

School of Planning, Public Policy and Management



PPPM407 / 507: Sustainable Transportation Fall 2019 (CRN 15149 / 15168)

Instructor: Marc Schlossberg, PhD

Course Day and Time: M/W 8:30-9:50

Location: 230 LA

Office Hours: Tuesdays, 3-4:30 and by separate appointment

(sign up sheet via <https://marcschlossberg.youcanbook.me/>)

Office Location: 147B Hendricks Hall

Course website: canvas.uoregon.edu

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 two significantly different transportation planning paradigms and how they impact choices and opportunities for all community members.
- Understand how space on the street can be allocated differently to achieve different outcomes, not just for transportation, but for many aspects of community life.
- Develop a general understanding of issues, system design, and metrics for walking, biking, and transit.
- Understand the widespread implications of new mobility opportunities, including ridehailing, autonomous vehicles, bike and scooter sharing systems, and more.
- Apply what is learned to a local real-world project.

School of Planning, Public Policy and Management



This course is part of the Sustainable City Year Program (SCYP)

SCYP is an innovative program, founded at the University of Oregon, that matches up to 30 courses across campus to a single Oregon community over an entire academic year to work on community-defined projects and questions. This year, SCYP and our class will be focusing on real life problems and needs of the Lane Transit District, here in Eugene-Springfield. We are not consultants, but like ‘pre-consultant consultants’, bringing fresh ideas, new perspectives, and an opportunity to facilitate community discussion in a non-hostile way to LTD and to the community.

You will have a tremendous opportunity to make a real difference locally and with LTD, while gaining skills translating theory and idealism into practice. In past years, SCYP has successfully worked with Gresham, Salem, Springfield, Albany, Medford, TriMet, La Pine and Redmond. SCYP is an award-winning innovation developed at the University of Oregon, run by the Sustainable Cities Initiative (SCI), and this unique university-partnership model is now being implemented by over 30 universities throughout the US and several more internationally under the name ‘Educational Partnerships for Innovation in Communities Network (EPIC-N)’.

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. There are weekly on-line quizzes on the readings that must be completed prior to class.

The course website is located on the university’s Canvas system (canvas.uoregon.edu).

The class syllabus, announcements, readings (except for the Tumlin text, which students are required to either purchase or ‘check out’ from the library), and other materials will be posted on the Canvas site. Please check the course website frequently for updates. In addition, make sure that the University Registrar has your correct email address.

Course Outline

Transportation & Sustainable Transportation: Context and Issues		
10/2	Introductions, Course Overview, What is sustainable transportation?	
10/7	Framing transportation decision-making & key planning elements. <ul style="list-style-type: none"> ▪ Tumlin, Ch. 1: Introduction ▪ Tumlin, Ch. 2: Sustainable Transportation ▪ Tumlin, Ch. 4: The City of the Future 	<i>Written Assignment #1 Due</i>
10/9	No class	<i>YOM KIPPUR</i>

School of Planning, Public Policy and Management



Looking at Streets & Campus		
10/14	Walking tour – 13 th , Kincaid, Alder, Hilyard (streets, sidewalks, bikes, transit, EmX)	
10/16	Share Observations from Assignment #2 & Understanding Streets <ul style="list-style-type: none"> ▪ <u>Rethinking Streets</u> & <u>Rethinking Streets for Bikes</u> books (free download: rethinkingstreets.com) ▪ Tumlin, Ch. 5: Streets 	<i>Written Assignment #2 Due</i>
Transit		
10/21	Definitions, Context, Elements, & Issues <ul style="list-style-type: none"> ▪ Tumlin, Ch. 8: Transit; ▪ Tumlin, Ch. 12: Stations and Station Areas Watch recorded lecture – uploaded to Canvas	MARC IN NASHVILLE
10/23	TBD: Guest Speaker: Jennifer Zankowski (LTD)? Rob Zako (BEST Executive Director)?	MARC IN NASHVILLE
10/28	Definitions, Context, Elements, & Issues	
10/30	Project discussion and team time	
Bicycle Transportation (and e-Scooters, too)		
10/30	Definitions, Context, Elements, & Issues <ul style="list-style-type: none"> ▪ Tumlin, Ch. 7: Bicycles 	
11/4	Definitions, Context, Elements, & Issues	
11/6	Project discussion and team time	
Walking		
11/11	Definitions, Context, Elements, & Issues <ul style="list-style-type: none"> ▪ Tumlin, Ch. 6: Pedestrians 	
11/13	Definitions, Context, Elements, & Issues	<i>Written Assignment #3 due</i>
11/18	Project discussion and team time	
Ridehailing, Autonomous Vehicles & Mobility as a Service (MaaS)		
11/20	Definitions, Context, Elements, & Issues <ul style="list-style-type: none"> ▪ Tumlin Chapter 11: Carsharing 	
11/25	Definitions, Context, Elements, & Issues	
11/27	Project discussion and team time	DAY BEFORE THANKSGIVING
Other Issues		
12/2	Parking, TDM, and Performance Metrics <ul style="list-style-type: none"> ▪ Tumlin, Ch. 10: Parking; ▪ Tumlin, Ch. 13: TDM 	Team check in on projects

School of Planning, Public Policy and Management



	<ul style="list-style-type: none"> ▪ Tumlin, Ch. 14: Measuring Success 	
12/4	Course wrap up and other topics as appropriate	
Final Deliverables		
12/13	<p>10:15am FINAL PAPER DUE & Maybe Presentations</p> <p>Exact Day and Time of our Final Presentations are TBD and could happen earlier in the week and in the evening or late afternoon</p>	

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.

Quizzes

There will be weekly quizzes available on Canvas, due each week by 8:30am Monday. These quizzes will generally be 3-5 questions related to the readings assigned by that day and/or related to content from class (including guest speakers) during previous weeks.

Written Assignments (3)

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

Written Assignment #1: Getting to Trader Joe's (Due: October 7 submitted via Canvas – Monday morning of Week 2 !!!!!)

Most people are fairly rational in their transportation decisions and our transportation habits and expectations are formed at an early age.

1. Go to Trader Joe's (or any location in the same shopping center), preferably in person, but via Google maps if necessary. Walk the area and decipher what transportation options are available and likely to be used in general, but think about two subpopulations as well: kids from nearby elementary, middle, and high schools; and college students – you!.
2. Write a very brief overview of what you saw and what it means. What does the physical location look like? How would someone arrive on bike or foot and would they be comfortable? This should be a maximum of one page, single spaced, quick thought overview, and attractively formatted or as a one page image/graphic of some kind that communicates the same information (and should look good and flow visually).

School of Planning, Public Policy and Management



- a. Grading will be full credit if turned in on time following instructions, half credit if late, and zero credit if not turned in at all.

Written Assignment #2: Choose one of the following (Due: October 16, submitted via Canvas):

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. Ideally, pick a location on Coburg between I-105 and Crescent Avenue to the north. (Alternatively, pick a location on West 11th west of Chambers, Franklin Boulevard in Glenwood (just east of the I-5 bridge), or on Pearl, Hilyard, Patterson or Oak between 11th and 19th.) You can choose the side of the street. If you choose the hours of the am or pm commute during weekdays, you can comment on how many empty vehicle seats you see and what that means. If you observe in a less busy time, you can also comment on the percent of time the street actually was full and what that means.
2. Develop a data collection instrument that will allow you to separately note the type of vehicle (e.g. 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. You can 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, but this is just a data collection suggestion. *You do not need to present data in 15-minute increments unless that is actually meaningful.*
4. Calculate the # of empty seats or vacancy (or occupancy) percentage 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 Mayor or City Manager and the Director of LTD as a short report as though you were 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. Use tables, charts, or images to complement or reinforce your main points.
8. Attach your tabulation sheets as extra pages. (You may need to scan them or take pictures and place them on pages at the end of your document.)

School of Planning, Public Policy and Management



9. **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 (up to 11"x17") 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.

Parking Utilization. In this option, you will do another data collection and analysis exercise, but focus on-street or off-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. **On-Street Parking** Choose either a 4x4 block residential area, 8 blocks along an arterial with on-street parking, or a commercial area with a lot of parking lots (like a big box shopping area)
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 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, and if counting residential parking, in some way count the number of off-street parking availability on the block (2 car garage, 3-car driveway, surface parking lot with 10 spaces, 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 Mayor or 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. **Off-Street Parking Alternative:** Instead of looking at on-street parking exclusively, look at the off-street parking lots at the commercial hubs along Coburg road in our study area – how many parking spaces are there? How many are used? How does one get from the sidewalk to the front door or from a car to the front door? Can you park a bike there or a scooter? What is transit access like in terms of pick-up & drop-off?
9. **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.

School of Planning, Public Policy and Management



Written Assignment #3: Choose one of the following (Due: November 13, submitted via Canvas):

Transportation User. 1) Bike from campus to the Valley River Center or Gateway mall or Trader Joe's and 2) take the bus to Trader Joe's AND Valley River Center OR Gateway mall. Write a 2-3 page paper (single spaced) about the entirety of your experiences, from comfort to convenience to infrastructure, to how you felt, to anything else that you notice or have thoughts about good or bad. Please organize your paper into thematic subsections, includes images or quotes or other items to help make your report visually interesting, engaging, and insightful.

Mobility as a Service. Pick two destinations in town and take a single trip to both and back using bikeshare and at least two of the following additional modes: ridehailing, taxi, transit, walk. This circuit could be an all-day thing or functional errand running, such as using bikeshare to go to one place, walking or hopping on a bus to the next, and grabbing a Lyft to return home. While an artificial trip making assignment, try to seriously pick destinations you want/need to go to as that will make the assignment more applicable. Write a 2-3 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. Please organize your paper into thematic subsections, includes images or quotes or other items to help make your report visually interesting, engaging, and insightful.

Final Project

Students will be put into teams and work on projects at one of three 'Mobility Hubs' along Coburg Road, in conjunction with the SCYP-LTD partnership. A mobility hub is a location where transit, vehicle pickup/dropoff, bikes, scooters, and walking work seamlessly together. Part is design of the hub's location and part is how that hub is connected to broader trip origins and destinations, whether the most adjacent business uses or to schools and offices and housing further afield, but still within a reasonable catchment area.

Each team will create its own designs and rationale for why the location is appropriate for a more intense mobility hub rather than just an independent transit stop. Students will compile all of their context and designs and any policy recommendations into a public-facing final report and a final poster, which will be publicly presented to a variety of community stakeholders. You have a real opportunity to influence local decision-making, and these formats will maximize the likelihood your ideas will be seen and heard.

More guidance will be provided throughout the term.

Graduate Student Requirements

School of Planning, Public Policy and Management



Graduate students are required to also complete one of the following two options. Please check in with the instructor about the focus of your work.

Annotated Bibliography

Complete an annotated bibliography on one of the topics we cover in class. This is an opportunity to go in more depth about the current research and thinking on a topic. The annotated bibliography needs to include at least 12 sources (you will read and sift through many more than that). The format is a 2-3 page summary narrative that integrates your sources into a self-contained summary. After this narrative, each source needs to be listed as a proper citation, followed by a short paragraph describing the key points/findings of the source. Only include sources you include in the narrative, not every single piece you read or scanned. This is due by the end of our final exam period.

Expand on Earlier Assignment

Using one of the earlier data gathering assignments, expand on it by collecting and analyzing more data from a single location or collect data from multiple locations and analyze and comment on what you observe. The data can be directly integrated into the group project, but should also be compiled into a stand-alone 3-5 page paper, including an introduction, overview of data collection methods, results, and recommendations/conclusions.

Grading

Assignment	% Grade Undergraduate	% Grade Graduate
Participation	15%	10%
Written Assignments	30%	30%
Quizzes	20%	10%
Project Report / Presentation	35%	35%
Annotated Bibliography		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. For graduate students – the depth and quality of your work will be expected to reflect your more advanced level, including attention to basic grammar and formatting, as well as integrating literature or more advanced thinking/reflections/insights into your work.

Required Textbooks

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

NOTE: I have heard that there are numerous e-book copies available through our library.

School of Planning, Public Policy and Management



“Rethinking Streets” & “Rethinking Streets for Bikes”: – Free Download: <http://rethinkingstreets.com/>.

Other required readings are listed and accessible on Canvas. Please note that some readings may get added throughout the term. Please check Canvas to access required readings.

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 four short papers are due at 8:30 am. Turn them in via Canvas. If you know you will be absent on a due date, deliver your assignments *prior* to class.

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.

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

School of Planning, Public Policy and Management



non-learning activities. Students who fail to adhere to these guidelines will be asked to leave for the remainder of the class session.

- 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

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 Violence, Harassment and Survivor Support

The UO is committed to providing an environment free of all forms of discrimination and sexual harassment, including sexual assault, domestic and dating violence and gender-based stalking. If you (or someone you know) has experienced or experiences gender-based violence (intimate partner violence, attempted to completed sexual assault, harassment, coercion, stalking, etc.), know that you are not alone. UO has staff members trained to support survivors in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, helping with legal protective orders, and more. If you wish to speak to someone confidentially, you can call 541-346-SAFE, UO's 24-hour hotline, to be connected to a confidential counselor to discuss your options. You can also visit the SAFE website at safe.uoregon.edu.

Inclusion Statement

The University of Oregon is working to create inclusive learning environments. Please notify me if there are aspects of the instruction or design of this course that result in disability-related barriers to your participation. You are also encouraged to contact the Accessible Education Center in 164 Oregon Hall at 541-346-1155 or uoaec@uoregon.edu.