



## Department of Economics Course Outline

		<b>Term:</b>	Winter 2005
<b>Course:</b>	Economics 371 [Economic Analysis of Transportation]	<b>Section:</b>	01
<b>Time:</b>	T 17:00 ? 19:50	<b>Place:</b>	ST 139
<b>Instructor:</b>	Richard Emmer		
<b>Office:</b>	SS 1046	<b>Telephone:</b>	319-6313 or 220-5857 (Dept.Office)
<b>Office Hours:</b>	T 20:00 ? 21:00 or by appointment	<b>E-Mail:</b>	<a href="mailto:richard_emmer@cpr.ca">richard_emmer@cpr.ca</a>

### Textbook(s):

None

### Book(s) on Reserve:

- Boyer, K.D., *Principles of Transportation Economics*, Addison-Wesley Longman, 1998
- Button, K.J. *Transport Economics*, Edward Elgar, London, UK.(1993)
- Canadian National Transportation Act Review Commission, *Competition in Transportation Policy*, Volumes 1 and 2, Supply and Services, Ottawa. (1993)
- Canadian Royal Commission on National Passenger Transportation *Directions: The Final Report of the Royal Commission on National Passenger Transportation*, Volumes 1-4, Supply and Services, Ottawa.(1992)
- De La Barra, T. *Integrated Land Use and Transport Modelling.* , Cambridge University Press (1985)
- Green, D.L., et al (eds.) *The Full Costs and Benefits of Transportation*. Springer, 1997.
- McCarthy, P.S. *Transportation Economics: Theory and Practice: A Case Study Approach*, Blackwell (2001)
- Oum, T. et al (ed) *Transport Economics: Selected Readings*, Harwood. (1997)

### Course Outline:

The purpose of the course is to give students:

- (1) A sound understanding of the foundations and tools of economic analysis, as they are applied to transportation;
- (2) The ability to apply economic analysis to specific situations in the transportation sector; and
- (3) The perspective and tools to assess critically the implications of economic policy and regulation relating to transportation. The implications of differences in transport markets (passenger versus freight, urban versus intercity, by mode, internationally) will be highlighted in the course.

The relevance of theory to current circumstances and the effects of policy will be recurrent themes. The implications of externalities and other imperfections for pricing and efficiency will be examined in some detail. Methods of analyzing transportation investments, including cost-benefit analysis, and the role of regulation in transport markets round out the course content, as noted in the general outline reported below.

### **Grade Determination and Final Examination Details:**

Assignments	30%
Midterm Exam	30%
Final Examination	40%

The Midterm exam will be held on Tuesday, March 1, 2004, during the scheduled lecture time in the regular classroom. The Final examination will be scheduled by the Registrar's office and held in an assigned room. The final exam will cover course material from the midterm exam to the last class.

There will be five or six Assignments, with four or five to be done in groups during fixed class time periods. The in-class Assignment groups and schedule will be announced in class.

The final percentage grade is the sum of the points achieved on the assignments and exams. The percentage grade is converted to the University grade point value as follows:

A+	91 - 100	B+	77 - 79	C+	67 - 69	D+	56 - 59
A	85 - 90	B	73 - 76	C	63 - 66	D	50 - 55
A-	80 - 84	B-	70 - 72	C-	60 - 62	F	0 - 49

If, for some reason, the distribution of grades determined using the aforementioned conversion chart appears to be abnormal the instructor reserves the right to change the grade conversion chart if the instructor, *at the instructor's discretion*, feels it is necessary to more fairly represent student achievement.

A passing grade on any particular component of the course is not required for a student to pass the course as a whole.

Non-programmable calculators will be allowed during the writing of tests or final examinations.

There will be a Registrar scheduled final examination, lasting 2 hours and held in a classroom.

Tests and exams will not involve multiple choice questions.

### Other Resources:

Students? Union Vice President Academic:

Laura Schultz

Phone: 220-3911

E-Mail [lpaca@ucalgary.ca](mailto:lpaca@ucalgary.ca)

Students? Union Faculty Representative (Social Sciences)

Carina McDonald

Phone: 220-3913 Office: MSC 251

E-Mail [carina@su.ucalgary.ca](mailto:carina@su.ucalgary.ca)

Society of Undergraduates in Economics (S.U.E.)

[www.fp.ucalgary.ca/econ](http://www.fp.ucalgary.ca/econ)

### Notes:

- Students seeking reappraisal of a piece of graded term work (term paper, essay, etc.) should discuss their work with the Instructor within two weeks of the work being returned to the class.
- Make-up examinations and deferred examinations will not be given except in cases of extreme personal emergencies. Also, examinations will not be given before the indicated dates.

### Readings:

Introduction

Required

McCarthy Ch. 1

Transport Canada, 2003 Annual Report Chs. 2 & 3 (see Web address below)

Optional

McCarthy Ch. 2

Boyer Ch. 1

Button Chs. 1 & 2

Demand

Required

Boyer Chs. 3 & 4

McCarthy Ch. 3, pp. 56-69, 74-81

Optional

Boyer Ch. 2

Button Ch. 3

McCarthy Ch. 4

Royal Commission, Vol 4, pp. 1597-1623

## Cost & Supply

Required

Boyer Chs. 5, 6, 7 & 8

McCarthy Ch. 5, pp. 173-194

McCarthy Ch. 6, pp. 219-237

Optional

Button Ch.4

McCarthy Ch. 5, pp. 149-172

McCarthy Ch. 6, pp. 214-219

## Investment

Required

McCarthy Ch. 9, pp. 370-380

Optional

Boyer Ch. 9

McCarthy Ch. 9 pp. 355-370

## Pricing

Required

Boyer Chs. 10 & 11

McCarthy Ch. 10, pp. 403-437

Optional

McCarthy Ch. 10, pp. 387-402

## Full Costs and Benefits

Required

Optional

Boyer Ch. 14

Button Ch. 5

## Regulation and Policy

### Required

Boyer Chs. 12 & 13

McCarthy Ch. 7 pp. 278-298

McCarthy Ch. 8

McCarthy Ch. 11, pp. 447-464, 476-488

### Optional

Button Ch. 7

Green pp. 192-215

McCarthy Ch. 7 pp. 244-278

## Case Studies (McCarthy)

### Demand

The Demand for Gasoline, Regulation and Automobile Travel (pp. 62-69)

The Demand for Short-Haul Air Service (pp. 74-80)

### Costs and Supply

Regulated Truckload Carriers (pp. 173-179)

Regulated General Freight Carriers (pp. 179-184)

Short-Run Variable Costs in the Rail Industry Under Regulation (pp. 219-225)

Profit Margins in the Airline Industry (pp. 225-228)

Urban Bus Transportation Cost and Production (pp. 230-236)

Optimal Pricing and Investment in Urban Bus Transit Systems (pp. 272-273)

### Pricing

Contestable Markets Theory: Actual Versus Potential Competition (pp. 278-283)

Motor Carrier Firm Rents (pp. 284-286)

Monopoly Rent-Sharing in the Motor Carrier Industry (pp. 286-290)

Welfare Effects of First-Best Pricing in Airport Infrastructure (pp. 407-411)

Are Amtrak Benefits Worth the Costs (pp. 414-423)

Pricing Urban Transit Under a Zero-Profit Constraint (pp. 429-432)

Setting Airline Landing Fees Under a Zero-Profit Constraint (pp. 432-436)

## Regulation and Policy

Deregulation and Strategic Behaviour in the Airline Industry (pp. 308-319)

Estimating the Results from Mergers: Republic Airlines (pp. 320-324)

Mergers and Consumer Prices (pp. 324-326)

An Overview of Economic Deregulation in Transportation (pp. 339-345)

The Incidence of Traffic Congestion in U.S. Cities (pp. 461-464)

The Effects of Congestion Pricing on Generalized Cost (pp. 477-483)

## Web Links and On-Line Reading List

<http://www.tc.gc.ca> (Transport Canada)

<http://www.dot.gov> (U.S. Department of Transportation)

<http://www.tac-atc.ca> (Transportation Association of Canada)

<http://www.cutaactu.ca> (Canadian Urban Transit Association)

<http://www.bts.gov/itt/wtd> (Worldwide Transportation Directory)

<http://www.transportweb.com/> (The Transport Web Index)

<http://www.uitp.com> (International Association of Public Transport)

<http://www.bts.gov/itt/natf.html> (North American Transportation in Figures)

<http://www.bts.gov/virtualib/transportation.html> (Virtual Library ? Transportation)

<http://www.logisticsworld.com/> (Logistics World)

<http://www.worldbank.org/transport/index.html> (World Bank Group ? Transportation)

<http://www.railwaygazette.com/index.asp> (Railway Gazette International)

<http://www.truckingnet.com/> (Trucking Net)

<http://www.truck.net/> (Truck Net)

<http://www.hwaha.dot.gov> (US Federal Highway Administration)

<http://www.tu.gov.ab.ca> (Government of Alberta Transportation Department)

<http://www.gov.calgary.ab.ca/roads/> (City of Calgary Roads Department)

<http://www.calgarytpo.com/> (City of Calgary Transportation Project Office)

[http://www.gov.calgary.ab.ca/planning/transportation\\_forecasting/](http://www.gov.calgary.ab.ca/planning/transportation_forecasting/) (City of

Calgary)[http://www.gov.calgary.ab.ca/planning/transportation\\_planning/](http://www.gov.calgary.ab.ca/planning/transportation_planning/) (City of Calgary)

<http://web.mit.edu/cts/www/> (MIT Center for Transportation Studies)

<http://www.njtide.org/links/index.html>

(New Jersey Transportation Information and Decision Engineering - a PrincetonUniversity related site)

[http://www.islandnet.com/ITE\\_BC/other\\_sites.html](http://www.islandnet.com/ITE_BC/other_sites.html) (Institute of BC Transportation Engineering)

[http://www.umanitoba.ca/transport\\_institute](http://www.umanitoba.ca/transport_institute) (U of Manitoba Transportation Institute)

<http://www.tlcnetwork.org/resource.html> (Transportation for Livable Communities Network)

<http://www.thenewrepublic.com/docprint.mhtml?i=20030120&s=easterbrook012003> (Review of *High and Mighty: SUVs -- ?*)

[http://www.tc.gc.ca/pol/en/anre/transportation\\_annual\\_report.htm](http://www.tc.gc.ca/pol/en/anre/transportation_annual_report.htm) (Transport Canada Annual Report, *Transportation in Canada 2003*)

<http://gulliver.trb.org/publications/sr/sr271.pdf> (Transportation Research Board Special Report 271, *Freight Capacity for the 21st Century*)

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Safewalk / Campus Security: 220-5333

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