

Instructor

E-Mail

Lab Website

Office Hours and Location

Class Meeting Time and Location

Dr. Yujie Hu

yujiehu@ufl.edu

<https://geonavilab.geog.ufl.edu>

Fri. 1:00 – 3:00 pm in TUR 3120

Mon. 1:55 – 3:50 pm in TUR 3012

Wed. 1:55 – 2:45 pm in TUR 3012

 **COURSE DESCRIPTION**

Investigates the relationship between transportation and urban accessibility from a geographic perspective, through the examination of the impacts of transportation systems and accessibility on human health, social equity, and the environment, as well as the methods and tools for modeling and analyzing transportation systems and accessibility.

 **COURSE OBJECTIVES**

After successful completion of this course students should be able to:

- Describe the history and evolution of the U.S. transportation system;
- Describe the geographic nature of transportation systems;
- Understand the relationship between transportation and urban accessibility;
- Measure and analyze transportation systems and urban accessibility using GIS tools.

 **PREREQUISITES**

- Sophomore standing or higher.

 **TEXTBOOKS**

Recommended:

- Rodrigue, Comtois, and Slack. (2020). *The Geography of Transport Systems* (5th edition). Routledge.
- Taaffe, Gauthier, and O'Kelly. (1996). *Geography of Transportation* (2nd edition). Prentice-Hall.

 **EVALUATION**

GRADE DISTRIBUTION

• **Participation (10%)**

Students are encouraged to participate in class and contribute to our discussions. The most effective way for them to prepare for this portion of the evaluation is to come to class having read the assigned materials, such as slides from last lecture and readings. Note that their level of engagement with the class will be monitored by the instructor. This also includes the possibility of having occasional quizzes, where a portion of the participation points will be specifically allocated for quizzes. The quizzes may be in a form of multiple choice, short answer, or short essay responses.

• **Discussion leader (20%)**

Students are expected to lead/chair class discussion on the Wednesday class, which involves a short (10 – 15 minutes) presentation of assigned topics and introducing questions for the class to explore. This will often be done in groups of 2-3. Each group will also write and submit a short summary of your reflections on the assigned topics (1000 words).

- **Homework assignments (20%)**

Hands-on homework assignments are provided to help students use GIS to study transportation systems and urban accessibility.

- **Mid-term project: personal travel mode change (20%)**

Objective: To engage students in firsthand experience of changing their regular travel mode for a defined period, analyzing the impact on their daily routine, environmental footprint, and overall perceptions of transportation.

Duration: The project typically spans several weeks or a month (though the length can vary depending on personal factors and constraints), allowing students enough time to make meaningful observations and gather data.

Step 1. Initial assessment: Students begin by assessing their current travel mode (e.g., personal car, public transportation, biking, walking) and its associated habits, costs, time spent, and environmental impact.

Step 2. Mode selection and commitment: Each student selects a new travel mode to adopt during the project period. This could be a more sustainable option than their usual mode, such as using micro mobility, public transit, biking, carpooling, or walking.

Step 3. Data collection: Throughout the project period, students document various aspects of their experience, such as the following: (1) travel time and distance using the new mode, (2) costs incurred (e.g., fares, parking, bike maintenance), (3) environmental considerations (e.g., emissions, fuel consumption), (4) changes in daily routine and time management, and (5) any challenges encountered. They are also encouraged to conduct interviews or surveys with fellow students, friends, or family members to understand their perceptions of the new mode and the barriers they perceive to using it.

Step 4. Pros and cons analysis: Students analyze the pros and cons of their new travel mode based on their experience and observations. They may consider factors such as convenience, comfort, time efficiency, cost savings, safety, accessibility for people with disabilities, social equity, health benefits, and environmental impact (like emissions, energy consumption, and noise pollution compared to existing modes).

Step 5. Comparative analysis: Toward the end of the project, students compare data and insights from their new travel mode experience with their usual travel habits. They will discuss the change considering factors such as convenience, comfort, time efficiency, cost savings, safety, accessibility for people with disabilities, social equity, health benefits, and environmental impact.

Step 6. Project report and presentation: Each student submits a short project report (1000-1500 words) and gives a presentation (10 – 15 minutes) summarizing their mode change experience, including data, visual displays, reflections, insights, and a balanced assessment of the pros and cons.

- **Final project (20%)**

A final project to study the transportation systems and/or examine the impacts of transportation systems and accessibility on human health, social equity, and the environment (**topic approval by the instructor is required**). It can be (1) a GIS project where they analyze transportation data, create maps, and explore spatial patterns or (2) a case study analysis where they critically analyze case studies of transportation challenges from selected regions, identify key geographic factors influencing the outcomes, and propose solutions. Each student will write a report (2,500 – 3,000 words; a suggested format

of the report will be provided). The report should be properly referenced with a complete bibliography included.

- **Final presentation (10%)**

Each student will prepare a 15-minute presentation (10-minute for presentation and 5-minute for Q&A) on the final project. Students will be provided with a rubric to guide their presentation. This usually takes place in the last week of the class.

GRADING SCALE (&GPA EQUIVALENT)

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
93+	92-90	89-87	86-83	82-80	79-77	76-73	72-70	69-67	66-63	62-60	59-
4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.67	1.33	1.0	0.67	0

Note: A grade of C- is not a qualifying grade for major, minor, Gen Ed, or College Basic distribution credit. For further information on UF's Grading Policy, see:

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx#hgrades>.

CLASSROOM POLICIES

- **Attendance & makeup:** Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found in the online catalog at: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>.
- **Cell phone and texting:** To encourage uninterrupted participation in class, it is expected that students turn cell phones to silent mode before coming to class.
- **Late submissions:** Late submissions will not be accepted.
- **Grade disputes:** Should a student wish to dispute any grade received in this class (other than simple addition errors), the dispute must be in writing and be submitted to the instructor within a week of receiving the grade. The dispute should set out very clearly, the grade that the student believes the assignment should have received as well as why he or she believes that he or she should have received such a grade.

OTHER INFORMATION

- **Academic honesty:** UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.
- **Accommodations for students with disabilities:** Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation. Contact the Disability Resources Center (<http://www.dso.ufl.edu/drc/>) for information about available resources for students with disabilities.

- **Counseling and mental health resources:** Students facing difficulties completing the course or who are in need of counseling or urgent help should contact the on-campus Counseling and Wellness Center (352-392-1575; <http://www.counseling.ufl.edu/cwc/>).
- **Online course evaluation process:** Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

SUGGESTED COURSE SCHEDULE

Students should note that there may be changes to the class schedule.

Weeks	Lectures
1	Course overview
2	Overview of transportation geography
3	Holiday and assignments
4	Evolution of transportation systems
5	Transportation and spatial structure
6	Transportation and spatial structure
7	Transportation data and GIS-T
8	Transportation data and GIS-T
9	Mid-term project presentation
10	Measurement of transportation networks
11	Measurement of transportation networks
12	Spatial accessibility
13	Spatial accessibility
14	Holiday; NO CLASS
15	Transportation, environment, and social equity
16	Final project presentation

IMPORTANT DATES TO REMEMBER

- Mid-term project presentation: **10/16/2023**
- Final presentation slides: submitted by **12/06/2023**
- Final report: submitted by **12/11/2023**