

### Welcome to GEOG 5300 - Geography of Transportation

Instructor: Dr. Seth Young
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**Office hours**: W 2:30 pm - 3:30 pm and by appointment

Course location: Scott Lab E004

Class time: T Th 12:45 - 2:05 pm

Credit hours: 3.0

#### **Course Description:**

Relation between transportation and spatial organization; selected analytical models dealing with traffic demand, network configuration, and allocation of transport facilities; application to selected problems.

#### **Prerequisites:**

Class standing

#### **Course Goals:**

The course presents a review of the geography of transportation. Four major sets of ideas are discussed: 1) Introduction to Spatial Organization (Spatial organization using concepts of linkage, node, hierarchy, and hinterland. Selected economic explanations and models of trade. Spatial interaction (gravity) models.) 2) Network Analysis (Aggregate or descriptive measures and Disaggregate or detailed descriptive measures.) 3) Allocation Methods (examples of optimal flow, the aim to achieve efficient flows within a given network), and 4) Urban Transportation (Introduction to selected urban transportation problems.)

The emphasis is on three different interrelated approaches to understanding the geography of transport: [a] description, [b] explanation, and [c] normative or optimal models. The first type of approach asks "where?" and "what?" kinds of questions; the second approach asks "why?" questions; and the third approach deals with "how?" could a system be improved. In addition an overall learning goal is to tackle transport problems through a synthesis of various approaches.



#### **Course Texts:**

E.J. Taaffe, H.L Gauthier, and M.E. O'Kelly, *Geography of Transportation 2nd Edition* Google Books electronic edition is freely available on line. Link for book on Google:

https://play.google.com/store/books/details/Edward James Taaffe Geography of Transportation?id= N60qf7WynaEC

J.P. Rodrigue, C. Comtois, B. Slack, *The Geography of Transport Systems*, 3<sup>rd</sup> Edition. pdf available at: https://transportgeography.org/wp-content/uploads/GTS Third Edition.pdf

and materials found at: <a href="https://transportgeography.org/">https://transportgeography.org/</a>

In addition to the text, supplemental material may be distributed in class throughout the semester.

### Student Requirements and Course Grading Policy:

Students will be evaluated on their performance through three (3) homework assignments, two (2) midterm exams, one (1) term project, and one (1) final exam. All exams will be closed book. All exams will be taken during class time, with the exception of the final exam, which will be taken according to the university calendar. There will be **no exceptions** to these dates and times.

In addition to the above, students will be evaluated on their participation in the course. Your participation grade will be evaluated based on attendance and participation assignments (1% off for each unexcused absence, and percentages off for not completing requested "participation" assignments).

<u>Item</u>	Percentage of Final Grade	<u>Total</u>
Homework	10% per assignment	30 %
Midterm Exams	20% per exam	40 %
Final Exam		20 %
Participation		10 %
	Total:	100%

Letter grades:	A:	94 - 100 %
	A-:	90 - 93 %
	B+:	87 - 89 %
	B:	84 - 86 %
	B-:	80 - 83 %
	C+:	77 - 79 %
	C:	74 - 76 %
	C-:	70 - 73 %
	D+:	67 - 69 %
	D:	60 - 66 %
	E:	0 - 59 %





### COURSE SCHEDULE

## GEOG 5300 Autumn 2018 Syllabus Calendar

Week	Date	Lecture	Topic
1	21-Aug	1.1	Introduction, What is Transportation Geography?
	23-Aug	1.2	Spatial Organization - Nodes and Links
2	28-Aug	1.3	Spatial Organization - Hinterlands and Hierarchies
	30-Aug	1.4	Economic Foundations
3	4-Sep	1.5	Transportation Costs
	6-Sep	1.6	Spatial Interaction I, II
4	11-Sep	1.7	Spatial Interaction II, III
	13-Sep	1.8	Spatial Interaction III, IV - Assignment 1 due
5	18-Sep	1.9	Midterm Review
	20-Sep		Midterm Exam # 1
6	25-Sep	2.1	Transportation and Location
	27-Sep	2.2	Ideal Location Analysis
7	2-Oct	2.3	Network Analysis I
	4-Oct	2.4	Network Analysis II
8	9-Oct	2.5	Network Analysis III
	11-Oct		NO CLASS - AUTUMN BREAK
9	16-Oct	2.6	Allocation theory I
	18-Oct	2.7	Allocation theory II
10	23-Oct	2.8	Allocation theory III - Assignment 2 due
	25-Oct	2.9	Midterm Review
11	30-Oct		Midterm Exam # 2
	1-Nov	3.1	Modal Applications - Ground Transportation I
12	6-Nov	3.2	Modal Applications - Ground Transportation II
	8-Nov	3.3	Modal Applications - Urban Transportation
13	13-Nov	3.4	Modal Applications - Bike Share & Ride Share
	15-Nov	3.5	Modal Applications - Air Transportation I
14	20-Nov	3.6	Modal Applications - Air Transportation II
	22-Nov		NO CLASS - THANKSGIVING
15	27-Nov	3.7	Data Analytics in Transportation I
	29-Nov	3.8	Data Analytics in Transportation II - Assignment 3 due
16	4-Dec	3.9	Course Review & Conclusion
	11-Dec		FINAL EXAM 2:00 - 3:45



The instructor reserves the right to modify the contents of this syllabus during the semester as deemed necessary. Every attempt to provide sufficient advance notice of such changes will be made.

Finally, please be advised that cheating, in any form, will not be tolerated. Evidence of cheating will result in disciplinary action, including, but not limited to, failure of assignments or entire course, suspension, or expulsion from the University. Simply put, cheating is not a good idea, so don't do it.

#### **Professor Notes:**

Transportation Geography is a dynamic and exciting subject of study, with many applications in many fields, including all modes of transportation, logistics, business, economics, environmental studies, and geographic information systems. My goal is to bring theory and applications of transportation geography into this course.

Doing so can be a real challenge. I would much prefer to hold class each day at an airport, logistics center, or riding in cars, buses, trains, or airplanes. Unfortunately, that's hard to do when we only have one hour per day a few days a week to meet. Instead, it is my intention to make classes as exciting, current, and interactive as possible. We are going to accomplish this by:

- 1. Giving you the responsibility of reading the course text material at home in advance of class, so that we don't have to go over the text material word by word in lecture. This will give us more time to have more exciting discussion in the classroom. This will also give us more time to learn about the latest developments in airport management that have occurred since the publication of your text book.
- 2. Giving you the opportunity to learn about various transportation geography applications participate in discussions about these cases. With modern day computing technology, I hope to engage in interactive discussions and work on problems using the TopHat interactive learning application.

If you have any questions about this syllabus, or suggestions on how you'd like to see this course enrich your learning experience, please let me know right away, so that I may attempt to incorporate your suggestion into the course. No promises, except that I'll try my best to accommodate.



### Academic Honesty

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct <a href="http://studentlife.osu.edu/csc/">http://studentlife.osu.edu/csc/</a>.

# Disability Services

Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated and should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 098 Baker Hall, 113 W. 12<sup>th</sup> Ave.; telephone 292-3307, TDD 292-0901; <a href="http://www.ods.ohio-state.edu/">http://www.ods.ohio-state.edu/</a>

Again, welcome to GEOG 5300 – Geography of Transportation. I hope you enjoy the course.

- Dr. Y.