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, widespread adoption of 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, 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. Most of the course will focus on the United States, but we will discuss comparisons with Canada and Europe throughout the semester. In addition, we will probably devote two full weeks sometime during the semester to detailed examinations of selected international comparisons: one lecture on urban transport in Germany and one lecture on urban transport in China and India, the world’s two most important developing countries.

The course materials have been chosen deliberately to be as non-technical as possible so that they will be comprehensible and interesting even to those students without any academic background whatsoever in transportation. No matter what your background or experience, you will have lots of personal experience and day-to-day involvement in the transport system so that every aspect of the course will have direct and immediate relevance to you. Since you all walk, bicycle, take transit or drive a car every day, every single student has a direct interest in the course materials. No one has an excuse for not participating in class discussions, since each one of you has something to contribute.

**Written requirements for the course include a final, in-class exam as well as two short (3-5 page) written assignments and two joint PPT presentations (4-5 students per group).** These assignments will be spaced throughout the semester. For the written assignments, I will pose specific questions for you to answer in essay, list, or tabular form, or some combination of the
three. I will announce the written assignments one week before they are due, i.e. one week in advance of the class where they relate to the main topic of the lecture. Obviously, they will be topic-based (e.g. on energy, the environment, congestion, BRT/LRT, parking, traffic safety, cycling and walking, urban transport in China and India, etc.). Last year, one of the assignments involved use of the door to door NJT trip planner to see if it works, so we might do that this year as well. The three short written assignments are primarily for the purpose of class discussion, and I will be grading them mainly to be sure you have prepared something to discuss in each of those four classes where the discussion papers are due. Each assignment should be roughly 3-5 double-spaced typed pages. For most of these short assignments, I will probably ask you to present your answers in the form of lists or tables instead of written text. So I might ask you to list 10 ways that NJ Transit services could be improved based on class readings and lectures. Or how conditions for walking and cycling here in the NJ/NY area could be improved based on class materials and lectures. **PLEASE have your digital cameras handy** (or borrow one), since I am certain to ask for you to take several photos (from different angles) of each of a number of currently dangerous, inconvenient, unsafe pedestrian or cycling facilities (intersections, sidewalks, bike lanes, roads, bike paths, crosswalks, etc.), and then to make specific suggestions for solving those problems. Ditto for the PPT talk on transit facilities, either good or bad.

**The two required PPT presentations will involve some field work on your part, and the ability to create a PPT talk.** Students will be asked to form groups of 4 or 5 students who will work as a team to analyze a particular situation for two categories of topics. In the first case, it will involve walking and/or cycling facilities. In the second case, it will involve transit facilities or service. So you will definitely need to prepare to do some on-site investigation, photography, and putting together a PPT presentation of about 20 minutes duration. With 32 students in the course, that makes 7 such presentations. If there is a group of students which strongly prefers to do a PPT talk on a topic OTHER THAN walking, cycling, or public transit, that is also ok, and we can schedule that for whatever week would be appropriate. So maybe there is a group that would prefer doing something on congestion and how to relieve it, or on possible uses of ITS technologies in urban transport, or on comparing BRT systems around the world.

**IMPORTANT:** Students should start forming groups as soon as possible, and it would probably make sense for the same group of students to work together on both of the joint presentations. Once you’ve got a working team, you might as well stick with it.

Written assignments are due at the very **start** of each class session and **not** later during that session or at any time after that class meeting. Be sure you are in class on time when these papers are due, since papers not handed in at the very start of class will be considered late. For the joint PPT talks, I am asking you to hand in the PPT handouts (printouts) of the slides, just one copy from each group, but with the listing of all students, AND with a description of what each student actually did for her/his contribution to the joint project.

**The final exam** will be during the last regularly scheduled class of the semester **(not during exam period!)** and will test your knowledge of key transportation terms and basic
information covered in the lectures and course readings. The exam will include ten terms/concepts to define or explain; a few short-answer questions; and one essay question. I will propose three possible essay questions a week in advance so you can think about them before the exam, and I will then choose ONE of those three possible essay questions to actually include on the exam. You will be responsible for ALL the material in the required course readings, and I will feel free to ask questions on the final exam about ANY information contained in the required readings, whether or not we discuss it in class. So you really MUST do the required readings.

During class meetings some weeks we will have in-class debates/discussions on some particular topic which I will announce a week in advance. Students need not turn in any written paper for those discussions sessions, but they will be expected to have thought carefully about the topic and come to class prepared to present their own point of view. Of course, students are expected to participate in discussions every week, but especially during these special discussion sessions on particular topics. And there will obviously be class discussions those four weeks when the written assignments are due, since they are focused on specific discussion topics as well.

Class attendance is mandatory, since you cannot possibly participate in discussions if you are not even in class! Students will be expected to participate actively in class discussion and should plan to do the required readings in advance of class meetings most weeks in order to be able to participate effectively. Your contributions to class discussions will influence the final course grade. Class participation is NOT a matter of just showing up in class; it requires actual active involvement in class discussions, with questions, sharing of personal experiences, information, etc.

It is absolutely essential that, at a minimum, students read the triple-starred entries on the following list of readings. The material in these books and articles comprises the core of information for the course and will form the basis for class discussions and exams. Double-starred entries are recommended but not required, and students should try to read some of these if you are particularly interested in the topic. Other readings are listed primarily for your reference in case you are interested in pursuing various topic areas in more depth.

The main text for the course is the reader, Geography of Urban Transportation (THIRD edition, 2004!!), edited by Susan Hanson and Gen Giuliano. We will be using most chapters of that book, which is available for purchase at the RU bookstore across from the train station. You can also easily order it from Amazon.com, Barnesandnoble.com, and elsewhere on-line. I am trying to draw as many readings as possible from that book, since I want ALL of you to have done the readings before each class session on any particular topic so we can discuss it in class. Having most of the required readings in one book that you all have maximizes the possibility that you will actually do the readings. Since I am making the readings as easily accessible as possible, you will have no excuse at all for not doing them.

In addition to the Hanson book, I am assigning many readings from documents, papers, or articles that are posted on several different http internet websites you can very easily and freely
access from any computer in the world. Just one of those internet sites is my own Rutgers University webpage, where I have about 10 or so of my own publications posted:

http://www.policy.rutgers.edu/faculty/pucher.html

Just go to the section of my webpage for selected recent publications, and you will see that the PDF files of all those articles or chapters or working papers are posted there. All it takes is a click to download any of those publications. You can also download lots of other publications from the Bloustein School working papers website and a gazillion other http websites all over the world. Where relevant, I have indicated some key internet access links under each section of this syllabus.

There is one other book you will be required to read for the course. All students must read Anthony Downs’s book on traffic congestion, Still Stuck in Traffic (Brookings, 2004, paperback). One of the written assignments will probably relate to the Downs book, but for sure, we will spend a full week discussing the book in class. (In the written assignment, I might ask you to list 10 specific ways that traffic congestion here in the New Brunswick area could be solved or at least reduced, just as one example, trying to apply the lessons from the required Downs book to our specific city of New Brunswick!)

RELATIVE WEIGHT OF YOUR ASSIGNMENTS:

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

1) Exam  40 %
2) Class Participation  10 % (including mandatory attendance!)
3) Short written assignments  20 %
4) Group PPT talks  30 %
TOTAL  100%

TOPIC OUTLINE AND READINGS

Triple-starred selections within the list below are required reading. Double-starred selections are recommended. Remaining citations are suggested for those students wishing to concentrate in certain areas of urban transportation.

Important: Topics listed below are NOT necessarily in the order that we will discuss them during the semester. I will announce at the end of class each week what the topic for the following week will be, so that you will know which readings to do in preparation. I will also announce one week in advance when there are short (3-5page)
written assignments due the following week associated with the topic of the following week’s class discussion.

I. History of the Development of Urban Transport Systems and Their Impact on Urban Form

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

II. Recent Trends in Modal Choice, Urban Spatial Patterns, and Their Interaction: Characteristics of the Current Urban Transportation System

***Susan Hanson, “Context of Urban Travel: Concepts and Recent Trends,” in Hanson, Geography, pp. 3-29.

III. Urban Transportation Problems and Solutions

A. Energy

***Greene, “Transportation and Energy,” in Hanson, Geography, pp. 274-293.

B. Environmental Impacts

***Bae, "Transportation and the Environment," in Hanson, Geography, pp. 356-381.

C. Safety

(click on working paper #10 for free download of PDF file)

D. Equity

E. Congestion

***Downs, Still Stuck in Traffic, entire book, but especially chapter 18, the summary chapter, with is utterly wonderful!!! You must be sure that you know ALL the material in that summary chapter 18 for sure.

F. Public Transportation

***Pucher, “Public Transportation,” in Hanson, Geography, pp. 199-236.

G. Transportation Finance

***Taylor, “Geography of Urban Transport Finance,” in Hanson, Geography, pp. 294-331.

H. Land-Use and Urban Development

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

**Gordon and Richardson, "Are Compact Cities a Desirable Planning Goal?"
**Ewing, "Is Los Angeles Style Sprawl Desirable?"


I. Bicycling: Trends and Policies

***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. (You can download this as PDF file for free from the RU website for working papers: http://policy.rutgers.edu/workingpapers.html (just click on working paper #11 for free download); also available at: http://www.policy.rutgers.edu/faculty/pucher/NAmBIKE.PDF


Pucher, "Bicycling Boom in Germany: A Revival Engineered by Public Policy," Transportation Quarterly, Autumn 1997 (I will try to post the Word 7.0 file of this article somewhere so you can have easy access to it.)

J. Parking as a Transportation Problem


IV. Comparison of Urban Transportation in Europe, Canada and the United States

Pucher and Lefevre, The Urban Transport Crisis in Europe and North America, entire book, selected chapters, whichever countries interest you.


V. Urban Transport in Developing Countries


Adam Wroblewski, “Bogota: Urban Transport in a Socially Responsible City,” PowerPoint presentation posted on Sakai site for this course.

***Ando Despacio, “Bogota: Edging back from the brink,” Sustainable Transport, winter 2008, will be posted on Sakai.

***“Ciclovia: Cycling in Bogota, Colombia” Streetfilms, URL link: http://www.streetfilms.org/archives/ciclovia/

Academic integrity

Academic honesty and intellectual integrity are fundamental to the process of learning and to 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.