

Professor Robert Feenstra
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Office hours: Mon. & Thurs. 2:00-3:30

Lecture Time/Location: TR 10:30-11:50 in 107 Wellman

Purpose and Prerequisites

This course is designed to provide masters and Ph.D. students in the Transportation Technology and Policy (TTP) program a solid grounding in the economics of the transportation sector. In addition, we also view it as an excellent context in which advanced undergraduates can see the principles of economics applied to the analysis of a critical industry in the operation of the global economy.

Prerequisites for this course are Economics 100, Math 16A, B, C, Statistics 13, or consent of the instructor. Note that Economics 190 meets together with the graduate offering, TTP 215. The instructors will not differentiate between undergraduate and graduate students: everyone will be graded on the same scale and all assignments will be expected of all students. Economics 190 will be more work than the average undergraduate upper-division course. It will also be more fun.

Required Texts: Essays in Transportation Economics and Policy: A Handbook in Honor of John R. Meyer, by Gomez-Ibanez, Tye, and Winston, 1999, The Brookings Institution. This textbook will be heavily used throughout the course. In the syllabus, readings from this book will be denoted “**Essays**.”

We will also require that all students buy Economics at the Wheel: The Costs of Cars and Drivers, by Richard C. Porter, 1999, the Academic Press. This is an extremely useful and intuitive use of basic economic analysis in the context of the costs and benefits of automobile usage. In the syllabus, readings from this book will be denoted “**Porter**.”

Additional “**Readings**” will be on reserve in the Economics dept., SSH room 1111. for the most part, these additional readings are *optional*.

Grading: Student evaluation will be done on the basis of a series of homework exercises, exams, and class participation. Homeworks will collectively account for 20% of the total grade. Students are welcome to work in groups in completing the homeworks. Homeworks will be distributed during the course lectures and due in class one week after they are distributed. *Late homeworks will not be accepted except in cases of documented illness or family emergencies.* There will be an in-class midterm exam worth 30% of the grade. The final exam, to be given on the scheduled date, will count for 45%. Class participation will count for 5%. Student attendance and participation in all lectures and sections is expected and required.

Extra Goodies: This is a course that tries to utilize recent developments in internet and multimedia instructional technology. Most lectures will make use of multimedia technology. The lecture slides and graphs can be downloaded from the class web site, available through, <http://www.econ.ucdavis.edu/faculty/fzfeens/> . This website includes class information, announcements, and links to a number of useful information/data sources on transportation and transportation economics. We will also post homeworks here for you to download. Please visit it often.

The course will include some classroom time in the Division of Social Sciences Instructional Computing Lab, 233 Social Sciences Building. This will be scheduled during the second-half of the quarter, to explain a homework assignment in which we estimate a discrete choice model. (This is the topic for which Daniel McFadden of UC Berkeley won the Nobel Prize in 2000)!

Major Topics Covers, Approximate Timeline

Introduction – January 4

Web, Lecture 1

I. The Automobile in Society, Jan. 9 - Jan. 23

1. *An Introduction to the “Market” for Automobile Driving, and Why It Doesn’t Work*

Web, Lecture 2

Porter, Chapters 1-3, pp. 1-35.

2. *The Costs of Driving, Part I: Pollution*

Web, Lecture 3

Porter, Chapters 5-6, pp. 55-73, Chapter 15, pp. 173-180.

Essays, Chapter 7, “The Politics of Controlling Air Pollution.” pp. 223-256.

3. *The Costs of Driving, Part II: Fuel Economy and Auto Safety*

Web, Lecture 4

Porter, Chapter 4, pp. 41-54, Chapters 7-13, pp. 87-154

Essays, Chapter 8, “Fuel Economy and Auto Safety Regulation: Is the Cure Worse than the Disease?” by Lave and Lave, pp. 257-290.

Essays, Chapter 9, “Technology-Forcing Public Policies and the Automobile,” by Leone, pp. 291-324.

4. *The Costs of Driving, Part III: Congestion, Suburbanization, and other Horrors of Modern Life*

Web, Lecture 5

Porter, Chapter 14 and Appendix, pp. 155-172.

Essays, Chapter 12, "Transportation and Land Use," by Pickrell, pp. 403-436.

II. The Automobile Industry: A Quick Look at the Guys Who Make the Cars, and Government Trade Policy, Jan. 25 – Jan. 30

Web, Lecture 6

Readings, "The Next Automotive Revolution," by Nash.

Web, Lecture 7

Readings, "Voluntary Export Restraints in U.S. Autos, 1980-81: Quality, Employment and Welfare Effects" by Robert Feenstra. In R. E. Baldwin and A. O. Krueger, eds. *The Structure and Evolution of Recent U.S. Trade Policy*, NBER and University of Chicago Press, 1984, 35-59.

Readings, "Quality Change Under Trade Restraints in Japanese Autos," *Quarterly Journal of Economics* 103(1), February 1988, 131-146, by Robert Feenstra,

III. Deregulation and Intercity Transportation, Feb. 1 – Feb. 6

1. *Airlines*

Web, Lecture 8

Essays, Chapter 14, "Regulatory Reform of U.S. Intercity Transportation," by Morrison and Winston, pp. 469-492.

Readings, "The Evolution of U.S. Airline Competition," by Borenstein.

Readings, "The Changing Airline Industry," by Kaplan.

2. *Trucking and Railroads*

Web, Lecture 9

Essays, Chapter 15, "Regulation and Innovation: Lessons from the American Railroad Industry," by Gallamore, pp. 493-532.

Readings, "Consequences of Regulatory Reform in the American Railroad Industry," by Braeutigam.

Readings, "Rail and Trucking Deregulation," by Moore.

Readings, "North American Trucking Policy," by Chow.

(Supplemental) *Surface Freight Deregulation*, Winston, Corsi, Grimm, and Evans, Editors, 1990, the Brookings Institution.

MIDTERM EXAM, FEB. 8

IV. Techniques of Transportation Analysis. (Feb. 13 - March 8)

1. *The Demand for Transportation*

Web, Lecture 10 and 11

Essays, Chapter 2, "The Demand for Transportation: Models and Applications," by Kenneth A. Small and Clifford Winston, pp. 11-56.

Readings, "Concepts of Price Elasticities of Transport Demand and Recent Empirical Estimates: An Interpretative Survey," by Oum, Waters, and Yong.

Readings, "A Review of New Demand Elasticities with Special Reference to Short and Long-Run Effects of Price Changes," by Goodwin.

2. *Analyzing Transportation Costs*

Web, Lecture 12 and 13

Essays, Chapter 3, "Learning about Transport Costs," by Ron Braeutigam, pp. 57-98.

3. *Pricing Transportation Services*

Web, Lecture 14 and 15

Essays, Chapter 4, "Pricing" by Jose A. Gomez-Ibanez, pp. 99-136.

4. *Highway Congestion, Revisited*

Web, Lecture 16

Essays, Chapter 6, "Congestion," Herbert Mohring, pp. 181-222.

Essays, Chapter 10, "Determinants of Motorization and Road Provision," by Ingram and Liu, pp. 325-358.

Readings, "The Economic Benefits of the Channel Tunnel," by Kay, Manning, and Szymanski.

Readings, "Optimal Peak-Load Pricing, Investment, and Service Levels on Urban Expressways," by Keeler and Small.

Guest Lecture – March 13

FINAL EXAM: TBA