

Urban Transportation Planning and Management

CIVE5307

Fall 2026

Professor Adam Weiss

Department of Civil and Environmental Engineering

Email: Adam.weiss3@carleton.ca

Office: Minto 3044,

Office Hours: Monday 1:00–2:30 PM (right before lecture) or by appointment

Course Schedule

Meetings Monday 2:30 to 5:30 PM in XXXXXXXXXX

Course Description

Urban transportation systems, planning and management. Urban development models, an introduction. Urban transportation policy.

Learning Outcomes

This course is intended to provide the student with the following:

- The ability to design and execute an urban transportation planning study;
- A working knowledge of transportation planning analysis skills, especially relating to travel demand analysis;
- An understanding of current transportation planning issues and policies; and
- An understanding of the overall process of transportation planning and its role within the wider context of transportation decision-making.

Topics and Tentative Plan

- Introduction to transportation planning
- Planning and decision making

- Planning processes and travel demand
- Data for evidence-based planning
- Quantitative evaluation of travel demand: demand modelling frameworks
- Trip generation
- Trip distribution
- Mode choice
- Traffic assignment
- Transportation supply analysis
- Transportation impacts
- Impact analysis and evaluations of alternatives
- Land use modelling
- Travel demand management
- Public transportation
- Urban freight transportation

Note that other topics may be added or removed at the discretion of the course instructor.

Referred Textbook

- Meyer, M. D., & Miller, E. J. (2011). *Transportation Planning: A Decision-Oriented Approach*
Digital copies of the full text or individual chapters can be purchased here:
<http://mtsplan.com/services.html>
The full text costs \$120 USD
- Ortuzar, J. D., & Willumsen, L. G. (2011). *Modelling Transport*. John Wiley & Sons.
Price: \$92 CAD on Amazon for the latest edition from 2024 – I have both this and an earlier edition and there are some differences. Most technical content is relatively similar.

Where applicable, recommended readings will be posted with lecture material.

Students are not required to purchase textbooks or other learning materials for this course. These are both good resources and may be helpful in understanding some of the material more completely than what is covered in lecture. That said these are expensive and so from my perspective you can learn the material without purchasing them. You may also be able to borrow earlier editions of these textbooks from the library if you are interested.

Evaluation and Marking Scheme

- Assignments x5: 25%
- Term Paper/Project with in-class presentation: 35%
- Final Examination: 40%

Note that late submissions will be penalized at a 10% penalty per day late. This will be rounded up to the nearest day. Due dates will be provided when the assignments are distributed.

Assignments

- There will be a total of five assignments provided to you, with each being worth 5% of your grade.

Term Paper/Project

- The term paper/project with in-class presentation will take the form of a literature review on research related to a transportation planning topic of interest to the students that is relevant to the city of Ottawa.
- Students are expected to work individually on the project
- Further details on formatting, and interim submissions will be provided early in the semester. Presentations will tentatively take place during the second last week of class.

Final Examination

- Final exams are for evaluation purposes and will not be returned to students.
- Students who are unable to write the final examination because of a serious illness/emergency or other circumstance beyond their control may apply for accommodation by contacting the Registrar's office. Consult Section 4.3 of the University Calendar. Exam will take place during the scheduled exam period with exact date TBD.

Academic Dates

Students should be aware of the academic dates (e.g., last day for academic withdrawal) posted on [the university calendar website](#)

Academic Integrity and Plagiarism

Please consult the Faculty of Engineering and Design information page about the Academic Integrity policy and our procedures:

<https://carleton.ca/engineering-design/current-students/fed-academic-integrity>.

Violations of the Academic Integrity Policy will result in the assignment of a penalty such as reduced grades, the assignment of an F in a course, a suspension, or expulsion.

One of the main objectives of the Academic Integrity Policy is to ensure that the work you submit is your own. As a result, it is important to write your own solutions when studying and preparing with other students and to avoid plagiarism in your submissions. The University Academic Integrity Policy defines plagiarism as *presenting, whether intentionally or not, the ideas, expression of ideas or work of others as one's own.* This includes reproducing or paraphrasing portions of someone else's published or unpublished material, regardless of the source, and presenting these as one's own without proper citation or reference to the original source.

Examples of violations of the policy include, but are not limited to:

- Any submission prepared in whole or in part, by someone else;
- Using another's data or research findings without appropriate acknowledgement;
- Submitting a computer program developed in whole or in part by someone else, with or without modifications, as one's own; and
- Failing to acknowledge sources of information through the use of proper citations when using another's work and/or failing to use quotations marks.

Copyright and Unauthorized Dissemination

Unauthorized Dissemination As per Carleton's Academic Integrity Policy, Unauthorized Dissemination is a violation of the standards of academic integrity to publish, disseminate, or otherwise make available to a third-party instructional material where the instructor has explicitly prohibited their dissemination.

The materials (including the course outline and any slides, posted notes, videos, labs, project, assignments, quizzes, exams, and solutions) created for this course and posted on this website are intended for personal use and may not be reproduced or redistributed or posted on any website without prior written permission from the author(s).

1 Generative AI Use

Generative AI tools (e.g., ChatGPT, Copilot, Claude, Gemini, and similar systems) are permitted in this course. These tools can support learning, brainstorming, communication, coding, and other aspects of academic work. Used thoughtfully, they can be valuable aids.

However, the primary purpose of this course is to develop your own knowledge, judgment, and skills. Overreliance on AI-generated content may reduce your opportunity to engage deeply with the material and achieve the course learning objectives. You are therefore encouraged to use these tools as assistants rather than substitutes for your own thinking.

1.1 Student Responsibility

Regardless of whether AI tools are used, you are fully responsible for all submitted work. This includes:

- The accuracy of all facts, calculations, analyses, and citations.
- The originality and quality of arguments and interpretations.
- Compliance with academic integrity standards.
- Understanding and being able to explain any work submitted under your name.

Using AI does not transfer responsibility for errors or misconduct to the AI system.

1.2 Disclosure Requirement

If you use a generative AI tool for an assignment, report, presentation, code submission, or other assessed work, you must disclose its use.

Include a brief statement describing:

- Which tool(s) were used.
- How they were used.
- The extent to which AI-generated content was incorporated into the final submission.

Inclusivity in the Classroom

We will strive to create an environment of mutual respect for all through equity, diversity, and inclusion within this course. The space (physical or virtual) which we work in will be safe for everyone. Please be considerate of everyone's personal beliefs, choices, and opinions.

Addressing Human Rights Concerns

The University and all members of the University community share responsibility for ensuring that the University's educational, work, and living environments are free from discrimination and harassment. Should you have concerns about harassment or discrimination relating to your age, ancestry, citizenship, colour, creed (religion), disability, ethnic origin, family status, gender expression, gender identity, marital status, place of origin, race, sex (including pregnancy), or sexual orientation, please contact the Department of Equity and Inclusive Communities at equity@carleton.ca.

Academic Accommodations

You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

Academic Accommodations for Students with Disabilities

The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or pmc@carleton.ca.

You should request your academic accommodations in the Ventus Student Portal, for each course at the beginning of every term. For in-term tests or midterms, please request accommodations at least two (2) weeks before the first test or midterm. For final exams, the deadlines to request accommodations are published in the University academic calendars for both undergraduate and graduate students.

Accommodation for Student Activities

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, see the Senate Policy on Accommodation for Student Activities [PDF](#).

Pregnancy Obligation

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, please review the Student Guide to Academic Accommodation [PDF](#).

Religious Obligation

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, please review the Student Guide to Academic Accommodation [PDF](#).

Survivors of Sexual Violence

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and where survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit the Sexual Violence Prevention & Survivor Support [website](#).

Student Mental Health and Wellness

As a university student, you may experience a range of mental health challenges that can significantly impact your academic success and overall well-being. Carleton's Wellness Services Navigator is designed to help students connect with mental health and wellness resources.

If you need to talk to someone from the department for more information and support with connecting to resources, you can contact the following faculty members, depending on your program. Or contact the department. CEEGradInfo@carleton.ca

- Prof. Shoeleh Shams Email: shoelehshams@cunet.carleton.ca,
Office: 4242 Mackenzie
- BLDG: Prof. Cara Lozinsky Email: caralozinsky@cunet.carleton.ca,
Office: 2374 Mackenzie
- CIVE: Prof. Christian Viau Email: Christian.Viau@carleton.ca,
Office: 4535 Mackenzie
- ENVE: Prof. Cole Van De Ven Email: cole.vandeven@carleton.ca,
Office: 6210 Canal Building

Here is a list of on-campus and off-campus resources:

1. <https://wellness.carleton.ca/get-help-now/> - for emergencies and crisis
2. **Carleton's Wellness Desk:** Located at 204A MacOdrum Library, the Wellness Desk is a space for students to learn about resources, connect with a Wellness Coordinator, and decompress during stressful times of the year. Students can drop in during operating hours with no appointment required.
<https://wellness.carleton.ca/mental-health/wellness-desk/>
3. **Carleton's Care and Support Team:** Supports students experiencing academic, personal, financial, well-being, or other challenges.
<https://wellness.carleton.ca/mental-health/student-care-and-support-team/>
4. **Carleton's Health and Counselling Services:** To book an appointment, use the CHR Connect App or call 613-520-6674 ext. 2. If urgent, inform the Patient Care Coordinator or visit the main clinic (2500 Carleton Technology and Training Centre

- Building) and indicate that immediate assistance is required.
<https://wellness.carleton.ca/counselling/>
5. **Carleton's Single Session Counselling:** To book an appointment, use the CHR Connect App.
<https://thconnect.telushealth.com/mobile-app-information/xz6lzGrv>
 6. **Residence Counselling and Wellness Service:** Counselling services specifically for students living in residence. To book an appointment, call 613-520-2600 ext. 8061.
<https://carleton.ca/health/residence-counselling/>
 7. **Carleton's Therapy Dogs:** Therapy dogs and their handlers, who are Carleton faculty and staff members, provide comfort and support to students across campus.
<https://wellness.carleton.ca/mental-health/therapy-dogs/>
 8. **Good2Talk** (1-866-925-5454): A free, confidential helpline providing professional counselling, information, and referrals related to mental health, addictions, and well-being for post-secondary students in Ontario, available 24/7.
<https://good2talk.ca/>
 9. **The Walk-In Counselling Clinic** (off-campus community resource): Provides free and confidential counselling services without appointments on a first-come, first-served basis. Services are available in multiple languages at locations across Ottawa and the greater Champlain region.
<https://walkincounselling.com/>
 10. **Distress Centre of Ottawa and Region:** Available 10:00 a.m. to 11:00 p.m., seven days a week, year-round.
Distress Line: 613-238-3311
Crisis Line: 613-722-6914 or 1-866-996-0991
Text: 343-306-5550
<https://www.dcottawa.on.ca/>
 11. **Distress and Crisis Ontario:** Online chat support available from 2:00 p.m. to 2:00 a.m. EST.
<https://www.dcontario.org/>
 12. **BounceBack Ontario** (1-866-345-0224): A free skill-building program managed by the Canadian Mental Health Association (CMHA). Designed for youth (15+) and adults experiencing low mood, mild to moderate depression, anxiety, stress, or worry. Support is provided through telephone coaching and online resources.
<https://bouncebackontario.ca/>