

Transportation Planning, Urban and Regional Planning 6711

Syllabus last updated January 30, 2019

Basic Course Information

Transportation Planning

Urban and Regional Planning (URP) 6711

Credit Hours: 3

Prerequisites: None

Thursday 6:30-9:20 PM

Classroom: CU 118 (Culture and Society Building)

Fall 2018, August 18th - December 12th

Primary Instructor:

Louis A. Merlin, Ph.D., AICP

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Office Phone: 561-297-4166

Office: 284I, College of Design and Social Inquiry SO

Office Hours: Fridays 9-11 AM or by appointment

Text: 404-374-7532 (For urgent communication only)

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 intending to concentrate in transportation planning or those who want a thorough review of transportation planning issues. 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: Transportation planning is heavily embedded within the rational planning model where data plays a major role in decision making. This section of the course will introduce you to the common analysis techniques used in transportation and will empower you to consider their weaknesses and limitations. This section provides some of the skills required for students interested in pursuing careers in transportation consulting firms or municipalities.

Course Objectives

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

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1. Understand the purpose and meaning of planning pertaining to transportation systems
2. Learn about methods for designing, analyzing, and influencing the future, including travel demand models and long-range transportation plans
3. Communicate at a professional level in written, oral, and graphic forms through various project deliverables over the course, including policy memos
4. Apply appropriate quantitative and qualitative methods to transportation planning problems
5. Apply planning methods to create plans and implement them, addressing local issues such as traffic impact and parking
6. Articulate social justice issues in planning, such as analyzing transportation from an equity point of view
7. Identify key transportation planning issues, the policies through which they can be addressed, and the limitations of those policies
8. Describe transportation planning institutions at federal, state, regional and local levels and the roles they play in the transportation planning process.
9. Use commonly available transportation data sources to describe and define local and regional transportation planning issues
10. Understand and summarize analyses common in regional and local transportation planning, including traffic impact analysis, travel demand analysis and parking impact assessment

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: <https://www.fau.edu/eic/>

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%20XI.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 www.fau.edu/sas/.

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 and graduate school are 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 <http://www.fau.edu/counseling/> 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 in-class 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, construct alternative site plans, and attempt to justify the parking provided by your site plans.

The **Accessibility Analysis** will have you evaluate how several apartment complexes score in terms of auto, transit, and walk accessibility and then establish recommended policies for future accessibility standards for multifamily developments.

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
A	94.0 – 100.0
A-	90.0 – 93.9
B+	87.0 – 89.9
B	84.0 – 86.9
B-	80.0 – 83.9
C+	77.0 – 79.9
C	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	<p>Course Overview</p> <p><i>Readings</i></p> <ul style="list-style-type: none"> • Transportation Research Board. 2013. <i>Critical Issues in Transportation</i>. Washington D.C. • UN. 2016. <i>Mobilizing Sustainable Transport for Development</i>. New York City. 	
08/30	<p>Transportation History</p> <p><i>Readings</i></p> <ul style="list-style-type: none"> • Brown, Jeffrey, Eric A. Morris, and Brian D. Taylor. 2009. <i>Paved with Good Intentions: Fiscal Politics, Freeways and the 20th Century American City</i>. Access 35. • Morris. 2007. "From Horse Power to Horsepower". Access 30. • Muller, Peter O. 2017. "Transportation and Urban Form," in <i>The Geography of Urban Transportation</i> 	Travel Pattern Analysis Out
09/06	<p>Travel Behavior and Travel Behavior Data</p> <ul style="list-style-type: none"> • National Household Travel Survey website: http://nhts.ornl.gov/ please explore and familiarize yourself with this website • Puentes, R. and A. Tomer. 2008. <i>The Road ... Less Traveled: An Analysis of Vehicle Miles Traveled Trends in the US</i>. • Santos, A. et al. Summary of Travel Trends: 2009 National Household Travel Survey. http://nhts.ornl.gov/2009/pub/STT.pdf skim 	

09/13	<p>Transportation and Land Use <i>Readings</i></p> <ul style="list-style-type: none"> • Ewing, R. and Cervero, R. 2010. Travel and the built environment: A meta-analysis. <i>Journal of the American Planning Association</i> 76 3:265-294. • Salon, Deborah, Marlon G. Boarnet, Susan Handy, Steven Spears, and Gil Tal. 2012. How do local actions affect VMT? A critical review of the empirical evidence. <i>Transportation Research Part D: Transport and Environment</i> 177: 495–508. 	
09/20	<p>Transportation Planning Process and Metropolitan Planning Organizations <i>Readings</i></p> <ul style="list-style-type: none"> • Federal Highway Administration. 2018. <i>The Transportation Planning Process Briefing Book</i>. Washington D.C. • Handy, S. 2008. Regional transportation planning in the US: An examination of changes in technical aspects of the planning process in response to changing goals. <i>Transport Policy</i> 15: 113-126. • Sciara G-C and Handy S. 2017. "Regional Transportation Planning" in <i>The Geography of Urban Transportation</i> • Transportation for America. 2015. <i>Measuring what we value</i>. Washington D.C. • TMIP Webinar: Spotlight on State, Regional and Local Agencies –ARC Session 1: Next-generation Data, Tools and Methods 	Travel Pattern Analysis Due MPO Plan Analysis Out
09/27	<p>Travel Demand Modeling and Congestion <i>Readings</i></p> <ul style="list-style-type: none"> • Downs, A. 2004. <i>Traffic: Why It's Getting Worse, What Government Can Do</i>. • Downs, A. 2004. <i>Why Traffic Congestion Is Here to Stay. . . and Will Get Worse</i>. • Meyer, Michael. 2001. Ch. 5 "Demand Analysis" in <i>Urban Transportation Planning</i> especially Sections 5.4 and 5.5, pp. 270-303. • Börjesson, M. and Kristoffersson, I. 2018. The Swedish congestion charges: Ten years on. https://doi.org/10.1016/j.tra.2017.11.001. 	
10/04	<p>Accessibility <i>Readings</i></p> <ul style="list-style-type: none"> • Levine, J., Grengs, J., Merlin, L.A. In Press. <i>The Accessibility Shift: From Mobility to Accessibility in Transportation and Land Use Planning</i>. Introduction and Conclusion. 	Accessibility Analysis Out

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| | <ul style="list-style-type: none">• SEMCOG. 2016. Access to Core Services in Southeast Michigan. Detroit, MI. | |
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10/11	<p>Transportation Finance</p> <p><i>Readings</i></p> <ul style="list-style-type: none"> • 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. 	
10/18	<p>Transportation Safety</p> <p><i>Readings</i></p> <ul style="list-style-type: none"> • Leonhardt, D. 2017. "America Is Now an Outlier on Driving Deaths" • Dumbaugh, E., & Rae, R. 2009. Safe Urban Form: Revisiting the Relationship Between Community Design and Traffic Safety. Journal of the American Planning Association, 75(3), 309–329. http://doi.org/10.1080/01944360902950349 • 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. 	MPO Plan Analysis Due
10/25	<p>Transportation and the Environment</p> <p><i>Readings</i></p> <ul style="list-style-type: none"> • Council on Environmental Quality. 2007. A Citizen's Guide to the NEPA, pp. 1-55. • Federal Highway Administration. 2017. Transportation Conformity: A Basic Guide for Local Officials. Washington DC. • Le Vine, S. and Lee-Gosselin, M.. 2017. "Transportation and Environmental Impacts and Policy" in The Geography of Urban Transportation 	This class will be online only; instructor will be out of town for a conference

11/01	<p>Local Planning Issues: Parking and Traffic Impact Analysis</p> <p><i>Readings</i></p> <ul style="list-style-type: none"> • Chester, M., et al. 2015. Parking Infrastructure: A Constraint on or Opportunity for Urban Redevelopment? A Study of Los Angeles County Parking Supply and Growth. <i>Journal of the American Planning Association</i>, 814, 268–286. • Ewing, R., et al. 2011. Traffic generated by mixed-use developments: Six-region study using consistent built environmental measures. <i>Journal of Urban Planning and Development-Asce</i>, 137, 248–261. • Shoup, D. 2011. Free Parking or Free Markets. Access 38. • Shoup, D. 1997. High Cost of Free Parking. Access 10 Spring: 2-9 	<p>Accessibility Analysis Due</p> <p>Parking Analysis Out</p>
11/08	<p>Planning for Public Transit and Transportation Alternatives</p> <p><i>Readings</i></p> <ul style="list-style-type: none"> • Small, A. 2018. How Seattle Bucked a National Trend and Got More People to Ride the Bus. Citylab. • Buehler, R., Pucher, J., & Dummler, O. 2018. Verkehrsverbund: The evolution and spread of fully integrated regional public transport in Germany, Austria, and Switzerland. <i>International Journal of Sustainable Transportation</i>, https://doi.org/10.1080/15568318.2018.1431821 • Schweitzer, L. 2017. “Mass Transit” in <i>The Geography of Urban Transportation</i> 	<p>Guest Lecture: Dr. Eric Dumbaugh</p>
11/15	<p>Transportation Planning and Equity</p> <p><i>Readings</i></p> <ul style="list-style-type: none"> • Blumenberg, E. 2017. “Social Equity and Urban Transportation” in <i>The Geography of Urban Transportation</i> • Second reading to be announced. 	<p>Guest Lecture: Dr. Dibakar Saha</p>
11/22	<p>Thanksgiving</p>	
11/29	<p>Streets and Placemaking</p> <p><i>Readings</i></p> <ul style="list-style-type: none"> • Jacobs, A. 1993. <i>Great Streets</i>. Chapter One “Requirements for Great Streets” Cambridge: MIT Press. • Institute for Transportation Engineers. 2010. <i>Designing Walkable Urban Thoroughfares: A Context Sensitive Approach</i>. Chapter 1 Foundation and Chapter 6 Thoroughfare Designs. • NACTO Street Design Guide, http://nacto.org/publication/urban-street-design-guide/ Skim 	<p>Parking Analysis Due</p>
12/6	<p>FINAL EXAM</p>	

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.