

School of Civil and Construction Engineering
Oregon State University
CE 597 – Public Transportation Planning and Design
Fall 2013 (revised)

Instructor: Dr. Kate Hunter-Zaworski Owen Hall 303 Phone: 541-737-4982 Hunterz@enr.orst.edu	Monday and Wednesday 16:00 -17:20 KEAR 124
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Course Description: (3 credits) Public Transportation is taught as a **graduate course** in the School of Civil and Construction Engineering at Oregon State University. The course includes a brief overview of the History and Role of Public Transportation and its impact on Land Use and Urban Development. The various modes associated with public transportation are discussed from the perspective of technology, performance, capacity, related infrastructure and operations.

The analytical parts of the course include transit system performance measures such as productivity, efficiency and utilization. The course also includes a discussion of new technologies, modes and the integration of the intelligent transport system. This course is for graduate students in transportation engineering, urban planning, and for transportation professionals who would like to increase their knowledge and understanding of some of the technical issues associated with public transportation system design as well as new technologies and issues in public transportation.

Prerequisite: Senior or Graduate Standing

Text: Vukan Vuchic, “*Urban Transit*”, John Wiley and Sons, Hoboken , 2007
On Line version of the text book available from
<http://onlinelibrary.wiley.com/book/10.1002/9780470168066>
Transit Capacity and Quality of Service Manual, TCRP Publication #165
Available from: <http://www.tcrponline.org/> or
<http://www.trb.org/Main/Blurbs/169437.aspx> to Download full report
Walker, Jarrett, “Human Transit; How Clearer Thinking”, Island Press, 2012

Course Learning Objectives:

At the completion of the class the students will be able to:

1. Evaluate basic concepts of public transportation including vehicle characteristics and operational impacts
2. Evaluate and synthesize basic concepts of route planning
3. Synthesize the basic concepts of sustainability, land use and transportation planning related to public transportation engineering
4. Analyze basic concepts of capacity analysis for transit
5. Analyze basic quality of service concepts of for transit

Course Schedule (Subject to change)

WEEK/DATE	TOPIC	READING (Text)	TCQSM
1 Sep 30	History and Modes	Ch 1 and Ch 2	Ch 1
2 Oct 7	Vehicle Motion and Performance-	Ch 3	Ch 2
3 Oct 14	Vehicle Motion and Performance	Ch 3	Ch 3
4 Oct 21	Capacity and QOS	Ch 4	Ch 4 and 5
5 Oct 28	Rubber Tire Modes	Ch 5	Ch 6
6 Nov 4	Steel Tire Modes	Ch 6, Ch 7 ¹	Ch 8
7 Nov 11	Paratransit	Ch 9, Ch 8 ¹	Ch 7
8 Nov 18	Stops Stations and terminals		Ch 10
9 Nov 25	(No Class Nov 27) Modal Comparisons	Ch 10	
10 Dec 2	Class Presentations, written report due at noon, December 4, 2013		

1 Read Chapter 7 and Chapter 8

Use of Class time:

- Discussion of weekly reading assignment
- Discussion of individual projects and Class project
- Presentations

Class Assignments

Homework: written Homework will be assigned during the term. Homework must be done in a professional manner.

Short Paper: Students are required to prepare a 5-7 page paper on “How Does Real Time Social Media Impact the use of Network Transportation Companies” . Paper is due **October 30, 2013**

Four Journal Article Summaries: These should be related to the topics you are assigned, and should be very current. i.e. published in the last five years. Each summary should be about a page long and be reflective and use critical thinking analysis of the article. **These are due: October 16, 23, November 6 and 20, 2013**

Individual Project: Students may choose a topic that is of personal interest and related to public transportation. The topic must be submitted for approval on **Monday November 4, 2013**. Students are advised to submit their topics early to insure that there are no duplicate topics. Topics will be accepted on a First come first serve basis. The **final written Report** is due **Wednesday December 4, 2013**. A 10minute class presentation on the term project will be presented during class during on the following times on December 2, 2013. Presentations will be scheduled on a first come first served policy. Students are expected to participate in all class presentations.

Class Project: Students may choose to work on a group project instead of an individual project. A single group report is due **Wednesday December 4, 2013**, and a class presentation that will include invited community stakeholders will be on Wednesday December 4, 2013.

Schedule of Class Deliverables:

ITEM	Date Due
Homework #1	October 9
Journal Article #1 and Homework #2	October 16
Journal Article #2	October 23
Short Paper	October 30
Research Paper Topic Approval	November 4 (early submissions is recommended)
Journal Article #3, Homework #3	November 6
Homework #4	November 13
Journal Article #4	November 23
Presentation Session #1 (individual projects)	December 2
Final Written Reports Presentation Session #2 This will be on the class project	December 4

Grading

Short Paper	25	points
Term Project: Written report	35	points
Class Presentation	10	points
Journal Summaries	20	points
Homework	10	points
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Total	100	points

Class Conduct and Behavior

Use of Cell Phones and Other Electronic Devices

You are not to use a cell phone or MP3 player in class. In case of emergencies, please turn off the phone ringer and do not answer the call in class: leave the class, close the door behind you, and then answer. This will limit the disruption to the class. Any other electronic devices should be turned off. Surfing of the internet or listening to music while in class will result in a request for you to leave the classroom immediately.

Cheating and Student Conduct:

The instructors of this class takes the issue of academic honesty very seriously. You are expected to be honest and ethical in your academic work. There is a “**zero tolerance**” policy in effect for cheating in this class. Any instance in which a student is caught cheating will be handled in strict accordance with the policies outlined at the following website:

<http://www.orst.edu/admin/stucon/achon.htm>. In order to provide students with a positive learning environment OSU has adopted a pledge of civility, which can be found at <http://osu.orst.edu/admin/stucon/index.htm>.

Academic dishonesty is defined as an intentional act of deception in one of the following areas:

- Cheating- use or attempted use of unauthorized materials, information or study aids
- Fabrication- falsification or invention of any information
- Assisting- helping another commit an act of academic dishonesty
- Tampering- altering or interfering with evaluation instruments and documents
- Plagiarism- representing the words or ideas of another person as one's own

When evidence of academic dishonesty comes to the instructor's attention, the instructor will document the incident, permit the accused student to provide an explanation, advise the student of possible penalties, and take action. The instructor may impose any academic penalty up to and including an "F" grade in the course after consulting with his or her department chair and informing the student of the action taken.

Disability:

"Accommodations are collaborative efforts between students, faculty and Disability Access Services (DAS). Students with accommodations approved through DAS are responsible for contacting the faculty member in charge of the course prior to or during the first week of the term to discuss accommodations. Students who believe they are eligible for accommodations but who have not yet obtained approval through DAS should contact DAS immediately at 737-4098.

DAS e-mail address is Disability.Services@oregonstate.edu.