

University of Virginia School of Architecture
Department of Urban and Environmental Planning

Transportation Planning and Policy

PLAN 5740

Class time: 11:00AM – 12:15PM, Mondays and Wednesdays
First Class: August 28, 2013
Last Class: December 4, 2013
Room: Campbell Hall 325

Instructor: Andrew Mondschein
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Office: Campbell Hall 413
Office Hours: Email for appointment

Course Description

This course provides a foundation for understanding transportation systems' relationship to cities and people and managing urban transportation systems. We will:

- (1) Explore transportation planning and policy from multiple perspectives.
- (2) Address transportation planning and policy as it occurs in cities. We'll look at how planners work to build transportation infrastructure, manage traffic, plan for multiple modes, and facilitate goods movement.
- (3) Investigate current and emerging issues in transportation planning, including sustainability, accessibility, and equity.

A recurring theme in the course will be, "How can we reconcile our goals and objectives as transportation planners with the methods and constraints of the profession?" While this question is as challenging to answer today as it has ever been, we can also explore the accomplishments of transportation planners and policymakers in the past and the remarkable innovations in travel, technology, and policy and that are reshaping transportation right now.

The assignments for this class ask you to examine aspects of transportation planning and its practice, apply the lessons from the course to local issues, and require field work using transportation systems as a laboratory. There will also be a day-long field trip organized to introduce you to some important features of the regional transportation system and planning's role in moving the city.

Topics Covered

The topics covered in this course, week by week, are as follows:

Week 1: Introduction / Key Concepts

Week 2: Milestones of Urban Highway and Transit Planning

Week 3: Transportation Policy: Finance and Mandates
Week 4: State, Local, and Regional Actors / Travel Demand Estimation
Week 5: Evaluating Transportation Projects / Case Studies
Week 6: Automobility / Congestion
Week 7: Dealing with Congestion: Pricing and Other Solutions
Week 8: Parking
Week 9: Transit
Week 10: Transit, continued
Week 11: Non-motorized modes: Walking and Biking
Week 12: Public Health, Economic Development, Sustainability
Week 13: Putting it All Together: Complete Streets
Week 14: Goods movement
Week 15: Future of Transportation

Course Requirements

There are five components to the course: (1) lectures and class discussion, (2) a field trip, (3) readings and weekly responses, (4) applied assignments, and (5) take-home final essay.

Lectures and Discussion (15% of grade, including field trip attendance)

Each class will have a lecture component, but discussion is encouraged (and required!). Part of your grade is based on attending class – and the field trip – and participating in the discussion. Everyone should feel comfortable contributing their thoughts and questions to the discussion. If you have any questions about this requirement, please let me know.

Part of the course will include an all-day field trip where we will examine aspects of the transportation system. We will find a date for the trip, likely in early November, at the start of the semester. Any student unable to participate in the field trip will be required to complete a second essay.

Readings and Weekly Responses (15% of grade)

There is one required textbook for the course:

Susan Hanson and Genevieve Giuliano (editors), 2004, *The Geography of Urban Transportation*, 3rd edition, The Guilford Press, ISBN: 1593850557

The course also draws on a wide range of chapters, papers and reports. The lectures will not cover all of the material in the reading, so it is essential that you keep up with the required reading. Students should complete all required readings prior to the corresponding class session. Readings will be made available from the *Resources/Readings* section of the Collab website.

You're going to be bombarded with a lot of material about transportation this semester, and it's important that you take time to process this information as we proceed. To help with that process, you are asked to write short responses to questions I pose in the Collab class Forums. I

will pose a question or ask you to respond to a specific reading or set of readings each week, to be due on the following before class.

Your weekly responses are meant to draw out your own ideas and do not need to be written like a research paper or professional memo. As long as you finish your response by the due date, and it is thoughtful and meets a minimal length, you will get full credit.

Over the semester, I will assign 20 “points” worth of responses (some will be worth one point, others two points). However, you only need 15 points to get full credit for your weekly responses requirement. In other words, you can BLOW OFF 5 points worth of weekly responses without in affecting your final grade. Just be sure to keep track of how many points you’ve already blown off!

Applied Assignments (50% of grade overall)

Central to the course is gaining experience with the methods and thinking of transportation planners. You will work on a series of three assignments that illuminate key parts of transportation planning practice. The three assignment topics are:

1. Working with Transportation Data (10% of grade)
Due Date: September 30, before class
2. Policy Reviews and Goal Setting (10% of grade)
Due Date: October 28, before class
3. Corridor Alternatives Analysis (30% of grade, group project)
Class Presentations: December 2 and 4
Due Date: December 6

I will distribute assignments, and we will discuss them thoroughly in class. All final products should be submitted to the course’s Collab site by due date stated when the assignment is given. Late papers will be accepted, but a late grade penalty of 1/3 grade per day will be applied to any papers turned in after the due date. The late penalty for assignments can be waived only with a written note from a medical professional.

Take-Home Final Essay (20% of grade)

Rather than complete an in-class final, you will complete an “open-book” final essay distributed on the last day of class. You’ll have a choice of several essay topics that draw on the course material.

Due date: December 11

Reading List

Week 1 (8/28): Introduction / Key Concepts

- Hanson, Susan. 2004. “The Context of Urban Travel,” in *The Geography of Urban Transportation*, Third Edition, Susan Hanson and Genevieve Giuliano, Editors. New York: The Guilford Press. Pages 3-29.

- Lynch, Kevin. 1981. "Access," in *A Theory of Good City Form*. Cambridge: The MIT Press. Pages 187-204.

Week 2 (9/4): Milestones of Urban Highway and Transit Planning

- Jones, David. 1985. "Transit's Growth and Decline: A Play in Eight Acts," in *Urban Transit Policy: An Economic and Political History*. Englewood Cliffs, NJ: Prentice-Hall. Pages 28-95.
- Altshuler, Alan and David Luberoff. 2003. "Overview: Four Political Eras" in *Mega-Projects: The Changing Politics of Urban Public Investment*. Washington, DC: Brookings Institution Press. Pages 8-43.
- Johnson, Katherine M. 2009. "Captain Blake versus the Highwaymen: Or, How San Francisco Won the Freeway Revolt," in *Journal of Planning History* 8(1), 56-83.

Week 3 (9/9, 9/11): Transportation Policy: Finance and Mandates

- Taylor, Brian D. 2004. "The Geography of Urban Transportation Finance," in *The Geography of Urban Transportation*, Third Edition, Susan Hanson and Genevieve Giuliano, Editors. New York: The Guilford Press. Pages 294-331.
- Lewis, Rebecca, Gerrit-Jan Knaap and Jungyul Sohn. 2009. "Managing Growth with Priority Funding Areas: A Good Idea Whose Time Has Yet to Come," in *Journal of the American Planning Association* 75 (4), pp. 457-478.
- Delucchi, Mark. 2007. "Do motor-vehicle users in the US pay their way?" in *Transportation Research A*, 41. Pp.982-1003.
- Altshuler, Alan and David Luberoff. 2003. "The New Politics of Highways" in *Mega-Projects: The Changing Politics of Urban Public Investment*. Washington, DC: Brookings Institution Press. Pages 76-122.

Week 4 (9/16, 9/18): Evaluating Transportation Projects / Case Studies

- Meyer, Michael D. and Eric J. Miller. 2001. "Transportation System and Project Evaluation," in *Urban Transportation Planning: A Decision-Oriented Approach*, second edition. New York: McGraw-Hill. Pages 483-563.
- Ewing, Reid. 1993. "Transportation Service Standards—As If People Matter," *Transportation Research Record: Planning and Administration*, 1400: 10-17.
- Ewing, Reid. 1995. "Measuring Transportation Performance," *Transportation Quarterly*, Winter, 49(1): 91-104.
- Cervero, Robert and John Landis. 1997. "Twenty years of the Bay Area Rapid Transit system: Land use and development impacts," in *Transportation Research Part A: Policy and Practice*, 31(4): Pages 309-333.
- Boarnet, Marlon and Randy Crane. 2001. "A Case of Study of Planning" in *Travel by Design: The Influence of Urban Form on Travel*. Oxford, UK: Oxford University Press. Pages 147-170.

Week 5 (9/23, 9/25): Automobility / Congestion

- Gessen, Keith. 2010. "Letter from Moscow: Stuck, the Meaning of the City's Traffic Nightmare." *The New Yorker*. August 10, 2010. 24-28.

- Downs, Anthony. 2004. "The Benefits of Peak-Hour Traffic Congestion," in *Still Stuck in Traffic: Coping with Peak-Hour Traffic Congestion*. Washington, DC: The Brookings Institution. Pages 5-13.
- Downs, Anthony. 2004. "How Bad is Traffic Congestion?" in *Still Stuck in Traffic: Coping with Peak-Hour Traffic Congestion*. Washington, DC: The Brookings Institution. Pages 14-36.
- Downs, Anthony. 2004. "Causes of Recent Increases in Peak-Hour Traffic Congestion," in *Still Stuck in Traffic: Coping with Peak-Hour Traffic Congestion*. Washington, DC: The Brookings Institution. Pages 37-60.
- Downs, Anthony. 2004. "Incidents and Accidents as Causes of Congestion," in *Still Stuck in Traffic: Coping with Peak-Hour Traffic Congestion*. Washington, DC: The Brookings Institution. Pages 61-75.
- Downs, Anthony. 2004. "Strategies for Reducing Congestion and Four Basic Principles of Traffic," in *Still Stuck in Traffic: Coping with Peak-Hour Traffic Congestion*. Washington, DC: The Brookings Institution. Pages 76-90.

Week 6 (9/30, 10/2): Dealing with Congestion: Pricing and Other Solutions

- Sorensen, Paul. 2009. "Moving Los Angeles," *Access*, 35: 16-24. <http://www.uctc.net/access/35/access35_Moving_Los_Angeles.pdf>.
- Small, Kenneth A. 2005. "Unnoticed Lessons from London: Road Pricing and Public Transit," *Access*: 26: 10-15. <[http://www.uctc.net/scripts/access.pl?26/Access 26 - 03 - Road Pricing and Public Transit.pdf](http://www.uctc.net/scripts/access.pl?26/Access%2026-03-Road%20Pricing%20and%20Public%20Transit.pdf)>.
- Taylor, Brian. 2002. "Rethinking Traffic Congestion," in *Access*, 21: 8-16. <<http://www.uctc.net/scripts/access.pl?21/Access%2021%20-%202003%20-%20Rethinking%20Congestion.pdf>>.
- Judycki, Dennis C. and Wayne Berman. 1992. "Transportation System Management," *Public Transportation*, Second Edition, George E. Gray and Lester A. Hoel, Editors. Englewood Cliffs, NJ: Prentice-Hall. Pages 335-367.
- Ferguson, Erik. 2000. "Part I: Problems," in *Travel Demand Management and Public Policy*. Burlington, VT: Ashgate-Aldershot. Pages 3-55.
- Ferguson, Erik. 2000. "Part IV: Results," in *Travel Demand Management and Public Policy*. Burlington, VT: Ashgate-Aldershot. Pages 279-311.

Week 7 (10/7, 10/9): Parking, Transit

- Willson, Richard W. 1995. "Suburban Parking Requirements: A Tacit Policy for Automobile Use and Sprawl," in *Journal of the American Planning Association*, 61:1. Pages 29-42.
- Shoup, Donald. 2005. "The Pseudoscience of Planning for Parking," in *The High Cost of Free Parking*. Chicago, IL: Planners Press. Pages 75-118.
- Pucher, John. 2004. "Public Transportation," in *The Geography of Urban Transportation*, Third Edition, Susan Hanson and Genevieve Giuliano, Editors. New York: The Guilford Press. Pages 199-236.
- Black, Alan. 1995. "Conventional Transit Modes," *Urban Mass Transportation Planning*. New York: McGraw-Hill, Inc. Pages 95-130.

- Kain, J. F. 1990. "Deception in Dallas: Strategic Misrepresentation in Rail Transit Promotion and Evaluation." *Journal of the American Planning Association* 56(2): 184-196.

Week 8 (10/16 – No Class Monday!): Transit, continued

- Walker, Jarrett. 2012. "Portland: The Grid is 30 Years Old... Thank a Planner!" <http://www.humantransit.org/2012/08/portland-the-grid-is-30-thank-a-planner.html>
- Jacobson, Justin and Ann Forsyth. 2008. "Seven American TODs: Good practices for urban design in Transit-Oriented Development projects," *Journal of Transportation and Land Use*, 1(2). Pp.51-88.
- Khau, Jeff. 2013. "Mobility for the Poor: Car-Sharing, Car Loans, and the Limits of Public Transit." <http://www.newgeography.com/content/003888-mobility-poor-car-sharing-car-loans-and-limits-public-transit>

Week 9 (10/23 – No Class Monday!): Transit, still continued

- No new reading

Week 10 (10/28, 10/30): State, Local, and Regional Actors / Travel Demand Estimation

- Johnston, Robert A. 2004. "The Urban Transportation Planning Process," in *The Geography of Urban Transportation*, Third Edition, Susan Hanson and Genevieve Giuliano, Editors. New York: The Guilford Press. Pages 115-140.
- Wachs, Martin. 2004. "Reflections on the Planning Process," in *The Geography of Urban Transportation*, Third Edition, Susan Hanson and Genevieve Giuliano, Editors. New York: The Guilford Press. Pages 141-162.
- Handy, Susan. 2008. "Regional Transportation Planning in the U.S.: An Examination of Changes in Technical Aspects of the Planning Process in Response to Changing Goals," *Transport Policy*, 15: 113-126.
- Dowell, David. 2002. "Reforming Infrastructure Planning," *Access*, 20: 8-13. <<http://www.uctc.net/access/access20lite.pdf> >.

Week 11 (11/4, 11/6): Non-motorized modes: Walking and Biking

- Vanderbilt, Tom. 2012. "The Crisis in American Walking: We Don't." http://www.slate.com/articles/life/walking/2012/04/why_don_t_americans_walk_more_the_crisis_of_pedestrianism.html
- Jaskiewicz, Frank. 2012. "Pedestrian Level of Service Based on Trip Quality." Transportation Research Board.
- National Association of City Transportation Officials. 2013. "NACTO Urban Bikeway Design Guide." <http://nacto.org/cities-for-cycling/design-guide/> (REVIEW)
- Pucher, John, Jennifer Dill and Susan Handy. 2010. "Infrastructure, programs, and policies to increase bicycling: An international review," in *Preventive Medicine* 50, pp.S106-S125.

Week 12 (11/11, 11/13): Public Health, Economic Development, Sustainability

- Devajyoti, Deka. 2004. "Social and Environmental Justice Issues in Urban Transportation," in *The Geography of Urban Transportation*, Third Edition, Susan Hanson and Genevieve Giuliano, Editors. New York: The Guilford Press. Pages 332-355.
- Blumenberg, Evelyn. 2004. "En-gendering Effective Planning: Spatial Mismatch, Low-Income Women, and Transportation Policy," *Journal of the American Planning Association*, 70(3), pages 269-281.
- Handy, S., M. Boarnet, R. Ewing, and R. Killingsworth. 2002. "How The Built Environment Affects Physical Activity: Views from Urban Planning," in *American Journal of Preventative Medicine* 23, 64-73.
- Cervero, Robert and Michael Duncan. 2006. "Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing?" in *Journal of the American Planning Association*, 72 (4), pp 475-490.

Week 13 (11/18, 11/20): Putting it All Together: Complete Streets

- Smart Growth America. "National Complete Streets Coalition." <http://www.smartgrowthamerica.org/complete-streets> (REVIEW)
- MacDonald, Elizabeth. 2006. "Building a Boulevard," in *Access* 28: 2-9. <<http://www.uctc.net/access/28/Access%2028%20-%2002%20-%20Building%20a%20Boulevard.pdf>>.
- MacDonald, Elizabeth. 2007. "The Intersection of Trees and Safety," in *Access*, 31: 20-26. <<http://www.uctc.net/access/31/Access%2031%20-%2005%20-%20Trees%20and%20Safety.pdf>>.
- LaPlante, John and Barbara McCann. 2012. "Complete Streets in the United States," paper presented at the 2012 Annual Meeting of the Transportation Research Board. 11 pages. <<http://docs.trb.org/prp/11-0413.pdf>>.

Week 14 (11/25 – No class Wednesday!): Goods movement

- Leinbach, Thomas R. 2004. "City Interactions: The Dynamics of Passenger and Freight Flows," in *The Geography of Urban Transportation*, Third Edition, Susan Hanson and Genevieve Giuliano, Editors. New York: Guilford Press. Pages 30-58.
- Woudsma, Clarence. 2001. "Understanding the Movement of Goods, Not People: Issues, Evidence, and Potential," *Urban Studies*, 38(13): 2439-2455.
- Kasarda, John D. 2006. "The Rise of the Aerotropolis," *The Next American City*, 10. <<http://americancity.org/magazine/article/the-rise-of-the-aerotropolis-kasarda/>>.

Week 15 (12/2, 12/4): Future of Transportation

- Janelle, Donald G. 2004. "Impact of Information Technologies," in *The Geography of Urban Transportation*, Third Edition, Susan Hanson and Genevieve Giuliano, Editors. New York: The Guilford Press. Pages 86-112.
- Morozov, Evgeny. 2013. "My Map or Yours: Google's plan to personalize maps could end public space as we know it."

http://www.slate.com/articles/technology/future_tense/2013/05/google_maps_personalization_will_hurt_public_space_and_engagement.html

- Hall, Sir Peter. 2007. "Beyond the Automobile?" *Access*, 30: 10-15. <http://www.uctc.net/access/30/Access%2030%20-%2003%20-%20Beyond%20the%20Auto.pdf>.