



PPPM607: Sustainable Transportation Fall 2014 (CRN 15210)

Instructor: Marc Schlossberg

Course Day and Time: M/W 2-3:20

Location: 303 Gerlinger

Office Hours: Mondays 10-12 (starting 10/6; sign up sheet on office door)

Office Location: 147B Hendricks Hall

Purpose of the course and Course Description

Until recently, automobile-based travel has been central to the planning of cities in the United States. While there have been many benefits of a transportation system that allows those legally and physically able to drive to get from anywhere to anywhere in relative comfort, the development of the system and associated use of land over the last 60 years has also led to many negative consequences, including urban sprawl, traffic congestion, enhanced social division, environmental damage, health degradation, economic hardship, and deprivation of individual freedom. The concept of sustainable transportation has emerged in city planning and design to address these problems and improve the long-term sustainability of cities and regions and offer greater transportation and lifestyle choices to more people. A key strategy has been to develop a highly accessible city that reduces the need to travel by car without limiting individual mobility.

With the aim of understanding how transportation fits into the overall design and planning of sustainable cities, this course introduces a broad range of sustainable transportation and land use planning and design concepts to enable students to:

- Understand how land use and transportation planning work together for different modes of transportation, including discussions about traffic congestion, Smart Growth, Complete Streets, Context-Sensitive Design, Scenario Planning, and Transit-Oriented Development (TOD).
- Develop a general understanding of issues, system design, and metrics for walking, biking, and transit.
- Apply what is learned to a final project of your choosing.

Course Requirements

The course is a combination of instructor lectures, guest lectures, discussions, written assignments, and a final project. Readings are to be completed prior to the class period in which they are listed. Students are expected to have obtained, read, and retained the readings for each week and to come to class prepared to discuss their content and implications.

The course website is located on the university's Blackboard system (blackboard.uoregon.edu). The class syllabus, announcements, readings (except for the Tumlin text, which students are required to purchase), and other materials will be posted on the blackboard site. Please check the course website frequently for updates. In addition, make sure that the University Registrar has your correct email address.

Assignments and Grading Policy

Participation

Students are required to attend each class. The course will include lectures by the instructor and some guest lecturers where thoughtful participation is encouraged. Participation will also be assessed throughout all aspects of the course as described below.

Written Assignments (3)

There will be three short papers based on community observations, data gathering, and summarization of your data and insights.

Written Assignment #1: Vehicular vacancies. Critics of public transportation often complain about empty busses and the waste of taxpayer money that such vacancies represent as public transit is not a self-supporting mode of transportation. In this assignment, you are to pick a two-hour block of time to observe and count traffic and vehicular occupancy/vacancy during that period. Such counting will also measure volume of vehicular use, which you can compare to the number of lanes on the street to see if there is a good match between lanes and users. More specifically, you are to:

1. Pick a location on West 11th west of Chambers or on Franklin Boulevard in Glenwood (just east of the I-5 bridge). You can choose the side of the street. In general, it is better to choose the hours of the am or pm commute during weekdays, and observe in the heavier direction.
2. Develop a data collection instrument that will allow you to separately note the type of vehicle (car, truck, bus, motorcycle) and observed occupancy. You may have to develop a generalization method so you can count quickly. For cars, it should be easy to count the number of occupants, but you may want to generalize the total number of seats (sedan = 4, minivan = 7, coupe = 2). For busses, you may want to count in quartiles (25% full, 50% full, etc.) and just know what the maximum seating or seating and standing capacity is on a typical bus.
3. Record this data in 15-minute time segments so you can compare traffic volume over time and also to divide up your data collection instrument in a way that makes it easier to keep data counts organized.
4. Calculate the # of empty seats or vacancy (or occupancy) percentage, the overall volume, the v/c (volume to capacity level), and reflect and comment on all of this.
5. Your final paper should be 2-3 pages, single-spaced, visually appealing, and directed to the City Manager as a short report as though you were city staff asked to do this assignment.
6. Offer any recommendations that come to mind based on this observation and in keeping with the theme of sustainable transportation.
7. Attach your tabulation sheets as extra pages.
8. **ALTERNATIVE FORMAT:** In place of the short paper, I am really interested in any creative representations of your data; so you can make a 1-page Infographic or even a

short video or animation (up to 3 minutes) that communicates your observations and makes a point. If you have a suggestion for a different format, please discuss with me beforehand to get approval.

9. **Due: October 13.**

Written Assignment #2: Transportation User. 1) Bike from campus to the Valley River Center or Gateway mall and 2) take the bus to Valley River Center AND separately to Gateway mall. Write a 2-4 page paper (single spaced) about the entirety of your experience, from comfort to convenience to infrastructure, to how you felt, to anything else that you notice or have thoughts about good or bad. **Due: November 3.**

Written Assignment #3: Parking Utilization. In this assignment you will do another data collection and analysis exercise, but focus on on-street parking utilization. Streets are public space, but most of them offer the ability for the storage of private vehicles in the form of on-street parking. In some ways, this can be thought of as a public subsidy to private landowners who ought to store their own vehicles on their own land or in private parking lots. In this assignment, you will:

1. Choose either a 4x4 block residential area or 16 blocks along an arterial with on-street parking (either one 16-block stretch or two 8-block stretches of different roads)
2. Pick a time of day that interests you about potential uses (during the workday, in the evening, on the weekend, etc.)
3. Walk the area, count the number of on-street parking spaces (you may have to make educated guesses if spaces are not explicitly marked; be sure to describe how you did this), count the number of actual cars parked on the street, and in some way count the number of off-street parking availability on the block (2 car garage, 3-car driveway, etc.)
4. Calculate the vacancy/occupancy percentage, describe your research methods, and offer any recommendations that come to mind based on this observation and in keeping with the theme of sustainable transportation.
5. Your final paper should be two pages, single-spaced, visually appealing, and directed to the City Manager as a short report as though you were city staff asked to do this assignment.
6. Offer any recommendations that come to mind based on this observation and in keeping with the theme of sustainable transportation.
7. Attach your tabulation sheets as extra pages.
8. **ALTERNATIVE FORMAT:** In place of the short paper, I am really interested in any creative representations of your data so you can make a 1-page Infographic or even a short video or animation (up to 3 minutes) that communicates your observations and makes a point. If you have a suggestion for a different format, please discuss with me beforehand to get approval.

9. **Due: November 19.**

Final Project

Option #1: Students will be free to develop their own project, either individually or paired with one other student. The basic assignment is to pick an aspect of sustainable transportation you find interesting, identify something local that you think could be done better (non-local projects are possible with permission of instructor), and write a paper and prepare a presentation about it. I am encouraging creative ways to communicate the essence of the issue and your proposed approach to addressing it – including movie making, traditional papers, marketing materials, etc. All projects must have background

context from other studies or projects from around the country or abroad. That is, this is not just a creative writing assignment; it is an opportunity to use evidence and your creative thinking to try to move an issue forward you find important. There will be public presentations of the work, with the format to be determined as the term goes on.

Option #2: Develop content and help create a Sustainable Transportation Wiki site:

<https://sites.google.com/site/susttransclass/>. The idea is for you to do research on some of the best articles, best videos, best policies, and best organizations on one element of sustainable transportation and share those with the world via this single wiki site. Currently there is no content, so you will be helping build this site while also becoming knowledgeable in the content area.

Policies

Late Assignment: Late assignments will immediately be assessed 30 points off, and then 10 additional points for every 24 hours from the due date it is late. Weekend days count as individual days. The three short papers are due at 2:00 pm.

Assignment	% Grade
Participation	20%
Written Assignments	45%
Project Report	20%
Project Presentation	15%

Please note that assignments must be completed on time. Since you have ample warning of due dates, no extensions will be granted unless the circumstances are exceptional.

Required Textbooks

Tumlin, Jeffrey (2012). *Sustainable Transportation Planning: Tools for Creating Vibrant, Healthy and Resilient Communities*. Wiley, Hoboken, NJ.

Rethinking Streets: An Evidence-Based Guide to 25 Complete Street Transformations – Free Download: <http://rethinkingstreets.com/>.

Other required readings are mostly listed in the course outline below and are accessible on Blackboard. Please note that some readings are yet to be determined. Please check Blackboard to access required readings.

COURSE OUTLINE

Week 1: A Highly Mobile Planet and Its Challenges: Automobile Dependence, Equity and Inequity

9/29: What is transportation? Introductions. Course Overview.

10/1: Automobile dependence. Congestion. Urban sprawl. Zoning. Arguments: car culture, property rights, anti-sustainability.

Readings:

- Tumlin, Ch. 1: Introduction
- Tumlin, Ch. 2: Sustainable Transportation

Week 2: Looking at Street Elements

10/6: Walking tour – 13th, Kincaid, Alder, Hilyard (streets, sidewalks, bikes, transit, EmX)

10/8: Assessing Streets -

Readings: Rethinking Streets book

Week 3: Walking *Written Assignment #1 Due.*

10/13: General

Readings:

- Tumlin, Ch. 5: Streets
- Tumlin, Ch. 6: Pedestrians

10/15: Design

Week 4: Walking

10/20: Metrics (Walking)

Readings:

- Tumlin, Ch. 7: Bicycles

Thursday, 10/22: Biking Overview

Week 5: Biking

10/27: Design

10/29: Scenario Planning for Transportation by Rob Zako (confirmed)

Marc at AASHE / ACSP

Week 6: Biking Metrics and Transit *Written Assignment #2 due*

11/3: Biking Metrics

11/5: Transit and Bus Rapid Transit

Readings:

- Tumlin, Ch. 8: Transit; Tumlin, Ch. 12: Stations and Station Areas

Project Check-in?

Week 7: Transit

11/10: Design

11/12: Metrics

Week 8: Making Change

11/17: Transportation Policy

Guest Speaker: **Karmen Fore**, Governor Kitzhaber's Office (**unconfirmed**), former Chief of Staff, Congressman Peter DeFazio.

11/19: Larger Scale: Complete Streets, Sustainable Transportation & City Planning _____ *Written Assignment #3 due.*

Readings:

- Tumlin, Ch. 4: The City of the Future

Week 9: New Ideas (car sharing, peer to peer car sharing, bike sharing, PRT)

11/24

Readings:

- Tumlin, Ch. 11: Car Sharing

11/26: DAY BEFORE THANKSGIVING

Week 10: Project work, course wrap up, fantastical transportation technologies, and other topics as appropriate

12/1:

12/3:

FINALS WEEK

Monday 12/10 – 2:45

Presentations

Policies

Late Assignment: If you are unable to make it to class on the day an assignment is due, you may mail, email, or fax your assignment to me prior to the class time and date that assignment is due. Late assignments receive only partial credit. If an answer key is posted to the website, however, no late homework assignments are accepted (no credit).

Missed Class: If you miss a class, please arrange to get class notes from a classmate. Instructor lecture notes are not available.

Incomplete: Students are expected to behave in a professional manner and to turn in all materials at the designated time. In accordance with university regulations, an incomplete will only be given when “the quality of work is satisfactory but a minor yet essential requirement of the course has not been completed for reasons acceptable to the instructor.”

Academic Misconduct: You are expected at all times to do your own work. Copying content from other students and submitting it as your own work is grounds for failing the class. The University Student Conduct Code (available at conduct.uoregon.edu) defines academic misconduct. Students are prohibited from committing or attempting to commit any act that constitutes academic misconduct. By way of example, students should not give or receive (or attempt to give or receive) unauthorized help on assignments or examinations without express permission from the instructor.

Plagiarism: Students should properly acknowledge and document all sources of information (e.g. quotations, paraphrases, ideas) and use only the sources and resources authorized by the instructor. If there is any question about whether an act constitutes academic misconduct, it is the students’ obligation to clarify the question with the instructor before committing or attempting to

commit the act. Additional information about a common form of academic misconduct, plagiarism, is available at: www.libweb.uoregon.edu/guides/plagiarism/students.

Professional Practice

In order to create a classroom in which students are comfortable expressing their opinions and perspectives, we ask that students please approach the readings and others' contributions with both an open mind and a willingness to question one's own assumptions and biases.

This course is also a core course in the OLIS graduate certificate program. As such, students are expected to behave in a professional manner at all times:

- Students should treat each other and the instructor with the professional courtesy and respect expected in a workplace.
- All communications relating to this course and all work turned in for this course should reflect professional standards in tone, presentation, formatting, and spelling.
- The classroom is a place of focused learning. This requires that students arrive on time, stay until the end of the class period, do not disrupt the class by leaving the room temporarily, and refrain from non-learning activities. Students who fail to adhere to these guidelines will be asked to leave for the remainder of the class session.
- We expect all course assignments to be completed using a word processor. Some assignments will require use of a spreadsheet program for data analysis and graphing. Some familiarity with a spreadsheet program (e.g. Excel), as well as basic concepts in mathematics and algebra at the high school level will be used when we cover the analytic components of the material. You will also be required to use PowerPoint for a presentation at the end of the term on your final project.
- You will be expected to be active learners and participants. I assume that the reason you are here is to learn and it is my belief that the best way for you to learn is for you to push yourself into thinking in new ways. I see my role, then, as a facilitator in your learning process, guiding you through ideas and concepts that may be new to you, but with the expectation that you will grab the concepts and run with them. That is, I'm not expecting you to regurgitate facts and definitions back to me. I want you to think and actively interact with me and other students.

Writing

PPPM will have a part time writing assistant that may be available to you this term – stay tuned.

Also, if you struggle with writing or just want to get better, I encourage you to use the services of the Writing Lab. The Writing Lab begins week two of the term and closes at 5:00pm the Wednesday of finals week. Free tutors are available. Upper-division and graduate student tutors are available on a drop-in basis or by appointment. (You must go to the Writing Lab to schedule your appointment.) 9:00am–5:00pm, Monday–Friday, 72 PLC (Prince Lucien Campbell).

Documented Disabilities

Students who have a documented disability and anticipate needing accommodations in this course should make arrangements to see the instructor as soon as possible. They should also request that the Counselor for Students with Disabilities send a letter verifying the disability.

Sexual Harassment

I support Title IX and have a duty to report relevant information. The UO is committed to providing an environment free of all forms of prohibited discrimination and sexual harassment, including sexual assault, domestic and dating violence and gender-based stalking.

Any UO employee who becomes aware that such behavior is occurring has a duty to report that information to their supervisor or the Office of Affirmative Action and Equal Opportunity. The University Health Center and University Counseling and Testing Center can provide assistance and have a greater ability to work confidentially with students.

Inclusion Statement

The School of Architecture and Allied Arts is a community that values inclusion. We are committed to equal opportunities for all faculty, staff and students to develop individually, professionally, and academically regardless of ethnicity, heritage, gender, sexual orientation, ability, socio-economic standing, cultural beliefs and traditions. We are dedicated to an environment that is inclusive and fosters awareness, understanding, and respect for diversity. If you feel excluded or threatened, please contact your instructor and/or department head. The University Bias Response Team is also a resource that can assist you. Find more information at their website (bias.uoregon.edu) or by phoning 541-346-2037.