**DESCRIPTION**

There is momentum for developing rail transit corridors across U.S. metropolitan regions, but little data on how these corridor projects succeed despite long-standing fiscal, political, and sociocultural barriers for transit development in the car-centric U.S. As part of her ongoing book project on rail transit revival in the U.S., Professor Yingling Fan has traveled to major cities and met with rail transit development leaders throughout the country. This course will share lessons learned from her field trips and expert interviews. Course lectures will place the story of how rail infrastructure projects have been built in contemporary U.S. cities in the contexts of history as well as the current international state of the art in rail transit. We will explore how existing and proposed corridors have shaped—and continue to shape—the physical landscape and social fabric of neighborhoods, cities, and regions through a mix of lectures, labs, class debates, panel discussion and group presentations.

Students will also be introduced to unique case studies of rail transit development in the U.S. You will learn about issues such as the large unmet demand for cross-town transit in the San Francisco Bay Area and how transit fragmentation in the Bay Area region hurts ridership, despite the unique, supermetropolitan BART system. Looking to the sprawling Sunbelt, we will explore how Dallas pioneered the use of abandoned railways for transit development and urban regeneration. As an example of the interaction between transit and urban governance, we will consider how Detroit and New York City initiated rail transit corridor projects largely on land development promises and without transit agencies playing a primary role—in essence, “development-oriented transit.”

Through these case studies, students will be challenged to think critically about the opportunities and challenges associated with rail transit development in U.S. cities. Students will be asked to identify practical solutions on how to capitalize on emerging rail transit investments and maximize the positive impacts of the investments—i.e., get more bang for the buck. By the end of the course, students will be able to comprehend:

- The history of rail transit and its relationship to urban form in the U.S. and abroad;
- Multiple perspectives on the changing role of urban rail transit;
- The diversity of transit technologies comprising rail transit, as well as their service characteristics;
- The current state of practice in U.S. rail transit development; and
- The relevance of rail transit to 21st Century cities.
LEARNING ACTIVITIES AND CLASS PARTICIPATION

The course involves a variety of learning activities. There will be two debates and four student-led panel discussions. For each debate, students will prepare a brief debate outline on one side of the issue under consideration, and will use the class period both to support their own arguments as strongly as possible and meaningfully engage with the opposing side’s. For each panel discussion, the assigned group will be student leaders. The student leaders will conduct a literature search, prepare materials in advance for the discussion, and report on the materials in an introductory presentation. The presentation should conclude with a list of questions and issues for discussion. The student leaders will then lead the discussion in a manner that maximizes participation of EVERY student in the class.

Research shows that students learn most when they are active participants in the learning process. Be ready to participate in semi-formal policy debates, leading panel discussions and practical lab exercises, as well as to present your final paper to the class. The goal of these strategies is to facilitate your learning through engagement.

READINGS

There is no required textbook for this course. All required readings will be provided and prepared by the instructor. The readings will be downloadable from the following Moodle course website: https://ay17.moodle.umn.edu/course/view.php?id=3004.

Background readings for student-led discussion will be provided by your fellow classmates. Readings are critical to success in this course and it will be important to keep up to date. Assigned readings for classes are expected to be done in advance of the class. Students are welcome to participate in the discussion. To do this intelligently requires familiarity with the readings.

COURSE REQUIREMENTS AND GRADING

Students will conduct both individual and group assignments. All assignments will be posted and due at the Moodle site. For late assignments, the penalty is 20% of the assignment grade per day (ranging from 1 minute to 24 hours). For group assignments, all members are responsible for the late assignment.

Grades will be based on the following:

- Student Debate Outlines & Performance (individual) 15%
- Midterm Paper (individual) 30%
- Student-Led Panel Discussion (group) 15%
- Term Paper & Presentation (group) 30%
- Participation (individual) 10%

The instructors will oversee group activities. If you barely contribute to group activities, you may be kicked out of the group and work on your own. In addition, you will be asked to evaluate your team members and submit the evaluations at Moodle on November 27. Your participation score will be
affected if you fail to submit the evaluation on time.

Attendance is required. You will get a **2-point penalty per class absence** (except for legitimate, documented excuses such as doctor’s notes). You will get 60% of participation scores by meeting the attendance requirement. The remaining score depends on your participation in course activities.

**All assignments are due at Moodle at 1 pm on the dates below:**

- Debate outlines: Sep 27 & Oct 4
- Midterm paper: Oct 18
- Slides for panel discussion: Nov 1, 8, 15, or 22 dependent upon your group number
- Term paper: Dec 18

**SCHEDULE**

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<td>Introduction: US transit at crossroads – Yingling</td>
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<td>U.S. historical context: Horsecars to peak – Andy</td>
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<td>International context: Postwar Europe taking a different path – Andy</td>
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<td>International context: Asian metropolis embracing rail transit – Yingling</td>
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<td>Rail transit's multimodal future – Yingling</td>
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<td>W 27-Sep</td>
<td>Student debate: Will driverless vehicles kill or reinvent rail transit?</td>
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<td>M 2-Oct</td>
<td>Field trip touring the loop: Green Line, Blue Line, and A-Line</td>
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<td>W 4-Oct</td>
<td>Student debate: BRT or LRT?</td>
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<td>Lab: Intro to National Transit Database &amp; GTFS-derived GIS data – Andy</td>
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<td>Dallas—Even light rail’s bigger in Texas – Yingling</td>
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<td>Denver—Which line next? All of them. – Yingling</td>
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<td>San Francisco—Wait, you have how many transit agencies? – Yingling</td>
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<td>New York—Subway city – Yingling</td>
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<td>Instructor-led panel discussion</td>
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<td>Los Angeles—The Death and Life of a Great American Rail System - Yingling</td>
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<td>W 1-Nov</td>
<td>Student-led panel discussion</td>
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<td>Seattle—Necessity is the mother of invention - Yingling</td>
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<td>M 13-Nov</td>
<td>Washington, D.C.—The maximalist approach – Andy</td>
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ASSIGNED READINGS

Part I: Background and Contexts

9/6  Introduction: US transit at crossroads
   • Fan, Yingling (2016). The Future of U.S. Transit is in Regional Place-Making (Part I)
   • Fan, Yingling (2016). THE FUTURE OF U.S. TRANSIT (PART II): Historical and
     Contemporary Development-Oriented Transit
   • Laura Bliss. (2017). What's Behind Declining Transit Ridership Nationwide?

9/11  U.S. historical context: Horsecars to Peak
   • Xie, F., & Levinson, D. (2010). How streetcars shaped suburbanization: a Granger causality analysis of
   • Optional:
     Cambridge: Harvard University Press.
     Diers, J. W., & Isaacs, A. (2007). Twin Cities by trolley: The streetcar era in Minneapolis and

9/13  U.S. historical context: Decline, restructuring and resurgence
   • Culver, Gregg. "Mobility and the making of the neoliberal “creative city”: The streetcar as a

9/18  International context: Postwar Europe taking a different path


9/20  International context: Asian metropolis embracing rail transit


9/25  Rail transit's multimodal future


9/27  Student debate: Will driverless vehicles kill or reinvent rail transit?


10/2  Field trip touring the loop: Green Line, Blue Line, and A-Line

• No readings!

10/4  Student debate: BRT or LRT?


10/9 Lab: Introduction to the National Transit Database & GTFS-derived GIS data


**Part II: Case Studies**

10/11 Dallas—Even light rail’s bigger in Texas


10/16 Denver—Which line next? All of them.


10/18 San Francisco—Wait, you have how many transit agencies?


• Amin, Ratna. *Seamless Transit: How to make Bay Area public transit function like one rational, easy-to-use system*. (2015)


10/23 New York—Subway city


10/25 Instructor-led panel discussion

• No readings!
10/30 Los Angeles—The Death and Life of a Great American Rail System

11/1 Student-led panel discussion
   • Readings to be assigned by Group 1.

11/6 Seattle—Necessity is the mother of invention

11/8 Student-led panel discussion
   • Readings to be assigned by Group 2.

11/13 Washington, D.C.—The maximalist approach

11/15 Student-led panel discussion
   • Readings to be assigned by Group 3.

11/20 Atlanta—Successes and frustrations from white flight to gentrification

11/25 Student-led panel discussion
   • Readings to be assigned by Group 4.

11/27 Twin Cities—Bringing it all back home

11/29  Transit governance in the Twin Cities and beyond (guest lecture)
• Fan, Yingling. Transit Governance, Long-Range Planning, and Ballot Measures (2016)

12/4  Transit-oriented development in the Twin Cities and beyond (guest lecture)
• Fan, Yingling. Beyond TOD: The Emerging Concepts of Transit Oriented Districts and Communities in California. (2016)

12/6  Instructor-led panel discussion
• No readings!

12/11  Term paper Presentations (Los Angeles & Seattle)

12/13  Term paper Presentations (Washington DC & Atlanta)