestions based on student interests). Students are expected to prepare a 15-20 minute PowerPoint to present to the class during the week which the topic is covered. The PowerPoint slides, along with a 1 to 2 page case study briefing/paper review, are due to the instructor by noon on Monday of the presenting week.

Research Paper
The course culminates in a mid-length research paper of the student’s choice, subject to approval of the instructor. In constructing your research paper, you should investigate and report on a specific transportation economics or finance question, ideally building upon your own expertise and the topics covered in the course.

- Paper Prospectus (5% of final grade, due in class 3/1)
  The paper prospectus serves as a proposal for review and approval by the instructor. The prospectus should include the question you expect to explore, a research plan of how you propose to gather the evidence (literature review, data, interviews, etc), and the expected methodology employed to explore the research question. The prospectus should include a preliminary bibliography and a proposed outline. The prospectus serves as a way for the instructor to give preliminary feedback on the final paper.
- In-Class Presentations (10% of final grade, 4/26, 4/28, 5/3)
Students will present the findings from the final paper in a 20-25 minute presentation during the last week of class.

- Final Research Paper (20% of final grade, electronic submittal due by noon on 5/7)  
  Your final paper should be roughly 5000 words (excluding abstract, references, and [where applicable] appendices).

**Co-Teaching Extra Credit**

The co-teaching extra credit offered in this class is designed to enrich the classroom experience by offering the student an opportunity to share his/her own area of expertise that falls under (or is related to) one of the topics discussed in the course. If you have research or professional experience (relevant to transportation economics) that is suitable for a minimum 30-minute lecture, please contact the instructor about scheduling a student guest half-lecture. If you have no previous research or professional experience, but are inspired by your case study/paper critique readings to dive even deeper into a topic with a 30-minute guest lecture (or 60-minute lecture in pairs), please also contact the instructor. The half-lecture is worth up to 5% extra credit on your final grade.

**(Tentative) Outline of Topics**

<table>
<thead>
<tr>
<th>Week of …</th>
<th>Topic</th>
</tr>
</thead>
</table>
| 1/21      | Class Introduction  
                      *Course Assessment Survey* |
| 1/26      | Demand for Transport |
| 2/2       | Quantifying Transportation Costs & Benefits  
                      *Homework 1 Assigned* |
| 2/9       | Pricing of Transportation Services |
| 2/16      | Project Evaluation Methods of Analysis  
                      *Homework 2 Assigned* |
| 2/23      | Movement and Location (Interactions with Land Use) |
| 3/1       | Movement and Location, Brief Exam Review  
                      *Paper Prospectus due 3/1*  
                      *Midterm 3/3* |
| 3/15      | Regulation and Competition in Transportation |
| 3/22      | Transportation Investment and Finance |
| 3/29      | Economic Impact Analysis  
                      *Homework 3 Assigned* |
| 4/5       | Advanced Statistical Methods for Economic Analysis  
                      *Homework 4 Assigned* |
| 4/12      | Contemporary Issues in Urban Transportation (Congestion Pricing, Equity,  
                      Transit Fare Subsidies, Parking, etc) |
| 4/19      | Contemporary Issues Continued or Economics of Freight Logistics |
| 4/26      | Final Presentations |
| 5/3       | Final Presentations  
                      *Final Paper due 5/7* |
**Honor System**
I trust every student in this course to fully comply with all of the provisions of the UVA honor system. All alleged honor violations brought to my attention will be forwarded to the Honor Committee. If, in my judgment, it is beyond a reasonable doubt that a student has committed an honor violation with regard to a given assignment/exam, that student will receive an immediate grade of 'F', irrespective of any subsequent action taken by the Honor Committee.

**Students with Disabilities**
All students with special needs requiring accommodations should present the appropriate paperwork from the Student Disability Access Center (SDAC). It is the student’s responsibility to present this paperwork in a timely fashion and follow up with the instructor about the accommodations being offered. Accommodations for test-taking (e.g., extended time) should be arranged at least 1 week prior to the exam.