



University of Alberta
PLAN 585 Transportation Planning
Fall 2018

Professor

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 Office Hours: Tuesday and Thursday 4:00 P.M. – 5:00 P.M.
 (sign up at <https://www.wejoinin.com/sheets/wqbqg>) If you cannot meet during these regular times, email me and we will set up an alternative meeting time.

Teaching Assistant

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Course Logistics

Name: PLAN 585 Advanced Topics in Planning (Transportation Planning)
 Location: ESB 1-33
 Time: Tuesday and Thursday 11:00 A.M. – 12:20 P.M.
 Details: Section A3, Lecture, Class 71846
 Units: 3
 eClass: <https://eclass.srv.ualberta.ca/course/view.php?id=47354>
 Notes: Students will learn how current transportation modes shape regions and how future transportation technologies might impact us. Topics include policy making and governance; land use interactions with transportation investments; climate change and resilience; energy use; environmental justice; and equity considerations.

[Parts of this syllabus are adapted from syllabi for CIVE 612, Fall 2013 (Univ. of Alberta); CIVE 411, Fall 2013 (Univ. of Alberta); URPL 6555, Spring 2017 (CU Denver); CP 114, Spring 2014 (Univ. of California, Berkeley)]

1. Calendar Description

PLAN 585: Exploring planning theories in the context of contemporary events phenomena. Sections offered in a Cost Recovery format at an increased rate of fee assessment; refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar. Prerequisite: consent of Department. Variable content course which may be repeated if topic(s) vary.

2. Course Objectives and Outcomes

Objectives: The course presents a general introduction to transportation planning. Students will be trained in thinking about transportation in relation to land use and environmental considerations. The course provides an opportunity for students to investigate real-world transportation planning/policy issues that are of interest to them. From a practitioner's perspective, the class is designed to teach students how to be planners who are required to make evidence-based claims and defend them before an expert and non-expert audience.

Outcomes: At the end of this course students will be able to:

- Write a technical policy memo
- Understand the purpose and structure of travel survey datasets
- Analyze datasets to extract insights using spreadsheet-based tools
- Lead a policy/planning meeting bringing both the main content and talking points to the table
- Examine a complex, open-ended issue within a fixed deadline (sole-authored projects)
- Justify evidence-based positions on transportation issues as would practicing planners

3. Professional Planning Accreditation Requirements

This is an advanced course for students in the Planning Programs. For students enrolled in these programs, this course contributes to developing the knowledge, skills, and ethics identified by Canadian Institute of Planners (CIP) as necessary components for practice as a professional planner. This course provides an introduction to all of the components as identified by the CIP to some degree, however, the following are emphasized:

Functional Competencies under CIP

- Forms, scales and settings of human settlements
- Land use, design and infrastructure
- Visioning, goal-setting and problem-solving
- Information gathering and analysis

Enabling Competencies under CIP

- Identifying patterns and trends
- Thinking at various geographic scales
- Gathering and analyzing quantitative data
- Teamwork and team-building
- Written/Oral/Graphic communication

4. Course Format and Workload

This survey class has equal amounts of reading and assignment loads. You are expected to budget 6 hours every week for this workload. Please note that some students will finish the required readings and assignments quicker than others. The instructor will lecture during Tuesday sessions. For Thursday sessions, we will have a series of activities. The purpose of the Thursday sessions is to give you an incentive to revisit the concepts covered in the Tuesday lectures, talk about concerns and ideas related to the week's topic.

A note on reading: Reading *actively* increases your understanding of the material and your critical thinking on a topic. The instructor will demonstrate how to read *actively*. More generally, the best way to achieve a deeper understanding of the course material is not via lectures but via your own reading of material. You are expected to synthesize from across the course readings, present relevant information and cite key authors when working on your term project. This can only be achieved if you have a firm grasp of the material through reading. Please rely on TRB style of formatting (see <http://onlinepubs.trb.org/onlinepubs/am/infoforauthors.pdf>).

Though there are no exams for this course, you will have ongoing learning activities including two assignments, a data gathering exercise, and the term project. Students in PLAN 585 are expected to take a lead in Thursday activities and will be working on the term projects as sole authors. Graduate students will need to turn in a mid-size (i.e., 8-10 pages single space) project report.

Assignments and eClass: All assignments that have to be submitted on eClass. Assignments will be posted on the class website as shown in section 5—please note release and due dates. For all deliverables in this course detailed instructions including grading rubrics will be provided. Students must complete all assignments since this will result in significant improvement of the grade. Plagiarism will not be tolerated. Please review <https://cloudfront.ualberta.ca/-/media/science/studentervices/studentforms/forms-cabinet-2018/dont-do-it2018.pdf>.

Class Activities (Thursday): On six Thursday sessions, there will be an opportunity for student to engage with the weekly topic in a non-lecture format. The students will work in teams, with graduate students taking the lead, on designing the weekly activity. A few logistics about the activity (borrowed from Dr. Carolyn McAndrews, URPL 6555, Spring 2017, CU Denver):

- Prepare for a one-hour exercise
- Link the exercise to that week's readings
- Provide specific learning outcomes for the exercise
- Make it fun, visual, kinesthetic, stimulating
- Design the exercise so that everyone participates and use techniques of facilitation to be sure that everyone does
- Write a brief memo describing your plan and submit before class on the day you are presenting

Term Project (adapted from Dr. Amy Kim, CIVE 612, Fall 2013, Univ. of Alberta): Students are required to look at a set of stories in Edmonton over the last calendar year. This will require some online research of news articles (you can visit the librarian if you find it hard to get information). You are expected to look for the transportation focus of the policy issue you pick, if the primary focus is different. Some sample issues are: suburbanization and transportation investments, challenges of infill development due to arguments of traffic, transit expansion/transit gaps, LRT versus BRT investments, bicycle infrastructure planning, parking, speeding, pedestrian and bicyclist safety, access for the elderly/women, and winter and access to facilities. Students must choose a major planning/policy topic within their area/s of interest. You are advised to define your topic and scope narrowly, since this will result in focused thinking about issues and a good term project.

You are expected to answer a combination of the following questions when you present.

- What is the issue you have investigated?
- What analytic methods, models, and data have been used to study the problem (by you and/or by others)?
- 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 by other groups?
- What alternatives are being/were considered?
- What role (and to what degree) did the analytic methods play in the development and evaluation of alternative policies? How did the political economy influence the outcome? If final decisions have not been made, explain why not and report on the current state of progress.
- What have you learned about the planning process and how it shapes policy?

Deliverables will include the following:

Initial Proposal: One-page description of the topic, some background information, and the purpose of the project (i.e., what is it you are going to investigate/learn). The instructor will read these and make suggestions about the topic itself, offer guidance—in-class discussion on Thursday September 27.

Basic analysis: Document development of initial proposal showing deeper focus on the literature, data, and/or analysis—in-class discussion on Thursday October 25.

Final DRAFT product: Students are expected to turn in a final draft version of the project report. Please note that the product should be about 80% done at this stage. During the in-class working session on Thursday November 22 you are expected to fine-tune your project report.

Class Participation: In order to encourage you to share your thoughts and ideas with the class, 10% of your course grade will be determined by the quality and quantity of your participation in various course activities every class. You can score these points by engaging pro-actively in class discussions and asking questions; by posting relevant stories to the course website Forum; or by helping out during the data analysis exercises. (Note: The instructor may or may not take attendance on certain days/dates.)

5. Lectures /Assignments

Note: All assignments and instructions will be released at the start of class or earlier. All deliverables are due at the start of class (unless otherwise noted in this table). Submissions are to be made via the course website.

Week	Date	Notes	Date	Notes	
1	4-Sep	Course and Syllabus discussion	6-Sep	Topic 1: Introduction to transportation planning	
2	11-Sep	Topic 2: Transportation and urban form	13-Sep	<u>Activity #1</u>	
3	18-Sep	Topic 3: Transportation policymaking	20-Sep	<u>Activity #2</u>	
4	25-Sep	Topic 4: Land use impacts from transportation decisions	27-Sep	Project Prep A (Initial Proposal)	Project Prep A due (Initial Proposal)
5	2-Oct	Topic 5: Transit-oriented development and value capture	4-Oct	<u>Activity #3</u>	
6	9-Oct	Topic 6: Theory for transportation planning	11-Oct	Guest lecture	
7	16-Oct	Topic 7: Travel behavior	18-Oct	Spreadsheet Analysis	#2B Analysis released
8	23-Oct	Topic 8: Energy and transportation	25-Oct	Project Prep B (Basic Analysis)	Project Prep B due (Basic Analysis)
9	30-Oct	Topic 9: Transportation and the environment	1-Nov	<u>Activity #4</u>	
10	6-Nov	Topic 10: Equity and transportation	8-Nov	<u>Activity #5</u>	
11	13-Nov	Reading Week (no class)	15-Nov	Reading Week (no class)	
12	20-Nov	Topic 11: Safety in transportation	22-Nov	Project Prep C (Final DRAFT product)	Project Prep C due (Final DRAFT product)
13	27-Nov	Topic 12: Future trends in transportation	29-Nov	<u>Activity #6</u>	
14	4-Dec	Presentations	6-Dec	Presentations	Project reports due on 6th Dec 11:55 PM)

6. Required Textbooks / Other Major Course Materials

There is a required textbook for this class. Genevieve Giuliano and Susan Hanson (eds). *The Geography of Urban Transportation*. The Guilford Press, 4th Edition, 2017. Electronic copies of the text book have been kept on reserve (see <https://www.library.ualberta.ca/catalog/7963164>). Journal papers, blogs, op-eds, and newspaper stories are additional readings for this class. This syllabus shows required and optional readings for each week in section 14.

7. Class Behavior / Attendance

The instructor has not designed this course so as to learn the material remotely. Students are expected to attend all lectures, participate in class, and finish all the assignments. Students are expected to arrive on time for all sessions and meetings. The instructor expects everyone to participate actively in a way that demonstrates familiarity with the assigned materials. One way to assist in this is to jot down questions while you are doing the reading at home and bring them up during the lectures or discussions. It is greatly appreciated when students can find current videos, articles and images that can be incorporated into lectures or posted on the class web-site for other students to see. This is particularly true for literature and information in the Canadian context.

8. Course Website

The course has an eClass website (<https://eclass.srv.ualberta.ca/course/view.php?id=47354>). Students are to use this forum to access lectures and assignments, and to submit homework assignments and progress on projects. You can also access additional resources and will receive announcements through the class website. An online forum is available that can be used to ask questions on homework assignments to the class. Students are required to visit the course website regularly to download course materials and get important updates. It is the student's responsibility to make sure you able to log into the website. If you are unable to log into the course website please consult the eClass support webpage for further instructions.

9. Classroom Access, Course Fees (if applicable), and Gaining Access to Past or Representative Evaluation Course Material

Please check with Nancy Thompson, Program Coordinator for Planning Programs, ESB 1-26, 780-492-4416, eamplan@ualberta.ca regarding room access and fees. The instructor will gather homework assignments and term projects from previous years and post them on the class website for reference. Note that such representative material will not be available for assignment #2A/B since this is a new exercise being offered for the first time this year.

10. Overall Grading Policy

Point allocation by activity / deliverable	
Participate/lead activity (6 topic slots)	22
Assignment #1 Policy memo	20
Assignment #2 Travel diary data collection and Analysis	16
Term Project (total)	32
Initial Proposal	3
Basic Analysis	8
Final DRAFT Product	8
Project Report	13
Attendance and participation	10
	100

All assignments and the term project in this course will be given a numerical mark. A cumulative course mark will be calculated from those individual marks, weighted as tabulated above. A final letter grade will be assigned based upon your cumulative mark and the instructor's analysis of the class's cumulative mark distribution. Where possible, natural breaks in the cumulative mark distribution may be used in assigning grades, but no pre-determined distribution of grades will be imposed on the class. Your grade will reflect a combination of your absolute achievement and relative standing in the class.

If you have questions or concerns with a given grade for any homework or the term project, send the instructor an email outlining the issue and specifically arguing, using evidence, why you think the marks should be different. The instructor will review your assignment or project with this concern in mind. However, the adjusting of marks/grades is entirely the instructor's prerogative.

Late submissions will carry a penalty as follows:

After deadline but before 12 hours from deadline: Penalty is 25% marks

After 12 hours but before 24 hours from deadline: Penalty is 50% marks

After 24 hours but before 48 hours from deadline: Penalty is 75% marks

Your submissions will be online and date stamped by the server. No late submissions will be accepted after two days from deadline.

Missed Assignments / Deliverables

For an excused absence where the cause is religious belief, a student must contact the instructor within two weeks of the start of classes to request accommodation for the term. Instructors may request adequate documentation to substantiate the student request.

A student who cannot complete one of the course assignments due to incapacitating illness, severe domestic affliction, or other compelling reason should contact the instructor via e-mail as soon as possible. The weight of the missed assignment will be added to the term project.

A student who cannot turn in the final project report due to incapacitating illness, severe domestic affliction or other compelling reasons can apply to the instructor for another date to hand in the final project report. Such an application must be made to the instructor within 48 hours of the missed deadline and must be supported by a Statutory Declaration or other appropriate documentation (<https://calendar.ualberta.ca/content.php?catoid=28&navoid=6961#Attendance>). If a deferred accommodation is necessary, it will take place on Friday 7th December, 2018 at 11:55 P.M. on the class website.

Deferral of term work is a privilege and not a right; there is no guarantee that a deferral will be granted. Misrepresentation of Facts to gain a deferral is a serious breach of the *Code of Student Behaviour*.

11. Grading Policy for Assignments

All homework will include a set of tasks that are to be performed and reported in a write up. For the two homework assignments, the assignment description will show how many marks each step carries. Each task will be evaluated according to the following criteria:

- a. Academic merit of your answers to the questions.
- b. Conciseness and completeness of your answers. Please write to the point and explicitly address the questions or tasks. Avoid using unnecessary graphics (figures, tables, graphs, etc.) unless they add value. Similarly do not write what you can show and discuss through figures and graphs. Make sure to use captions and to refer to the graphics you include in your written answer. Graphics without any reference or accompanying explanation will be disregarded.
- c. Organization and presentation. Remember that your homework assignment is a professional document that reflects your thinking and learning process. Please organize your writing in a logical fashion so that your answers can be easily identified. A general format for your presentation should, as a minimum, include the following components:
 - i. Question number
 - ii. Your answer and discussion
 - iii. Your support documents (images, graphs, tables, etc.) as required.
- d. Before submitting your assignments please verify that your document complies with the submission instructions. Make sure all the necessary files/deliverables are included in your electronic submission.

Each assignment's instructions will include the total maximum marks and its percentage weighting in the final course mark. The contribution of each assignment to your final mark will therefore be the assignment marks given to you multiplied by the percentage. Please note that assignments have different percentages depending on their level of difficulty. Also note that some assignments may include bonus questions or tasks.

12. Exams

There are no exams for this course.

13. Other Important Notes:

1. *Academic Integrity*: 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 (<https://www.ualberta.ca/governance/resources/policies-standards-and-codes-of-conduct/code-of-student-behaviour>) 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.
All forms of dishonesty are unacceptable at the University. Any offence will be reported to the Associate Dean of Science who will determine the disciplinary action to be taken. Cheating, plagiarism and misrepresentation of facts are serious offences. Anyone who engages in these practices will receive at minimum a grade of zero for the exam or paper in question and no opportunity will be given to replace the grade or redistribute the weights. As well, in the Faculty of Science the sanction for cheating on any examination will include a disciplinary failing grade (NO EXCEPTIONS) and senior students should expect a period of suspension or expulsion from the University of Alberta.
2. *Cell Phones*: Cell phones are to be turned off during lectures, labs and seminars.
3. *Recording and/or Distribution of Course Materials*: Audio or video recording, digital or otherwise, of lectures, labs, seminars or any other teaching environment by students is allowed only with the prior written consent of the instructor or as a part of an approved accommodation plan. Student or instructor content, digital or otherwise, created and/or used within the context of the course is to be used solely for personal study, and is not to be used or distributed for any other purpose without prior written consent from the content author(s).
4. Policy about course outlines can be found in the University Calendar (https://calendar.ualberta.ca/content.php?catoid=28&navoid=6961#Evaluation_Procedures_and_Grading_System).
5. *Students Eligible for Accessibility-Related Accommodations (students registered with Accessibility Resources - AR)*: Eligible students have both rights and responsibilities with regard to accessibility-related accommodations. Consequently, scheduling exam accommodations in accordance with AR deadlines and procedures is essential. Please note adherence to procedures and deadlines is required for U of A to provide accommodations. Contact AR (<https://www.ualberta.ca/current-students/student-accessibility-services>) for further information.
6. *Academic Success Centre (1-80 SUB) (formerly the Student Success Centre)*: The Academic Success Centre (<https://www.ualberta.ca/current-students/academic-success-centre>) provides professional academic support to help students strengthen their academic skills and achieve their academic goals. Individual advising, appointments, and group workshops are available year round in the areas of Accessibility, Communication, Learning, and Writing Resources. Modest fees apply for some services.

7. *Disclaimer*: Any typographical errors in this Course Outline are subject to change and will be announced in class. The date of the final examination, if there is one, is set by the Registrar and takes precedence over the final examination date reported in this syllabus.
8. *Copyright*: Dr. Manish Shirgaokar, Urban and Regional Planning Program, Department of Earth & Atmospheric Sciences, Faculty of Science, University of Alberta (2018). This copyright prohibits redistribution of the contents of this syllabus or any associated course material in any forum that is not provided directly through the University of Alberta.

14. Readings

Note: Readings may be updated. Each week's reading list will be posted on eClass.

Readings by week with code to decipher the reading list:

- “Two Asterisks (**)” must be read
- “One Asterisk (*)” at least one of two such must be read
- “T” = Textbook
- “eC” = eClass
- “W” = Web Resource (use link, DOI, or a search engine)

Week 1: (Sep 4 and 6) Topic 1: Introduction to transportation planning

- T** Susan, H. Chapter 1 Introducing Urban Transportation in Giuliano, G., and Susan, H. (Editors) 2017. *The geography of urban transportation*, 4th edition, New York and London: The Guilford Press.
- W* Canada, S.S.C. of T. and C., 2018. *Driving Change: Technology and the future of the automated vehicle*. Ottawa, Canada.
https://sencanada.ca/content/sen/committee/421/TRCM/Reports/COM_RPT_TRCM_AutomatedVehicles_e.pdf
- W* Transportation Research Board. 2013. *Critical issues in transportation 2013*. Washington DC: Transportation Research Board.
<http://onlinepubs.trb.org/Onlinepubs/general/criticalissues13.pdf>
- W Govt. of Canada. *Pathways: Connecting Canada's Transportation System to the World: Volume 1*. Ministry of Transport, Toronto, Ontario, 2012, p. 286.
http://www.tc.gc.ca/eng/ctareview2014/CTAR_Vol1_EN.pdf
- W Urban Transportation Task Force. 2005. *Urban Transportation in Canada: Needs and Opportunities*. Washington DC: Transportation Research Board.
<http://www.comt.ca/english/urbantrans.pdf>
- W Anowar, S., Eluru, N., Miranda-Moreno, L.F., 2017. How household transportation expenditures have evolved in Canada: a long term perspective. *Transportation* 1–21. doi:10.1007/s11116-017-9765-3

Week 2: (Sep 11 and 13) Topic 2: Transportation and urban form

- T** Muller, P. Chapter 3 Transportation and Urban Form: Stages in the Spatial Evolution of the American Metropolis in Giuliano, G., and Susan, H. (Editors) 2017. *The geography of urban transportation*, 4th edition, New York and London: The Guilford Press.

- eC* Kenneth Jackson. 1985. “The transportation revolution and the erosion of the walking city (Chapter 2)” in *Crabgrass frontier: The suburbanization of the United States*. New York: Oxford University Press. (also available at <https://library.ualberta.ca/catalog/760989>)
- eC * Peter Hall. 2014. “The City of By-Pass Variegated – The Mass Transit Suburb: London, Paris, Berlin, New York, 1900-1940” in *Cities of Tomorrow : An Intellectual History of Urban Planning and Design Since 1880*, Hoboken, NJ: Wiley-Blackwell (Fourth Edition) (also available at <https://library.ualberta.ca/catalog/6921127>)
- T Kenneth Jackson. 1985. “The time of the trolley (Chapter 6)” and “The new age of automobility (Chapter 9)” in *Crabgrass frontier: The suburbanization of the United States*. New York: Oxford University Press. (available at <https://library.ualberta.ca/catalog/760989>)
- W Sy Adler. 1991. The transformation of the Pacific Electric railway: Bradford Snell, Roger Rabbit, and the politics of transportation in Los Angeles. *Urban Affairs Quarterly* 27 (1) 51-86. doi: 10.1177/004208169102700104
- W Interrante, J., 1979. You Can’t Go to Town in a Bathtub: Automobile Movement and the Reorganization of Rural American Space, 1900–1930. *Radical History Review* 21, 151–168. doi:10.1215/01636545-1979-21-151

Week 3: (Sep 18 and 20) Topic 3: Transportation policymaking

- T** Gian-Claudia, S., Handy, S. Chapter 6 Regional Transportation Planning in Giuliano, G., and Susan, H. (Editors) 2017. *The geography of urban transportation*, 4th edition, New York and London: The Guilford Press.
- T** Taylor, B. Chapter 10 The Geography of Urban Transportation Finance in Giuliano, G., and Susan, H. (Editors) 2017. *The geography of urban transportation*, 4th edition, New York and London: The Guilford Press.
- W Casello, J.M., Towns, W., Bélanger, J., Kassiedass, S., 2015. Public Engagement in Public Transportation Projects: Challenges and Recommendations. *Transportation Research Record: Journal of the Transportation Research Board* 2537, 88–95. doi:10.3141/2537-10
- W Siemiatycki, M., 2006. Implications of Private-Public Partnerships on the Development of Urban Public Transit Infrastructure: The Case of Vancouver, Canada. *Journal of Planning Education and Research* 26, 137–151. doi:10.1177/0739456X06291390
- W Grant, J.L., Beed, T., Manuel, P.M., 2016. Integrated Community Sustainability Planning in Atlantic Canada Green-Washing an Infrastructure Agenda. *Journal of Planning Education and Research*. doi:10.1177/0739456X16664788
- W City of Edmonton. 2009. *The Way We Move – Transportation Master Plan*, http://www.edmonton.ca/city_government/documents/land_sales/TransportationMasterPlan.pdf

Week 4: (Sep 25 and 27) Topic 4: Land use impacts from transportation decisions

- T** Giuliano, G., Agrawal, A. Chapter 9 Land Use Impacts of Transportation Investments in Giuliano, G., and Susan, H. (Editors) 2017. *The geography of urban transportation*, 4th edition, New York and London: The Guilford Press.
- W* Shirgaokar, M., 2014. Employment centers and travel behavior: exploring the work commute of Mumbai’s rapidly motorizing middle class. *Journal of Transport Geography* 41, 249–258. doi:10.1016/j.jtrangeo.2014.10.003

- W* Cervero, R., Murakami, J., 2009. Rail and Property Development in Hong Kong: Experiences and Extensions. *Urban Studies* 46, 2019–2043. doi:10.1177/0042098009339431
- W Ewing, R., & Cervero, R. (2010). Travel and the built environment: a meta-analysis. *Journal of the American Planning Association*, 76(3), 265–294. doi:10.1080/01944361003766766
- W Stevens, M. (2016). Does Compact Development Make People Drive Less? *Journal of the American Planning Association*, doi:10.1080/01944363.2016.1240044
- W Thompson, D. Suburban Sprawl: Exposing Hidden Costs, Identifying Innovations. Oct. 2013. http://thecostofsprawl.com/report/SP_SuburbanSprawl_Oct2013_opt.pdf

Week 5: (Oct 2 and 4) Topic 5: Transit-oriented development and value capture

- W** McIntosh, J.R., Newman, P., Trubka, R., Kenworthy, J., 2015. Framework for land value capture from investments in transit in car-dependent cities. *Journal of Transport and Land Use*. doi:10.5198/jtlu.2015.531
- W** Deboosere, R., El-Geneidy, A.M., Levinson, D., 2018. Accessibility-oriented development. *Journal of Transport Geography* 70, 11–20. doi:10.1016/j.jtrangeo.2018.05.015
- W* Baker, D.M., Lee, B., 2017. How Does Light Rail Transit (LRT) Impact Gentrification? Evidence from Fourteen US Urbanized Areas. *Journal of Planning Education and Research*. doi:10.1177/0739456X17713619
- W* D. Knowles, R., Ferbrache, F., 2015. Evaluation of wider economic impacts of light rail investment on cities. *Journal of Transport Geography*. doi:10.1016/j.jtrangeo.2015.09.002
- W Houston, D., Boarnet, M.G., Ferguson, G., Spears, S., 2015. Can compact rail transit corridors transform the automobile city? Planning for more sustainable travel in Los Angeles. *Urban Studies* 52, 938–959. doi:10.1177/0042098014529344
- W Devaux, N., Dubé, J., Apparicio, P., 2017. Anticipation and post-construction impact of a metro extension on residential values: The case of Laval (Canada), 1995–2013. *Journal of Transport Geography* 62, 8–19. doi:10.1016/j.jtrangeo.2017.05.002

Week 6: (Oct 9 and 11) Topic 6: Theory for transportation planning

- T** Miller, H. Chapter 5 Theories and Models in Transportation Planning in Giuliano, G., and Susan, H. (Editors) 2017. *The geography of urban transportation*, 4th edition, New York and London: The Guilford Press.
- W* Miller, E.J., 2018. Viewpoint: Integrated urban modeling: Past, present, and future. *Journal of Transport and Land Use* 11. doi:10.5198/jtlu.2018.1273
- W* Banister, D., 2008. The sustainable mobility paradigm. *Transport Policy* 15, 73–80. doi:10.1016/j.tranpol.2007.10.005
- W Milne, D., Watling, D., 2018. Big data and understanding change in the context of planning transport systems. *Journal of Transport Geography*. doi:10.1016/j.jtrangeo.2017.11.004
- W Ellegård, K., Svedin, U., 2012. Torsten Hägerstrand's time-geography as the cradle of the activity approach in transport geography. *Journal of Transport Geography*, Special Issue on Time Geography 23, 17–25. doi:10.1016/j.jtrangeo.2012.03.023
- W Ramos, G.M., Daamen, W., Hoogendoorn, S., 2014. A State-of-the-Art Review: Developments in Utility Theory, Prospect Theory and Regret Theory to Investigate Travellers' Behaviour in Situations Involving Travel Time Uncertainty. *Transport Reviews* 34, 46–67. doi:10.1080/01441647.2013.856356

Week 7: (Oct 16 and 18) Topic 7: Travel behavior

- T** Boarnet, M. Chapter 7 Land Use, Travel Behavior, and Disaggregate Travel Data in Giuliano, G., and Susan, H. (Editors) 2017. *The geography of urban transportation*, 4th edition, New York and London: The Guilford Press.
- W* Blumenberg, E., Ralph, K., Smart, M., Taylor, B.D., 2016. Who knows about kids these days? Analyzing the determinants of youth and adult mobility in the U.S. between 1990 and 2009. *Transportation Research Part A: Policy and Practice* 93, 39–54. doi:10.1016/j.tra.2016.08.010
- W* Habib, K.N., Hui, V., 2015. An activity-based approach of investigating travel behaviour of older people. *Transportation* 1–19. doi:10.1007/s11116-015-9667-1
- W Mokhtarian, P.L., Salomon, I., Redmond, L.S., 2001. Understanding the Demand for Travel: It's Not Purely "Derived." *Innovation: The European Journal of Social Science Research* 14, 355–380. doi:10.1080/13511610120106147
- W Vos, J.D., Schwanen, T., Acker, V.V., Witlox, F., 2013. Travel and Subjective Well-Being: A Focus on Findings, Methods and Future Research Needs. *Transport Reviews* 33, 421–442. doi:10.1080/01441647.2013.815665
- W Shirgaokar, M., Habib, K.N., 2018. How does the inclination to bicycle sway the decision to ride in warm and winter seasons? *International Journal of Sustainable Transportation* 12, 397–406. doi:10.1080/15568318.2017.1378779

Week 8: (Oct 23 and 25) Topic 8: Energy and transportation

- T** Green, D. Chapter 12 Transportation and Energy in Giuliano, G., and Susan, H. (Editors) 2017. *The geography of urban transportation*, 4th edition, New York and London: The Guilford Press.
- W* Ngo, V.D., Frank, L.D., Bigazzi, A.Y., 2018. Effects of new urban greenways on transportation energy use and greenhouse gas emissions: A longitudinal study from Vancouver, Canada. *Transportation Research Part D: Transport and Environment* 62, 715–725. doi:10.1016/j.trd.2018.04.013
- W* Scarinci, R., Rast, F., Bierlaire, M., 2017. Needed reduction in mobility energy consumption to meet the goal of a 2000-watt society. *Transportation Research Part A: Policy and Practice* 101, 133–148. doi:10.1016/j.tra.2017.05.010
- W Chatterton, T., Anable, J., Cairns, S., Wilson, R.E., 2017. Financial Implications of Car Ownership and Use: A distributional analysis based on observed spatial variance considering income and domestic energy costs. *Transport Policy*. doi:10.1016/j.tranpol.2016.12.007
- T Sperling, D. (Ed.), 2018. *Three revolutions : Steering automated, shared, and electric vehicles to a better future*. Island Press, Washington; Covelo; London. <https://library.ualberta.ca/catalog/8301920>
- T Sperling, D., and D. Gordon. *Two billion cars: Driving toward sustainability*. Oxford University Press, Oxford, 2009. <https://library.ualberta.ca/catalog/5988260>

Week 9: (Oct 30 and Nov 1) Topic 9: Transportation and the environment

- T** Le Vine, S., Lee-Gosselin, M. Chapter 11 Transportation and Environmental Impacts and Policy in Giuliano, G., and Susan, H. (Editors) 2017. *The geography of urban transportation*, 4th edition, New York and London: The Guilford Press.
- W* Saxe, S., Cruickshank, H., Miller, E., 2015. Greenhouse Gas Impact of Ridership on Sheppard Subway Line, Toronto, Canada. *Transportation Research Record: Journal of the Transportation Research Board* 2502, 62–70. doi:10.3141/2502-08
- W* Govt. of Canada, 2016. Pan-Canadian Framework on Clean Growth and Climate Change: Canada's Plan to Address Climate Change and Grow the Economy. <https://www.canada.ca/content/dam/themes/environment/documents/weather1/20170125-en.pdf>
- W Kronsell, A., Rosqvist, L.S., Hiselius, L.W., 2016. Achieving climate objectives in transport policy by including women and challenging gender norms: The Swedish case. *International Journal of Sustainable Transportation* 10, 703–711. doi:10.1080/15568318.2015.1129653
- W Lee, T.M., Markowitz, E.M., Howe, P.D., Ko, C.-Y., Leiserowitz, A.A., 2015. Predictors of public climate change awareness and risk perception around the world. *Nature Climate Change* 5, 1014–1020. doi:10.1038/nclimate2728
- W Broomell, S.B., Budescu, D.V., Por, H.-H., 2015. Personal experience with climate change predicts intentions to act. *Global Environmental Change* 32, 67–73. <https://doi.org/10.1016/j.gloenvcha.2015.03.001>

Week 10: (Nov 6 and 8) Topic 10: Equity and transportation

- T** Blumenberg, E. Chapter 13 Social Equity and Urban Transportation in Giuliano, G., and Susan, H. (Editors) 2017. *The geography of urban transportation*, 4th edition, New York and London: The Guilford Press.
- W* Legrain, A., Buliung, R., El-Geneidy, A.M., 2016. Travelling fair: Targeting equitable transit by understanding job location, sectorial concentration, and transit use among low-wage workers. *Journal of Transport Geography* 53, 1–11. doi:10.1016/j.jtrangeo.2016.04.001
- W* Colley, M., Buliung, R.N., 2016. Gender Differences in School and Work Commuting Mode Through the Life Cycle. *Transportation Research Record: Journal of the Transportation Research Board* 2598, 102–109. doi:10.3141/2598-12
- W Houde, M., Apparicio, P., Séguin, A.-M., 2018. A ride for whom: Has cycling network expansion reduced inequities in accessibility in Montreal, Canada? *Journal of Transport Geography* 68, 9–21. doi:10.1016/j.jtrangeo.2018.02.005
- W Lucas, K., Philips, I., Mulley, C., Ma, L., 2018. Is transport poverty socially or environmentally driven? Comparing the travel behaviours of two low-income populations living in central and peripheral locations in the same city. *Transportation Research Part A: Policy and Practice* 116, 622–634. doi:10.1016/j.tra.2018.07.007
- W Shirgaokar, M., 2018. Expanding Seniors' Mobility through Phone Apps: Potential Responses from the Private and Public Sectors. *Journal of Planning Education and Research*. doi:10.1177/0739456X18769133

Week 11: (Nov 13 and 15) Reading Week (no class)

Week 12: (Nov 20 and 22) Topic 11: Safety in transportation

- W** Manuel, A., El-Basyouny, K., Islam, M.T., 2014. Investigating the safety effects of road width on urban collector roadways. *Safety Science* 62, 305–311. doi:10.1016/j.ssci.2013.09.005
- W** Islam, M.T., El-Basyouny, K., Ibrahim, S.E., 2014. The impact of lowered residential speed limits on vehicle speed behavior. *Safety Science* 62, 483–494. doi:10.1016/j.ssci.2013.10.006
- W* Loukaitou-Sideris, A., Medury, A., Fink, C., Grembek, O., Shafizadeh, K., Wong, N., Orrick, P., 2014. Crashes on and Near College Campuses: A Comparative Analysis of Pedestrian and Bicyclist Safety. *Journal of the American Planning Association* 80, 198–217. doi:10.1080/01944363.2014.978354
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- W Schneider, R.J., 2013. Theory of routine mode choice decisions: An operational framework to increase sustainable transportation. *Transport Policy* 25, 128–137. doi:10.1016/j.tranpol.2012.10.007
- W Transportation Research Board, 2010. Women’s Issues in Transportation: Summary of the 4th International Conference. Conference overview and plenary papers. Transportation Research Board. <https://www.nap.edu/catalog/22887/womens-issues-in-transportation-summary-of-the-4th-international-conference-volume-2-technical-papers>

Week 13: (Nov 27 and 29) Topic 12: Future trends in transportation

- T** Circella, G., Mokhtarian, P. Chapter 4 Impacts of Information and Communication Technology in Giuliano, G., and Susan, H. (Editors) 2017. *The geography of urban transportation*, 4th edition, New York and London: The Guilford Press.
- W* Chapin, T., Stevens, L., Chrute, J., 2017. Here Come The Robot Cars. *Planning* 83, 16–21. <https://www.planning.org/planning/2017/apr/robotcars/>
- W* Docherty, I., Marsden, G., Anable, J., 2017. The governance of smart mobility. *Transportation Research Part A: Policy and Practice*. doi:10.1016/j.tra.2017.09.012
- W Hubbard, S.M.L., 2018. Automated Vehicle Legislative Issues. *Transportation Research Record*. doi:10.1177/0361198118774155
- W Marchau, V., Zmud, J., Kalra, N., 2018. Editorial for the special issue – Autonomous vehicle policy. *Transportation Research Part A: Policy and Practice*. doi:10.1016/j.tra.2018.04.017
- W Straub, E.R., Schaefer, K.E., 2018. It takes two to Tango: Automated vehicles and human beings do the dance of driving – Four social considerations for policy. *Transportation Research Part A: Policy and Practice*. doi:10.1016/j.tra.2018.03.005

Week 14: (Dec 4 and 6) Project Reports