

SCM.2210 and ABIZ.2210 A02
Principles of Transportation
Fall 2020

Webex Tuesday/Thursday 2:30 -3:45 pm

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INSTRUCTOR

Name: Dr. Barry E. Prentice
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Office hours: 4 pm to 5:30 pm
Tuesdays and Thursdays, or by appointment; virtual meetings in this case

COURSE DESCRIPTION

This course is a study of demand forecasting, cost analysis, regulation of carriers, the role of transport in economic development and transport planning addressing the agriculture and agri-food and other supply chains.

Transportation is the world’s largest invisible industry. Modern society is completely dependent on transportation to sustain its way of life, and it is all around us constantly. Yet the economics of transportation is a mystery to most people. Why do air fares rise and fall? Why do urban transit systems struggle to survive and require such large public subsidies? Why does freight transport cost more to move in one direction than an equal distance in another? Why is the government so heavily involved in transportation? The Principles of Transportation presents explanations to these queries and many more. The unique dynamics underlying transportation markets are interpreted through the lens of applied economics. The operations of transportation are completely logical and obvious once the concepts that underlie business decisions and consumer reactions are explained.

This course is appropriate for those students who have an interest in marketing, international business, trade, logistics, supply chain management, entrepreneurship, agribusiness, economics and finance.

COURSE OBJECTIVES

- to develop an understanding of the scope and breadth of transportation in the Canadian economy and its importance to society;
- to introduce various economic concepts and applications of economic theory to the transportation sector;
- to explain the role and importance of direct, indirect and exogenous costs in determining transportation supply under competitive and regulated freight rates;
- to examine the role of transport in the determination of agricultural market areas and food processing plant location;
- to illustrate some of the policy issues that confront the transportation sector, and the role of government regulation.

COURSE FORMAT

This course will be conducted “live” via videoconferencing using webex and will not involve in-person instruction. Classes will be during the scheduled class time. Lecture notes will be pre-recorded and posted on UMLearn. You are expected to read all assigned readings prior to class and to stay up to date in the textbook and recorded lectures. Classes will consist of discussion of the lecture content, working through applied problems, and discussing assigned research papers. Students will prepare and submit a short critique of each article, prior to class, for in-class discussion.

For recording attendance and class participation, you will be expected to have your camera and microphone on during class time and exams. The instructor may tell you to leave your camera/mic on for the duration of the class or may require you to mute yourself and unmute yourself only at certain times.

COURSE MATERIALS

As classes will be delivered synchronously via videoconferencing, a device enabled with a camera and microphone is required. Further, you are expected to be in a location with a reliable Internet connection that is strong enough for streaming video. You may also want to consider using earphones/headset with a mic, unless you have a computer/tablet with good speakers/mic.

Required Texts:

Prentice, Barry E. and Darren J. Prokop. Concepts of Transportation Economics. Singapore: World Scientific Publishing, 2016. (available in the Campus Bookstore and via E-books)

Canadian Transportation Research Forum. Selected papers available through student membership at www.ctrf.ca



Recommended Text:

The Elements of Style, Fourth Edition [Paperback] William Strunk Jr. (Author), E. B. White (Author), Roger Angell (Foreword) – available on Amazon for under \$13 or see Strunk’s original version on D2L.

ASSESSMENT OF LEARNING

<u>Grading System</u>	<u>Percent of final grade</u>
Mid-term exam	25%
Critiques and participation	25%
Final exam	50%

I will be using the following letter-grading scheme:

Cumulative Marks	Grade	GPA	Performance
90-100	A+	4.5	Outstanding
80-89	A	4.0	Excellent
75-79	B+	3.5	Very Good
70-74	B	3.0	Good
65-69	C+	2.5	Satisfactory
60-64	C	2.0	Marginal
50-59	D	1.0	Unsatisfactory
Below 50	F	0.0	Unacceptable

Critiques

Research papers are assigned each week to be critiqued, beginning Week 3, as set out in the course outline. An analysis form will be provided to assist in the preparation. The content of the critiques can be divided roughly into four parts: a brief synopsis of the paper, comments on the strengths of the paper, suggestions for improvement, and a section in which you outline key findings or issues that you have learned from the paper. The critiques are to be submitted to the appropriate Drop Box on UMLearn, by midnight of Wednesday evening each week.

Examinations

A two-hour mid-term examination, worth 25% of your final grade, will be held during the evening of Thursday, October 10, 6 p.m. - 8 p.m. A two-hour, comprehensive final exam, worth 50% of your final grade, will be held during the final examination period at a time scheduled by the registrar.



MISSED EXAM AND LATE SUBMISSION POLICY

Students who miss the mid-term exam due to legitimate, documented illness or compassionate reasons will not be given a make-up exam. Rather, the weight for the mid-term exam will be allocated to the final exam.

ATTENDANCE POLICY

You are allowed to miss a maximum of 3 classes without a valid excuse. Excused absences include a medical reason, travel for an approved academic event as per this Faculty-approved [list of events](#), death of a close family member, or religious observation. In each of the above cases, documentation will be required. No other reason is considered a valid excuse.

All class meetings will be recorded and attendance is automatically collected. You are required to have your camera on during the entire duration of your class.

ELECTRONIC DEVICE POLICY

You may use a laptop or tablet for note-taking.

OUT-OF-CLASS COMMUNICATION

PowerPoint files, assignment/project guidelines, other class-related files, and grades will be posted on UM Learn. All critiques will be sent to the appropriate drop box. Any announcements outside of class will be sent by e-mail. It is your responsibility to check your UofM e-mail account frequently so that you don't miss these emails.

There are many questions that cannot be answered succinctly over email. If you email me a question, please consider whether it can be easily and effectively answered by email. If it cannot, then we will take it up in class, so that everyone can benefit from the discussion.



CLASS SCHEDULE

Week 1: September 10

Course Introduction, distribution of CTRF Proceedings, course schedule, and critique outline

Week 2: September 15/17

Chapter 1: Transportation, Logistics and Technology

Chapter 2: The Demand for Transportation

Case 0: *Cargo Airship Fuel Transport: Canadian Shield Case Study*. Barry E. Prentice and John Wilms, P. 426 (2020)

Week 3: September 22/24

Chapter 3: Trade and Transportation Costs

Chapter 4: Laws of Variable Proportions and Scale

CTRF Reading Critique: **Due September 23 by midnight**

Case 1: *Reducing GHG Emissions from Transport in Canada: With a particular focus on the case of Freight Rail*. Malcolm Cairns, p. 343 (2020)

Week 4: September 29/October 1

Chapter 5: Cost Economies and Traceability

CTRF Reading Critique: **Due September 30 by midnight**

Case 2: *Design and Analysis of City Logistics Systems in Toronto for Express Courier Companies*. Puyuan Deng, Mehdi Nourinejad, Mahyar Jahangirismaili, Matthew Roorda, p. 109 (2017)

Week 5: October 6/8

Chapter 6: Modal Supply Characteristics

CTRF Reading Critique: **Due October 7 by midnight**

Case 3: *Region of Peel – Commodity Flow and Network Analysis*. Adrian Lightstone, Mausam Duggal, p. 49 (2017)



Week 6: October 13/15

Mid-term, evening Thursday October 15

Chapter 7: Markets and Competition in Transportation

CTRF Reading Critique: **Due October 12 by midnight**

Case 4: *Sustainable Transportation: Airships versus Jet Airplanes*. Barry E. Prentice and Robert Knotts, p. 305. (2016)

Week 7: October 20/22

Chapter 8: Externalities, Public Supply and Marginal Cost Pricing

CTRF Reading Critique: **Due October 21 by midnight**

Case 5: *How Can Cities Harness Mobility Pricing to Reduce Congestion, Promote Fairness, and Support Investment in Transportation Infrastructure?* Adrian Lightstone, Dirk van Amelsfort, Karin Brundell-Freij, Preeya Shah, p.55 (2018)

Week 8: October 27/29

Chapter 9: Spatial and Temporal Pricing in Transportation

CTRF Reading Critique: **Due October 28 by midnight**

Case 6: *Pricing Vehicle Emission and Congestion on an Urban Road Network using a Dynamic Traffic Simulator*. Shahayegh Sarif, Andre de Palma and Robin Lindsey, page 13. (2020)

Week 9: November 3/5

Chapter 10: Product Pricing in Transportation

CTRF Reading Critique: **Due November 4 by midnight**

Case 7: *Canada's Airports: The Economic Basis for a Not-For-Profit Governance Structure*. William G. Morrison, p. 211 (2019)

Week 11: November 10/12 – no classes

Remembrance Day and Fall Term Break



Week 10: November 17/19

Chapter 11: Transportation, Investment and Generalized Cost

CTRF Reading Critique: **Due November 18 by midnight**

Case 8: Impacts of High-speed Rail on Airlines, Airports and Regional Economies: A Survey of Recent Research. Anming Zhang, Yulai Wan, Hangjun Yang, p. 481 (2019)

Week 12: November 24/26

Chapter 12: Location and Land Settlement

CTRF Reading Critique: **Due November 25 by midnight**

Case 9: The four outcomes of transit and land-use. Sybil Derrible and Bilal Farooq, P. 814 (2010)

Week 13: December 1/3

Chapter 13: Transportation and Government Policy

CTRF Reading Critique: **Due December 2 by midnight**

Case 10: The Northern Corridor Concept: A Connector Road from northern Saskatchewan (La Loche, SK) to the Athabasca Oil Sands Region (Fort McMurray, AB). Chris Moser, p. 492 (2019)

Week 14: December 8/10

Chapter 14: Regulatory Enforcement and Compliance

CTRF Reading Critique: **Due December 9 by midnight**

Case 11: Canadian Coastal Shipping and CETA: Some Lessons from Four Market Deregulation Cases. Sofiane Laribi and Emmanuel Guy, p. 397 (2016)

IMPORTANT DATES

September 22, 2020	Last Date to Drop without Penalty - Fall Term
September 18, 2020	Last Date to Add (Register for a courses) - Fall Term classes
October 12, 2020	Thanksgiving Day (University Closed)
October 15, 2020	Mid-term Exam
November 11, 2020	Remembrance Day (University Closed)
November 9 - 13, 2020	Fall Term Break
November 23, 2020	Voluntary Withdrawal (VW) deadline Fall Term classes
Dec. 12 - 23, 2020	Examination and test dates



INTENDED LEARNING OUTCOMES

	Goals and Objective in SCM 2210/ABIZ 2210	Goals and Objectives Addressed in this Course	Course Item(s) Relevant to these Goals and Objectives
1	Quantitative Reasoning		
	A. Determine which quantitative analysis technique is appropriate for solving a specific problem.	✓	Critique assignments
	B. Use the appropriate quantitative method in a technically correct way to solve a business problem.		
	C. Analyze quantitative output and arrive at a conclusion.	✓	Quantitative analysis in CTRF papers
2	Written Communication		
	A. Use correct English grammar and mechanics in their written work.	✓	Critique assignments
	B. Communicate in a coherent and logical manner	✓	Critique assignments
	C. Present ideas in a clear and organized fashion.	✓	Critique assignments
3	Ethical Thinking		
	A. Identify ethical issues in a problem or case situation	✓	CTRF papers
	B. Identify the stakeholders in the situation.	✓	CTRF papers
	C. Analyze the consequences of alternatives from an ethical standpoint.	✓	CTRF papers
	D. Discuss the ethical implications of the decision.	✓	Critique discussion
4	Core Business Knowledge	✓	Entire course



ACADEMIC INTEGRITY POLICY

The online format of class delivery does not lower the Asper School's academic integrity standards. The same high levels of academic integrity are expected in Summer 2020 courses as they are in regular terms.

It is critical to the reputation of the Asper School of Business and of our degrees that everyone associated with our faculty behave with the highest academic integrity. As the faculty that helps create business and government leaders, we have a special obligation to ensure that our ethical standards are beyond reproach. Any dishonesty in our academic transactions violates this trust. The University of Manitoba General Calendar addresses the issue of academic dishonesty under the heading "Plagiarism and Cheating." Specifically, acts of academic dishonesty include, but are not limited to:

- using the exact words of a published or unpublished author without quotation marks and without referencing the source of these words (includes Chat messages posted during videoconference sessions)
- duplicating a table, graph or diagram, in whole or in part, without referencing the source
- paraphrasing the conceptual framework, research design, interpretation, or any other ideas of another person, whether written or verbal (e.g., personal communications, ideas from a verbal presentation) without referencing the source
- copying the answers of another student in any test, examination, or take-home assignment
- recording exam questions using any method, regardless of whether those are shared with others
- sharing exam questions with those who are yet to take the exam, including future students
- providing answers to another student in any test, examination, or take-home assignment
- taking any unauthorized materials into an examination or term test (crib notes)
- impersonating another student or allowing another person to impersonate oneself for the purpose of attendance, earning class participation marks, submitting academic work, or writing any test or examination
- stealing or mutilating library materials
- accessing test prior to the time and date of the sitting
- changing name or answer(s) on a test after that test has been graded and returned
- submitting the same paper or portions thereof for more than one assignment, without discussions with the instructors involved

Group Projects and Group Work

Some courses, while not requiring group projects, encourage students to work together in groups before submitting individual assignments. If it's unclear whether it is allowed, students are encouraged to seek clarification from the instructor to avoid violating the academic integrity policy.

In the Asper School of Business, all suspected cases of academic dishonesty in undergraduate courses are reported to the Dean's office and follow the approved [disciplinary process](#). See following table for typical penalties for academic dishonesty in the Asper School.



Typical Penalties for Academic Dishonesty in the Asper School

If the student is from another Faculty and the academic dishonesty is committed in an Asper course, the student’s Faculty could match or add penalties beyond the Asper School’s.

F-DISC on transcript indicates the F is for disciplinary reasons.

ACADEMIC DISHONESTY	PENALTY
Cheating on exam (copying from or providing answers to another student)	F-DISC in course Suspension from taking Asper courses for 1 year Notation of academic dishonesty in transcript
Sharing exam questions electronically during exam	F-DISC in course Suspension from taking Asper courses for 2 years Notation of academic dishonesty in transcript
Possession of unauthorized material during exam (e.g., cheat notes)	F-DISC in course Suspension from taking Asper courses for 1 year Notation of academic dishonesty in transcript
Altering answer on returned exam and asking for re-grading	F-DISC in course Suspension from taking Asper courses for 1 year Notation of academic dishonesty in transcript
Plagiarism on assignment	F-DISC in course Suspension from taking Asper courses for 1 year Notation of academic dishonesty in transcript
Submitting paper bought online	F-DISC in course Suspension from taking Asper courses for 1 year Notation of academic dishonesty in transcript
Inappropriate Collaboration (collaborating with individuals not explicitly authorized by instructor)	F-DISC in course Suspension from taking Asper courses for 1 year Notation of academic dishonesty in transcript
Group member had knowledge of inappropriate collaboration or plagiarism and played along	F-DISC in course Notation of academic dishonesty in transcript
Signing Attendance Sheet for classmate	F-DISC in course Notation of academic dishonesty in transcript



STUDENT SERVICES AND SUPPORTS

The University of Manitoba provides many different services that can enhance learning and provide support for a variety of academic and personal concerns. You are encouraged to visit the below websites to learn more about these services and supports. If you have any questions or concerns, please do not hesitate to contact your instructor or the Undergraduate Program Office.

For Information on...	...follow this link
Tech-related issues with UM Learn or videoconferencing	Information Services & Technology
Admission, Registration, Tuition Fees, Important Dates, Final Exams, Graduation, and Transcripts	Registrar's Office
Academic policies & procedures, regulations, Faculty-specific information, degree and major requirements	Academic Calendar
Help with research needs such as books, journals, sources of data, how to cite, and writing	Library Resources
Tutors, workshops, and resources to help you improve your learning, writing, time management, and test-taking skills	Writing and Learning Support
Support and advocacy for students with disabilities to help them in their academic work and progress	Student Accessibility Services
Copyright-related questions and resources to help you avoid plagiarism or intellectual property violations	Copyright Office
Student discipline bylaws, policies and procedures on academic integrity and misconduct, appeal procedures	Academic Integrity
Policies & procedures with respect to student discipline or misconduct, including academic integrity violations	Student Discipline
Students' rights & responsibilities, policies & procedures, and support services for academic or discipline concerns	Student Advocacy
Your rights and responsibilities as a student, in both academic and non-academic contexts	Your rights and responsibilities
Full range of medical services for any physical or mental health issues	University Health Service
Information on health topics, including physical/mental health, alcohol/substance use harms, and sexual assault	Health and Wellness
Any aspect of mental health, including anxiety, stress, depression, help with relationships or other life concerns, crisis services, and counselling.	Student Counselling Centre
Support services available for help regarding any aspect of student and campus life, especially safety issues	Student Support Case Management
Resources available on campus, for environmental, mental, physical, socio-cultural, and spiritual well-being	Live Well @ UofM
Help with any concerns of harassment, discrimination, or sexual assault	Respectful Work and Learning Environment
Concerns involving violence or threats, protocols for reporting, and how the university addresses them	Violent or Threatening Behaviour



ABOUT THE INSTRUCTOR

Dr. Barry E. Prentice is a Professor of Supply Chain Management, at the I.H. Asper School of Business, University of Manitoba, an Associate of the Transport Institute, and the third Director (1996-2005). His major research and teaching interests include logistics, transportation economics, urban transport and trade policy. Dr. Prentice holds degrees in economics from University of Western Ontario (1973), University of Guelph (1979) and University of Manitoba (1986).



Dr. Prentice has authored or co-authored more than 250 research reports, journal articles book contributions and a popular textbook. His scholarly work has been recognized for excellence in national paper competitions and awards. In 1999, National Transportation Week named him Manitoba Transportation Person of the Year. Through the Transport Institute, which Dr. Prentice headed from 1996 to 2005, he organized national and international conferences on sustainable transportation (*Railways and the Environment*), supply chain logistics (*Planes, Trains & Ships*), agribusiness logistics (*Fields on Wheels*), northern transportation (*Airships to the Arctic*) and food trade between Canada and Mexico (*La Cadena de Frio*). In 1999 and 2003, he received University of Manitoba Outreach Awards. In 2009, Dr. Prentice was made an Honourary Life Member of the Canadian Transportation Research Forum. Since 2015, he is a Fellow in Transportation at Northern Policy Institute.

Dr. Prentice was instrumental in founding a new Department of Supply Chain Management (SCM) at the I. H. Asper School of Business. In the fall of 2003, a major in transportation and supply chain management was formed within in the B.Comm. (Hons.) program (fall 2003). Since that time, an M.Sc. and M.A. in supply chain management has been initiated, and an SCM functional concentration has been established in the MBA program.

Dr. Prentice has served on the Boards of Directors of several transportation organizations: *National Transportation Week* (President, 2001 and 2003), *Canadian Institute for Traffic and Transportation* (Honourary President, 2001-3) and the *Canadian Transportation Research Forum* (President, 1997). In 2005, Dr. Prentice co-founded *ISO Polar*, as a not-for-profit association to promote the use of airships as sustainable transport for the northern latitudes. He is Associate Editor of the *Journal of Transportation Research Forum*. In addition, Dr. Prentice has served on *Winnipeg Airports Authority, Inc.* (1998-2003), *Winnipeg TransPlan 2010*, the *Mid-Continent International Trade Corridor Task Force*, the *Rapid Transit Task Force*, *Council of Canadian Academies* (2012-14), Statistics Canada Industry Advisory Committee (2010-present), expert committees, and is frequently asked to speak on the topics of trade and transportation.

In 2011, Dr. Prentice founded Buoyant Aircraft Systems International as the first airship research centre in Canada. In 2018, he won the CanInfra Challenge *People's Choice, Award*, for his "Electric Airship Transportation System" proposal.

