COURSE DESCRIPTION

This course provides an overview of travel trends, problems, alternative solutions, and government policies in urban transport, focusing mainly on the United States. We survey the characteristics of the present urban transport system and examine historical developments in both transport and land use. We analyze several specific problems of the present car-dominated system: energy use, equity, congestion, air pollution, safety, and urban sprawl. We also examine problems of public transportation, particularly the fiscal crisis of transit and the need to improve service quality.

We evaluate the relative effectiveness and cost of various proposed solutions: e.g. traffic management, business regulation, pricing and taxation policies, improved technology, increased transit service, carpooling and vanpooling, consumer regulation, traffic calming, better facilities for pedestrians and cyclists, and limited investment in highway infrastructure. The political/institutional context of urban transportation (legislation, subsidies, regulations, and planning guidelines) has changed dramatically in recent years. The evolution of that political/institutional context will be presented, along with discussion of its consequences for the future of transportation planning.

This course will focus on the United States, but comparisons will be made to Canada, Australia, and especially Western Europe, which are similar in their standards of living, economic and political systems.

For the third year in a row, we will be devoting an entire week to freight transport, as I have invited my colleague from Temple University’s School of Business Prof. Neha Mittal, to give a guest lecture on freight transport, with a special emphasis on freight transport in cities, an increasingly important issue in recent years. While freight transport is crucial to the functioning of any city’s economy, it can also cause congestion, pollution, safety and parking problems. We are very fortunate indeed to have Prof. Mittal come to Rutgers to lecture on this important topic. Her lecture will be on Wednesday, Oct. 1. We will also have a special guest lecture by Dr. Deva Deka of the Voorhees Transportation Center. On Wednesday, Oct. 29, Dr. Deka will give a guest lecture on the important issue of equity in urban transport, which entails many different
aspects. Dr. Deka is one of the leading experts on this topic and wrote the chapter on equity in the Hanson-Guiliano textbook we will be using. In his lecture, Dr. Deka will be updating the information from that chapter, since it was written almost ten years ago. He gave this lecture the past three years, and the students loved it, so I am asking him to return with an encore performance. Again, the two guest lectures will be on freight transport (Oct. 1) and equity (Oct. 29). Please note that Rutgers University officially changes class day designations the week of Thanksgiving, so that we do not meet at all on Wednesday, Nov. 27. During Thanksgiving week, Friday classes meet on Wednesdays, and Wednesday classes do not meet at all. So that means you can get a head start on your Thanksgiving holiday, since Rutgers University cancels Wednesday classes that week.

Important: If you have already taken a course similar to this before, you should NOT take this course. Instead, you can take any of the many other transportation courses offered both by the Bloustein School and the School of Civil and Environmental Engineering. Please do NOT take this course if you have already had a similar overview course. This is one of seven courses that form the core of the transportation concentration at the Bloustein School, and you choose four of those seven course. No single course is a required course. So you should definitely take another course if you have already had this sort of overview course in urban transportation.

There are two main assignments for the course:

- **#1: PPT overview of a particular issue/program/policy/technology topic during the same week DURING the semester, related to the overall topic for that week’s class**
either individually or in teams of 2 students, with the size of the group depending on the topic
- **#2: Final PPT presentation on a very specific topic or issue, usually examined in a specific location (city, state, region),** which will be presented at the end of the semester, either individually or in teams of 2 students.

**#1: OVERVIEW PRESENTATION during the semester related to a week:** Students will be asked to make presentations on some specific **subtopic within a week’s general topic.** These PPT presentations can be by individuals or by teams of 2 students, depending on the topic. Students will be asked to turn in the PPT slide printouts (handouts), **2 slides per page.** The instructor will suggest specific topics that might be covered in such overview presentations. Some examples include the following, but **please** feel free to suggest other topics you would like to speak on. These are just some possibilities:

- For the week on energy: the potential of electric cars (latest status of cost, performance, challenges); alternative fuels; raising the fuel-economy standards; raising taxes on gasoline; mileage-based taxation and insurance rates; issue of peak oil (extent of petroleum reserves, cost of accessing remaining oil reserves)
- For the week on the environment: evidence of global warming/climate change; potential of zero emissions vehicles, hybrids, new car technology; solar-powered cars; cap and
trade carbon emission standards; special carbon taxes; graphical illustration of dramatic improvement in air quality in US cities over past 50 years.

- For the week on congestion: overview of congestion pricing, its economic rationale, how it works (possibly with case studies of congestion pricing in Singapore, London, Stockholm, Oslo, and New York City’s plan, although those could be specific topics for the final presentation); carpooling strategies to reduced congestion; HOV and HOT lanes; reverse-flow lanes; alternating one-way streets; vanpooling.

- For the week on parking policy: cashing out free parking; minimum parking requirements; analysis of the new parking control program being introduced in San Francisco (although this last topic could be a final presentation instead, as it is quite specific); why free parking represents a subsidy to driving and low density living and how it distorts our land use patterns and travel behavior.

- For the week on safety: Safe Routes to School; compulsory traffic safety training for young children in all schools, esp. safe walking and bicycling; improved car design; issue of bike helmets and helmet use laws compared to seat belts and seat belt use laws; crosswalk enforcement; speed and red-light cameras; complete streets; safer intersection design; or simply a presentation of traffic safety trends in USA and how USA compares to other OECD countries in overall traffic safety.

- For the week on public health: trends in obesity and relationship to car dependence; childhood obesity as special problem, related to lack of active transport; active buildings (stairs instead of elevators); active mixed-used communities that encourage walking and bicycling.

- For the weeks on cycling and walking: bike sharing programs, cycle tracks, car-free zones, traffic calming, tax benefits for cyclists, issue of bike helmets, etc.

- For the weeks on public transport: BRT overview—description, characteristics, rationale, and examples of systems in North America; LRT overview—description, characteristics, rationale, and examples of systems in North America; commuter rail systems in the USA.

These overview presentations during the semester are NOT intended to require original analysis, but simply a gathering, organizing, and presentation of a useful summary about particular subtopics within the overall topic for any given week. In contrast to the final presentations, the presentations during the semester are general overviews of particular subtopics within the overall topic for that week. The final presentation topic will generally be more specific, narrower, often involving a case study of a particular city or special program, and usually applied to the specific case of a particular city or state or country, or even a specific street, intersection, plaza, or corridor within a city.

**#2: FINAL PRESENTATION**: The final presentation should focus on a specific case study of a particular type of technology, specific policy issue, specific program, transport problem, or proposed solution in a particular, specific context (usually in one or more specific cities, and possibly on a particular street, intersection, or part of a city) as opposed to a broad, general overview. You might examine such technologies or issues in particular cities, for example, or
compare them in various cities. Some possibilities include city-specific BRT, LRT, congestion pricing, traffic calming, HOV lanes, car sharing, transportation demand management, car-free zones, transit fare policy, integration of cycling with public transit, etc. Do whatever interests you! **Your final presentations should be specific, focused case studies, and not general overviews of broad topics.**

The main difference between the final presentation (#2 above) and the more general overview presentations during the semester (#1 above) is that the final presentations focus on specific cases, while the mid-semester PPT overviews provide a broad summary of particular issues. For example, a mid-semester PPT might be a broad overview of traffic calming techniques, their characteristics, what they look like, their functions, etc. For a final presentation, you could focus on the actual use of traffic calming techniques in one or a few specific cities, including estimates of their actual impact on car speeds, traffic safety, etc. Many students last year were confused about the difference, but the final presentation is more specific and narrower in focus, while the overview presentations during the semester on particular subtopics (or issues related to the main topic that week) are intended to be broad overviews. As always, there are exceptions, and students should discuss topics with me in advance. Another difference is the amount of effort involved. The final presentation should be a semester-long effort, while the presentations during the semester are simply intended to provide useful overviews of an interesting subtopic within the overall week’s topic.

Depending on class size, students can choose to work individually or in teams of 2 students on joint or coordinated final semester presentations. Students will be asked to make a Powerpoint presentation of the key aspects and main findings of their final presentations at the end of the semester. The final PPT presentation is **NOT** something that you postpone until 2 weeks before the end of the semester and then rush to throw something together in the last two weeks. It should reflect a full semester’s worth of thought, research, and effort. Each student or group of students will make their final presentations during the last two weeks of the course. The PPT handouts (slide printouts), **2 slides per page**, will also be turned in—before the presentations are given. Please do **NOT** email the PPT files as email attachments. They must be turned in as hard copy at the beginning of class on Dec. 10 at 10am.

Although I will allow both individual and team presentations, they would be evaluated differently. A team presentation would be expected to show more overall effort and would also take longer to present. Clearly, any individual presentations would be shorter than team presentations, but there is no exact formula for this. We have exactly two weeks for all the final presentations, and the time allowed for each will be based on the total number of students and the total time available during those last two weeks (Dec. 10 and 17).

**Class attendance, preparation, and active participation required**

Students are required to attend all classes during the semester, including those where other students are making presentations. According to new university regulations, students missing a
class for any reason are required to notify the instructor in advance and to report the date and specific reason for their absence on the new university attendance website: 
https://sims.rutgers.edu/ssra/. The Rutgers reporting system then automatically sends an email to me. Rutgers University now requires us to include this absence reporting requirement on all course syllabi.

Students will be expected to participate actively in class discussion and should plan to do the required readings in advance of class meetings in order to be able to participate effectively. Your contributions to class discussions will influence the final course grade. It is absolutely essential that, at a minimum, students do the required readings on this list. The material in these books and articles comprises the core of information for the course and will form the basis for class discussions. Other readings are recommended but not crucial; students should use their own discretion, depending on interest, topic, and time available. Those readings are listed primarily for your reference in case you are interested in pursuing several of the topics areas in more depth. The choice is up to you.

**Important:** Use of laptop computers, cell phones, iPads, iPhones, Blackberrys, and other electronic communications devices in the classroom will NOT be permitted unless you have a disability that specifically requires use of such devices for taking notes or hearing the lecture. In the past, I have found that many students are distracted (and rudely distracting) to both other students and the lecturer by text messaging, emailing, websurfing, etc. during class. This will not be permitted in the classroom. If you have a disability that requires such electronic equipment, I need a written note from the Dean’s Office authorizing this. Otherwise, use of such devices during class will not be permitted, and you will asked to leave the classroom. I am very sorry to have such a strict policy on this, but my lenience in the past has led to truly outrageous abuse by some students, and it simply will not be permitted this year.

**Access to readings for the course:**

Wherever possible, I am indicating which readings can be directly accessed via the internet, but all readings will be posted as PDF files in the Resources section of the Sakai website for this course.

Almost all journal articles are freely accessible via the RU Library’s internet site for electronic journals. http://www.libraries.rutgers.edu/rul/rr_gateway/ejournals/ejournals.shtml. No need to trek to the libraries to find these articles. You can freely download the articles and print them out from the PDF files you can access via electronic journals.

You will also be able to access most of my own publications and some PPT talks directly from my Bloustein School webpage (under the tabs for publications and presentations): http://www.policy.rutgers.edu/faculty/pucher
We will be using two textbooks for the course, and both are available for purchase at the Rutgers University Bookstore in downtown New Brunswick, or you can purchase them online at Amazon.com, Barnesandnoble.com, or any other online bookseller. I suggest that you purchase a used copy or share a copy of the Hanson and Giuliano textbook with other students. This third edition provides a truly superb overview of many transport policy issues, but it is 10 years old, and the main editor, Prof. Susan Hanson, emailed me that the fourth edition will not be available until 2015, too late for our class. Thus, I do not think it is worth buying a new copy of this book. There is, however, a brand new, thoroughly up to date (2014) textbook that has just been published, and I recommend it for purchase: *Introduction to Transport Policy* by Stopher and Stanley. It does not provide nearly enough coverage of the USA and focuses mostly on Europe and Australia, but it is the best overview of transport policy I’ve seen of any of the new textbooks available currently. And it has a chapter devoted to freight transport, which is missing from the Hanson and Giuliano book.

*Susan Hanson and Gen Giuliano, eds. *The Geography of Urban Transportation* (New York: Guilford Publications, 3rd Edition, 2004), an excellent book of readings, although it is now a bit out of date. This text is used in urban transport planning and policy courses throughout the USA, including UC Berkeley, UCLA, MIT, Univ of North Carolina, so it has become a standard text for this sort of course.

*Peter Stopher and John Stanley, *Introduction to Transport Policy: A Public Policy View* (Cheltenham, UK: Edward Elgar Publishers, 2014). This text provides a valuable update to the Hanson and Guiliano textbook and provides a very nice organization of chapters, which several chapters devoted to specific topics we will be dealing with in class.


The main transportation journals (E=electronic access via RU library website):

- Transport Reviews (E)
- Journal of Transport Geography (E)
- Transport Policy (E)
- Transportation Research (E), TR-A, TR-B, TR-D, TR-E, TR-F
- Transportation (E)
- Transportation Quarterly
For anyone doing research for the final semester presentation, the first step should usually be a thorough review of these journals for the past 5 or so years to determine how much existing information will be available for use in your presentation. The best way to find relevant literature is to check with the free transportation literature search engine of the U.S. Department of Transportation, called TRIS (Transportation Research Information Service) which is available on the BTS website: www.bts.gov. That website is a wealth of information with oodles of links to other websites as well. The statistical portion of that website is: www.transtats.bts.gov. Or just go to: http://ntl.bts.gov/index.cfm, and from there you can reach both TRIS, the literature search engine, and TranStats, the nationwide statistics on all aspects of transportation. Google Scholar and the Web of Science index (available through RU electronic journals, indices and databases) are also superb search engines for finding literature on specific topics.

There are many publicly accessible websites that provide a wide range of information on almost every aspect of transportation:

- TranWeb from Northwestern University: http://tran.library.northwestern.edu/
- Transportation Research Information Services: http://ntlsearch.bts.gov/tris/index.do
- U.S. Department of Transportation (DOT): http://www.dot.gov/
- BTS (Bureau of Transportation Statistics): http://www.bts.gov/
- FTA (Federal Transit Administration): http://www.fta.dot.gov/
- Many links to SAFETA-LU: http://apta.com/government_affairs/safetaula/
- MAP-21 (current federal transport law): http://www.fhwa.dot.gov/map21/
- American Public Transportation Association: http://www.apta.com/Pages/default.aspx
- Federal Highway Administration: http://www.fhwa.dot.gov/
- Victoria Transport Policy Institute: http://www.vtpi.org
- Resources for the Future (RFF): http://www.rff.org/Transportation.cfm
IMPORTANT DATE TO REMEMBER........

December 10  Printouts of PPT slides for final presentation due at the beginning of class on Dec. 10, regardless of whether you are presenting on Dec. 10 or 17

RELATIVE WEIGHT OF YOUR ASSIGNMENTS:

In calculating your grade at the end of the semester, the assignments will be weighted in the following manner:

1) Overview presentation during the semester 30%
2) Overall attendance and class participation 20%
4) Final PPT presentation 50%
TOTAL 100%

NOTE: The following reading list may be supplemented some weeks by additional, more current readings on particular topics.

TOPIC OUTLINE AND READINGS

All readings are posted in the class folder and on Sakai under Resources, except for readings from the textbooks and website links. Citations and some web links are provided for your convenience. Recommended Readings are suggested for those students wishing to read further in any of these areas of urban transportation.

Week 1: Introduction, Course Overview, Semester Plan, and Brief Discussion of Sustainability and Accessibility

Required Readings:

Excerpts from various essays by Ivan Illich, Herman Knoflacher, and Susan Hanson about the basic issue of the benefits and costs of mobility, speed, and travel. They are posted under Week 1 in the Resources section of the Sakai website.

Stopher and Stanley, chs. 1 and 4

**Recommended Readings:**

David Banister, *Unsustainable Transport*, chs. 1-4 (skim for intro, but will use these chapters in detail for later topics)


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**Week 2: History of the Development of Urban Transportation System and Their Impact on Urban Form**

**Required Readings:**

Peter Muller, "Transportation and Urban Form: Stages in the Spatial Evolution of the American Metropolis" (Hanson and Giuliano, *Geography of Urban Transportation*, pp. 59-85)

Stopher and Stanley, ch. 2

Video shown in class on evolution of public transport systems and land use patterns

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**Week 3: Recent Trends in Modal Choice, Urban Spatial Patterns, and Their Interaction; Characteristics of the Current Urban Transportation System**

**Required Readings:**

**Household Travel Survey.** URL link posted on Sakai site under resources for week 3 on travel trends. This report shows travel trends from 1969 to 2009 for the USA, all trip purposes.


Susan Hanson, “Context of Urban Travel: Concepts and Recent Trends,” (Hanson and Giuliano, *Geography of Urban Transportation*, pp. 3-30), please just skim this chapter.

I am also asking **ALL** of you to visit the BTS website ([www.bts.gov](http://www.bts.gov)) and/or Transtats website ([www.transtats.bts.gov](http://www.transtats.bts.gov)) and just check out the range of **trend statistics** available at those sites: highway use, car ownership, transit use, etc.

Here is an interactive website that shows the mode split distributions (% breakdown of means of travel) for many cities in Europe: [http://www.epomm.eu/tems/index.phtml](http://www.epomm.eu/tems/index.phtml)

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**Weeks 4 and 5: Transportation, Energy, and the Environment**

- Student presentations: e.g., the potential of electric cars (latest status of cost, performance, challenges); alternative fuels; raising fuel-economy standards; raising taxes on gasoline; issue of peak oil (extent of petroleum reserves, cost of accessing remaining oil reserves); evidence of global warming/climate change; potential of zero emissions vehicles, hybrids, new car technology; solar-powered cars.

**Required Readings:**

David Greene, "Transportation and Energy" (Hanson and Giuliano, *Geography of Urban Transportation*, pp. 274-293)

Stopher and Stanley, chs. 7 and 10

Christine Bae, "Transportation and the Environment," (Hanson and Giuliano, *Geography of Urban Transportation*, pp. 356-381)

I am asking you to visit the BTS website ([www.bts.gov](http://www.bts.gov)) again, and check out the whole range of
energy and environmental stats available in the National Transportation Statistics of that website, and the even more comprehensive website of the US Dept of Energy: www-cta.ornl.gov/data (for the 2012 edition of the Transportation Energy Data Book). See also the EPA’s website on national trends in transportation emissions and ambient air quality in US cities:

http://www.epa.gov/ttn/chief/trends/index.html#tables

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Week 6: Transportation Safety

- All students should carefully read TRB Special Report #300 on Traffic Safety, which was produced in 2010 by the National Academy of Sciences. It shows trends for the USA in comparison to traffic safety in other countries. It also examines the causes for traffic crashes. The TRB report listed below is the main reading I will expect all students to do for this topic. The 2009 WHO report and 2004 World Bank-WHO reports are also extremely useful sources of international information on road safety trends.

- Students might wish to do a presentation showing overall trends in traffic safety, both in USA and around the world. See the two websites below for NHTSA and IRTAD statistics. No need for original research in these presentations, but it would useful to get a couple of students to take charge of presenting a summary of information in the TRB special report and the BTS, NHTSA, and IRTAD websites.

- Other possible student presentations: e.g., Safe Routes to School; compulsory traffic safety training for young children in all schools, esp. safe walking and bicycling; improved car design; issue of bike helmets and helmet use laws compared to seat belts and seat belt use laws; crosswalk enforcement; speed and red-light cameras; complete streets; safer intersection design, etc.

Required Readings:

Stopher and Stanley, ch. 8

International Transport Forum, IRTAD Road Safety 2014, International Traffic Safety Data and Analysis Group, Paris, France. (This is the most up-to-date statistical report!)
For detailed, up-to-date statistics for the USA, see the BTS website (www.bts.gov), National Transportation Statistics, section on SAFETY, and the US DOT’s website of the National Highway Safety Traffic Administration: http://www.nhtsa.dot.gov. In both cases, please examine the range of statistics available and the trends in traffic deaths and injuries by mode of transport. On the NHTSA website, you’ll need to pull down statistics one category at a time in their Accident Report section, mode by mode, I think. But you also find the totals for all modes combined.

The very best international website for traffic deaths, injury data, safety rates, for different countries is from the International Road Traffic Accident Database: http://www.internationaltransportforum.org/irtad/pdf/10IrtadReport.pdf

Recommended Readings:


Week 7: Freight Transportation

- Guest lecture by Prof. Neha Mittal of the Temple University School of Business
- Readings and assignments:

Stopher and Stanley, ch. 15

file:///C:/Users/john/AppData/Local/Temp/New%20Forecasts%20Predict%20US%20Water%20Freight%20Volume%20to%20Double,%202001%20to%202020%20-%20PR%20Newswire%20-%20The%20Sacramento%20Bee.htm#storylink=cpy


More recommended readings to follow from Prof. Mittal before or during her lecture on Oct. 24.

Useful Internet Resources on Freight Transport:

Air Transport Association http://www.airlines.org/

American Trucking Associations http://www.truckline.com/Pages/Home.aspx

American Waterway Operators http://www.americanwaterways.com/

Association of American Pipelines http://www.aopl.org/go/site/888/

Association of American Railroads (AAR) http://www.aar.org/Homepage.aspx

Bureau of Transportation Statistics http://www.bts.gov/publications/

Federal Maritime Commission www.fmc.gov


Journal of Commerce http://www.joc.com/

Maritime Administration http://www.marad.dot.gov/

U.S. Department of Transportation http://www.freight.dot.gov/

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**Week 8: Public Transport**

- Possible student presentations: e.g., BRT overview—description, characteristics, rationale, and examples of systems in North America; LRT overview—description, characteristics, rationale, and examples of systems in North America systems in North
America; commuter rail systems in the USA

Required Readings:

Stopher and Stanley, ch. 13

Pucher, J. 2004, “Public Transportation” (Hanson and Giuliano, Geography of Urban Transportation, pp. 199-236)


Week 9: Bicycling and Walking

- Possible student presentations: e.g., bike sharing, bike parking, bike helmets, cycle tracks (protected bike lanes), traffic calming of residential neighborhoods, bike boulevards, car-free city centers, car-free zones, tax benefits for cyclists, free bikes for employees, safe cycling and walking training in schools, improved crosswalks for pedestrians, etc.

Required Readings:


**Recommended Readings:**


Pucher, Komanoff, and Schimek, “Bicycling Renaissance in North America?,” Transportation Research, September 1999, *Transportation Research*, Vol. 33A, Nos. 7/8 (special issue on transport policy in international perspective) [http://policy.rutgers.edu/faculty/pucher/NAmBIKE.PDF](http://policy.rutgers.edu/faculty/pucher/NAmBIKE.PDF)


ALSO: Check out the freely downloadable videos on cycling on the Streetfilms website: [http://www.streetfilms.org/](http://www.streetfilms.org/)

“Copenhagen: City of Cyclists,” segment of DVD video from *Contested Streets*, Transportation Alternatives, NYC.

**Week 10: Public Health Impacts of Transportation and Land Use**

- Possible student presentations: trends in obesity and relationship to car dependence; childhood obesity as special problem, related to lack of active transport; active buildings (stairs instead of elevators); active mixed-used communities that encourage walking and bicycling

**Required Readings:**

Pucher and Buehler, “Walking and Cycling for Healthy Cities,” *Built Environment*, December
<http://policy.rutgers.edu/faculty/pucher/BuiltEnvironment_WalkBike_10Dec2010.pdf>

Stopher and Stanley, ch. 8


Interactive maps showing obesity rates state by state in June 2011 for adults and for children: http://healthyamericans.org/report/88/


Recommended Readings:

Healthy, Equitable Transportation Policy: Recommendations and Research (especially chapters 3 and 4) Accessible at: http://www.convergencepartnership.org/atf/cf/%7B245a9b44-6ded-4abd-a392-ae583809e350%7D/HEALTHTRANS_FULLBOOK_FINAL.PDF


Week 12: Equity

Required Readings:

D. Deka, “Social and Environmental Justice Issues in Transportation,” (Hanson and Giuliano, Geography of Urban Transportation, pp. 332-355)

Stopher and Stanley, ch. 6


Plus additional readings to be suggested by Dr. Deva Deka before or during his lecture.

Recommended Readings:


Check out Litman website for useful links and readings: http://www.vtpi.org/0_equity.htm

Week 13: Congestion and Parking

- Possible student presentations: cashing out free parking, minimum vs. maximum parking requirements, market pricing of on-street parking, overview of congestion pricing, its economic rationale, how it works; carpooling; HOV and HOT lanes; reverse-flow lanes; alternating one-way streets; vanpooling; legal requirements for firms to reduce single-occupant commuting to work

Required Readings:

Anthony Downs, Still Stuck in Traffic, summary chapter 18, posted on Sakai resources under Week 10. It is crucial that everyone read this chapter very, very carefully. This is the first year I have not required students to read the entire book, but at the very least every
student should very, very carefully read this one summary chapter.

Stopher and Stanley, chs. 9 and 14

Texas Transportation Institute. 2009. The 2010 Urban Mobility Report. TTI.  
Main tables with congestion trends available at:  
[http://mobility.tamu.edu/ums/congestion_data/national_congestion_tables.stm](http://mobility.tamu.edu/ums/congestion_data/national_congestion_tables.stm)

Everyone should visit the BTS website, National Transportation Statistics, section on congestion and economics costs, and also the Litman website ([www.vtpi.org](http://www.vtpi.org)), which has extensive analysis of congestion costs. You might also visit the Texas Transportation Institute’s website, which has all sorts of publications on congestion. TTI publishes the most widely used estimates on congestion costs for US cities: [http://tti.tamu.edu](http://tti.tamu.edu).

*Read a couple of the following parking policy articles by Don Shoup, the parking guru of the world, ALL posted on the Sakai website:*


*And here are two videos about Don Shoup’s views about parking policy:*

Here is a great video of Don Shoup talking about the overall issue of parking during a guest lecture at Yale University:  [http://www.youtube.com/watch?v=K8vkbfz8PU8](http://www.youtube.com/watch?v=K8vkbfz8PU8)

Here is a video from San Francisco (sent to me by Don Shoup) demonstrating the SF plan to implement Don Shoup’s ideas about correct parking policy:  [http://sfpark.org/](http://sfpark.org/)

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Required Readings:

Wachs, "Reflections on the Planning Process," in (Hanson and Giuliano, Geography of Urban Transportation, pp. 141-162)

Stopher and Stanley, ch. 3 and 16

Hansen and Guiliano, "Managing the Auto," in (Hanson and Giuliano, Geography of Urban Transportation, pp. 382-404)


Note: The new federal transportation legislation MAP-21, which was just passed this summer 2012, changes many aspects of federal transport funding, especially for pedestrian and bicycling projects. Here is the official USDOT summary of that legislation:


And for a brief summary of the changes in this new MAP-21 federal legislation compared to previous legislation (SAFETEA-LU), and especially implications for ped/bike funding, see: Streetsblog DC, “MAP-21 Puts the Squeeze on Bridge Repairs and Bikes,” http://dc.streetsblog.org/2012/07/25/map-21-puts-the-squeeze-on-bridge-repair-and-bikes/#more-283925

SAFETEA-LU: Safe, Accountable, Flexible, Efficient Transportation Equity Act, Legacy for Users: MAIN federal transportation legislation for the period 2005-2011, establishing all federal funding and regulations for surface transport in the USA. Please check out the following USDOT website for detailed information about this legislation: http://www.fhwa.dot.gov/safetealu/

Recommended Readings:

Johnston, “The Urban Transportation Planning Process” (Hanson and Giuliano, Geography of Urban Transportation pp. 115-140)

David Banister, Unsustainable Transport, chs. 1-4.
Week 15: Land-Use and Urban Development (only IF time permits)

- In class debate pro- and anti-sprawl, based on discussion of Ewing vs. Gordon/Richardson articles

- Student presentations related to land-use and urban development: e.g. transit-oriented development; smart growth with mixed-use development; neo-traditional urban design; growth moratoria in some cities; growth boundaries; land banks; the nature of local zoning ordinances in most US communities

**Required Readings:**

Stopher and Stanley, ch. 16


Susan Handy. 2005. Smart growth and the transportation - Land use connection: What does the research tell us?


Alternative views of sprawl, a two-part discussion (pro and contra) in the winter 1997 issue of the Journal of the America Planning Association:


I will ask all students to take a side in this debate and be prepared to defend one view or the other. So you must come to class prepared to actually debate!
Recommended Readings:

Newman and Kenworthy, *Sustainability and Cities: Overcome Automobile Dependence*
   - Chapter 6 – “Promoting Sustainable Urban Change”
   - Chapter 7 – “Ethics, Spirituality, and Community in the Sustainable City”

*** PRINTOUTS (2 PPT slides per page) OF FINAL PRESENTATION DUE WEDNESDAY, DECEMBER 10, regardless of whether you are presenting Dec. 10 or 17 (Due at 10am at the START of class. Late printouts of the PPTs will be accepted up to a week late BUT with a penalty of 2 points for each day late. No presentations printouts will be accepted after 10am on Dec. 17.) Presentation printouts must be turned in as printed, hard copy. Do NOT email PPT files as email attachments.

***** FINAL SEMESTER PRESENTATIONS ON DECEMBER 10 and 17.

FINAL PRESENTATION IN URBAN TRANSPORTATION POLICY

Your most important assignment in the class is the final PPT presentation at the end of the semester. Choose a topic that really interests you, and feel free to discuss this choice with the instructor before embarking on the research for the presentation. Choose a topic that is manageable. It is better to do a presentation on a topic that is narrowly defined, than a wide-ranging review that is shallow.

December 10: Printouts of PPT slides for your final presentation due at 10am at the START of class, regardless of whether you are presenting on Dec. 10 or 17. Late PPT printouts will be accepted up to a week late BUT with a penalty of 2 points for each day late. No PPT printouts will be accepted after 10am on Dec. 17.

December 10 and 17 Final student presentations

Selected Previous Topics:

- Examination of jitney services in New York City, and how they serve the mobility needs of the poor and provide employment as well, as drivers and mechanics
- Impact of light rail transit line (Hudson-Bergen Line) on development along Hudson River shore in Jersey City, Hoboken, and Bayonne
- Tearing down urban freeways: experiences in specific US cities and potential for more
- Integration of bike and transit on NJ Transit suburban rail lines: current status and potential for improvement
- Overview of traffic calming techniques and their impact on speed and safety
- Potential of hydrogen fuels to increase energy efficiency of cars and reduce CO₂ emissions
- Overview of BRT systems in the USA, and then case study of BRT in one city, looking at costs and benefits, ridership, etc.
- Analysis of the bikeway plan for Westchester County
- The role of auto advertising in distorting American travel behavior
- Comparison of the land-use impacts of rail transit projects in Stockholm and San Francisco.
- The phenomenon of extremely long commutes to work in U.S., its cause, and how it is becoming more and more usual
- Analysis of the park-and-ride facility at Interchange #9 of the New Jersey Turnpike.
- History of the Erie-Lackawanna RR and its impact on land use and current problems.
- Land-use impacts of the Washington, D.C. Metro-rail system and the potential of value capture taxes for financing the costs of rail rapid transit construction.
- Income-redistribution impacts of the rail rapid transit system in Atlanta.
- Potential of lanes reserved for high-occupancy vehicles to reduce congestion and save energy.
- Potential for distance-based fares on the New York subway.
- Transportation patterns of working women.
- Financing the Washington, D.C., Metro.
- Critique of American transit capital grant programs.
- Effectiveness of the Rutgers campus bus system.
- Problem of growing congestion in suburban areas and the potential of traffic management techniques for reducing this congestion.
- Potential of automated fixed guideway systems in urban areas.
- Potential of high-speed rail transportation in USA, based on experience in France and Japan.
- Problem of crime on transit systems.
- Cost/Benefit analysis of Los Angeles metro system.
- Analysis of detailed bikeway and bike route plan for Rutgers University and New Brunswick
- Role of drive-in restaurants, banks, laundries, etc. on transportation.
- Environmental problems arising from the disposal of used tires, batteries, and autos.
- The costs and benefits of air bags for auto safety.
- Technological advances in automotive fuel efficiency: past achievements and future outlook.
- Transportation themes in the films of Alfred Hitchcock.
- Past and future of urban passenger ferry systems, with case studies of NYC, SF, and Seattle
- Analysis of problem of transporting hazardous materials
- Pros and cons of raising speed limit in New Jersey
- Potential of battery-powered electric cars
- Analysis of North Jersey Coast Line of NJ Transit
- Disney World as an example of innovative, non-auto-based urban transportation systems
- Recent advances in automotive safety and prospects for future improvements
- Recent developments in light rail transit, cost-benefit analysis, study of where light rail transit would make economic sense, where not; whether light rail transit is more appropriate in developing countries, where funds not available for full-scale metro systems (several different presentation topics here)
- Advances in automotive technology to reduce air pollution emissions, progress since 1970 to 1995, and prospects for continued pollution reductions through technological advances in the future
- Official EIS and the actual environmental impacts of the widening of the NJ Turnpike
- Safety impacts of raising the speed limit

10PLUS, literally hundreds of other topics I can't remember now, covering the entire range of issues, all over the world as well as right here in New Jersey

Whatever topic you choose, it is essential that the final presentation you make not be simply a regurgitation of class notes and required readings. It should be specific and concrete in its content, and should demonstrate a significant amount of research and thinking on areas omitted, or only briefly covered in class. You can certainly deal with a topic discussed in class, but do not simply review what we already did in class and readings. Do NOT pick a topic so broad that you cannot do justice to it; for example, do not propose a presentation on the environmental impacts of transportation, which is so broad that it is impossible to cover in a student presentation.

All professors at Rutgers University are required to include the following statement in the syllabi for all courses:

**Academic integrity**

Academic honesty and intellectual integrity are fundamental to the process of learning and evaluating academic performance. This is the responsibility of all members of the university, and students share the responsibility for creating and maintaining an atmosphere of honesty and integrity. If you have any doubt about what constitutes academic integrity, consult [http://teachx.rutgers.edu/integrity/policy.html](http://teachx.rutgers.edu/integrity/policy.html).

For this course, it is important that students cite the sources of any information, photos, graphics, text, etc. that you use in your presentations. Direct quotations and verbatim citation of text passages must be clearly indicated as such with quotation marks or indented formatting, as shown in many guidebooks of style. And the sources of charts, graphs, photos, should also be carefully referenced. Please do not go overboard in quoting extremely long passages. Try instead to express things in your own words.