## Introduction to Transportation Planning, Urban and Regional Planning 4710

Syllabus last updated February 18, 2019

**Basic Course Information** 

Introduction to Transportation Planning Urban and Regional Planning (URP) 4710

Credit Hours: 3 Prerequisites: None Classroom: TBD

Primary Instructor:

Louis A. Merlin, Ph.D., AICP

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## Course Description and Goals

This course is adapted from Professor Noreen McDonald's Transportation Planning course offered at University of North Carolina

This course in transportation planning provides a broad overview of the field and is intended for students who want an introduction to transportation planning issues and transportation planning processes in the United States. The course is divided into 3 sections.

Key Transportation Issues: The first section identifies and discusses major challenges for the transportation planning field, including safety, congestion, equity, environmental impacts, and placemaking. This section also analyzes past, present, and future travel patterns in the United States and how demographics and land use influence travel behavior.

*Planning Institutions*: This section introduces the institutional structure of transportation planning, discussing the particular roles of federal, state, regional and local governments in transportation planning and how they interact with each other. Major federal legislation and policy issues such as transportation funding are reviewed.

Data and Analytic Tools: This section of the course will introduce you to the common data analysis techniques used in transportation so you can learn how data can be applied to the study of transportation planning problems.

## Course Objectives

At the end of this course, you will be able to:

- 1. Understand the purpose and meaning of planning pertaining to transportation systems
- 2. Identify key transportation planning issues, the policies through which they can be addressed, and the limitations of those policies

- 3. Articulate social justice issues in planning, such as analyzing transportation from an equity point of view
- 4. Become introduced to appropriate quantitative and qualitative methods for transportation planning problems
- 5. Describe transportation planning institutions at federal, state, regional and local levels and the roles they play in the transportation planning process.
- 6. Use commonly available transportation data sources to describe and define local and regional transportation planning issues

### Readings and Required Textbook

The required textbook is:

Giuliano, G., & Hanson, S. Eds.. 2017. The Geography of Urban Transportation. Guilford Publications.

Other readings will be available on Canvas.

## Major Assignments

- 1. Travel Pattern Analysis
- 2. Metropolitan Planning Organization Plan Analysis
- 3. Accessibility Analysis
- 4. Parking Analysis

Course content will be a balance of lectures covering new material, discussions and in class assessments to review material, and interactive exercises to enhance your skills in applying key concepts.

The course assumes the ability to conduct independent library research and the ability to write clearly for short-form nonfiction styles, such as a policy memo or literature review.

#### **Course Policies**

You are expected to attend every class on time. You should notify me by email in advance if you cannot attend a class. Course attendance is taken to track participation.

Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance.

Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor **notice prior to any anticipated absences** and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence.

**Cell phone and laptop use during class time is not permitted, except when these resources are being used for a specific in-class exercise.** We need you to be fully present to improve the learning experience for everyone. Your ideas are important and so I need you to be fully engaged during class time.

Complete all reading assignments in advance of the class. You will gain much more from this course if you complete the reading assignments. Skimming may be appropriate in some cases. Think about what you need to learn from each reading before beginning the reading. I will advise you in advance when a close reading is expected.

All assignments should be turned in on time or your grade will be penalized. Assignments will be penalized a half grade per day late, with the first late day beginning upon the start of class when the assignment is due. If you know you cannot meet a deadline, you should inform me well in advance and make a specific proposal about when you can complete the assignment by. I will allow for a certain amount of flexibility for those who plan and notify us in advance of difficult scheduling situations.

#### **Inclusiveness and Respect**

Like the Florida Atlantic University as a whole, I am committed to creating an environment where all students are respected and where diverse voices can be heard in a safe setting. We should not expect to agree on viewpoints or have the same backgrounds or experiences, but we should all expect to have a chance to have our voices heard, so long as our speech and action respects the rights of others.

FAU's Office of Equity, Inclusion and Compliance provides a variety of policies and resources for promoting an inclusive learning environment: <a href="https://www.fau.edu/eic/">https://www.fau.edu/eic/</a>

All students and employees at FAU have a right to an environment free from sexual harassment. For more information about FAU's policies please see their Title XI page: http://www.fau.edu/eic/Title%20IX.php

#### Communication with the Instructor

All communications with the instructor and with other students should be professional in tone. Address people by their name and title where appropriate, use complete sentences, and take the time to use correct grammar in email exchanges.

Please do not assume I am on call all day and night to answer questions! In general I will respond to email inquiries within 24 hours. Before assignments and tests, I will try to respond to queries submitted before 9 PM on the day before these come due.

In addition, I am happy to meet with students to talk about general professional and academic concerns beyond the scope of this particular course during office hours. When we are talking about material outside the course, you may address me more informally.

#### Accommodation for Students with Disabilities

It is a goal of this class to ensure that all students are encouraged to participate and engage as fully as possible. Therefore, if you have a physical or learning disability that requires special accommodations, please let me know as soon as possible.

In compliance with the Americans with Disabilities Act Amendments Act ADAAA, students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services SAS and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at <a href="https://www.fau.edu/sas/">www.fau.edu/sas/</a>.

#### Religious Observances

If you have a religious observance that conflicts with required course activities, please let me know as soon as possible.

#### Mental Health

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services CAPS Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to http://www.fau,edu/counseling/

College is typically a time of great growth and transition, and therefore great stress as well. In addition to the pressures of an intense workload, students are often dealing with jobs, changing or evolving identities, and personal and family situations as well. It is important that you listen to your own needs and attend to mental health issues in order to ensure your continued growth as a student and a person. This often means seeking help from one or more trusted sources - peer counselors, on campus mental health services, or your physician. Florida Atlantic University offers free counseling to students at Counseling and Psychological Services <a href="http://www.fau.edu/counseling/">http://www.fau.edu/counseling/</a> or call 561-297-3540 for the CAPS crisis line.

If you are unsure of where to seek help, please feel free to ask me and I will help you find the right venue for assistance. If you are undergoing a mental health issue and personal crisis and it is affecting your work in this course, please let me know in a way that is comfortable for you. You do not have to share the personal details of your situation to let me know that family or outside personal issues are impacting your ability to perform in this class.

#### Academic Dishonesty

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Dishonesty is considered a serious breach of these ethical standards, because it interferes with the University mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility.

Once it is documented in writing or in drawing, an idea is the intellectual property of the author. When presenting anything that is not your own, you are legally and ethically bound to identify your source. To do otherwise is plagiarism, which constitutes cheating. Using the ideas, writings, or drawings of another and attempting to pass them off as yours is plagiarism. Examples of plagiarism include, but are not limited to: lifting material verbatim or with minimal changes directly from someone else's work without citing the original author, as well as submitting work prepared by someone else as your own. For more information on academic dishonesty, see these the FAU Code of Academic Integrity:

#### http://www.fau.edu/regulations/chapter4/4.001 Code of Academic Integrity.pdf

Outside of exams, all assignments are "open book" and you may discuss them with anyone, including the primary instructor, in order to solicit general ideas and advice. You may discuss with your fellow students, how to approach an assignment, what data sources to use, what steps to pursue in data analysis, and so forth.

If you are unsure if your approach to an assignment or a test constitutes academic dishonesty, please consult with the instructor.

## Assignments and Grading

Your grade will be comprised of the following:

Grade Component	Points
On-Time Attendance	20
In-Class Exercises	20
Travel Pattern Analysis	30
MPO Plan Analysis	30
Accessibility Analysis	30
Parking Analysis	30
Final Exam	40
Total Points	200

**On-Time Attendance** and **In-Class Exercises** will be based on on-time attendance, participation during in class activities, and turning in various in-class assignments. If you miss class, you will get no credit for inclass exercises unless you ask the instructor what you missed and make up the missed exercises on your own time within a timely basis. Some in-class assignments may have to be completed outside of class on occasion.

In the **Travel Pattern Analysis** you will become familiar with sources of data on local travel patterns and write a memo comparing and contrasting local travel patterns with national travel patterns.

For the **MPO Plan Analysis** you will compare how two metropolitan planning organizations' Long Range Transportation Plans address an issue of interest to you.

For the **Parking Analysis** you will look up existing parking regulations and identify the parking required according to two differing analysis techniques. You will construct a site plans and explain whether it complies with the parking requirements.

The **Accessibility Analysis** will have you evaluate how several apartment complexes score in terms of auto, transit, and walk accessibility and describe how travel behavior varies across differing thresholds of accessibility.

The **Final Exam** will be a review of key concepts in the class through short written responses. It will cover all portions of the course equally, and will be comprehensive.

Each component will receive a number score between 0-100, reflecting the percentage of full points offered on this assignment.

## **Grading Policy**

# The primary purpose of grades is to provide you feedback so that you can become better at what you do!

If you want to become better at your work, you will continue to seek feedback and consider it thoughtfully over the course of your entire career. None of us ever reach perfection, and we can always perform better at some aspect of our work. Handling constructive criticism with poise is one of the most important marks of a mature professional.

#### The Meaning of Letter Grades

The grading scheme:

A is for high quality, professional work. This work would satisfy a client or a supervisor in a work setting.

**B** is the grade for work which mostly meets expectations, but is not fully up to professional quality. B+ indicates above average and B- indicates below average.

**C** is offered when the assignment has been completed, but is lacking in some important aspect. For example, the writing is difficult to understand, or the presentation is disorganized, or perhaps an important table shows incorrect statistics.

**D** reflects a serious shortfall in meeting the assignment's expectations.

**F** is usually possible only if nothing is handed in, or if it is handed in so late as to be irrelevant. This grade may also be used for work that does not meet basic college-level requirements, i.e. it is not readable.

#### **Grading Scale**

Letter Grade	Course Percentage
Α	94.0 – 100.0
A-	90.0 – 93.9
B+	87.0 – 89.9
В	84.0 – 86.9
B-	80.0 – 83.9
C+	77.0 – 79.9
С	74.0 – 76.9
C-	70.0 – 73.9
D+	67.0 – 69.9
D	64.0 – 66.9
D-	60.0 – 63.9
F	Below 60.0

## Schedule

Date	Topic / Readings	Assignments
08/23	Course Overview	
00, 20	Readings	
	Transportation Research Board. 2013. Critical Issues	
	in Transportation. Washington D.C.	
	UN. 2016. Mobilizing Sustainable Transport for	
	Development. New York City.	
08/30	Transportation History	Travel Pattern Analysis Out
	Readings	·
	<ul> <li>Morris. 2007. "From Horse Power to Horsepower".</li> </ul>	
	Access 30.	
	<ul> <li>Muller, Peter O. 2017. "Transportation and Urban</li> </ul>	
	Form," in The Geography of Urban Transportation	
09/06	Travel Behavior and Travel Behavior Data	
	<ul> <li>National Household Travel Survey website:</li> </ul>	
	<u>http://nhts.ornl.gov/</u> please explore and familiarize	
	yourself with this website	
	<ul> <li>Santos, A. et al. Summary of Travel Trends: 2009</li> </ul>	
	National Household Travel Survey.	
	http://nhts.ornl.gov/2009/pub/STT.pdf skim	
09/13	Transportation and Land Use	
	Readings	
	<ul> <li>Ewing, R. and Cervero, R. 2010. Travel and the built</li> </ul>	
	environment: A meta-analysis. Journal of the	
	American Planning Association 76 3:265-294.	
	Salon, Deborah, Marlon G. Boarnet, Susan Handy,     Standard G. Boarnet, Susan Handy,	
	Steven Spears, and Gil Tal. 2012. How do local	
	actions affect VMT? A critical review of the empirical	
	evidence. Transportation Research Part D: Transport and Environment 177: 495–508.	
09/20	Transportation Planning Process and Metropolitan Planning	Travel Battern Analysis Due
03/20	Organizations	Travel Pattern Analysis Due MPO Plan Analysis Out
	Readings	IVIFO FIAIT ATTAIYSIS OUT
	Federal Highway Administration. 2018. The	
	Transportation Planning Process Briefing Book.	
	Washington D.C.	
	Sciara G-C and Handy S. 2017. "Regional	
	Transportation Planning" in The Geography of Urban	
	Transportation	
	<ul> <li>Transportation for America. 2015. Measuring what</li> </ul>	
	we value. Washington D.C.	
09/27	Travel Demand Modeling and Congestion	
	Readings	
	<ul> <li>Downs, A. 2004. Traffic: Why It's Getting Worse,</li> </ul>	
	What Government Can Do.	

<ul> <li>Downs, A. 2004. Why Traffic Congestion Is Here to</li> </ul>	
, ,	
Börjessona, M. and Kristofferssona, I. 2018. The	
Swedish congestion charges: Ten years on.	
https://doi.org/10.1016/j.tra.2017.11.001	
Accessibility	Accessibility Analysis Out
Readings	
<ul> <li>Levine, J., Grengs, J., Merlin, L.A. In Press. The</li> </ul>	
Accessibility Shift: From Mobility to Accessibility in	
Transportation and Land Use Planning. Introduction	
and Conclusion.	
SEMCOG. 2016. Access to Core Services in Southeast	
Michigan. Detroit, MI.	
Transportation Finance	
Readings	
<ul> <li>Taylor, B.D. 2017. "The Geography of Urban</li> </ul>	
Transportation Finance" in The Geography of Urban	
Transportation	
<ul> <li>National Surface Transportation Infrastructure</li> </ul>	
Finance Commission. 2009. Paying Our Way: A New	
Framework for Transportation Finance. skim	
<ul> <li>Wachs, M "Local Option Transportation Taxes:</li> </ul>	
Devolution as Revolution." Access 22.	
Transportation Safety	MPO Plan Analysis Due
Readings	,
<ul> <li>Leonhardt, D. 2017. "America Is Now an Outlier on</li> </ul>	
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	This class will be online only;
•	instructor will be out of
	town for a conference
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	Stay and Will Get Worse.  Börjessona, M. and Kristofferssona, I. 2018. The Swedish congestion charges: Ten years on. https://doi.org/10.1016/j.tra.2017.11.001.  Accessibility Readings  Levine, J., Grengs, J., Merlin, L.A. In Press. The Accessibility Shift: From Mobility to Accessibility in Transportation and Land Use Planning. Introduction and Conclusion.  SEMCOG. 2016. Access to Core Services in Southeast Michigan. Detroit, MI.  Transportation Finance Readings  Taylor, B.D. 2017. "The Geography of Urban Transportation Finance" in The Geography of Urban Transportation National Surface Transportation Infrastructure Finance Commission. 2009. Paying Our Way: A New Framework for Transportation Finance. skim  Wachs, M "Local Option Transportation Taxes: Devolution as Revolution." Access 22.  Transportation Safety Readings  Leonhardt, D. 2017. "America Is Now an Outlier on Driving Deaths"  Cambridge Systematics and Meyer, M. 2008. Crashes vs. Congestion: What's the Cost to Society? AAA.  OECD, & ITF. 2016. Road Safety Annual Report 2016. Paris: International Transport Forum, pp. 9-39.  Transportation and the Environment Readings  Council on Environmental Quality. 2007. A Citizen's Guide to the NEPA, pp. 1-55.

11/01	Local Planning Issues: Parking and Traffic Impact Analysis	Accessibility Analysis Due
	Readings	Parking Analysis Out
	<ul> <li>Chester, M., et al. 2015. Parking Infrastructure: A</li> </ul>	
	Constraint on or Opportunity for Urban	
	Redevelopment? A Study of Los Angeles County	
	Parking Supply and Growth. Journal of the American	
	Planning Association, 814, 268–286.	
	<ul> <li>Shoup, D. 2011. Free Parking or Free Markets. Access</li> </ul>	
	38.	
	<ul> <li>Shoup, D. 1997. High Cost of Free Parking. Access 10</li> </ul>	
	Spring: 2-9	
11/08	Planning for Public Transit and Transportation Alternatives	Guest Lecture: Dr. Eric
	Readings	Dumbaugh
	<ul> <li>Small, A. 2018. How Seattle Bucked a National Trend</li> </ul>	
	and Got More People to Ride the Bus. Citylab.	
	<ul> <li>Buehler, R., Pucher, J., &amp; Dummler, O. 2018.</li> </ul>	
	Verkehrsverbund: The evolution and spread of fully	
	integrated regional public transport in Germany,	
	Austria, and Switzerland. International Journal of	
	Sustainable Transportation,	
	https://doi.org/10.1080/15568318.2018.1431821	
	<ul> <li>Schweitzer, L. 2017. "Mass Transit" in The Geography</li> </ul>	
	of Urban Transportation	
11/15	Transportation Planning and Equity	Guest Lecture: Dr. Dibakar
	Readings	Saha
	<ul> <li>Blumenberg, E. 2017. "Social Equity and Urban</li> </ul>	
	Transportation" in The Geography of Urban	
	Transportation	
	<ul> <li>Second reading to be announced.</li> </ul>	
11/22	Thanksgiving	
11/29	Streets and Placemaking	Parking Analysis Due
	Readings	
	<ul> <li>Jacobs, A. 1993. Great Streets. Chapter One</li> </ul>	
	"Requirements for Great Streets" Cambridge: MIT	
	Press.	
	<ul> <li>NACTO Street Design Guide,</li> </ul>	
	http://nacto.org/publication/urban-street-design-	
	guide/ Skim	
12/6	FINAL EXAM	