Portland Traffic and Transportation: The New Evolution

Portland Bureau of Transportation/ Portland State University/ Thuy Tu Consulting, LLC

Fall 2019

This class will focus on equitable traffic and transportation design and planning for our communities and infrastructures in the City of Portland. Students will prepare a vision plan or class project-addressing community planning for the transportation systems (e.g., roads, bridges, transit, parks, urban centers, etc.). Students are encouraged to research current design trends in the traffic and transportation industry, including new developments in connectivity, green technologies, and changing populations.

Class Instructor:	Thuy Tu thuy@thuytuconsulting.com	503.490.6389
PBOT Liaison:	Michael Espinoza Michael.espinoza@portlandoregon.gov	503.823.7083
	Sarah Goforth, PBOT sarah.goforth@portlandoregon.gov	503.823.9863
PSU Liaison:	Sarah Bermudez, Graduate Assistance seb22@pdx.edu	
Date/ Time:	Thursdays, 6:40pm – 8:40pm	
Building/ Room:	Portland State University, Fariborz Maseeh Hall, Room B128 724 SW Harrison Street, Portland, OR 97201	
Class Structure:	Class time will be used for presentations from guest speakers, activities and class discussion. Class rhythm: presentation, break, discussion, work by student groups. Each week will cover a focus topic and we will explore the connections between these concepts.	

Students will be engaged in assignments/project coursework using written and oral communication. This course will be taught using demonstration, guest speakers and discussion combined with individual and team-centered project-based learning.

Course Purpose/ Vision/ Goals

Enriching, enlivening and enhancing students in to connect with communities. Showcasing, sharing and educating students on urban design concepts, as they relate to real life human needs. The course will give students an opportunity to connect with communities in a meaningful way, as it will also provide communities a platform to explore where their values are in alignment with the next generation of decision makers.

This class is will provide students with technical proficiency in traffic, land use, transportation planning, and urban design.

Course Learning Objectives

1. Learn and understand the current challenges and barriers to transportation planning;
2. Recognize stakeholder perspectives and explore mutually beneficial solutions;
3. Apply a system thinking approach to central concepts, technologies, and practices of resiliency planning and sustainable systems;
4. Critique and develop traffic and transportation planning and sustainability metrics;
5. Communicate and persuade the need for planning and sustainable infrastructure for a non-technical audience;
6. Develop skills for continued learning on planning and sustainable infrastructure as the field evolves.

The class will be broken into three phases:

1. The History of Portland's Transportation Systems
2. Portland's Current Transportation System
3. Planning for Portland's Future Transportation System

Five main themes that will emerge each week include:

1. Equity, Diversity, and Inclusion
2. Livability and Affordability
3. Community Engagement
4. Sustainability and Resilience
5. Innovative Technology

Woven throughout the Course

- Social Justice & Equity
- Sustainability
- Climate Change
- Community
- Interdisciplinary
- Integration
- Cultural Landscape & Diversity
- Commitment to Ethics

Retooling Transportation and Urban Planning for Equitable Systems

- Equity & Social Justice
- Sustainability & the Triple Bottom Line
- Complexity
- Being an Individual within the context of Community
- Infrastructure Development
- Livability
- Passion & Purpose

Each week, these questions will be asked:

1. ***Equity***. How can we equitably distribute resources so everyone has what they need, recognizing historical and present disparities?

2. ***Diversity***. Who is affected by our decisions and especially who might be disproportionately harmed by our 'solutions'?

3. ***Inclusion.*** How can we include disproportionately harmed people into our process early and often as possible?

List of current sample projects students will study include:

- Division Transit Project, TriMet
- I-5 Rose Quarter, ODOT/ City of Portland
- SW Corridor, ODOT/ City of Portland/ TriMet
- 82nd Avenue, ODOT/ City of Portland
- Foster/Powell Roadway Improvements, ODOT

Required Readings of City of Portland Plans*:

- The Portland Plan, City of Portland's Report
- 5-year Racial Equity Plan, PBOT's Report
- PedPDX and 82nd Avenue Plan, PBOT's Report
- 2035 Comprehensive Plan, City of Portland's Report
- BPS Climate Action through Equity, BPS's Report
- *These reports are available on the City of Portland's website.

Portland Traffic & Transportation: *The New Evolution*

Have you ever wondered…

- *Why can certain weather conditions prevent MAX from operating?*
- *How many unpaved streets are there in Portland and where are they located?*
- *What is statistically the un-safest street in Portland and what design factors lead to this "distinction"?*
- *How many riders are there each weekday on TriMet? on MAX? on Portland Streetcars?*
- *How many bridges are there in Multnomah County? And how many cross the Willamette River? What is their average age?*
- *In Portland what is that average duration (in seconds) for the green traffic light?*
- *Are speed bumps really an effective method to impact the flow of automobile traffic?*
- *How often are the bridges over the Willamette River raised each week? each month? each year?*
- *Will a new bridge over the Columbia River leading to Vancouver be completed within the next ten years?*
- *Could charging tolls on some streets and highways help to regulate traffic flow in the greater Portland area?*
- *Does railroad traffic play a role in Portland's automobile traffic situation?*
- *How many children travel to school each day on "yellow" school buses? on TriMet? on MAX? on the streetcar?*
- *Could the Columbia and Willamette Rivers be used as transportation corridors for a high-speed hydrofoil-based commuter transport?*
- *How does PBOT cooperate with neighboring communities in Vancouver and Clark County; with Clackamas, Washington and Multnomah Counties in Oregon? with ODOT?*
- *How many cars are "replaced" by bicycle commuters in Portland?*

This course will touch on some of these questions in the framework of studying the planning and development of transportation systems for the City of Portland. Emphasis will be on aspects of land use, mobility, and social justice, including racial equality.

The course will provide a platform for students to advance their technical knowledge while being sensitive to place and community within Portland. Students will have the opportunity to engage with community-based organizations and industry professionals on questions of policy, planning, and design and implementation of equitable transportation systems. It will provide a historical perspective on Portland's transportation systems, ending with their current status and a view to future planning needs.

The weekly class discussions will include aspects of equity and diversity, livability and affordability, community engagement, sustainability and resilience, and innovative technology.

Tentative Schedule of Classes

Week 1, Oct 3rd: Transportation, Equity and Community in Portland
Michelle Depass, Class Alumnus, Community Engagement Coordinator, Portland Housing Bureau, Portland Public School Board
Irene Marion, Equity + Inclusion Manager, Portland Bureau of Transportation (PBOT)

Week 2, Oct. 10th: History of Transportation of Systems
Laura John, Tribal Relations Director, City of Portland

Week 3, Oct. 17th: Planning & Engineering for Equitable Transportation Systems
Marisa DeMull, Engineering Designer, Alta Planning + Design, Inc
Sumi Malik, Transportation Planner, HDR

Week 4, Oct. 24th: Planning and Policy at the Regional and Local Levels
Art Pearce, Policy Planning and Projects Group Manager, PBOT
Margi Bradway, Planning and Development Deputy Director, Metro
Bob Hasting Agency Architect Transit Oriented Development, TriMet

Week 5, Oct. 31st: Advocating for your Needs
Jillian Detweiler, Executive Director, The Street Trust
Arlene Kimura, Community and Transportation Advocate for East Portland

Week 6, Nov. 7th: New and Smart Mobility for All Communities
Adrian Pearmine, National Director of Smart Cities and Connected Vehicles, DKS Associates
Ann Marcus, Strategic Communications, Marcus Consulting Group, Inc.
Jane Leong, Former JADE District Steering Community Member

Week 7, Nov. 14th: Active Transportation and Beyond
Tamika Butler, Director of Planning, Director of Equity and Inclusion, Toole Design
Sara Schooley, Project Planner, Toole Design
Millicent Williams, Capital Projects, PBOT

Week 8: Nov. 21st
Community & Civic Life and Infrastructure/ I-5 Rose Quarter Project
Suk Rhee, Director of Community & Civic Life, City of Portland
Shelli Romero, Area Manager, ODOT Region 1
Megan Channell, Rose Quarter Project Director, ODOT Region 1

Nov. 28th – Thanksgiving: NO CLASS

Week 9: Dec. 5th
Class presentations

Recommended Readings

Available at Powell's Books, Amazon or wherever you purchase books

Palaces for the People**,** Eric Klinenberg
Describes how social interactions are dependent upon the natural as well as built environments, which if built properly would foster cohesion, community and resilience.

Bowling Alone: The Collapse and Rival of the American Culture, Robert Putman

Trace, Lauret Savoy
An exploration of memory, history, race and the American Landscape

The Death and Life of Great American Cities**,** Jane Jacobs

Available to borrow from Instructor

Fostering Sustainable Behavior: An Introduction to Community-based Social Marketing, Doug McKenzie-Mohr
Addresses changing people's behavior (vs attitude) regarding community issues.
https://tinyurl.com/SustBehavior

Seven Rules for Sustainable Communities (Design Strategies for a Post - Carbon World), Patrick Condon

Developing Sustainable Planned Communities, published by Urban Land Institute (various authors)

Place Making: Developing Town Centers, Main Streets, and Urban Villages, Charles Bohl, Foreword by Gary Cusumano, published by Urban Land Institute

Our Built and Natural Environments: A Technical Review of the Interactions Among Land Use, Transportation, and Environmental Quality, 2nd Edition, published by EPA (various authors) - This one serves more as a guidebook for technical reports.

Bio of Instructor

Thuy Tu is Principal and founder of Thuy Tu Consulting, LLC, a Portland-based consulting firm specializing in transportation planning and analysis for public agencies, private development, academia and nonprofit organizations. Thuy is a Senior Transportation Planner/Civil Engineering Project Manager with 20 years of experience in strategic cultivation of positive relationships for civil engineering, transportation, transit, urban, environmental planning and construction projects. Thuy holds a B.S. in Civil Engineering from University of Portland. She completed the Minority Business Executive Program at the University of Washington. Thuy grew up in NE Portland and is currently a SE Portland resident, and Benson Polytechnic High School graduate of Architecture and Journalism.

Thuy served as the Sustainable Transportation expert for the University of Oregon School of Architecture and Allied Arts and was the professional mentor of project management and civil engineering for the Portland State University Student Chapter of Engineers without Borders USA. Thuy is an advocate for sustainable, equitable and livable communities for the JADE District Neighborhood Prosperity Initiative in SE Portland, and served on multiple JADE District Committees. She represented the JADE/APANO (Asian Pacific American Network of Oregon) on the Community Advisory Committee (CAC) for the Division Transit Project in the East Portland communities.