

SCM.2210 and ABIZ.2210 A01
Principles of Transportation
Fall 2022

140 Drake Tuesday/Thursday 1:00 -2:15 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 AND ONLINE ACCESS

This course will be taught in-person, unless there's a directive from the university that requires us to move to remote delivery. We will observe the health-related safety protocol mandated by the university. Please check the [COVID-19 Updates](#) webpage of the university and the [COVID-19 health and safety protocols](#) to know what is expected of you. The university's policy is also provided later in this course outline.

Class format will be highly interactive and you will be expected to participate actively in class discussions. Class time will comprise clarification of consumer behavior concepts and thinking exercises rather than a repeat of material that is in the textbook. Discussions will be based not only on the book, but also from other sources. There will also be several case studies we discuss in this course, particularly their consumer behavior considerations and implications.

We will have some invited guest speakers who will share with us their experiences on how they go about understanding their customers' behavior and then utilize that information in their marketing decision-making.

TECHNOLOGICAL REQUIREMENTS

In the event health mandates or the instructor falling sick for an extended period require switching to remote delivery of classes, you will need a device enabled with a camera and microphone. Further, you will have to be in a location with a stable Internet connection that is strong enough for streaming video.



You will need the Chrome browser. Other browsers such as Safari will not work.

COURSE MATERIALS

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)

Required readings: selected papers that are being used in this course are available only through the Canadian Transportation Research Forum www.ctrf.ca. In order to acquire these papers, you must register as a student member. We have managed to secure a special rate with a discount for Asper students. Register as “Fall 2022 University of Manitoba Student” for \$25.00 + tax. This link will take you to the online membership form: <https://secure.e-registernow.com/cgi-bin/mkpayment.cgi?state=2371>. **AFTER** you have paid your membership dues, you must register for access to the CTRF members website at this link: https://ctrf.ca/?page_id=1852. Scroll down and fill in the form under “New User Registration”. Depending on when you register for your website account, it may take a day or two for authorization to be granted.

Please respect copyright laws. Photocopying textbooks, cases, or other reading material is a violation of copyright laws and is unethical, unless permission to copy has been obtained.

ASSESSMENT OF LEARNING

<u>Grading System</u>	<u>Percent of final grade</u>
Mid-term exam	25%
Critiques and Participation	20%
Final exam	55%

The mid-term grades will be available before the VW deadline.

I will be using the following letter-grading scheme:

Cumulative Marks	Grade	GPA	Performance
90 and above	A+	4.5	Outstanding
80-89.99	A	4.0	Excellent
75-79.99	B+	3.5	Very Good
70-74.99	B	3.0	Good
65-69.99	C+	2.5	Satisfactory
60-64.99	C	2.0	Marginal
50-59.99	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 Wednesday, October 19, 6 p.m. - 8 p.m, at 343 Drake. 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.

For recording your class participation, you will be required to have your camera and/or microphone on when you speak or for the duration of the class. Note that Webex automatically records attendance in each class, and your participation in class will be assessed in terms of your contribution.

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.

The critiques are due Wednesday night at midnight on the week assigned. Late critiques will be accepted with a 50% discount of the grade.

Do not make travel plans before the Final Exam. I cannot let you take the exam earlier/later because you booked a flight ticket for a date earlier than the final exam. In the event you have to miss the Final Exam for a valid reason, a request for a deferred exam must be made at your home Faculty's Undergraduate Program Office (b_comm@umanitoba.ca, if you are an Asper student). Applying for a deferred exam does not guarantee your request will be granted.

ATTENDANCE POLICY

You are allowed a maximum of 4 unexcused absences. This does not include excused absences due to:

- a) medical and/or compassionate reason
- b) participation in an inter-university, provincial, inter-provincial, national, or international scholastic or athletic event



- c) religious obligations
- d) qualification for accommodation under one of the Asper approved [list of events](#)

If you have over 4 unexcused absences, it will result in an automatic F grade in the course, as per the Asper School's [Debarment Policy](#). There will be no exceptions to this rule. If you feel you will have over 4 unexcused absences, you are strongly encouraged to VW if possible.

ELECTRONIC DEVICE POLICY

You may use a laptop or tablet for note-taking. If you are using a laptop, please sit in the last row to avoid distracting those sitting behind you.

Please make sure your cellphone does not ring during class. Practice self-control—don't browse the Internet or check your e-mail/social media/text messages while class is in progress. Do not video/audio record class lectures or take pictures of the screen without the instructor's permission.

OUT-OF-CLASS COMMUNICATION

PowerPoint files, assignment/project guidelines, other class-related files, and grades will be posted on UM Learn. Copies of 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.

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

The lecture material for this course is pre-recorded and posted as MP4 files on UMLearn. You are expected to read the relevant chapters of the textbook and watch the lectures before class. During the class, we will be addressing key issues in the lectures and chapters, and doing questions related to these chapters. Failure to prepare before the class will be evident and will affect your understanding and participation.

Week 1: September 8

Course Introduction, discussion of course schedule, CTRF case readings and critique outline

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

Week 2: September 13/15

Chapter 1: Transportation, Logistics and Technology

Chapter 2: The Demand for Transportation



Week 3: September 20/22

Chapter 3: Trade and Transportation Costs

Chapter 4: Laws of Variable Proportions and Scale

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

Case 1: *The Critical Role of Shortline Railways in Canadian Supply Chains*. Ben Chursinoff, Jonathan Thibault, and Caroline Healey (2022)

Week 4: September 27/29

Chapter 5: Cost Economies and Traceability

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

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

Week 5: October 4/6

Chapter 6: Modal Supply Characteristics

CTRF Reading Critique: **Due October 5 by midnight**

Case 3: *Three Opportunities to Relieve East Coast Supply Chain Disruptions*. Bradley Hull (2022)

Week 6: October 11/13

Chapter 7: Markets and Competition in Transportation

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

Case 4: *A Three Decade Odyssey: A Bird's-Eye View of Key Developments In Ontario's Trucking Sector Over 30 Years*. Andrew Tam (2022)

Week 7: October 18/20

Chapter 8: Externalities, Public Supply and Marginal Cost Pricing

No Class in lieu of Mid-term

Mid-term, Wednesday evening, October 19 Location: 343 Drake



Week 8: October 25/27

Chapter 9: Spatial and Temporal Pricing in Transportation

CTRF Reading Critique: **Due October 26 by midnight**

Case 5: *Truckload Freight Rates: Putting Theory to the Test*. Barry E. Prentice and Md Erfanul Hoque (2022)

Week 9: November 1/3

Chapter 10: Product Pricing in Transportation

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

Case 6: *Canada's Airports: The Economic Basis for a Not-For-Profit Governance Structure*. William G. Morrison, p. 211 - 2019

Week 10: November 7/11 – no classes

Remembrance Day and Fall Term Break



Week 11: November 15/17

Chapter 11: Transportation, Investment and Generalized Cost

CTRF Reading Critique: **Due November 16 by midnight**

Case 7: *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 (2018)

Week 12: November 22/24

Chapter 12: Location and Land Settlement

CTRF Reading Critique: **Due November 23 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 (2019)

Week 13: November 29/ December 1

Chapter 13: Transportation and Government Policy



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

Case 9: *Regulation and Taxicab Licence Values: Winnipeg 2000-2021*. Barry E. Prentice, Narendra Malalgoda, and Joseph Monteiro (2022)

Week 14: December 6/8

Chapter 14: Regulatory Enforcement and Compliance

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

Case 10: *Cold Chain Sustainability: Airships Versus Long-Haul Trucking*. Barry E. Prentice, John Wilms and Marcela Gonzales Alba, (2021)

IMPORTANT DATES

First day of class (this course)	-	Sept 8
Thanksgiving (no class)	-	Oct 10
Midterm Exam	-	Oct 19
Fall Term Break	-	November 7-10
VW deadline	-	Nov 22
Last day of class (this course)	-	Dec 12
Final Exam	-	Between Dec 13-23, as per university schedule



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 class)
- 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 or attempting to sell exam questions
- 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



UNIVERSITY OF MANITOBA COVID-19 HEALTH & SAFETY POLICY

The University of Manitoba (the “UM”) is committed to maintaining a safe learning environment for all students, faculty, and staff. Should campus operations change because of health concerns related to the COVID-19 pandemic or other campus-wide emergency, it is possible that this course will move to a fully remote delivery format. Should the instructor be required to stay at home for an extended period and an alternate instructor not be available, the course may move temporarily to a remote delivery format.

Mask Wearing

In a face-to-face environment, our commitment to safety requires students to observe all Covid guidelines set by the University (<https://umanitoba.ca/coronavirus>)

While on campus and in class, you must wear masks as stipulated in current [University policies, procedures, and guidelines](#). The University highly recommends the use of KN-95 masks; the minimum requirement is a ATSM Level 2 Medical mask. Both mask types are available at many locations on campus.

Students who fail to comply are subject to disciplinary action in accordance with the [Student Discipline Bylaw](#) and the [Non-Academic Misconduct and Concerning Behaviour Procedure](#).

If you do not follow masking requirements, you will be asked to leave the learning space and may only return to the class already in progress when you have complied with this requirement. Repeated issues will result in disciplinary action as previously noted.

Students should not eat or drink during class time.

Illness

Remember: **STAY HOME IF YOU HAVE SYMPTOMS OR ARE ILL**. If you become ill we highly recommend that you [self-isolate](#); you should notify your instructor by email so you can develop a plan to complete the course learning outcomes while you are absent.

What to do if you become ill while at UM:

1. Leave the classroom, lab, or workspace immediately. Continue to wear your mask while leaving the premises and/or while waiting for transportation.
2. Perform hand hygiene (soap and water or hand sanitizer) and avoid contact with others and minimize contact with the physical environment.
3. Once at home, complete the [MB self-assessment](#) and follow the directions that are provided.
4. Inform your instructor(s) or, if in residence, the appropriate individual.



5. Please remain off-campus and all UM facilities until cleared to return in accordance with self-assessment, testing results, and UM recommended isolation procedures.

Recommended transportation options (in order):

1. Drive yourself home.

2. Pick-up by family or friend – remember to keep your mask on and to distance as much as possible, and where possible, open a window to improve ventilation.

3. Pickup by taxi/Uber:

- Remain masked and perform hand hygiene before entering the vehicle.
 - Avoid touching the inside of the vehicle
 - Keep your mask on for the duration of the ride
 - Where possible, open a window to improve ventilation.

4. Winnipeg Transit buses – We recommend that you do not use Winnipeg Transit in this situation.



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 350 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. Re-appointed as Director of the Transport Institute, 2022.

