

## SUMA PS5450 ACCESS, INNOVATION AND THE URBAN TRANSPORTATION TRANSITION

Course: Block Week (9 am- 5:30 pm) (Monday, August 14- Friday, August 18)

3 Credits

**Instructors:** Dr. Eric Goldwyn, Daniel Peterson PE, PEOT

**Office Hours:** Each day of the block week course session includes an informal post learning debriefing from 5:30- 6:30 PM.

Office hours in addition to these debriefings will be made by appointment.

**Response Policy:** Eric Goldwyn can be reached by email at <a href="mailto:elg2139@columbia.edu">elg2139@columbia.edu</a>.

Daniel Peterson can be reached by email at danorbis@gmail.com.

Facilitator/Teaching Assistant: Rosalie Singerman Ray, PhD Candidate GSAPP

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## **Course Overview**

An urgent need exists to radically transform the transportation sector in the era of both climate change and urbanization. Globally, transportation is responsible for 23% of global carbon emissions, and if nothing is done this share is likely to grow. Trends suggest increasing motor vehicle use into the future and if most of these vehicles run on carbon-based fuels, this will contribute to climate change and air pollution. Further, the growth of automobiles is occurring as cities are growing across the globe; in cities this is contributing to low density, inefficient use of land and space, growing congestion, air pollution, traffic violence and obesity. Currently, an unusual consensus exists on global goals for transportation. It should be 1) accessible 2) efficient 3) clean and low carbon 4) contribute to public health versus creating public health problems. This is in part reflected in the new Urban Sustainable Development Goal, which have for a target:

"By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons."



To achieve both our carbon reduction targets and also the Sustainable Development Goal target will require a paradigm shift and strong advocacy for investments in green, equitable and healthy forms of urban transportation including walking and cycling (NMT), clean public transit and also new forms of efficiencies enabled by technology innovation and the "data revolution" along with better, mixed land-use and transit oriented development that is also affordable.

This course provides an overview of new thinking, innovation and advocacy in public transportation with a focus on passenger transport. We pose the question of whether we need a Transportation Transition? If so, what would it look like in different parts of the world and how do we get there? We then explore the Public Transport Impetus, the need to shift transportation modes worldwide and how this might be achieved. We also explore technological disruption and transportation. Is technology a friend or foe? How will technological change such as the rise of autonomous cars, big data and the Internet of things play into the transportation transition? Next we look at who pays for change in the sector and how? How do we move the resources and financing to make reforms happen? Finally, what are the political, institutional and cultural barriers to change in different places? What are effective advocacy strategies and will they be the same in all places?

This class draws on a series of lectures, a case study approach and experiential learning in New York City, which provides a living laboratory for the issues and themes discussed in class around the transportation transition. This class is ideal for graduate students and young professionals interested in urban sustainability, the transport sector and urban planning and design. It is also geared towards management professionals who wish to work in the transportation/urban policy arena and want an overview of cutting edge and key issues in the sector as it relates to land-use and broader environmental and planning concerns. This class serves as an elective in the MS Sustainability Management. This course satisfies the Area 1: Integrative Sustainability Management elective course and Area 4: Public Policy course requirement for the M.S. in Sustainability Management.

## **Learning Objectives**

At the end of this course students should be able:

• To think about transportation issues in a coherent fashion that draws on first principles and allows us to tackle any question in a thoughtful manner.



- To synthesize, apply and communicate sustainability knowledge as regards to the transportation sector to solve environmental problems.
- To explain current transportation policy and devise means to improve the ability to react to future policy developments as they
  emerge.
- Demonstrate a working knowledge of the processes through which rules and regulations targeted toward sustainability in the transportation sector are created and implemented.
- Develop a firm overview of some of the main challenges and opportunities in applying the transportation transition to further global goals in sustainability including improved human health, access and climate change mitigation and adaptation.
- Develop a strong, holistic overview of the major issues facing the problems of access and transportation globally, the major policy frameworks and also the key players
- To apply best practices from a number of case studies including in particular New York City that can provide ideas for future research and policy or civic engagement.
- To articulate the relationship between new technologies, financing mechanisms and strategic policy and advocacy strategies and the way they play into debates around transforming transportation

## **Readings**

The reading assignments are listed in the Pre-Block Week module. These readings will get you prepared and thinking about the topics we will cover throughout the block week. For these purposes, the selected book chapters and articles are sufficient. These resources will also introduce you to a variety of materials – some academic, some more popular – that you may want to read completely. Please note, some modules have optional readings that you must select from and also complete before the block week begins. Where possible, I have also listed recommended readings that provide more information regarding the topic in question.

Required readings, unless marked otherwise (i.e., direct links), will be available online from the Library Reserves. Click <u>this link</u> to log in to E-Reserves with your UNI and password.



#### Resources

Columbia University Library

Columbia's extensive library system ranks in the top five academic libraries in the nation, with many of its services and resources available online: <a href="http://library.columbia.edu/">http://library.columbia.edu/</a>.

SPS Academic Resources

The Office of Student Affairs provides students with academic counseling and support services such as online tutoring and career coaching: http://sps.columbia.edu/student-life-and-alumni-relations/academic-resources.

## **Course Requirements (Assignments)**

Participants in the class will be given a reading list prior to starting the class and a small set of readings over the week. Besides the assignments below all students must attend the experiential learning exercises which will involve testing different transport modes and trips in New York City and the region as well as examining particular projects such as Hudson Yards and the High Line, Select Bus Service bus lanes, etc). We will ensure that these activities are designed to be wholly accessible to all students. If a student has any particular accessibility needs, please contact Rosalie prior to beginning the class. Each student will be given a Metro card for the week.

## **Class Participation**

We expect students to be prepared before for class each day. Attending class and participation, including attendance in all experiential learning exercises, is required. This participation will account for 10% of the grade for the class. Student participation will be evaluated based on meaning and consistent contribution to the course discussion. Students should demonstrate engagement with the course readings, lecture materials, guest speakers, experiential learnings and fellow students.

In addition, the student will have a set of short writing assignments and one class presentation. We expect effort to be put in all assignments which should be well-written and properly referenced and demonstrate critical engagement and knowledge of the required readings.

**Assignment 1: Urban Transportation Environment Policy Memo** 



This 2-page note in memo format is due at 9 AM on the first day of class (Monday, August 14). In this small policy memo you will briefly describe the urban transportation you experience on a daily basis in New York and tie this mini case study to the pre-class readings. From your experiences navigating and observing New York, how do you think the system needs to change to lower carbon emissions and air pollution and improve the quality of life? In this note you should pose some critical policy questions you would like to explore and demonstrate that you have completed the pre-class readings. Thus the structure of the memo should be 1) brief background of your routine/experience 2) observations/analysis of problems drawing on your experience and the readings 3) Policy questions 4) Possible Recommendations/new options. You will share it with the class as you introduce yourself but will only be evaluated on the written note.

## Assignment 2: Analysis on New York City Learning Exercise

This is a small, 2-3 page of analysis on one of the learning exercises in New York City. Possible topics for reflection include such topics as "The drawbacks (or benefits) of incremental tax financing for transportation infrastructure using the 7 Train Extension case as an example" or "How transportation infrastructure can be a tool for sustainability in cities using New York city as an example". The assignment is due by August 23. What was working and what wasn't in the case study you select? What improvements could you imagine? What did you learn? How does this compare to the environment you described in your first assignment? The student should be able to show that they understand current transportation policy issues discussed in class and are able to apply them to concrete issues they perceive in an actual transportation environment. Ideally, the student demonstrates an ability to synthesize, apply and communicate sustainability knowledge as regards to the transportation sector to solve environmental and planning problems.

## **Assignment 3: Case Study Presentation**

In small teams which will be formed by the instructors, students will be expected to do a 15-20 minute presentation on one case study, preferably one with which they have a strong interest and/or familiarity. The case studies consist of basic background information, a set of transportation/land-use policy problems emerging from the case and some clear recommendations for how to approach these problems. In this assignment the student should demonstrate a clear understanding of the main challenges and opportunities and also draw on the case studies discussed in class for examples of how to create and present case studies as a policy learning and communication tool. The final afternoon of the class will be a presentation of these ideas for peer review and will help students prepare for the final assignment.

## **Assignment 4: Final Strategic Plan**



The student will be expected submit a 7 page argument or strategic plan for a set of specific reforms to be implemented in a particular place selected by the student. This assignment should be submitted by email to Rosalie Singerman Ray at <a href="rsr2150@columbia.edu">rsr2150@columbia.edu</a> by no later than midnight on August 23. The argument or plan must include an analysis of the particular advocacy network that would need to act to make the reforms happen and recommended advocacy tactics and why you chose these. The students are expected to refer to the lectures, course discussions, case studies and experiential learning to make their case. This final assignment must show a strong, holistic overview of the major issues facing the problems of access and transportation globally, the major policy frameworks and also the key players. It should also demonstrate that you are knowledgeable about a number of case studies including in particular New York City that can provide ideas for future research and policy or civic engagement. Finally you should show that you have gained a basic understanding of new technologies, financing mechanisms and strategic policy and advocacy strategies and the way they play into debates around transforming transportation.

## **Evaluation/Grading**

Each assignment will be grades on a scale of 0-100. The final grade will be calculated as described below:

#### FINAL GRADING SCALE

Grade	Percentage
<b>A</b> +	98–100 %
A	93–97.9 %
<b>A-</b>	90–92.9 %
<b>B</b> +	87-89.9 %
В	83–86.9 %
В-	80-82.9 %
C+	77–79.9 %
C	73–76.9 %
C-	70–72.9 %



D	60–69.9 %
F	59.9% and below

ASSIGNMENT	% Weight
Urban Transportation Environment Policy Memo	10%
Case Study Presentation	20%
Analysis on New York City Learning Exercise	20%
Final Strategic Plan	40%
Class participation	10%

## **Course Policies**

We expect you to come to class on time and thoroughly prepared. We will keep track of attendance and look forward to an interesting, lively and confidential discussion. If you miss an experience in class, you miss an important learning moment and the class misses your contribution. Engagement with your peers will be an important part of the course. Through posts on the course website and participation in the live sessions, you need to actively contribute to course discussions. In addition, you will have the opportunity both to present before your peers and to respond to their presentations in small group work. You are also expected to complete all assigned readings, attend all class sessions, and engage with others. If you need to miss a class for any reason, please discuss the absence with me in advance.

## Citation & Submission

All written assignments must use [citation format], cite sources, and be submitted to the course website (not via email).



Master of Science in Sustainability Management **School Policies** 

## Copyright Policy

Please note—Due to copyright restrictions, online access to this material is limited to instructors and students currently registered for this course. Please be advised that by clicking the link to the electronic materials in this course, you have read and accept the following:

The copyright law of the United States (Title 17, United States Code) governs the making of photocopies or other reproductions of copyrighted materials. Under certain conditions specified in the law, libraries and archives are authorized to furnish a photocopy or other reproduction. One of these specified conditions is that the photocopy or reproduction is not to be "used for any purpose other than private study, scholarship, or research." If a user makes a request for, or later uses, a photocopy or reproduction for purposes in excess of "fair use," that user may be liable for copyright infringement.

## Academic Integrity

Columbia University expects its students to act with honesty and propriety at all times and to respect the rights of others. It is fundamental University policy that academic dishonesty in any guise or personal conduct of any sort that disrupts the life of the University or denigrates or endangers members of the University community is unacceptable and will be dealt with severely. It is essential to the academic integrity and vitality of this community that individuals do their own work and properly acknowledge the circumstances, ideas, sources, and assistance upon which that work is based. Academic honesty in class assignments and exams is expected of all students at all times.

SPS holds each member of its community responsible for understanding and abiding by the SPS Academic Integrity and Community Standards posted at <a href="http://sps.columbia.edu/student-life-and-alumni-relations/academic-integrity-and-community-standards">http://sps.columbia.edu/student-life-and-alumni-relations/academic-integrity-and-community-standards</a>. You are required to read these standards within the first few days of class. Ignorance of the School's policy concerning academic dishonesty shall not be a defense in any disciplinary proceedings.

## Accessibility

Columbia is committed to providing equal access to qualified students with documented disabilities. A student's disability status and reasonable accommodations are individually determined based upon disability documentation and related information gathered through



Master of Science in Sustainability Management the intake process. For more information regarding this service, please visit the University's Health Services website: <a href="http://health.columbia.edu/services/ods/support">http://health.columbia.edu/services/ods/support</a>.

## **Course Schedule/Course Calendar**

Every day the class will follow the schedule below. The only exception is on the last day we will have in-class presentations.

9:00-9:30	Class Discussion (Review of the day, logistics, topic, any feedback/questions from previous day)
9:30-11:00	Main Lecture
11:00-11:15	Break
11:15-12:30	Case Study Analysis
12:30-1:00	Lunch Break
1:00-2:30	External Speaker
2:30-5:30	Faculty guided Experiential Learning Exercise
5:30- 6:30	Informal post learning debriefing (Optional)

Module/Topic	Readings	Activities/Assignments for this module
Pre-Block Readings/Videos	Peter Norton. 2008. "What are Streets For?" in <i>Fighting Traffic</i> Cambridge: MIT Press: 1-18.	



nagement	
Shivani Radhakrishnan, March 2016 "How jaywalking became a crime" Washington Post.	
K.H. Schaeffer and Elliott Sclar. 1975. Access for All: Transportation and Urban Growth. Penguin Books pp. 1-182.	
Janette Sadik-Khan. 2016. <i>Streetfight: Handbook for an Urban Revolution</i> . Penguin/Random House. pp 1-294.	
Diane Davis and Lily Song Transforming Urban Transport – The Role of Political Leadership. 2016, Meeting of the Minds hosted a live webinar available at <a href="http://cityminded.org/cal/transforming-urban-transport-the-role-of-political-leadership">http://cityminded.org/cal/transforming-urban-transport-the-role-of-political-leadership</a>	
Watch "Transforming Transportation" 2016. Policy Panel Discussion <a href="http://live.worldbank.org/transforming-transportation-2017">http://live.worldbank.org/transforming-transportation-2017</a> (Panel discussions)	
Optional:	
Samuel Schwartz. 2015. Street Smart: The Rise of Cities and the Fall of Cars. New York: Public Affairs.	
Susan Handy. "Accessibility- vs. Mobility-Enhancing Strategies for Addressing Automobile Dependence in the U.S." Pp. 1-32.	Urban Transportation
Viann Isagualina M and Daniella Patretta, 2017, "The Urban Systeinable	Environment
Development Goal: Indicators, Complexity and the Politics of Measuring Cities" <i>Cities</i> March: 92-97.	Policy Memo
UN-Habitat. 2013 <i>Planning and Design for Sustainable Urban Mobility: Global Report on Human Settlements</i> : Introduction and The Urban Mobility Challenge pp 1-14.	
	Shivani Radhakrishnan, March 2016 "How jaywalking became a crime" Washington Post.  K.H. Schaeffer and Elliott Sclar. 1975. Access for All: Transportation and Urban Growth. Penguin Books pp. 1-182.  Janette Sadik-Khan. 2016. Streetfight: Handbook for an Urban Revolution. Penguin/Random House. pp 1-294.  Diane Davis and Lily Song Transforming Urban Transport — The Role of Political Leadership. 2016, Meeting of the Minds hosted a live webinar available at <a href="http://cityminded.org/cal/transforming-urban-transport-the-role-of-political-leadership">http://cityminded.org/cal/transforming-urban-transport-the-role-of-political-leadership</a> Watch "Transforming Transportation" 2016. Policy Panel Discussion <a href="http://live.worldbank.org/transforming-transportation-2017">http://live.worldbank.org/transforming-transportation-2017</a> (Panel discussions)  Optional:  Samuel Schwartz. 2015. Street Smart: The Rise of Cities and the Fall of Cars. New York: Public Affairs.  Susan Handy. "Accessibility- vs. Mobility-Enhancing Strategies for Addressing Automobile Dependence in the U.S." Pp. 1-32.  Klopp Jacqueline M and Danielle Petretta. 2017. "The Urban Sustainable Development Goal: Indicators, Complexity and the Politics of Measuring Cities" Cities March: 92-97.  UN-Habitat. 2013 Planning and Design for Sustainable Urban Mobility: Global Report on Human Settlements: Introduction and The Urban Mobility



sustainable development goals and the		
New Urban Agenda and why we are	Richard Gilbert and Anthony Peel. 2010. "Transportation in the Post-Carbon	
talking about the need for a "Transportation Transition". It also	World" In the <i>Post Carbon Reader</i> . www.postcarbon.org/publications/transportation-in-the-post-carbon-world/.	
discusses global variation in the policy	Pp. 1-11.	
challenges and opportunities and	<u> </u>	
hence the need for context sensitivity.	Litman, Todd. 2013. The new transportation planning paradigm. ITE Journal	
	83: pp 20-28. Available here: <a href="http://www.vtpi.org/paradigm.pdf">http://www.vtpi.org/paradigm.pdf</a>	
	UITP Declaration of Climate Leadership:	
	http://www.uitp.org/sites/default/files/documents/Advocacy/UITP	
	Declaration and Commitment on Climate Leadership.pdf	
	Optional:	
	Guest Lecture:	
	Aimee Gauthier	
	Chief Program Officer Institute for Development and Transport Policy	
	institute for Development and Transport Folicy	
	Experiential Learning Exercise:	
	Students will explore a mode (walking, cycling etc) to meet at the <b>City</b>	
	Museum of New York where they will watch the video of New York's	
	development over time and the link to transportation along with related	
	exhibits. Students will be expected to get critical background knowledge of	
	New York City as a case study and also be able to understand key causal connections between transportation networks and land-use and population	
	changes as well as economic development.	
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T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	David Jones 2008. "Transit's Conversion to Public Ownership." In Mass	
Tuesday, August 15	Motorization and Mass Transit An American History and Policy Analysis Pp. 137-171	



The Public Transportation Mode Shift Impetus	Jason Patton, 2007. "A Pedestrian World." Environment and Planning A Pp. 928-944.	
Shifting modal split worldwide so that more trips are by public transport including NMT is a key goal. This class explains why this is the case and how modal shift looks across the globe. It discusses and critically interrogates the push for BRT and NMT/Complete Streets.	Pucher, John R., and Christian Lefevre. 1996. "Overview of urban transport systems and land use patterns in Europe and North America". Chapter 2 in <i>The urban transport crisis in Europe and North America</i> . Basingstoke: Macmillan. Pp. 7-42.  Astrid Wood. 2015. "The Politics of Policy Circulation: Unpacking the relationship between South African and South American Cities in the adoption of Bus Rapid Transit." <i>Antipode</i> 47 (4) Pp 1062-1079.	
	Guest Lecture: David Bragdon Executive Director Transit Center	
	Experiential Learning: The Bx41 Select Bus Service opened in 2013. The plan includes bus lanes for much of the length, as well as transit signal priority, bulb outs for buses, and pedestrian refuges. The corridor provides a nice example of the type of machine assemblage needed for increasing bus ridership. On the other hand, the interventions have seen some resistance in the community. There is the expected resistance to a loss of parking but also a less expected negative response to the interventions as a sign of gentrification and a lack of community control over the corridor. The site visit will explore the corridor, and students will be expected to assess how well the new assemblage serves the riders and the wider community.	
Wednesday, August 16	Langdon Winner 1986. The Whale and the Reactor: A Search for Limits in the Age of High Technology. Pp. 3-39.	



# Technology and Transportation: Disruption Friend or Foe?

We look at the rise of new technologies (sensors including cellphones, information systems including real time, electric and driverless vehicles, rise of new/reinvented forms of shared mobility) and ask what the implications of this technological revolution means for the transportation transition.

Anthony Townsend. 2014. RE-PROGRAMMING MOBILITY The Digital Transformation of Transportation in the United States. http://reprogrammingmobility.org/wp-content/uploads/2014/09/Re-Programming-Mobility-Report.pdf. Pp. 1-57.

Jason Henderson. 2013. Street Fight: The Struggle over Urban Mobility in San Francisco. Pp. 17-37.

## Optional:

Paul Mason. 2016. "The battle over Uber and driverless cars is really a debate about the future of humanity" *The Guardian*. <a href="https://www.theguardian.com/commentisfree/2016/oct/31/paul-mason-driverless-cars-uber-artificial-intelligence-unemployment">https://www.theguardian.com/commentisfree/2016/oct/31/paul-mason-driverless-cars-uber-artificial-intelligence-unemployment</a>

Asad Hashim. 2016. "Uber's upstart rival in Pakistan uses rickshaws, low-tech phones" Reuters. <a href="http://www.reuters.com/article/us-pakistan-transport-apps-idUSKCN0Z50XW">http://www.reuters.com/article/us-pakistan-transport-apps-idUSKCN0Z50XW</a>

Watch Transforming Transportation 2017: Panel Discussion on How is Technology Disrupting Mobility. Morning Jan 13, 2017. http://live.worldbank.org/transforming-transportation-2017

Gabe Klein with David Vega-Barachowitz. 2015. StartUp City: Inspiring Private and Public Entrepreneurship, Getting Projects Done, and Having Fun Paperback –

Jacqueline Klopp, Williams Sarah, Peter Waiganjo, Dan Orwa and Adam White. 2015. "Leveraging Cellphones for Wayfinding and Journey Planning in Semi-formal Bus Systems: Lessons from Digital Matatus in Nairobi" in *Planning Support Systems and Smart Cities*," (Springer) in conjunction with



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	the conference Computers in Urban Planning and Urban Management April 2015 MIT:	
	Guest Lecture: Anthony Townsend Senior Research Fellow Rudin Center for Transportation Policy and Management NYU	
	<b>Experiential Learning:</b> Students will visit the headquarters of Via and be treated to a presentation and Q&A with key executives. They will learn how Via and other smartphone-enabled transport providers have translated a good idea into a business and navigated the varied policy landscape in cities around the world. In addition, students will be allowed to ask about pressing policy issues, such as first-mile and last-mile solutions, complement or foe of transit, and how do these companies plan to adapt to a driverless future.	
Thursday, August 17	Elliott Sclar and Mans Lonnroth.2016. "An introduction to the challenge of financing urban access" In <i>Urban Access for the 21st Century</i> . Edited by	
Financing the Transportation Transition	Elliott Sclar, Mans Lonnroth and Christian Wolmar. Routledge: 1-10.	
How do we move the resources and financing to make needed reforms happen? Can mobility services work	Elliott Sclar. 2016. "Towards a political-economics of finance for urban access" In <i>Urban Access for the 21<sup>st</sup> Century</i> . Edited by Elliott Sclar, Mans Lonnroth and Christian Wolmar. Routledge: 11-45.	
on a utility model?	NYC Independent Budget Office (2004) Fiscal Brief: West Side Financing's Complex \$1.3 Billion Story <a href="http://www.ibo.nyc.ny.us/iboreports/WestsidefinanceFB.pdf">http://www.ibo.nyc.ny.us/iboreports/WestsidefinanceFB.pdf</a>	
	Alon Levy 2017. <u>"Why We Can't Have Nice Things."</u> The American Interest	
	Guest Speaker:	



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	Juliette Michaelson Executive Vice President, Regional Planning Association	
	Experiential Learning (guest: Dr. Elliott Sclar)  The 7 train extension to Hudson Yards was paid through a version of taxincrement financing. It is easiest to understand the financing structure onsite, walking through the buildings and parks under construction with a map of the planned tax districts. Additionally, the site incorporates the High Line park and the Javits convention center, other examples of complex infrastructure finance. Students will be expected to be able to connect the financing models discussed in class to this real world example as well as discuss alternative financing options for other forms of needed transportation infrastructure for poorer neighborhoods and the related problems of market displacement.	
The Politics of Change: Equity, Access and Advocacy  This class looks at the political and institutional and cultural barriers to policy change in varied contexts. How does "path dependency" play a role? How critical are policy networks? Will advocacy around policy change look the same in different places? Where have we seen success and how did it happen?	Kenworthy, Jeff. 2012. Don't shoot me, I'm only the transportation planner. World Transport Policy and Practice 18 (4): 6-26. Available here: <a href="http://www.eco-logica.co.uk/pdf/wtpp18.4.pdf">http://www.eco-logica.co.uk/pdf/wtpp18.4.pdf</a> S. Adler. 1986. "The Dynamics of Transit Innovation in Los Angeles" <i>Environment and Planning D: Society and Space</i> : 321-326.  Jacqueline M. Klopp 2012. "Towards a Political Economy of Transportation Policy and Practice in Nairobi" <i>Urban Forum</i> 23:1: 1-21.  Diane Davis and Lily Song Transforming Urban Transport – The Role of Political Leadership. 2016, Meeting of the Minds hosted a live webinar available at <a href="http://cityminded.org/cal/transforming-urban-transport-the-role-of-political-leadership">http://cityminded.org/cal/transforming-urban-transport-the-role-of-political-leadership</a> (Review).  Guest Speaker Veronica Vanderpool	Case Study Presentations in Class



	Tri-State Transportation Campaign  Case Study Presentations and Post-class Reception	
Post Block Week	Complete Coursework	Submit your Strategic Plan and Experiential Learning Analysis by midnight on August 23