

UPP 561 – CRN 30614  
Urban Transportation II: Policy and Methods  
Spring 2010

Time:	6:00 – 9:00 PM Mondays
Location:	2BH B10 (B10 is a Learning Lab in the basement of Burnham Hall)
Office Hours:	3:30-5:30 PM Mondays
Instructor:	Dr. Piyushimita Thakuriah (Vonu)
Office:	Rm. 258 CUPPA Hall
Email:	<a href="mailto:vonu-pt@uic.edu">vonu-pt@uic.edu</a> (preferred method of contact)
Phone:	312-355-0447
Prerequisites:	UPP 560 or can be waived with instructor's consent.
Required Text:	None. All materials will be posted online.

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### **1. Course Objectives, Learning Goals and Expected Outcomes**

The objective of this course is to present students with the key issues in surface transportation policy and methods that transportation policy analysts use. At the end of the course, successful students will have accomplished the following five learning goals:

- 1) In-depth knowledge of major U.S. and international surface transportation trends and policies in the passenger and freight sectors;
- 2) Understanding of the links between transportation and key environmental, energy, economic development, social justice and urban development policies and their evolution over time;
- 3) Interpret how policy translates into planning practice including technical requirements and funding opportunities;
- 4) Understand transportation policy from an institutional perspective (in terms of frameworks, options, stakeholders, partnerships and the political context) as well as analytical perspective (“return on investment”, “cost/benefits”)
- 5) Have concrete “beginners” knowledge of policy analysis methods.

The expected course outcome is for students to be able to connect the technical aspects of transportation planning activities to the broader policy context in which planning occurs in an informed and objective way.

### **2. Summary of Course**

The course will cover history and emerging trends in the area of transportation policy. The overriding purpose of the course is to examine the intersection of transportation

policy to energy, environmental and sustainable development policy, economic development and economic growth policies, community development and quality of life factors, funding and public finance aspects, and social justice and equitable access policies – and the methods that policy analysts use in order to develop and evaluate the effectiveness of such policies.

The course is organized into two parts: in Part I, we will examine policies and in Part II, we will learn about methods.

Part I: Ubiquitous congestion and lack of travel alternatives plague metropolitan areas. Equitable and efficient access to jobs and social opportunities has strong implications for quality of life in communities. The relationship between transportation and the environment and energy usage will be examined and the consequences of rapidly evolving geopolitics of oil and emerging concerns about global climate change will be discussed. Concerns regarding the decentralization of urban areas and the relationships of transportation to regional economic development and industry growth are only some of the many factors of concern to policy makers.

Further, activity patterns of individuals are changing and there is a need to supply transportation systems that reflect these changing needs. As the focus of transportation policies increasingly move away from provision of mobility (simple movement of people, goods and commodities) to the harder questions of equitable access to “sustainable spatial opportunities”, a re-thinking is occurring in transportation communities regarding future transportation policies. But perhaps the most immediate concern is the shortfall in projected funds for allocation to much-needed infrastructure improvements – traditional financing techniques along with innovative financing methods will be examined. This is the context for this course.

Part II: Students will also learn the principles and methods of transportation policy analysis. We will examine simple policy analysis presentation methods as well as complex methods of policy analysis, including output, outcome and process-based evaluations, impact analysis, full Cost Benefit Analysis, return on investment methods and demand forecasting of impacts (mostly treated in UPP 562).

In keeping with the current focus on public participation methods, we will examine stakeholder analysis, participatory methods including emerging tools such as blogs, social networking and other internet-based participatory tools, Problem Structuring Methods such and Soft Systems Methods and Multi-Criteria Decision Making Methods and Spatial Decision Support Systems.

## **2. Format of Course**

Dr. Vonu Thakuria will teach the course but the participation of students is required to make the course a success. At least two guest lecturers will be invited to enhance the

learning experience. Each of the guest speakers (transportation faculty and professionals) have particular expertise on the subject in which they will lecture.

### 3. Learning Components

The learning components of the course will consist of:

- Readings
- In-class quizzes and assignments
- Class discussions
- Colleague “Q&A” using the Discussion Board feature of the course Blackboard site
- Proposal writing
- Writing a persuasive Executive Summary to a policy study
- Examining funding sources
- Legislative analysis
- Critiquing scientific studies of complex policy questions
- Creation of an Environmental Impact Statement (EIS)
- “Quick response” approach to policy analysis
- Fundamentals of policy design and evaluation
- Policy evaluation methods
- Public participation methods and expert opinion-based tools

### 4. Course Policies

Course policies are on grading, attendance, late assignment submission, academic dishonesty and plagiarism, in-class participation and expectation and overall student responsibilities.

#### 4A. Grading policies

Attendance and participation:	10% of grade.
In-class quizzes:	5% of grade.
Colleague Q&A <sup>1</sup> :	5% of grade.
Assignments:	40% of grade.
Presentation of final paper abstract:	10% of grade.
Final (written) term paper:	30% of grade

#### 4B. Attendance Policy

The instructor will take attendance in each class. If you are absent from class more than twice, there will be an automatic 10% reduction in your final overall grade, to increase by 2% for every subsequent class missed.

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<sup>1</sup> Colleague Q&A means the following: each student will pose 2 major transportation policy questions that they are interested to know more about and submit to the Discussion Board in Blackboard. The instructor will team up each student with another student. The team will swap writing the answers – for example, Student A will write the answers to the 2 questions that Student B has and vice versa. The answers are also to be submitted to Discussion Board.

#### 4C. Late Assignment Policy

Assignments are due in Blackboard and are to be time-stamped by 5:30 PM on the date of submission. If you wish to request a 24-hour extension, please email the instructor by 9:00 PM on the Sunday before the assignment is due. *Each student can receive one such extension for the duration of the semester.* If the assignment is not turned in within 24 hours after the deadline, your grade on that course will be reduced by 10%. Further, if there are late submissions by the same student on additional assignments over the course of the semester, you will receive an additional 10% reduction in grade, in addition to any reduction due to the “24-hour” rule. After that, your grade for that late assignment will reduce by 5% for every additional day it is late.

It is a professional requirement to submit on time and it is good practice for your career. I do not like to grant extensions because of the following reason: your fellow students, many of whom are as busy as you, will be working very hard to submit on time. *In fairness to them, please submit on time and do not request extensions unless there are really, really exceptional circumstances.*

#### 4D. Academic Dishonesty

UIC’s academic dishonesty policy can be found in <http://www.uic.edu/ucatalog/GR.shtml> and related to cheating, fabrication, facilitating academic dishonesty or plagiarism, bribes, favors and threats, examination by proxy, grade tampering and non-original works. I will discuss this issue in class. I will randomly check all assignments for these purpose.

#### 4E. In-class Expectations

No cell phones, instant messaging, surfing or checking email is allowed in class. Please arrive on time.

#### 4F. Student Responsibilities

- 1) Please make sure that you have correct and full access to the Blackboard web site. During the second week of class, the instructors will pass around a list of student names and email addresses as listed in the Blackboard site. That is the address to which the instructor will be sending email through Blackboard (this is almost always your UIC netid). If you wish to receive mail at another address (such as your yahoo or gmail account), you will have to forward your email to your preferred address through the ACCC page in the UIC website<sup>2</sup>.

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<sup>2</sup> For example, if your UIC netid is [marysmith@uic.edu](mailto:marysmith@uic.edu) and you wish to read email in your yahoo account [msmith@yahoo.com](mailto:msmith@yahoo.com), you should forward your UIC mail to your yahoo mailbox. Go to <http://www.uic.edu/depts/accc/index.html/EMAIL.html> and look under **EMAIL TOOLS**.

- 2) All homework submissions, including the final term paper, must be submitted electronically to the Digital Drop-Off Box in the Blackboard site. The drop-off box will be “turned off” by 5:30 PM on the day the homework is due.
- 3) Please read the section on “Guide to Successful Assignments” carefully. There are numerous tips on how to structure and format your homework there. Adhering to these formats can improve your grade.
- 4) It is very important that you keep up with the assigned readings and that you complete the readings before class. The instructor will keep note of class participation and will give in-class quizzes. Remember that attendance and participation constitutes 10% of your final grade.
- 5) A great venue for discussion is the Blackboard Discussion Board. Be sure not to miss this fantastic opportunity to exchange ideas with your colleagues. Transportation policy is a rich field and we will not have time to discuss everything we want to in class.
- 6) Students are encouraged to responsibly reproduce any material that you read. By this we mean that we take plagiarism very seriously. In addition to reviewing the UIC Academic Dishonesty Policy, it is in your best interest to review the guidelines I have provided in Section 5 and to comply with these guidelines as much as possible.
- 7) Urban transportation planning/policy tend to raise strong opinions! With the rapid dissemination of information via the Internet, there is a lot of irresponsible reporting out there in online sources. I encourage you to be balanced in your views and to put material you access in perspective before you introduce them as a part of your work.

## 5. Guide to Successful Assignments

Writing styles can vary significantly. This course is intended to be on policy analysis; hence, the instructor would prefer to see a tight, analytical writing style. This has two major implications for your paper: (i) on the structure of the content/arguments/logic and (ii) on sentence structures.

For all assignments that you turn in, here are some simple tips:

- 1) Use a spell-checker.
- 2) The format should be: (i) left header: Name of student (ii) right header: page number (iii) left footer: Assignment Number (iv) right footer: Course Number.
- 3) Do not write long sentences; do not make excessive use of compound structures.

- 4) Do not write overly long paragraphs.
- 5) Always write the full form of an acronym, the first time you use it. Then introduce the acronym in parenthesis. For example, if you are writing a paper on Intelligent Transportation Systems, your first sentence in a paper may say:

*In this paper, I will analyze the costs and benefits of Intelligent Transportation Systems (ITS).*

Subsequently, you may refer to the acronym without writing out its full form. For example, the second sentence which refers to ITS in the paper may be:

*There are many dimensions to consider in evaluating ITS.*

- 6) In the case of papers (as opposed to answers to specific assignment questions), please section and subsection heavily. Also, for this type of assignment, consult the general ideas that have been listed below under *Guidelines for Final Term Project*.
- 7) Also, itemize heavily. Provide information in bullet points, tables and numbered lists as much as possible. It makes reading easier.

There are some other books that you may consult for assistance in writing. These include:

- 1) Hacker, D. 1991. *The Bedford Handbook for Writers*. Boston, MA. Bedford Books of St. Martin's Press. Third Edition.
- 2) Gibaldi, J. and P. Franklin. 1999. *MLA Style Manual and Guide to Scholarly Publishing*. New York, New York. Modern Language Association. Second Edition.

## **6. Guidelines for Final Term Project**

Your final term project will consist of:

- 1) A presentation of your research proposal to the class on March 15, 2010 (your attendance is required). Your Powerpoint presentation should be uploaded to Digital DropBox of Blackboard no later than 9 PM on March 14. You will also be required to submit a written proposal abstract on March 14 by 9 PM. The abstract should have the title of your proposed paper, author name, list of five keywords and a 200 word abstract.
- 2) A final term paper which is due on the Monday of the exam week.

For your final class work, choose a topic which has been the subject of transportation legislation (for example, livable cities, public transit subsidy, urban sprawl, fuel efficiency policies) and provide an analysis of the policy and programmatic processes

that have been formulated to address this topic. You may wish to consider the sequence of questions below in order to develop your paper:

- 1) Describe the set of activities, procedure or process that constitute your topic.
- 2) What are well-known transportation-oriented public laws or plans that have addressed this topic (an inventory of ALL laws addressing this topic is not required). If no specific law or plan has been passed at the federal, state or local levels on the policy topic of your interest, then you might note why that is the case and what would need to be done to push it towards a more formal stage of governance.
- 3) Please provide:
  - (a) Description and statement of the laws or plans.
  - (b) Legislative background and planning and policy precedents (why has it come about).
  - (c) Efficiency and equity considerations of the law or plan.
- 4) What are some cases of implementation?
- 5) What are the perceived costs and benefits of programs designed to address the issue?
- 6) Who are the administrative bodies responsible for implementation?
- 7) What are the major financing and funding issues related to the topic?

As we go along in the class, we will discuss document and other research resources that you can draw upon to construct your paper.

The paper should be structured as a research paper. It should contain (i) title (ii) author (iii) an abstract with not more than 150 words (iv) a list of five keywords (v) the body of the paper (vi) references. References should be formatted as described below.

The body of the paper, Item (v) in the previous paragraph, should be structured as follows:

- Section I: Introduction and Statement of Research This section should include (i) introduction to the problem and motivating factors for your research (ii) statement of your research problem(s) and (iii) a roadmap of your paper [for example, say “In Section 2.1, I discuss.... Then in Section 2.2, the factors motivating Congress to undertake hearings are reviewed...”]
- Section II, III, IV etc.: Your analysis
- Section last: Summary and Conclusions Please try to summarize your main conclusions in point form.
- List of References. See recommended reference style below.

Naturally, each main Section can contain various sub sections or sub subsections. References should follow the Chicago Manual of Style. In the text, include the author, year and page number. For example: *Road dust also accounted for over 30 percent of emissions of very fine particles - those measuring 2.5 microns or smaller (Barnard, 1996).*

Complete references must appear at the end of your paper. Include enough information in your reference so that the reader can find the document or contact its author. References should be alphabetized by authors' last names. When an author has more than one publication, place the oldest one first. Include the place of publication and publisher for books, and volume, month, or issue, and pages for journals. Examples of various types of references follow:

- (a) Gordon, R. 1990. *The Measurement of Durable Goods Prices*. Chicago, IL: University of Chicago Press. [The reference to this citation in the text would be: (Gordon, 1990)].
- (b) Kargon, R.H., ed. 1974. *Maturing of American Science*. Washington, DC: American Association for the Advancement of Science. [In the text: (Kargon, 1974)].
- (c) Michaelis, L., D. Bleviss, J.-P. Orfeuill, and R. Pischinger. 1996. *Mitigation Options in the Transportation Sector. Climate Change 1995: Impacts, Adaptations and Mitigation of Climate Change: Scientific-Technical Analysis, Contribution of Working Group II to the Second Assessment Report of the Intergovernmental Panel on Climate Change*. Edited by R.T. Watson, M.C. Zinyowera, and R.H. Moss. Cambridge, England: Cambridge University Press. [In the text: (Michaelis *et al.*, 1996)]
- (d) National Academy of Sciences (NAS), Committee on National Statistics. 1985. *Sharing Research Data*. Washington, DC: National Academy Press. [In the text: (NAS, 1985)]
- (e) Yates, C. 1992. *Eurocontrol Comes of Age*. *Jane's Airport Review* 4:3. [In the text: (Yates, 1992)]

The paper should not exceed 15 single-spaced pages in length. Paper title, author, abstract and keywords should be on page 1. Start numbering pages on the second page of the document (that means, the second page should be numbered page 1). You will, therefore, have 14 pages for your paper, including references.

## 7. Detailed Syllabus and Reading List

**Unless specifically noted, all readings are in Blackboard, under Course Documents. If the reading is not under Course Documents, look at External Links – this will also be indicated in the list of readings.**

**Part I:** Major policies concerning the transportation-related aspects of the environment, energy, economic development, community mobility/accessibility, freight transportation, advanced transportation systems, transportation safety and "social

justice" (including Job Access and Reverse Commute, Environmental Justice and Americans with Disabilities Act).

**Jan 11, 2010:** No class. Instructor will be attending the Transportation Research Board Annual Meeting in Washington, DC.

**Jan 18, 2010:** No class. Martin Luther King day.

**Jan XX, 2010 (Rescheduled class): Introduction to UPP 561 and Transportation Policy.** Course requirements, introduction to transportation policy, connections between planning and policy and review of most critical issues facing transportation.

*Required Activities:*

- 1) Read the syllabus.
- 2) Ensure access to Blackboard and examine the site.

**Jan 25, 2010: History of U.S. Transportation Policy and Critical Issues.** Introduction to Strategic US transportation policy, history of policy and current U.S. policy. Discussion of titles and major programs in SAFETEA-LU. Key differences of SAFETEA-LU and its predecessors: TEA-21 and ISTEA. Linkages to current trends in air quality, congestion mitigation, safety, community accessibility and mobility issues.

*Required Readings:*

- 1) Weiner, E. (1992). *Urban Transportation Planning in the United States: A Historical Overview*. DOT-T-93-02. [51 pages]. (Filename: history.pdf)
- 2) Transportation Research Board (2001). *Critical Issues in Transportation 2006*. November-December 2001. Reprinted from TR News 217. [16 pages] (CriticalIssues06.pdf)
- 3) National Surface Transportation Policy and Revenue Study Commission (2008). *What Are the Future Demands on the Surface Transportation System?* Chapter 2, Vol. 2 of *Transportation for Tomorrow: Report of the National Surface Transportation Policy and Revenue Study Commission*. [18 pages] (volume\_2\_chapter\_2.pdf)

*Additional Readings (recommended):*

- 4) National Surface Transportation Policy and Revenue Study Commission (2008). *Recommendations*. Volume 1 of *Transportation for Tomorrow: Report of the National Surface Transportation Policy and Revenue Study Commission*. [18 pages] (volume\_1.pdf)
- 5) Fischer, J. W. (2005). *SAFETEA-LU – Selected Major Provisions*. Congressional Research Service, The Library of Congress. (safetea\_lu\_MajorProvisions.pdf)

- 6) U.S. Department of Transportation (2005). *SAFETEA-LU Highway Provisions*. (safetea-lu\_hwy\_summary.pdf)
- 7) American Public Transportation Association. (2005). *SAFETEA-LU Transit Funding Provisions*. (safetea-lu\_transit\_summary.pdf)

**Feb 1, 2010: Global Trends International Comparisons.** Comparison of International Policies and Contexts. Current trends in US policy. Comparison of U.S. to European Union, South American and South-East Asian trends.

*Required Readings:*

- 1) TCRP Special Report 257. *Making Transit Work*. Insights from Western Europe, Canada and the United States. Transportation Research Board, National Research Council. Chapters 3 and 4. [83 pages] (tcrp\_rpt\_257.pdf)
- 2) European Commission. (2001). *European Transport Policy for 2010. Time to Decide*. Annex I – Action Programme. [4 pages] (EU-whitepaper.pdf)
- 3) Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH. (2005). *Mass Transit Options. Sustainable Transport: A Sourcebook for Policy-Making in Developing Cities*. [30 pages] (mass\_transit\_options.pdf)

*Additional Readings (recommended):*

- 4) European Commission. (2001). *European Transport Policy for 2010. Time to Decide*. Full Report. [100 pages] (EU-whitepaper.pdf)
- 5) Sustainable Transport (2003). *Bus Rapid Transit Spreads to Africa and Asia*. Chapter 1, Fall 2003, No. 15. [14 pages] (sustainable\_transport\_1.pdf)
- 6) World Bank Urban Transport Strategy Review (2001). *Cities on the Move*. The World Bank, Washington, D.C. (cities\_on\_the\_move.pdf)
- 7) Federal Highway Administration. (2002). *Freight Transportation. The European Market*. International Technology Exchange Program. (eurofreight.pdf)

**Feb 8 and 15: Energy and Environment – Parts I and II.** Transportation in the sustainable growth context; regulatory processes for sustainable transportation systems.

*Required Readings:*

- 1) TRB Special Report 251. (1997) *Sustainability and Transportation*. Chapter 1: Toward a Sustainable Future: Addressing the Long-Term Effects of Motor Vehicle Transportation on Climate and Ecology.
- 2) BTS, *Transportation Statistics Annual Report (1996)*. Chapter 4. Transportation and Energy. Blackboard – External Links.

- 3) BTS, *Transportation Statistics Annual Report* (1996). Chapters 5 through 7. Environmental Impacts of Transportation, Environmental Trends and the U.S. Transportation System, Transportation and Air Quality.
- 4) FHWA (1998). *Summary of Environmental Legislation Affecting Transportation*. In Blackboard – External Links
- 5) FHWA. *Transportation Conformity Reference Guide*. In Blackboard – External Links
- 6) FHWA. *Summary of Transportation Provisions in the Clean Air Act Amendments*. In Blackboard – External Links
- 7) FHWA. NEPA, EIS and Section 4F. – External Links.

*Additional Readings (recommended):*

- 1) National Research Council. Committee on Climate Change and U.S. Transportation. (2008). *Summary*. In *Potential Impacts of Climate Change on U.S. Transportation*. Transportation Research Board Special Report 290. [20 pages]
- 2) National Academies (2008). *Understanding and Responding to Climate Change: Highlights of a National Academies Report*. National Academy of Sciences, National Academy of Engineering, Institute of Medicine and National Research Council. 2008 Edition.

**Feb 22, 2010: Transportation, the economy, labor markets and economic development.** Impact of transportation investments on the local, regional, state and national economies economy, economic development and productivity.

*Required Readings:*

- 1) Bureau of Transportation Statistics/ Transportations Statistics Annual Report (1996). Chapter 2: *Transportation and the Economy*.
- 2) National Cooperative Highway Research Program (). *Factors Affecting Freight Transportation*. In NCHRP Report 388 *A Guidebook for Forecasting Freight Transportation Demand*. Cambridge Systematics, Transportation Research Board, National Academy Press.

*Additional Readings (recommended):*

- 1) National Cooperative Highway Research Program (1991). *Overview of Primer on Transportation, Productivity and Economic Development*. NCHRP Report 342 by David Lewis.
- 2) Cambridge Systematics, Inc. and Economic Development Research Group (1999). *Public Transportation and the Nation's Economy*.

**March 1, 2010: Transportation and Social Justice Policies.** Federal and state policies for transportation disadvantaged populations including low-income workers, seniors, young children and persons with disabilities.

*Required Readings:*

- 1) FHWA. *An Overview of Transportation and Environmental Justice*.
- 2) Ihlandfeldt, K. R. and D. L. Sjoquist. (1998). *The Spatial Mismatch Hypothesis: A Review of Recent Studies and Their Implications for Welfare Reform*. In Housing Policy Debate, Vol. 9, Issue 4.
- 3) Thakuria, P., P.S. Sriraj, S. Soot and J. Persky (2008). *Economic Benefits of Employment Transportation*. Summary Report to Federal Transit Administration, U.S. DOT and Community Transportation Association of America, June for Grant No's DOT IL-37-X007-00 4 and DOT IL-37-5002-00
- 4) USDOT (2003). *Safe Mobility for a Maturing Society: Challenges and Opportunities*.
- 5) TCRP (1995). *Transit Operations for Persons with Disabilities*. TCRP Report 9.

*Additional Readings (recommended):*

- 6) Thakuria, P., Sen, A., Sööt, S., Metaxatos, P., Yanos, G., Dirks, L., Yang D. and Sternberg, T. (1999a) *Implication of the Welfare Reform Law on Suburban Chicago Transit Demand*. Final Report to Pace, Arlington Heights, IL.  
<http://www.utc.uic.edu/%7Efta/Reports/pace-report.pdf>
- 7) Federal Transit Administration. (2007). *The Job Access and Reverse Commute Program Guidance and Applications Instructions*. FTA Circular C 9050.1
- 8) Federal Transit Administration. (2007). *New Freedom Program Guidance and Application Instructions*. FTA Circular C 9045.1

**March 8, 2010: Advanced Technologies in Transportation.** Intelligent Transportation Systems, wireless technologies and mobile devices, GPS and other data collection technologies, integrated traveler information systems, crowd-sourcing technologies, open-source map technologies. Readings TBD.

**March 15, 2010: Student Presentation of Final Paper Abstracts.**

**March 22, 2010: Spring Break**

**Part II:** Basic concepts in transportation policy formulation, research design and evaluation including (i) cost-benefit analysis, (ii) decision-making methods, (iii) public participatory techniques, and (iv) transportation policy evaluation principles and methods.

**March 29, 2010: Transportation Program and Project Finance. Guest Lecturer.** Sources of capital and operating funds, current transit issues and fundamentals of paratransit management. Public-Private-Partnerships and Innovative Finance Models.

*Required Readings:*

- 1) Transit Provisions of SAFETEA-LU.
- 2) Highway Provisions of SAFETEA-LU
- 3) NCHRP (2006). *Future Financing Options to Meet Transit and Highway Needs*. NCHRP Web-Only Document 102. Executive Summary and Chapters 1 through 6. [88 pages]
- 4) National Surface Transportation Policy and Revenue Study Commission (2008). *What Revenue Sources are Available for Financing Surface Transportation Improvements?* Chapter 5 of Volume 2 of *Transportation for Tomorrow: Report of the National Surface Transportation Policy and Revenue Study Commission*. [36 pages]

*Additional Readings (recommended):*

- 1) TRB Special Report 285 (2006). *The Fuel Tax and Alternatives for Transportation Funding*. Committee for the Study of the Long-Term Viability of Fuel Taxes for Transportation Finance. [252 pages]

**April 5 and 12, 2010. Introduction to Transportation Policy Analysis.** Fundamentals of policy analysis, evaluation and research design; examples of policy studies and review articles on safety, air quality and benefit analysis.

*Required Readings:*

- 1) Transportation System and Project Evaluation. Chapter 8 of *Urban Transportation Planning: A Decision-Oriented* By Meyer and Miller (2000).
- 2) Miller, T.R. *Societal Costs of Transportation Crashes: From Full Costs and Benefits of Transportation*.
- 3) Gomez-Ibanez, J. A. *Estimating Whether Transportation Users Pay Their Way: The State of the Art*. From Greene *et al.*'s from Full Costs and Benefits of Transportation.
- 4) Krupnick, Rowe and Lang. *Transportation and Air Pollution: The Environmental Damages*. From Greene *et al.*'s from Full Costs and Benefits of Transportation.

*Book for Reference:*

- 5) Boardman, A.E., D. H. Greenberg, A. R. Vining, D. L. Weimer (2000). *Cost-Benefit Analysis*. Prentice Hall.

**April 19, 2010: Program Evaluation.** Transportation project and program evaluation: output, outcome and process-based evaluation and impact analysis.

*Required Readings:*

- 1) Transportation Research Circular E-C477 (1997). *Assessing Economic Impact of Transportation Projects*.

- 2) TCRP Report 35. (1998). *Economic Impact Analysis of Transit Investments. Guidebook for Practitioners.*
- 3) Thakuriah, P., P.S. Sriraj, S. Soot and J. Persky (2008). Cost Benefit Analysis. *Chapter 7 of Economic Benefits of Employment Transportation.* Final Report to Federal Transit Administration, U.S. DOT and Community Transportation Association of America, June for Grant No's DOT IL-37-X007-00 4 and DOT IL-37-5002-00

**April 26, 2010: Public Participation, Problem Structuring Methods and Decision**

**Support Systems.** Public participation and participatory models, Soft Systems Methodology, Causal Maps, Focus Groups. Multi-Criteria Decision Making Methods and Spatial Decision Support Systems.

*Required Readings:*

- 1) State of the Practice: White Paper on Public Involvement, written by the TRB Committee on Public Involvement in Transportation;
- 2) FHWA. Public Involvement Techniques for Transportation Decision-making, FHWA Online Manual.
- 3) Mingers, J. and J. Rosenhead. (2004). Problem Structuring Methods in Action. In *European Journal of Operational Research*, Vol. 152, Issue 3.
- 4) Jankowski, Piotr. (1995) Integrating geographical information systems and multicriteria decision making methods. In *International Journal of Geographical Information Systems*. 9; 251-273.
- 5) Malczewski, J. (1999). *GIS and Multicriteria Decision Analysis*. John Wiley & Sons; (March 19, 1999). Selected chapters.
- 6) Sriraj, P.S., M. Minor and P. Thakuriah. (2006) *Spatial Decision Support System for Low-Income Families: Relocation Tool for the Chicago, Illinois, Region*. In *Transportation Research Record, Journal of the Transportation Research Board*, No 1956, pp. 119-126.

**May 3, 2010: Exam Week.** Final Paper due by 6 PM.

8. Schedule in Summary

Week	Date	Topic	Home Work Due
1	11-Jan	No class. Instructor in TRB	
2	18-Jan	Martin Luther King Day. No class	
Rescheduled	Jan XX	Introduction to UPP 561 & Transportation Policy	Assigned readings
3	25-Jan	History of US Transportation Policy and Critical Issues	Assigned readings
4	1-Feb	Global Trends and International Comparisons	Assigned readings
5	8-Feb	Energy and the Environment - Part I	Assigned readings. <b>Home Work 1 Due</b>
6	15-Feb	Energy and the Environment - Part II	Assigned Readings. <b>Colleague Q&amp;A: Submit Questions</b>
7	22-Feb	Transportation, Economy, Labor Markets, Economic Development	Assigned readings.
8	1-Mar	Transportation and Social Justice Policies	Assigned Readings. <b>Colleague Q&amp;A: Submit Answers</b>
9	8-Mar	Advanced Technologies in Transportation	Assigned readings. <b>Home Work 2 Due</b>
10	15-Mar	<b>Student Presentation of Final Paper Proposal. Submit ppt and written abstract by 9 PM March 14</b>	
	22-Mar	Spring Break. No class	
11	29-Mar	Transportation Program and Project Finance. <i>Guest Lecturer</i>	Assigned readings.
12	5-Apr	Introduction to Transportation Policy Analysis - Part I	Assigned readings.
13	12-Apr	Introduction to Transportation Policy Analysis - Part II - <b>In-Class Team Assignment</b>	Assigned readings.
14	19-Apr	Program Evaluation	Assigned readings. <b>Home Work 3 Due</b>
15	26-Apr	Public Participation, Problem Structuring Methods and Decision Support Systems	Assigned readings.
	3-May	Exam Week. No class	<b>Final paper due</b>

**9. Blackboard Site**

Most readings will require you to have Acrobat Reader – Adobe Reader 9 can be downloaded from <http://www.adobe.com/products/acrobat/readstep2.html>

**Readings:** Go to Course Documents in Blackboard.

**Information about the Course:** Go to Course Information in Blackboard.

**Links to documents in other websites:** Go to External Links in Blackboard.