


## GEOG 3225 (3902B) – Transportation Geography & GIS Course Outline: Section 001 Winter 2021



Although this academic year might be different, Western University is committed to a **thriving campus**. We encourage you to check out the [Digital Student Experience](https://www.uwo.ca/dse/) website to manage your academics and well-being. Additionally, the following link provides available resources to support students on and off campus: <https://www.uwo.ca/health/>.

### 1. Technical Requirements



Stable internet connection



Laptop or computer



Working microphone



Working webcam



Zoom application installed

### 2. Course Information



Delivery Mode	Dates	Time
Lecture - Online asynchronous	Each week	N/A
Lab - Online synchronous	Thursdays	<b>10:30 – 12:30 EST (GMT-5)</b>

\*Details about design and delivery of the course are listed below in Section 5

Classes Start	Reading Week	Classes End	Study day(s)	Exam Period
January 11	February 13-21	April 12	April 13	April 14-30

\* March 15, 2021: Last day to add a second-term half course



Course Instructor	Contact Information	Office Hours
Prof. Jinhung Lee	<a href="mailto:jinhung.lee@uwo.ca">jinhung.lee@uwo.ca</a>	By appointment only

Teaching Assistant(s)	Contact Information	Office Hours
Milad Malekzadeh	<a href="mailto:mmalekz4@uwo.ca">mmalekz4@uwo.ca</a>	By appointment only

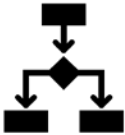


- Office hours will be held remotely using Zoom
- Students will be able to sign up for an appointment via email

### 3. Calendar Description

Provides a comprehensive introduction to concepts, theories, and models in the field of transportation geography. GIS and spatial analysis methods for solving transport issues and problems will be presented. Topics covered include accessibility, planning, public transit, active transport, smart mobility, impacts on land use, health, energy, environment, and social equity.

2 lecture hours, 2 lab hours, 0.5 course



Antirequisite(s): None.

Prerequisite(s): Third or fourth year-status, GEOG 2220A/B or equivalent, or permission from the instructor.

Prerequisite checking is the student's responsibility

Senate Regulations state, "unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you will be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites."

### 4. Textbook

There is no required textbook for this course.

Recommended textbooks are below:

- Jean-Paul Rodrigue, *The Geography of Transport Systems* (2020), Fifth edition, ISBN 0367364638, Routledge.
  - Book website: <https://transportgeography.org>
- Genevieve Giuliano and Susan Hanson, *The Geography of Urban Transportation* (2017), Fourth edition, ISBN 1462529658, The Guilford Press.



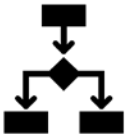
Selected readings such as news articles and journal papers related to the course topics could be posted to the OWL course website. Stay tuned!

## 5. Course Objectives and Format

### Course objectives:

- I. Understand the fundamental concepts, theories, and models of transport geography/planning and GIS for transportation (GIS-T).
- II. Have necessary quantitative and GIS skills for analyzing transport issues and problems within cities.
- III. Solve transport problems using spatial analysis techniques and GIS software (e.g., ArcMap, ArcGIS Pro).

Mode	Dates	Time	Frequency
Lecture - Virtual asynchronous	N/A	Students will spend on asynchronous materials on average 45 min – 1 hour	Weekly
Lab - Virtual synchronous (via Zoom)	Thursdays	10:30 – 12:30 EST (GMT-5) (2 hours)	Weekly



- Attendance at synchronous Lab sessions is required
- Missed work should be completed within 72 hours
- A recording will be provided for synchronous sessions within 72 hours
- Closed captioning will be provided on audio or video recordings

All course material will be posted to OWL: <http://owl.uwo.ca>. Any changes will be indicated on the OWL site and discussed with the class.

Google Chrome or Mozilla Firefox are the preferred browsers to optimally use OWL; update your browsers frequently. Students interested in evaluating their internet speed, please click [here](#). Using the right browser is important, especially when using different features integrated with OWL.

If students need assistance, they can seek support on the OWL Help page. Alternatively, they can contact the Western Technology Services Helpdesk. They can be contacted by phone at 519-661-3800 or ext. 83800.

## 6. Course Content and Schedule

### General

Week	Dates	Topic	Lab/Quiz
<b>Part 1: Overview, contexts, and foundational concepts</b>			
1	Jan 11 – 17	Course overview and introduction	Lab 1
2	Jan 18 – 24	Transportation systems in Canada	Lab 2
3	Jan 25 – 31	Accessibility, mobility, movement	Lab 3
4	Feb 1 – 7	Transportation, land use, and urban form	Lab 4
<b>Part 2: Problems</b>			
5	Feb 8 – 14	Congestion, safety, and resilience	Quiz 1
6	Feb 15 – 21	Reading Week	N/A
7	Feb 22 – 28	Environment, energy, air quality, and health	No Lab
8	Mar 1 – 7	Social equity and transport poverty	Quiz 2
<b>Part 3: Solutions</b>			
9	Mar 8 – 14	Travel demand management	No Lab
10	Mar 15 – 21	Urban transportation planning	Lab 5
11	Mar 22 – 28	Public transit	Lab 6
12	Mar 29 – Apr 4	Walking and biking	Lab 7
13	Apr 5 – 11	Emerging technologies: ICT, shared & smart mobility	Quiz 3
14	Apr 12	Special topic: Artificial Intelligence (AI) & Machine Learning (ML) for transportation	N/A



### Lab

	Topic	Lab session date	Due date
Lab 1	Constructing a network dataset in ArcGIS	Jan 14	Jan 20
Lab 2	Delineating accessible areas	Jan 21	Jan 27
Lab 3	Accessibility analysis – Part 1	Jan 28	Feb 3
Lab 4	Accessibility analysis – Part 2	Feb 4	Feb 10
Lab 5	Public transit planning	Mar 18	Mar 24
Lab 6	Measuring accessibility by public transit	Mar 25	Mar 31
Lab 7	Walkability analysis	April 1	April 7

### Quiz

	Scope	Time	Format
Quiz 1	Part 1	Feb 11 (10:30 – 11:15 AM)	Online/Open-book (OWL)
Quiz 2	Part 2	Mar 4 (10:30 – 11:15 AM)	Online/Open-book (OWL)
Quiz 3	Part 3	April 8 (10:30 -11: 15 AM)	Online/Open-book (OWL)

## 7. Online Participation and Engagement



- Students are expected to participate and engage with content as much as possible
- Students can also participate by interacting in the forums with their peers and instructors.

## 8. Communication



- Students should check the OWL site every 24 – 48 hours
- A weekly update will be provided on the OWL announcements
- For any other communication, the centrally administered **e-mail account** provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at his/her official university address is attended to in a timely manner. You can read about the privacy and security of the UWO email accounts [here](#).
- Emails will be monitored daily; students will receive a response in 48 hours
- This course will use the OWL forum for discussions
- Students should post all course-related content on the discussion forum so that everyone can access answers to questions
- The discussion forums will be monitored daily by instructors or teaching assistants

## 9. Evaluation

- Lab assignments (70%)**  
 Seven lab assignments will be given to students to help them understand concepts, theories, and models covered in class as well as develop their transport data analytics skills using GIS methods and software.
- Quiz (30%)**  
 There will be *three* short examinations (open-book) during the semester. The exams will occur using the OWL online learning management system.

Assessment	Weighting
<b>Lab</b>	
Lab 1	10 %
Lab 2	10 %
Lab 3	10 %
Lab 4	10 %
Lab 5	10 %
Lab 6	10 %
Lab 7	10 %
<b>Quiz</b>	
Quiz 1	10 %
Quiz 2	10 %
Quiz 3	10 %



Students are responsible for material covered in the lectures as well as the assigned chapters/sections in the text.

**IMPORTANT** To PASS this Transportation Geography & GIS course, students must submit and pass every Lab assignment of the course.

- All assignments are due at 11:55 pm EST unless otherwise specified
- All quizzes are open-book within OWL
- After an assessment is returned, students should wait 24 hours to digest feedback before contacting their evaluator; to ensure a timely response, reach out within 7 days

Click [here](#) for a detailed and comprehensive set of policies and regulations concerning examinations and grading. The table below outlines the University-wide grade descriptors.

A+	90-100	One could scarcely expect better from a student at this level
A	80-89	Superior work which is clearly above average
B	70-79	Good work, meeting all requirements, and eminently satisfactory
C	60-69	Competent work, meeting requirements
D	50-59	Fair work, minimally acceptable
F	below 50	Fail

**Information about late or missed evaluations:**

- Late assessments without illness self-reports will be subject to a late penalty 5 %/day
- Late assessments with illness self-reports should be submitted within 24 hours of submission of the last illness self-report
- An assessment cannot be submitted after it has been returned to the class; [an alternate assessment will be assigned] OR [the weight will be transferred to the final grade]

**Grades will not be adjusted on the basis of need. It is important to monitor your performance in the course. Remember: *You* are responsible for your grades in this course.**

## 10. Accommodation Policies

Students with disabilities work with Accessible Education (formerly SSD) which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The accommodation policy can be found here: [Academic Accommodation for Students with Disabilities](#).

### Academic Consideration for Student Absence

Students will have up to two (2) opportunities during the regular academic year to use an on-line portal to self-report an absence during the term, provided the following conditions are met: the absence is no more than 48 hours in duration, and the assessment for which consideration is being sought is worth 30% or less of the student's final grade. Students are expected to contact their instructors within 24 hours of the end of the period of the self-reported absence, unless noted on the syllabus. Students are not able to use the self-reporting option in the following circumstances:

- for exams scheduled by the Office of the Registrar (e.g., December and April exams)
- absence of a duration greater than 48 hours,
- assessments worth more than 30% of the student's final grade,
- if a student has already used the self-reporting portal twice during the academic year

If the conditions for a Self-Reported Absence are *not* met, students will need to provide a Student Medical Certificate if the absence is medical, or provide appropriate documentation if there are compassionate grounds for the absence in question. Students are encouraged to contact their Faculty academic counselling office to obtain more information about the relevant documentation.

Students should also note that individual instructors are not permitted to receive documentation directly from a student, whether in support of an application for consideration on medical grounds, or for other reasons. **All documentation required for absences that are not covered by the Self-Reported Absence Policy must be submitted to the Academic Counselling office of a student's Home Faculty.**

For Western University policy on Consideration for Student Absence, see

[Policy on Academic Consideration for Student Absences - Undergraduate Students in First Entry Programs](#)

and for the Student Medical Certificate (SMC), see:

[http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/medicalform.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf).

### **Religious Accommodation**

Students should consult the University's list of recognized religious holidays, and should give reasonable notice in writing, prior to the holiday, to the Instructor and an Academic Counsellor if their course requirements will be affected by a religious observance. Additional information is given in the [Western Multicultural Calendar](#).

## **11. How to Be Successful in this Class:**

Students enrolled in this class should understand the level of autonomy and self-discipline required to be successful.

1. Invest in a planner or application to keep track of your courses. Populate all your deadlines at the start of the term and schedule time at the start of each week to get organized and manage your time.
2. Make it a daily habit to log onto OWL to ensure you have seen everything posted to help you succeed in this class.
3. Follow weekly checklists created on OWL or create your own to help you stay on track.
4. Take notes as you go through the lesson material. Treat this course as you would a face-to-face course. Keeping handwritten notes or even notes on a regular Word document will help you learn more effectively than just reading or watching the videos.
5. Connect with others. Try forming an online study group and try meeting on a weekly basis for study and peer support.
6. Do not be afraid to ask questions. If you are struggling with a topic, check the online discussion boards or contact your instructor(s) and or teaching assistant(s).
7. Reward yourself for successes. It seems easier to motivate ourselves knowing that there is something waiting for us at the end of the task.



## **12. Statements concerning Online Etiquette**

Some components of this course will involve online interactions. To ensure the best experience for both you and your classmates, please honour the following rules of etiquette:

- Please “arrive” to class on time
- Please use your computer and/or laptop if possible (as opposed to a cell phone or tablet)
- Ensure that you are in a private location to protect the confidentiality of discussions in the event that a class discussion deals with sensitive or personal material
- To minimize background noise, kindly mute your microphone for the entire class until you are invited to speak, unless directed otherwise
- Please be prepared to turn your video camera off at the instructor’s request if the internet connection becomes unstable
- Unless invited by your instructor, do not share your screen in the meeting



The course instructor and TA will act as moderator for the class and will deal with any questions from participants. To participate please consider the following:

- If you wish to speak, use the “raise hand” function and wait for the instructor to acknowledge you before beginning your comment or question
- Remember to unmute your microphone and turn on your video camera before speaking
- Self-identify when speaking
- Remember to mute your mic and turn off your video camera after speaking (unless directed otherwise)

General considerations of “netiquette”:

- Keep in mind the different cultural and linguistic backgrounds of the students in the course.
- Be courteous toward the instructor, your colleagues, and authors whose work you are discussing.
- Be respectful of the diversity of viewpoints that you will encounter in the class and in your readings. The exchange of diverse ideas and opinions is part of the scholarly environment. “Flaming” is never appropriate.
- Be professional and scholarly in all online postings. Cite the ideas of others appropriately.

Note that disruptive behaviour of any type during online classes, including inappropriate use of the chat function, is unacceptable. Students found guilty of Zoom-bombing a class or of other serious online offenses may be subject to disciplinary measures under the Code of Student Conduct.

### **13. Academic Offences**

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence.

Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

### **14. Western’s Commitment to Accessibility**

The Department of Geography strives at all times to provide accessibility to all faculty, staff, students and visitors in a way that respects the dignity and independence of people with disabilities.

Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 519-661-2147 for any specific question regarding an accommodation. Information regarding accommodation of exams is available on the Registrar’s website.

More information about “Accessibility at Western” is available.

## **15. Mental Health**

If you or someone you know is experiencing distress, there are several resources here at Western to assist you. Please visit Western's [Health and Wellness website](#) for more information on mental health resources.

## **16. Support Services**

[Western's Support Services](#)  
[Student Development Centre](#)

## **17. Important Dates**

January 11: Classes resume

January 19: Last day to add a second term half course

February 15: Family Day – Department Office Closed

February 13 to February 21: Spring Reading Week (No classes; Department Office open)

March 15: Last day to drop a first term half course without penalty

April 2: Good Friday

April 12: Classes end

April 13: Study day

April 14 to April 30: Examination Period