# Syllabus: GGR424H1S

# **Transportation Geography and Planning**

Wednesday, 6–8pm Online Synchronous (Quercus)

#### **Instructor**

Asya Bidordinova – Email: asya.bidordinova@mail.utoronto.ca

Office Hours: Online via BB collaborate after class or by appointment.

# **Course Description**

This course is an interdisciplinary introductory overview of important issues in urban transport geography and planning. Transport geography studies the mobility of people, goods, and information over space and time. Transport planning deals with developing and implementing policies and measures to support mobility and address specific problems. In this course we will explore contemporary urban transport issues, including automobility, transit oriented development, complete streets, active transportation, and accessible, healthy, equitable, sustainable and safe mobility.

A combination of lectures, discussions, qualitative and quantitative assignments will help students gain insights into issues in transportation geographies and planning. Lectures will explore contemporary approaches to transport planning and existing transport and land-use policies in different planning contexts. Guest speakers will provide a range of perspectives and insights into real-life challenges in transportation planning. This is a seminar-type course and students are encouraged to do readings and be prepared to participate in discussions. Course assignments will introduce students to the Transportation Tomorrow Survey and Statistics Canada data. Students will explore existing policies, practice data mining and analysis to address transport related questions. In a capstone project, students will be able to use their smaller assignment findings and apply their knowledge of theories, concepts, and policies to assess status quo and recommend transport policy improvement.

# **Learning Outcomes**

Once you have engaged in learning and discussions and completed assignments to your best ability, you will be able to:

- Identify and critically assess transportation-related issues in urban settings.
- Perform an urban transport system "health-check" by examining transportation systems, mode share distribution, land-use, and demographic and socio-economic profile of an urban area.
- Apply the theoretical and practical knowledge you have acquired from the course to develop recommendations on improving urban transport systems.

# **Course Organization**

#### **Access to Course Materials & Readings**

Course materials and readings will be accessible on the Quercus-based course website.

All students enrolled in the class should be able to view the link to the course once they visit Quercus and enter the portal using their UTORID and password. All course materials – including the course outline, assigned readings, assignments, course announcements, and links to additional readings – will be posted on the course website.

#### **Submissions**

All written assignments are to be submitted on <u>the Quercus-based course website</u>, under different Assignment tabs. Please do not submit assignments via email.

#### **Tutorials**

There will be no tutorials in this course.

# **Assignments and Evaluation**

#### **Key Dates**

Urban transportation status quo	20%	January 27, 2021
Mobility related data analysis	25%	February 17, 2021
Group project proposal	10%	March 10, 2021
Group project presentation	5%	March 31 and April 7, 2021
Group project report	20%	April 7, 2021
Participation	10%	(attendance and in-class engagement)
	Urban transportation status quo Mobility related data analysis Group project proposal Group project presentation Group project report Participation	Mobility related data analysis25%Group project proposal10%Group project presentation5%Group project report20%

#### **Assignment Details**

Assignment 1 – Urban transportation status quo

Due date: January 27, 2021 Weight: 20%

Describe and assess transportation systems and mobility in a city where you currently live or know well. Include information about transportation modes (e.g. transit, walking, cycling, and/or driving) that you observe and transportation systems (e.g. a light rail/subway system, bus network, cycling network) in your city. Based on your observations, describe how goods are delivered in your neighbourhood.

Describe your main transportation mode(s). Evaluate your commute based on your travel experiences and observations (past or present). Evaluate aspects of urban transportation that 1) work for you and 2) that you find challenging. For instance, in addition to travel time and congestion (traffic or passenger), you may want to think of issues like accessibility, equity, health, sustainability, and safety.

Be creative - include images, maps, subway/bus/street car/LRT network maps. (Remember to include in-text citations every time you use information from sources or somebody else's ideas!)

Assignment 2 — Transportation and mobility in an Ontario Urban Growth Centre: analysis and recommendations

Due date: February 17, 2021 Weight: 25%

In this assignment we will use Statistics Canada and/or Transportation Tomorrow Survey data to analyze transportation and mobility in Ontario urban growth centres. Students will explore transport related statistical data, including transportation modes, travel time, and associated demographics and socio-economic characteristics. Applying this data, students will assess the current situation against transport and mobility targets in the Ontario Places to Grow Plan. More detailed instructions will be provided in the assignment outline.

Assignment 3 – Group project: Urban transport systems' "health-check" and recommendations for Ontario growth centres.

Due dates:

Group project proposal 10% March 10, 2021

Group project presentation 5% April 1 and April 7, 2021

Group project report 20% April 7, 2021

Using the data and analysis from Assignment 2, students will develop group planning reports. These reports will provide a summary of the current situation, outline progress towards provincial targets, and develop recommendations for Ontario Urban Growth Centres. Groups will be formed based on the Urban Growth Centres. In this group project students will be able to use data from Assignment 2 and apply concepts and methods from lectures, readings, and class discussions. More detailed instructions will be provided in the assignment outline.

#### **Late Penalties**

Without an extension arranged through Accessibility Services or in consultation with the course instructor, there will be a 5% deduction for each day that an assignment is late (including weekend days). Assignments will not be accepted more than seven days after due date.

### **Required Text**

There will be no required textbook for this course. Readings are assigned weekly. However, we will read several chapters from Dr. Jean-Paul Rodrigue (2020) textbook that is available online:

Dr. Jean-Paul Rodrigue. *The Geography of Transport Systems*. <a href="https://transportgeography.org/?page\_id=58">https://transportgeography.org/?page\_id=58</a> – Available online

#### **Course Schedule**

#### Week 1 (January 13): Introduction to transportation geography and planning

An introduction to concepts, principles and methods in urban transport geography and planning.

#### Recommended reading:

Dr. Jean-Paul Rodrigue. *The Geography of Transport Systems*. <a href="https://transportgeography.org/?page\_id=58">https://transportgeography.org/?page\_id=58</a> (available online) Chapters:

1.1 – What is Transport Geography?

3.2 - Transportation and Society

# Week 2 (January 20): Urban transportation planning: Moving people and goods

Urban transport systems: Passenger transport systems and urban logistics - *status quo* and challenges.

#### Readings:

Dr. Jean-Paul Rodrigue. *The Geography of Transport Systems*. (Available online) Chapters:

8.3 – Urban Mobility

8.4 - Urban Transport Challenges

Litman, T. (2011). Measuring Transportation: *Traffic, Mobility and Accessibility*. Vitoria, BC: Victoria Transportation Policy Institute, 1-17. Available online: <u>Microsoft Word - Measuring Transportation (vtpi.org)</u>

Optional reading for those interested in urban logistics:

Rodrigue, Jean-Paul and Dablanc, Laetitia. *City Logistics: Concepts, Policy and Practice* > <u>Part A. Freight and the City</u>

#### Chapters:

1.1 – What is City Logistics?

1.4 – Urban Logistical Challenges

# Week 3 (January 27): Transportation planning: From automobility to more equitable urban mobility

In many countries, automobility has resulted in car-oriented urban landscapes and societies, in which the other modal alternatives had lower priority. John Urry (2004) discusses "the Automobility system" and its consequences. Brian Slack and Jean-Paul Rodrigue (2020) introduce contemporary transport planning and transport demand management.

#### Readings

Urry, John. (2004). The 'System' of Automobility. *Theory, Culture & Society, 21*(4–5), 25–39. https://doi.org/10.1177/0263276404046059 (Article will be provided on a course website)

Dr. Jean-Paul Rodrigue. *The Geography of Transport Systems*. (Available online) Chapter:

<u>9.2 – Transport Planning and Governance</u>, Authors: Brian Slack and Jean-Paul Rodrigue Note: "Governance in Transportation" section is optional

For a global perspective on automobility you may explore: Robin Hickman, Duncan Smith, Daniel Moser, Claudius Schaufler and Giacomo Vecia. (2017). <u>Why the automobile has no future. A global impact analysis</u>. Greenpeace. Available online. (Optional)

#### Week 4 (February 3): Transportation planning: Transit oriented development

Transit-oriented development (TOD) means intensifying development along well-served transport corridors and coupling public transport investments and urban development. Approaches include increasing density and concentrating residences and jobs around well-designed and accessible transit stations. Ren Thomas and Luca Bertolini (2020) discuss TOD advantages and challenges. They refer to characteristics that influence transit ridership that begin with the letter "D". Susan Handy (2018) comments on some of these characteristics.

Be prepared to name and discuss these Ds. How do these two readings intersect?

Demonstration: Statistics Canada and the UofT Data Management Group urban mobility data

#### Readings

Handy, S. (2018). Enough with the "D's" Already – Let's Get Back to "A." *Transfers.* April 2018, pp. 1-3. <a href="https://transfersmagazine.org/enough-with-the-ds-already-lets-get-back-to-a/">https://transfersmagazine.org/enough-with-the-ds-already-lets-get-back-to-a/</a> (Available online.)

Thomas R., Bertolini L. (2020) *Introduction to Transit-Oriented Development. In: Transit-Oriented Development*. Palgrave Pivot, Cham., pp.1-20. <a href="https://doi-org.myaccess.library.utoronto.ca/10.1007/978-3-030-48470-5\_1">https://doi-org.myaccess.library.utoronto.ca/10.1007/978-3-030-48470-5\_1</a>

# Week 5 (February 10): Transport policy and planning: Multi-modal travel and transit accessibility

We will discuss the regional transit network and transit oriented development in the Greater Toronto and Hamilton Region (GTAH). Transit station design, multi-modal access planning, and the challenge of how to ensure that transit oriented development generates sufficient ridership.

Guest lecture

#### Readings

Litman, T. (2020), Evaluating Accessibility for Transport Planning Measuring People's Ability to Reach Desired Goods and Activities, Victoria Transport Policy Institute. Evaluating Accessibility For Transport Planning (vtpi.org)

#### Recommended readings

Willson, R., & Menotti, V. (2007). Commuter Parking versus Transit-Oriented Development: Evaluation Methodology. *Transportation Research Record*, *2021*(1), 118–125. https://doi.org/10.3141/2021-14

Duncan, M. (2010). To Park or To Develop: Trade-Off in Rail Transit Passenger Demand. *Journal of Planning Education and Research*, 30(2), 162–181. https://doi.org/10.1177/0739456X10385935

#### Week 6 (February 17): Reading week

No class

#### Week 7 (February 24): Sustainable urban transport systems

What are the ways to make mobility of people and goods in cities more sustainable?

#### Readings

Dr. Jean-Paul Rodrigue. *The Geography of Transport Systems*. (Available online) Chapter:

<u>4.4 – Transportation, Sustainability and Decarbonization</u> <u>B.15 – Green Logistics</u> (Optional for those interested in urban logistics)

Banister, David. (2011). Cities, mobility and climate change. *Journal of Transport Geography*, *19*(6), 1538–1546. <a href="https://doi.org/10.1016/j.jtrangeo.2011.03.009">https://doi.org/10.1016/j.jtrangeo.2011.03.009</a>

#### Week 8 (March 3): Complete streets, walking and cycling

Complete Streets are streets designed as safe for people of all ages and abilities and for any transport mode, including walking and cycling. Complete streets contribute to transport accessibility, safety, equity and sustainability in cities. Since 2003, complete streets communities have been growing in Canada and the USA.

**Guest Lecture** 

#### Readings

Pucher, John & Buehler, Ralph. (2017). Cycling towards a more sustainable transport future, Transport Reviews, 37:6, 689-694, DOI: <a href="https://doi.org/10.1080/01441647.2017.1340234">10.1080/01441647.2017.1340234</a> (Open access article, <a href="https://doi.org/10.1080/01441647.2017.1340234">available online</a>)

Hess, Paul. (2009). Avenues or arterials: The struggle to change street building practices in Toronto, Canada. *Journal of Urban Design*, 14(1), 1–28. <a href="https://doi.org/10.1080/13574800802451049">https://doi.org/10.1080/13574800802451049</a> (The article will be provided on the course website)

Explore The Centre for Active Transportation (TCAT) website: Resources (tcat.ca) TCAT interactive map of complete streets communities in Canada.

#### Week 9 (March 10): Safe and healthy mobility

Transport safety is one of the important concerns in cities. We will continue discussing walking and cycling and how to make streets and roads safer for more vulnerable road users. We will discuss a strategy that aims to tackle road and street safety issues - Vision Zero. Another topic this week will be measures taken during the COVID-19 epidemics to provide additional space for cycling and walking.

Guest lecture (to be confirmed)

#### Readings

International Transport Forum, ITF (2018). *Road Safety Annual Report 2018*, OECD Publishing, Paris, https://doi.org/10.1787/1c884dcb-en. <u>OECD iLibrary | Road Safety Annual Report 2018 (oecd-ilibrary.org)</u> (Available online)

Canada report: Canada | READ online (oecd-ilibrary.org), pp.1-16

#### Week 10 (March 17): Equitable transportation

What are the ways to make mobility of people in cities more just and equitable?

#### Readings

Litman, T. (2020), *Evaluating Transportation Equity Guidance For Incorporating Distributional Impacts in Transportation Planning*, Victoria Transport Policy Institute. https://vtpi.org/equity.pdf

### Week 11 (March 24): Transportation and social equity

Guest lecture: Dr. Anna Kramer

Readings

Kramer, A., & Goldstein, A. (2015). *Meeting the public's need for transit options: Characteristics of socially equitable transit networks.* Institute for Transportation Engineers Journal, 85(9), 23-30.

Week 12 (March 31): Group project presentations

Week 13 (April 7): Group project presentations

# **Course Policies & Expectations**

#### Communication

Office hours will be held online via BB collaborate weekly after class or by appointment.

If you wish to contact your course instructor by email, please use your UTORmail address for correspondence. I will respond to e-mail messages within 24 hours, excluding weekends and holidays. Messages sent after 5pm will likely receive a reply the following day.

#### **Classroom Environment**

We will be meeting online every Wednesday at our scheduled time 6pm to 8pm beginning on January 13, 2021. Real-time lectures, in-class discussions and activities, and group work will take place via BB Collaborate in Quercus. Please log into Quercus to click on the link provided to join and participate in our scheduled sessions. To receive participation marks students should be able to participate in discussions and group work. Students should have access to a microphone and (optional) camera.

Course materials and lecture slides will be posted on the course website. The lecture component of the class will be recorded and can be made available upon request. Discussions and other in-class activities will not be recorded.

#### **Accessibility Services**

The University of Toronto is committed to accessibility. If you require accommodations or have any accessibility concerns, please visit the <u>UofT Accessibility Services website</u> or contact Accessibility Services as soon as possible: <u>accessibility.services@utoronto.ca</u>.

#### **Extension Requests**

The University is temporarily suspending the need for a doctor's note or medical certificate for absences from academic participation. Please use the Absence Declaration tool on ACORN to declare an absence if you require consideration for missed academic work. Students should record all absences through the Absence Declaration tool on ACORN. Find the tool under the ACORN Profile and Settings menu. Record each day of your absence as soon as it begins, up until the day before you return to classes or other academic activities. Please contact your Registrar's Office if you have any questions. Students are responsible for contacting the course instructor to request the academic consideration you are seeking.

#### **Reread requests**

Students must submit remarking requests no later than 2 weeks after the work has been returned.

### **Academic Integrity**

Plagiarism and submitting an assignment under your name that you have not completed are offences under university policy. Plagiarism is quoting (or paraphrasing) the work of an author (including the work of fellow students) without proper use of citation. Quotation marks are required when using an author's words. Students also should not be submitting any academic work for which credit has previously been obtained or is being sought, without first discussing

with the instructor. Please consult the <u>'How not to plagiarize' website</u>. If in doubt, ask your course instructor.

#### Writing support

Clear writing and communicating is essential. You will be expected to write clearly and effectively on assignments. The University provides some resources through the writing centres and advice on specific elements of writing for university courses.

#### **Mental Health Statement**

#### Supporting Mental Health in the U of T Community

As a student at U of T, you may experience circumstances and challenges that can affect your academic performance and/or reduce your ability to participate fully in daily activities. An important part of the University experience is learning how and when to ask for help. There is no wrong time to reach out, which is why there are resources available for every situation and every level of stress.

Please take the time to inform yourself of available resources, including:

- Your College Registrar
- Student Life Safety & Support
- Student Life Health & Wellness
- Mental Health Resources
- Emergency support if you're feeling distressed

An important part of the University experience is learning how and when to ask for help. Please take the time to inform yourself of available resources.

# **Other Student Services and Support Resources**

- Accessibility Services
- Academic Success Centre
- Mental Health Resources
- <u>Links to Additional Student Services and Support Resources</u> (general services and support for students, international student support, Health & Wellness, financial aid and professional development)