

Lectures: Tuesday and Thursday, 9:30-10:50 am, NREF 2-122

Instructor: Amy Kim, ICE 6-269
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Office Hours: Tuesday and Thursday 11 AM – 12:30 PM, or by appointment

Course Objectives:

1. Present a general introduction to transportation planning and methodologies, and current issues in the field.
2. Provide an opportunity for students to investigate real-world transportation planning and policy issues that are of interest to them.

Class website: eClass: <https://eclass.srv.ualberta.ca/>

Access is available only to those enrolled. Announcements, assignments, solutions, lecture slides/notes, and supplemental reading references will be posted there.

Textbook: Please pick up a course reader at the bookstore. References to supplemental readings will be provided in lecture and/or on the class website. Readings are a very important part of the class materials, therefore, please do all recommended readings, as it will be assumed that you have done the readings for all exams.

Grading:

Assignments	10%
Midterm exam	25%
Class paper	30%
Final exam	25%
Participation	10%

Assignments: Assignments will be posted on eClass. They will be due in class, in hard copy (unless otherwise indicated), about two weeks after posting. Due dates will be on each assignment. Please complete all assignments. Late submissions will be penalized 25% per working day.

Class Paper: In teams of 2 or 3, select a major planning and/or policy topic of interest to you. Deliverables include an initial proposal, progress update, final paper, and in-class presentation. Further details are provided after the lecture schedule below.

Midterm: The midterm exam will be held in class on **Tuesday October 20th**. Further exam details and parameters will be discussed at an appropriate time during the term.

Final Exam: The final will be held on **Thursday December 4 from 9:30–11:30AM, room TBA**. Again, further exam details and parameters will be discussed at an appropriate time later in the term.

Schedule¹:

Week	Date	Topic	Reading	Due Dates
1	09/01	Course overview and introduction	MM 1-13	<i>Form groups</i>
	09/03	Urban transportation planning: intro, systems analysis & performance	MM 89-111	
2	09/08	Urban travel characteristics	MM 149-163, 220-230	
	09/10	Transportation Master Plan (TMP), institutional structures	--	
3	09/15	Demand analysis; economic theory	MM 247-270	Assignment 1
	09/17	Travel demand models; trip generation	HG 115-131; MM 270-278	
4	09/22	Trip generation	OW 139-163 (Ch4) <i>H (2nd Ed) Ch4 (optional)</i>	<i>Paper proposals</i>
	09/24	Trip distribution	MM 278-282; OW 175-197	
5	09/29	Trip distribution	OW 198-200 (<i>optional</i>)	
	10/01	Mode split	MM 282-283; OW 207-211	Assignment 2
6	10/06	Mode split	MM 290-303; <i>Tr (optional)</i>	
	10/08	Traffic assignment	MM 283-289	
7	10/13	Traffic assignment	<i>S Chs 3 & 12 (optional)</i>	
	10/15	Other modelling approaches; evaluation	MM 220-230	Assignment 3 (10/16)
8	10/20	MIDTERM		
	10/22	Transportation & land use theory	MM 333-342	<i>Progress update 1</i>
9	10/27	Transportation & land use theory	HG Ch9 237-273	
	10/29	Regional planning	Supplemental: to be provided	<i>Progress update 2²</i>
10	11/03	<i>Class cancelled</i>		
	11/05	<i>Guest lecture (TBA)</i>	--	Assignment 4
11	11/10	<i>Reading week</i>		
	11/12			
12	11/17	Airport planning	Supplemental: to be provided	
	11/19	Airport planning	""	
13	11/24	Project presentations		Final paper (11/27)
	11/26			
14	12/02	Review	--	
	12/04	FINAL EXAM		

¹ May be subject to changes throughout the term.² Provide upon my request.

Readings:**In coursepack**

MM: Michael D. Meyer & Eric J. Miller, *Urban Transportation Planning: A Decision-Oriented Approach*. McGraw-Hill, 2nd Ed., 2001.

OW: Juan de Dios Ortuzar & Luis G. Willumsen. *Modelling Transport*. Wiley, 4th Edition, 2011.

HG: Susan Hanson and Genevieve Giuliano (eds). *The Geography of Urban Transportation*. Guildford Press, 3rd Ed., 2004.

Others

H: Susan Hanson (ed). *The Geography of Urban Transportation*. Guildford Press, 2nd Ed., 1995.

S: Yosef Sheffi. *Urban Transportation Networks: Equilibrium Analysis with Mathematical Programming Methods*. Prentice-Hall, 1985. <http://sheffi.mit.edu/urban-transportation>

Tr: Kenneth Train. *Discrete Choice Methods with Simulation*. Cambridge University Press, 2nd Ed., 2009. <http://eml.berkeley.edu/books/choice2.html>

Class Paper:

You will work on this paper in teams of 2 or 3. Each team should decide on a common subject area(s) of interest within transportation – e.g. traffic safety, smart growth, transit equity, airport ground access, transportation emissions, etc. Choose a topic regarding an analysis that was carried out, a planning or policy decision that was made, a facility that was constructed, or some type of control was implemented. We will discuss some sample topics in class. Please remember to define your topic and scope carefully and narrowly, as this will lead to a more enjoyable and higher quality project!

In the paper, you may want to focus on answering a combination of the following questions.

- 1) What is the issue you've investigated?
- 2) What analytic methods, models, and data have been used to study the problem?
- 3) Who is involved in this issue? What are their positions and how do they differ from one another? How did each group react to the methods used to study the problem?
- 4) What alternatives were/are considered?
- 5) What role (and to what degree) did the analytic methods play in the development and evaluation of alternative policies? How much did politics influence the outcome? If final decisions have not been made, explain why not and what the current state of progress is.
- 6) What have you learned about the planning process and how it shapes policy?

Deliverables will include the following:

Proposal:

One page definition of the topic, some background information, and the purpose of the paper (i.e. what it is you are going to investigate/learn from the paper). I will read these and make suggestions about the topic itself, offer guidance on reading materials and how to find contacts that may help with the paper.

Progress updates:

One page description of what has been done, what is left to do, and any difficulties/issues you've had. Also include a summary of what task(s) each team member has been responsible for.

Final paper:

Maximum 10 pages, 1.5-line spaced, 11/12-pt type (not including bibliography, appendices, and other supplemental material). Please append to the paper a final breakdown of what each team member has been responsible for.

In-class presentation:

Should be 15-20 minutes, with additional 5 minutes for questions.

Academic Integrity:

Authorship of Papers: In this course and in all scholarship, we should adhere to the highest standards of ethical conduct. A paper or report that bears your name is assumed to be your own original work. In graduate courses and in your future professional work, failure to adhere to this rule will have severe consequences. The line between scholarship and plagiarism is very thin. You may use words written by others in their publications or on their websites but only with proper references. If you quote from a published source or from a website and the quotation is short (a sentence or two) place it in quotation marks and use a footnote to denote the source. If you employ a longer passage, please indent it and use single spacing, and denote the source with a footnote.

- *From Marty Wach's course outline for CEE250/CRP217, UC Berkeley*

The University of Alberta is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are particularly urged to familiarize themselves with the provisions of the Code of Student Behaviour (online at www.governance.ualberta.ca) and avoid any behaviour which could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or participation in an offence. Academic dishonesty is a serious offence and can result in suspension or expulsion from the University.

Policy about course outlines can be found in §23.4(2) of the University Calendar.