

**SAN JOSÉ STATE UNIVERSITY**  
**URBAN AND REGIONAL PLANNING DEPARTMENT**  
**URBP 260 - TRANSPORTATION AND THE ENVIRONMENT**  
**SPRING 2012**

**Instructor:** Joseph Kott, PhD, AICP, PTP  
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**Office hours:** Wednesdays, 6:00 – 7:00 p.m. or by appointment.  
**Class days/time:** Wednesdays, 7:15 – 10:00 p.m.  
**Classroom:** DMH 356  
**Class website:** <http://groups.google.com/group/urbp-260---transportation-and-the-environment>

**Prerequisites:** None.

**Units:** 3

**Course Catalog Description:**

URBP 260: In-depth examination of selected topics specifically related to environmental planning. Normal grade rules apply. Course is repeatable for credit when topic changes. 3 units of credit.

Cross-listed for undergraduates as URBP 142 – Introduction to Environmental Planning. Prerequisite: Upper division standing or instructor consent. Repeatable for credit when topic changes. Normal grade rules apply. 3 units of credit.

## Course Description and Course Learning Objectives:

Students enrolled in this course will be introduced to the complexities in the relationship of transportation and the environment. An important theme of this class is that real world trade-offs are inherent in addressing transportation as an important cause of environmental degradation. Solutions considered have technical, socio-economic, and cultural impediments that can at times appear intractable at times. Progress must be made in an environment of uncertainty and incomplete information. Nevertheless, there are many hopeful indications that the goal of meeting society's mobility needs without harming the natural environment and human health is achievable.

Students will learn from case studies of success in creating more environmentally-benign forms of access and mobility. Students will contribute their own ideas in class discussions and a term paper on innovation in transportation policy to address environmental concerns.

Upon successful completion of the course, students will be able to:

1. Explain the connection between transportation system, air quality, water quality, human health, and the livability of communities.
2. Describe how motorized transportation, despite its many social and economic benefits, comes at the cost of environmental (and, arguably, socio-economic) sustainability.
3. Discuss the importance of land use in relation to the environmental impacts of transportation.
4. Explain the concept of environmental justice as it applies to the effects of transport system.
5. Evaluate the effectiveness of a variety of measures to reduce the environmental impacts of transport.
6. Envision policy innovations that point the way to more sustainable transport systems, cleaner air and water, more livable communities, and hence more sustainable cities and regions.

## Planning Accreditation Board (PAB) Knowledge Components

This course partially covers the following PAB Knowledge Components: 4.2.1. (a), 4.2.1. (b), 4.2.2. (c), 4.2.2. (d), 4.2.3. (a), 4.2.3. (c), 4.2.3. (h), 4.2.4. (c), and 4.2.5.

A complete list of the PAB Knowledge Components can be found at <http://www.sjsu.edu/urbanplanning/courses/pabknowledge.htm>.

## Required Course Readings

Bennett, V., Smith, W., & Betts, M. (2011). *Toward Understanding the Ecological Impacts of Transportation Corridors*. Portland, OR: United States Department of Agriculture, Forest Service. [Transportation and Wildlife.pdf](#)

Brunekreef, B., & Holgate, S. (2002). Air Pollution and health. *The Lancet* 360, 1233-1242. [IVR 3A1 Brunekreef et al \(2002\).pdf](#)

Ewing, R, Bartholomew, K., Winkleman, J, Walters, J., & Chen, D. (2008). *Growing cooler: The evidence of urban development and climate change*. Washington, D.C.: Urban Land Institute. ISBN 978-0-87420-082-9. Available from the Urban Land Institute, <http://www.uli.org/ResearchAndPublications.aspx>

Falconer, R. & Newman, P. (2008). Transport policy for a fuel constrained future: An overview of options. *World Transport Policy & Practice* 14(3), 32-47. [www.eco-logica.co.uk/pdf/wtpp14.3.pdf](http://www.eco-logica.co.uk/pdf/wtpp14.3.pdf)

Forkenbrock, D., & Sheeley, J. 2004. *NCHRP report 532: Effective methods for environmental justice assessment*. Washington, D.C.: Transportation Research Board, National Research Council. [www.gulliver.trb.org/publications/nchrp/nchrp\\_rpt\\_532.pdf](http://www.gulliver.trb.org/publications/nchrp/nchrp_rpt_532.pdf)

Gallagher, S. & Collantes, G. (June 2008). *Analysis of policies to reduce oil consumption and greenhouse-gas emissions from the U.S. transportation sector*. Cambridge, MA: John F. Kennedy School of Government, Harvard University. [http://belfercenter.ksg.harvard.edu/files/2008\\_Gallagher\\_Collantes\\_AutoPolicyModelingResults.pdf](http://belfercenter.ksg.harvard.edu/files/2008_Gallagher_Collantes_AutoPolicyModelingResults.pdf)

Gorham, R. (2002). *Air Pollution for Ground Transportation: An Assessment of Causes, Strategies, and Tactics, and Proposed Actions for the International Community*. New York: United Nations and the World Bank. [Gorham Air Pollution.pdf](#)

Litman, T. (November 2011). *Smart transportation emission reduction strategies*. Victoria, B.C.: Victoria Transport Policy Institute. <http://www.vtpi.org/ster.pdf>

Litman, T. 2011. *If health matters: Integrating public health objectives in transportation planning*. Victoria, B.C.: Victoria Transport Policy Institute. <http://www.vtpi.org/health.pdf>

Nevue Ngan Associates & Sherwood Design Engineers. 2009. *San Mateo County sustainable green streets and parking lots design guidebook*. [http://www.flowstobay.org/ms\\_sustainable\\_guidebook.php](http://www.flowstobay.org/ms_sustainable_guidebook.php)

Newman, P. & Kenworthy, J. (2006). Urban design to reduce automobile dependence. *Opolis* 2(1), 35-52. <http://escholarship.org/uc/item/2b76f089>

Nixon, H. & Saphores, J.D. (2007). *Impacts of motor Vehicle operation on water quality in the United States – Clean-up costs and policies*. Irvine, CA: University of California Irvine. <http://escholarship.org/uc/item/8tn1w17s>

Transportation Research Board. (2003). TCRP report 93 – travel matters: Mitigating climate change with sustainable surface transportation. Washington, D.C.: Transportation Research Board, National Research Council  
[http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp\\_rpt\\_93.pdf](http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_93.pdf)

Urban Land Institute. (July 2009). Moving cooler: An analysis of transportation strategies for reducing greenhouse gas emissions. Washington, D.C.: ULI. ISBN 978-0-87420-118-5  
Available from the Urban Land Institute, <http://www.uli.org/ResearchAndPublications.aspx>

## Course Assignments and Grading Policy:

Your grade for the course will be based on the following assignments:

Assignment/Course Element	Percent of Course Grade (Undergraduate % in brackets)
Reading Memos	10% (10%)
Quiz #1	10% (10%)
Quiz #2	10% (10%)
Presentation on an Environment and Transportation Topic	10% (0%)
Policy Paper	25% (30%)
Final Examination	35% (40%)

The reading memos are 1 to 2 page commentaries on what you have read for the week or fortnight (depending on the reading assignment sequence). Briefly discuss the highlights of what you have learned and add your own summary thoughts about the readings. Graduate students will be required to give a presentation to the class on a topic related to the course and approved by the instructor. Presentations should be from 15 to 20 minutes in length and preferably prepared in Power Point. The policy paper should be from 10 to 20 pages in length on a topic related to the course and approved by the instructor. Minimum paper length for undergraduates is 10 pages and the minimum paper length for undergraduates in 15 pages.

## Academic integrity statement, plagiarism, and citing sources properly

SJSU's Policy on Academic Integrity states: "Your own commitment to learning, as evidenced by your enrollment at San Jose State University, and the University's Academic Integrity Policy requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the Office of Student Conduct and Ethical Development" (Academic Senate Policy S07-2). The policy on academic integrity can be found at <http://www.sjsu.edu/senate/S07-2.htm>.

Plagiarism is the use of someone else's language, images, data, or ideas without proper attribution. It is a very serious offense both in the university and in your professional work. In essence, plagiarism is both theft and lying: you have stolen someone else's ideas, and then lied by implying that they are your own.

**Plagiarism will lead to grade penalties and a record filed with the Office of Student Conduct and Ethical Development. In severe cases, students may also fail the course or even be expelled from the university.**

**If you are unsure what constitutes plagiarism, it is your responsibility to make sure you clarify the issues before you hand in draft or final work.**

Learning when to cite a source and when not to is an art, not a science. However, here are some examples of plagiarism that you should be careful to avoid:

- If you use a sentence (or even a part of a sentence) that someone else wrote and don't identify the language as a quote by putting the text in quote marks and referencing the source, you have plagiarized.
- If you paraphrase somebody else's theory or idea and don't reference the source, you have plagiarized.
- If you use a picture or table from a webpage or book and don't reference the source, you have plagiarized.
- If your work incorporates data someone else has collected and you don't reference the source, you have plagiarized.

The University of Indiana has developed a very helpful website with concrete examples about proper paraphrasing and quotation. See in particular the following pages:

- Overview of plagiarism at [www.indiana.edu/~istd/overview.html](http://www.indiana.edu/~istd/overview.html)
- Examples of plagiarism at [www.indiana.edu/~istd/examples.html](http://www.indiana.edu/~istd/examples.html)
- Plagiarism quiz at [www.indiana.edu/~istd/test.html](http://www.indiana.edu/~istd/test.html)

If you still have questions, feel free to talk to me personally. There is nothing wrong with asking for help, whereas even unintentional plagiarism is a serious offense.

## **Citation style**

It is important to properly cite any references you use in your assignments. Please use the American Psychological Association (APA) Publication Manual, 6<sup>th</sup> Edition to format your paper. An excellent online resource for APA 6<sup>th</sup> Edition formatting is the Purdue Owl (see <http://owl.english.purdue.edu/owl/resource/560/01/>).

## **Accommodation for Disabilities**

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 requires that students with disabilities requesting accommodations must register with the DRC (Disability Resource Center) to establish a record of their disability.

**URBP 260: ENVIRONMENTAL PLANNING TOPICS – TRANSPORTATION AND THE ENVIRONMENT  
 SPRING 2012  
 TENTATIVE COURSE SCHEDULE**

The course schedule listed below is tentative and it is likely that it will be updated as the course progresses. Any changes will be discussed in class with as much notice as possible. Assignment deadlines, however, are unlikely to change.

<b>Date (Semester Week)</b>	<b>Topic</b>	<b>Readings</b>	<b>Assignments Due</b>
Jan. 25 (Week 1)	Introductions; Course Overview; In-Class Reading and Discussion	In-class Reading (followed by discussion):  Falconer, R. & Newman, P. (2008). Transport policy for a fuel constrained future: An overview of options. <i>World Transport Policy &amp; Practice</i> 14(3), 32-47.	
Feb. 1 (Week 2)	Carbon Emission from Transport: Problem Definition and Policy Alternatives	Gallagher, S. & Collantes, G. (June 2008). <i>Analysis of policies to reduce oil consumption and greenhouse-gas emissions from the U.S. transportation sector</i> . Cambridge, MA: John F. Kennedy School of Government, Harvard University.	Reading Memo #1 Due
Feb. 8 (Week 3)	Carbon Emission from Transport: Problem Definition and Policy Alternatives (continued)	Urban Land Institute. (July 2009). <i>Moving cooler: An analysis of transportation strategies for reducing greenhouse gas emissions</i> . Washington, D.C.: ULI.	Reading Memo #2 Due
Feb. 15 (Week 4)	Carbon Emissions from Transport: Problem Definition and Policy Alternatives (continued)	Transportation Research Board. (2003). <i>TCRP report 93 – travel matters: Mitigating climate change with sustainable surface transportation</i> . Washington, D.C.: Transportation Research Board, National Research Council	Reading Memo #3 Due

<b>Date (Semester Week)</b>	<b>Topic</b>	<b>Readings</b>	<b>Assignments Due</b>
Feb. 22 (Week 5)	Air Pollution from Ground Transportation  Ecological Impacts  Quiz #1 (in class)	Gorham, R. (2002). <i>Air Pollution for Ground Transportation: An Assessment of Causes, Strategies, and Tactics, and Proposed Actions for the International Community</i> . Executive Summary, Chapter II, and Chapter III.  Bennett, V., Smith, W., & Betts, M. (2011). <i>Toward Understanding the Ecological Impacts of Transportation Corridors</i> , pp. 1-17.	Reading Memo #4 Due
Feb. 29 (Week 6)	Land Use, Urban Design, and Greenhouse Gas Emissions	Ewing, R, Bartholomew, K., Winkleman, J, Walters, J., & Chen, D. (2008). <i>Moving cooler</i> . Washington, D.C.: Urban Land Institute. Chapters 1,2,3,4 and 5.	
Mar. 7 (Week 7)	Land Use, Urban Design, and Greenhouse Gas Emissions (continued)	<i>Moving cooler</i> , Chapters 6, 7, 8, 9, and 10.	Reading Memo #5 Due
Mar. 14 (Week 8)	Water Pollution and Storm Water Runoff	Nevue Ngan Associates & Sherwood Design Engineers. 2009. <i>San Mateo County sustainable green streets and parking lots design guidebook</i> . Chapters 1 and 2.  Nixon, H. & Saphores, J.D. (2007). Impacts of motor Vehicle operation on water quality in the United States – Clean-up costs and policies.	
Mar. 21 (Week 9)	Water Pollution and Storm Water Runoff	<i>San Mateo County sustainable green streets and parking lots design guidebook</i> . Chapters 3, 4, 5, and 6.	Reading Memo #6 Due
Mar. 28 (Week 10)	No Class Meeting (Spring Break)	None	

Date (Semester Week)	Topic	Readings	Assignments Due
April 4 (Week 11)	Transportation and Public Health / Transportation and Environmental Justice	<p>Litman, T. 2011. <i>If health matters: Integrating public health objectives in transportation planning</i>. Victoria, B.C.: Victoria Transport Policy Institute.</p> <p>Brunekreef, B., &amp; Holgate, S. (2002). Air Pollution and health. <i>The Lancet</i> 360, 1233-1242.</p> <p>Forkenbrock, D., &amp; Sheeley, J. 2004. <i>NCHRP report 532: Effective methods for environmental justice assessment</i>. Washington, D.C.: Transportation Research Board, National Research Council. [Skim only.]</p>	Reading Memo #7 Due
April 11 (Week 12)	Summing Up	<p>Summary Lecture and Class Discussion of Transportation and the Environment Policy Options.</p> <p>Litman, T. (November 2011). <i>Smart transportation emission reduction strategies</i>. Victoria, B.C.: Victoria Transport Policy Institute.</p> <p>Newman, P. &amp; Kenworthy, J. (2006). Urban design to reduce automobile dependence. <i>Opolis</i> 2(1), 35-52.</p> <p>Film - End of suburbia: Oil depletion and the collapse of the American dream. 2004.</p>	Reading Memo #8 Due
Apr. 17 (Week 13)	Seminar on Transportation Policy and Carbon and other Air Emissions Quiz #2 (in class)	<p>Seminar #1: Moving Cooler?</p> <p>Graduate student presentations.</p>	

<b>Date (Semester Week)</b>	<b>Topic</b>	<b>Readings</b>	<b>Assignments Due</b>
Apr. 25 (Week 12)	Seminar on Urban Growth Policy and Carbon and other Air Emissions	Seminar #2: Growing Cooler?  Graduate student presentations.	
May 2 (Week 13)	Seminar on Transportation and Urban Growth Policy and Water Pollution	Seminar #3: Less Water Pollution?  Graduate student presentations.	
May 9 (Week 14)	Seminar on Transportation and Public Health	Seminar #4: Healthier Communities?  Graduate student presentations.	Term Paper Due at Beginning of Class
May 23 (Final Exam)	Final Examination from 7:45 PM to 10:00 PM		