1. Course Information

This course is an introduction to transportation and land use as an integrated system. It covers the theories, methods, and practices of contemporary transportation and land use planning.

The first part of the course locates transportation and land use planning within current debates about urban development, sprawl, and resource consumption. We also examine contemporary practices in transportation and land use planning, and their political and institutional contexts.

The second part of the course traces the history of urban development with a focus on land development and transportation systems. We discuss theories from geography and economics that link travel behavior, urbanization, and regional economic development. This part of the course also introduces the concept of trip generation, and the practice of mitigating traffic impacts.

The third part of the course examines policy strategies for influencing land development, travel, and accessibility (and the limitations of such options), including transit-oriented development, parking, pricing, and urban design.

The course is organized as a seminar. Class sessions are used for discussion of readings, discussion and review of class projects, and other topics of interest.

This is a graduate-level course with no prerequisites. Students should be ready to engage with concepts and methods from a variety of disciplines, including city planning, public policy, statistics, and economics.
## Schedule

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<th>Week</th>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td><strong>Part 1: Critical issues and current practices in TLU planning and policy</strong></td>
<td>1</td>
<td>Critical issues and debates</td>
<td>TLU at the heart of many sprawl/sustainability debates</td>
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<td>2</td>
<td>Contemporary practices at the local and regional scale</td>
<td>How are practitioners currently planning for TLU?</td>
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<td>3</td>
<td>Actors, institutions, and politics</td>
<td>Who governs transportation and land use, and what are the politics of TLU?</td>
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<td><strong>Part 2: Urban form, economics, and travel behavior</strong></td>
<td>4</td>
<td>History and an economic/geography framing</td>
<td>Theories of transportation-land use connection</td>
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<td>5</td>
<td>Travel demand, behavior, mode choice</td>
<td>How do people make decisions about when, why, where, and how to travel?</td>
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<td>6</td>
<td>Trip generation, trip distribution, transportation system capacity</td>
<td>Linking land use to traffic</td>
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<td>7</td>
<td>Regional travel demand modeling and travel survey data</td>
<td>Using a systems perspective to measure and predict travel, assess policy</td>
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<td><strong>Part 3: Designing policies and making plans to influence travel, resource consumption, and equity</strong></td>
<td>8</td>
<td>Using policy to influence travel and social goals</td>
<td>Is it possible and what works?</td>
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<td>9</td>
<td>NO CLASS – SPRING BREAK</td>
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<td>10</td>
<td>Urban form and design interventions</td>
<td>Limits and potential of environmental influence</td>
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<td>11</td>
<td>Transit-oriented development and neighborhood planning</td>
<td>Limits and potential of neighborhood and transit planning</td>
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<td>12</td>
<td>Parking as a TLU issue</td>
<td>The power of pricing</td>
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<td></td>
<td>13</td>
<td>Accessibility, jobs, and equity</td>
<td>The power and goodness of auto transport</td>
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<tr>
<td><strong>Part 4: Final presentations</strong></td>
<td>14</td>
<td>Presentations</td>
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<td></td>
<td>15</td>
<td>Presentations</td>
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Course Format, Requirements, and Expectations

Class meetings will include discussion of readings and assignments, occasional in-class exercises, and occasional guest speakers. Students are required to come to class having prepared the readings and any assignments, which are detailed below.

Participation is a key ingredient for a successful class. Participation should be professional at all times. Our class sessions are equivalent to a professional meeting. This means that each student should attend every class, arrive on time, be prepared to engage the topic and other members of the class, have agency within the group, respect fellow members of the class, and use professional and inclusive language.

Most students will be more expert in certain areas than in others because of disciplinary backgrounds and prior experience, but everyone has a lot to learn from one another. Students should prepare to share both their questions and their knowledge with the class to facilitate peer instruction. Additional readings, meetings with subject-matter experts, or meetings with the instructor during office hours may also help students become more proficient in topics outside of their home discipline.

Students are expected to integrate information from lectures, readings, discussions, and exercises into their assignments. Some class time may be spent discussing assignments.

Communication

Unless otherwise noted, we will use Canvas for all official course communication and it is the responsibility of each student to use Canvas settings that enable reliable communication. For example, this may mean selecting a personal e-mail address as the default in Canvas. Canvas may be used for making course announcements, changing the schedule, returning graded assignments, personal communication, or other course-related business.

Learning Objectives

After completing this course, students will understand major debates, issues, and theories in contemporary land use-transportation planning and policy. Students will also have practical knowledge and experience applying these ideas to real transportation and land use concerns.

Per the Planning Accreditation Board’s educational outcomes criteria, the course has the following learning objectives:

1. Human settlements and history of planning: understanding the growth and development of places over time and across space.

2. Quantitative and qualitative methods: data collection, analysis and modeling tools for forecasting, policy analysis, and design of projects, policies, and plans. Each student will learn about state of practice of transportation and land use methodologies through
readings, discussion, and guest speakers, and will have the opportunity to apply some of these methods in class assignments.

3. Governance and participation: appreciation of the roles of officials, stakeholders, and community members in planned change.

4. Growth and development: Appreciation of economic, social, and cultural factors in urban and regional growth and change. Transportation and land use relationships are a fundamental part of urban growth and change, and they are deeply connected to the everyday lives of people, and the quality of life in neighborhoods.

**Grading Policy**

Grades will be based on the following:

<table>
<thead>
<tr>
<th>Date Due</th>
<th>Assignment</th>
<th>Points</th>
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<tbody>
<tr>
<td>Each class</td>
<td>Attendance and participation</td>
<td>28</td>
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<td>One time</td>
<td>Facilitate discussion</td>
<td>22</td>
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<td></td>
<td>Big drama: governance memo</td>
<td>25</td>
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<td></td>
<td>Travel diary completion and analysis</td>
<td>50</td>
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<tr>
<td></td>
<td>Active travel SWOT analysis</td>
<td>75</td>
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<td><strong>Total</strong></td>
<td><strong>200</strong></td>
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Final grades will be based on the total number of points earned:

200-180 points = A/A-
160-180 points = B-/B/B+
140-160 points = C-/C/C+
≤ 140 points = D or below

All assignments, unless otherwise noted, must be submitted in PDF format on Canvas by 14:00 on the due date. Please compile multiple pieces of an assignment into a single PDF. Each student should be familiar with Canvas’s assignment submission procedures.

Grading will be based primarily on the quality and depth of the work presented, but organization, composition, and presentation (editing, spell checking) will also be taken into account. For group assignments, the grade will also reflect the number of persons working on the project (i.e., a team of three will be expected to produce a commensurately more detailed and sophisticated analysis than that produced by a team of two).

Students are expected to turn in both graded and ungraded assignments on time (see schedule). Out of respect and fairness for all members of the class, extensions will be granted
only in the case of an actual emergency. Late assignments (those for which an extension has not been granted) lose up to five points per day.

**Academic Honesty**

Education at the University of Colorado Denver and in the College of Architecture and Planning (CAP) depends on honesty and integrity, as well as appropriate conduct. CAP students are required to follow the Student Code of Conduct and the Honor Code. Please refer to the following link for details.


All University and College policy, as well as common sense, regarding academic honesty applies in this course. Plagiarism and cheating are not tolerated and will be handled through the University’s official process. When working in a group, it is the responsibility of everyone in the group to maintain the norms of academic integrity.

Students may do joint work with other courses only with the permission of all instructors and when the work is suitable for the topic and the course.

**Accommodations**

Any student who needs or may need accommodations due to a disability should speak with the instructors as soon as possible, and should also contact the Disability Resources and Services Office on campus to arrange accommodations.

http://www.ucdenver.edu/student-services/resources/disability-resources-services/accommodations/Pages/accommodations.aspx

**2. Assignments**

**Assignment 1: Participation**

**Due: At each class meeting**

The objective of this assignment, which is ongoing throughout the semester, is to use the time in class to practice thinking and working collectively. Working as a collective is a critical skill, and practice helps to develop this skill.

Participation should be professional at all times. Our class sessions are equivalent to a professional meeting. This means that each student should attend every class session, arrive on time, be prepared to engage the topic and other members of the class, have agency within the group, respect fellow members of the class, and use professional and inclusive language.
Students should bring copies of each week’s readings and their notes from the readings to class.

Student grades for participation are based on three elements:

(1) Attendance;
(2) Active participation (see description); and
(3) Leading discussion (see description).

Elements of active participation:


• Preparation: Demonstrate being prepared for seminar by taking notes, bringing notes and copies of the readings to class, researching unfamiliar or interesting topics found in the readings, and setting an intention for the meeting.
• Engagement: Actively engage with other members of the class in respectful and inclusive discussion.
• Initiative: Ask questions during discussion that focus, clarify, and summarize what the group is talking about.
• Response: Respond to questions and discussion points in ways that build knowledge and comprehension, and that apply ideas from the readings.
• Discussion: Active participation extends the discussion with peers and reflects higher order thinking skills (analysis, synthesis, etc.).

Elements of seminar facilitation:


• Facilitation Skills: Facilitators ask questions and use strategies that draw out knowledge of theory/experience; facilitators are knowledgeable and offer correction and guidance when necessary.
• Organization: Seminar is structured in a clear and logical sequence.
• Originality: Visual and written aids are interesting, innovative/creative and helpful.
• Engagement: Facilitators generate a high degree of student interest; respectful and inclusive; all students encouraged to participate.
• Discussion: Discussion is focused, relevant and engaging; theory (readings) related to experience; applications and implications clear and accurate.

Consider using structured facilitation techniques, such as: http://tep.uoregon.edu/services/newsletter/year95-96/issue30/nominal.html or
Assignment 2: Big drama: Transportation and land use governance memo

Due:

What is at stake in transportation and land use planning? Why is it a controversial topic, and why does it have a reputation for being difficult to coordinate in practice? The purpose of this memo is to become familiar with concrete examples of transportation and land use debates so that our discussions of theory (governance, economics) are more grounded.

First, each student will identify a contemporary or historical land use-transportation “big drama” in the Denver region. By drama, I mean a controversial, politically-important issue. Information about these dramas can be found in the popular press, through informational interviews with planners and other professionals, meeting minutes, etc. They often involve revenue (e.g., taxes), land development, spillover effects, and multiple levels of policy or government.

Each student will prepare a brief memo (no more than two pages in length, single spaced) to the class that discusses the “big drama,” and each student will have about five minutes in class to present the case.
The memo should address the following questions: (1) What is the big drama here? What happened? What is at stake? (2) What are the transportation and land use implications of the big drama? (3) and What are the techniques, tools, and institutions (and limitations of these techniques, tools and institutions) available to planners and policy makers to deal with the issue at hand. Cite all sources.

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<tr>
<th>Grading Rubric: Big drama memo</th>
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<tr>
<td><strong>Excellent</strong></td>
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<td>Clear and organized composition, and well written</td>
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<td>Presents a precise, coherent, and thoughtful analysis grounded in concrete examples and details</td>
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**Assignment 3: Travel diary data and analysis**

This assignment has two parts. In the first part, each student completes a household travel diary for five days during the week of February 17 (the data collection template will be handed out prior to this). The data from each student’s weekly activities and travel are due on February 24. The instructor will compile the data that each student collects, and will return the compiled data to the class by February 25th.

Then, each student will complete an analysis of their own household travel behavior, as well as the behavior of the class as a whole, based on the compiled data set. The assignment will be passed out on February 25th, and it is due on March 10th.

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<th>Grading Rubric: Travel diary data and analysis</th>
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<tr>
<td><strong>Excellent</strong></td>
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<td>Travel diary data collection</td>
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Assignment 4: Active travel SWOT analysis

Non-profit hospitals are required to invest in “community benefit” activities to qualify for their non-profit status. Kaiser Permanente Community Benefit (KPCB Colorado) is investing in environmental and policy change to increase physical activity, particularly among disadvantaged groups, through its Walk and Wheel program. The Walk and Wheel program supports interventions to increase walking and bicycling at workplaces and in communities.

http://share.kaiserpermanente.org/category/about-community-benefit/

To support the evaluation of the Walk and Wheel program, each student will select a local government that has received a Walk and Wheel grant (information will be provided in class), and conduct a SWOT analysis of its initiative to increase walking and bicycling. A SWOT analysis systematically considers the Strengths, Weaknesses, Opportunities, and Threats associated with an initiative. http://en.wikipedia.org/wiki/SWOT_analysis.

For this assignment, the SWOT analysis should analyze how walking and bicycling outcomes may be influenced by:

- Current and future populations;
- Current travel patterns;
- Land use patterns;
- Policy environments; and
- Economic change in the jurisdiction.

The first part of the memo should use census tract and block group-level data from the American Community Survey summary files to characterize the populations (e.g., population by age, sex, workforce participation, race/ethnicity, income, etc) and travel characteristics (e.g., vehicle ownership, commute time, commute mode) in each jurisdiction. These data can be downloaded from the Census FTP site: http://www2.census.gov/. We will discuss how to access the data during class. For ideas about how to create a descriptive analysis with these data, please review this document and use it as a model for your own work: http://onlinepubs.trb.org/onlinepubs/nchrp/ciaii.pdf. Your memo should not be as long as this example, do not replicate it. Use it as a guide only. You may use GIS.
For information about land use, policy environments, and economic change in the jurisdiction, the analysis should collect data from existing documents. If you would like to conduct fieldwork in the study area, that is permitted, but not required.

After describing the environment in which the initiative is taking place, the second part of the memo should interpret these data using the SWOT framework, asking how the existing transportation, land use, and economic context provides strengths, weaknesses, opportunities, and threats to increasing walking and bicycling. This part of the memo should draw upon readings discussed in class as well as other literature to support the interpretation.

The entire memo should not exceed 6,000 words excluding the abstract, references, tables, and figures. It should include an abstract, introduction, a discussion of methods and data, findings, and discussion (the interpretation section).

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<th>Grading Rubric: Active travel SWOT analysis</th>
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3. Course Schedule and Readings

WEEK 1. Critical issues and debates in transportation and land use


Optional readings:

**WEEK 2. Contemporary practices in transportation and land use planning and policy**


Optional readings:
7. Sacramento Area Council of Governments (SACOG). No date. “Metropolitan Transportation Plan/Sustainable Communities Strategy.”

WEEK 3. Transportation and land use governance: Actors, institutions, and politics


Optional readings:


WEEK 4. History and classical economic/geography theory of TLU connection


Optional readings:


WEEK 5. Travel demand, behavior, and mode choice


Optional readings:


**WEEK 6. Trip generation, trip distribution, and system capacity**


**WEEK 7. Transportation and land use modeling and survey data**


Optional readings:

5. Look at all of the documentation and training about Denver’s Focus Model at: http://www.drcog.org/index.cfm?page=FocusTechnicalResources


WEEK 8. Using policy, planning, and design to influence travel and achieve social goals


WEEK 9. March 24: NO CLASS—SPRING BREAK

WEEK 10. Urban form and design


Optional readings:


WEEK 11. Transit-oriented development and neighborhood design


Optional readings:

**WEEK 12. Parking**


Optional readings:


**WEEK 13. Accessibility, jobs, and equity**


**WEEK 14. Presentations in class**

**WEEK 15. Presentations in class**