GEO4700: Transportation and Urban Accessibility

Department of Geography

Syllabus

Instructor	Dr. Yujie Hu
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Lab Website	https://geonavilab.geog.ufl.edu
Office Hours and Location	Wed. & Fri. 1:00 – 2:00 pm in TUR 3133
Class Meeting Time and Location	Mon. 9:35 – 11:30 am in TUR 3018 Wed. 9:35 – 10:25 am in TUR 3018

🕮 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 (40%)**
  Hands-on homework assignments are provided to help students use GIS to study transportation systems and urban accessibility.
- **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 (1,000 – 1,500 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

- This course complies with all UF academic policies. For information on those polices and for resources for students, please see this link.
- Late submissions of the final project report will not be accepted. Late submissions of assignments can be accepted, but *10%* of the points will be deducted per day after the due date.

🕮 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	Evolution of transportation systems

4	Evolution of transportation systems
5	Transportation and spatial organization
6	Transportation and spatial organization
7	Transportation data
8	Transportation data
9	Measurement of transportation networks
10	Measurement of transportation networks
11	Measurement of transportation networks
12	Urban accessibility
13	Urban accessibility
14	**Holiday; NO CLASS**
15	Final project presentation
16	Final project presentation