COURSE SYLLABUS

Overview:
This is a course in transportation economics and policy for undergraduates. Students will learn how to use economic theory and empirical tools to analyze transportation markets and policies. The course combines topics from environmental economics and industrial organization including: aggregate demand for transportation; disaggregate demand and mode choice; externalities and the costs of driving; and policy instruments such as fuel taxes, the corporate average fuel economy program (CAFE), low carbon fuel standards and congestion pricing. Instruction will emphasize the current literature and examples from recent policies.

Office Hours and Contact Information:
Professor: Jonathan Hughes
Office location: Economics 4B
Office hours: Tuesdays and Thursdays from 12:30-2:00 pm (or by appointment)
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Class web site: D2Learn

Recommended Texts:
There is no required textbook for this course. However, much of the material for the course will drawn from the text below. Readings from the text are denoted as “Essays” in the course syllabus.


Copies are available as an ebook from the CU NetLibrary (see Chinook catalog). The text is also available for purchase online.

Reading/Class Participation:
Throughout the course I will assign readings to supplement the lecture material. Readings noted in the syllabus can be found on the web. Those not on the web will be posted to the course web site several days in advance. Please come to class each day ready to discuss the assigned
Please prepare a ½ page executive summary of each paper that discusses: the key findings of the paper; major assumptions or limitations of the analysis; issues of relevance for policymaking. I will randomly select several of these summaries during the semester to evaluate as part of your class participation grade.

* Denote readings in the course schedule for which you are to turn in an executive summary.

Grading:
15% Class participation
25% Problem sets
30% Midterm exam
30% Final exam

Problem Sets and Empirical Exercises:
Throughout the course students will be assigned problem sets that represent a mix of theory and empirical work. For empirical exercises, we will be using data from recent studies and published government reports. The class will meet in a campus computer cluster to begin these exercises, though students may be expected to complete these assignments outside of class. An important goal of this course is to expose students to the data sources used to analyze transportation markets and policies. Due dates are listed on the course syllabus.

Examinations:
There will be an in class mid-term exam on Tuesday March 19, 2013 and a final exam on Tuesday May 7, 2012 from 4:30 – 7:00 pm.

Late Assignments and Missed Examinations:
Problem sets and other assignments are due before the start of class on the date due. No late assignments will be accepted except in the case of documented medical or family emergency. No make-up exams will be given. If you foresee a conflict, contact me as soon as possible in order to make alternate arrangements for you to complete the requirements of this course.

Lecture Notes: My lectures will make use of both the chalkboard and Powerpoint. The lecture slides and graphs can be downloaded from the class web site, available through D2Learn. Please visit this class website often.

Campus Policies: I will adhere to all campus policies with respect to disabilities, religious observances, appropriate behavior, discrimination and harassment, and academic conduct. See http://www.colorado.edu/policies/
Tentative Course Outline:

Week 1: Overview: transportation markets, energy and the environment
   January 15. Introduction - course goals, thinking like an economist, market for driving
   January 17. Introduction to empirical analysis
   Reading: “What is econometrics”

Week 2: Aggregate demand for transportation
   January 22. **Computer Lab KTCH 117.** Gasoline demand
   **Problem Set 1 Distributed**
   January 24. Gas prices, fuel economy and vehicle choice

Week 3: Environmental economics review
   January 29. Measures of value, measures of waste, efficiency
   **Problem Set 1 Due**
   January 31. Policies for addressing externalities

Week 4: Costs of driving
   February 5. Driving-related externalities
   **Problem Set 2 Distributed**
   February 7. Finding the “Right Gasoline Tax”
   Reading: *Parry and Small. “Does Britain or the U.S. have the right gasoline tax?” American Economic Review (2005).

Week 5: Costs of driving
   February 12. Air pollution cont.
   **Problem Set 2 Due**
   February 14. Unintended consequences of clean fuel regulation

Week 6: Costs of driving – continued
   February 19. **Computer Lab KTCH 117.** Carbon trading
   **Problem Set 3 Distributed**
February 21. Biofuels  

Week 7: Costs of driving – continued  
February 26. Fuel economy standards  
Problem Set 3 Due

February 28. Highway fatalities  

Week 8: Costs of driving – continued  
March 5. Computer Lab KTCH 117. Highway fatalities revisited  
Reading: “Essays” Chapter 6  
Problem Set 4 Distributed

March 7. Congestion and value of time  

Week 9: Costs of driving - continued  
March 12. Congestion and value of time  
Problem Set 4 Due

Reading: “Essays” Chapter 2

March 19. Mid-Term Exam

Week 10: Disaggregate demand for transportation  
March 21. Mode choice, vehicle choice  
Reading: “Essays” Chapter 2

Spring Break March 25 – March 29

Week 11: Public transportation  
April 2. Computer Lab KTCH 117. Public transportation  
Reading: “Essays” Chapter 11  
Problem Set 5 Distributed

April 4. Should transit be subsidized?  

Week 12: The firm and market power review  
April 9. Monopoly (inc. price discrimination)
**Problem Set 5 Due**
April 11. Oligopoly and firm interaction

Week 13: Freight transport
April 16. **Computer Lab KTCH 117.** Economies of density and network size
*Reading: “Essays” Chapter 3
Problem Set 6 Distributed
April 18.

Week 14: Air travel
April 23. Market power in air travel

**Problem Set 6 Due**
April 25. Entry and competition in air travel

Week 15: Deregulation
April 30. Trucking deregulation
May 2. Railroad deregulation

May 7. Final Exam 4:30 – 7:00