

San José State University
Lucas Graduate School of Business
Master of Science in Transportation Management
MTM 245: High-Speed and Intercity Rail: Planning and Design
Fall-A 2019

Course and Instructor Contact Information

Instructor:	Eric Eidlin
Office Location:	Contact instructor
Telephone:	415.373.8629
Email:	eric.eidlin@sjsu.edu
Office Hours:	By appointment
Class Day/Time:	Tuesdays, 5:30 – 9:30 pm, July 30-October 1
Classroom:	Online (Zoom) or specified video-conferencing locations (For locations, contact MSTM Coordinator Michelle Waldron)=
Credit units:	3
Grading	Normal grade rules
Course website:	Canvas (http://sjsu.instructure.com)

Course Format

Students must have regular access to email and the internet in order to communicate with the instructor, submit assignments, and engage in other class activities.

Students attend class sessions by going in person to one of the MTM program videoconferencing sites *or* by joining online using Zoom, SJSU's online meeting application. Details on each option are as follows:

MTM Class Videoconferencing Sites:

Videoconference sites are located at the Lucas Business Complex (Santa Clara, CA), Caltrans district offices, and other participating agencies. For information about these options, contact the MSTM Program Coordinator, Michelle Waldron, at michelle.waldron@sjsu.edu.

Online Access via Zoom:

You can join class using SJSU Zoom from any location, as long as you:

- Are in a quiet room without distractions (e.g., no family members or colleagues walking through or asking questions)

- Have stable internet access
- Use a video camera and good quality microphone so that you are seen as well as heard
- Follow good "meeting etiquette" principles (one such list: <https://blog.gotomeeting.com/7-rules-virtual-meeting-etiquette-every-professional-know/>)

To access class sessions by Zoom, click on the following link from your computer or tablet:

<https://sjsu.zoom.us/j/927115517>

Plan to join at least ten minutes before 5:30 pm, to make sure you are ready when class begins. (The very first time you join from a computer or device, allow extra time for set-up.)

The university has many useful tutorials on how to use Zoom here: <http://www.sjsu.edu/ecampus/teaching-tools/zoom/index.html>

Course Description

This course will introduce students to fundamental principles of high-speed and intercity rail planning and design. It will take an international perspective, seeking to draw general lessons from around the globe for application in the U.S. context. The course will take a critical and analytical approach to the successes and challenges of planning and operating intercity rail service in the U.S. given prevailing travel behavior, land use patterns, and available funding sources.

The course will pay particular attention to the California High-Speed Rail Project (CHSRP) as a case study. The CHSRP, despite its merits and promise to transform travel behavior and land use patterns, has struggled in its planning and implementation. The course will seek to uncover the key reasons for this and suggest how the project might be put on more solid footing as the backbone of a modernized statewide rail system as envisioned in the [2018 California State Rail Plan](#). The class will focus on several questions and issues, including:

- Worldwide, in which contexts have HSR and intercity rail been most successful and why?
- Key concepts relating to HSR, intercity rail, and urban development
- The interrelationship of HSR to conventional intercity rail and urban public transportation
- The roles of different levels of government in the development of HSR and intercity rail globally
- Different approaches to the delivery and governance of rail corridors and stations

MSTM Program Goals:

(Note: Not all program learning goals are covered in every course)

Goal One: Management of Transportation Organizations: Develop a systems-savvy and global perspective on solving transportation management challenges

Goal Two: Transportation Policy: Develop solutions to transportation management challenges that integrate knowledge of the transportation policy environment

Goal Three: Leadership: Develop potential for leadership in transportation organizations

Goal Four: Communication Skills: Communicate effectively with a diverse workforce and citizenry

Goal Five: Analytical Skills: Identify and evaluate transportation management issues using appropriate methodological approaches

Course Learning Outcomes

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

1. Address the impacts of HSR on the operation of existing intercity rail and freight services.
2. Evaluate case studies of HSR projects worldwide that are currently being developed, such as:
 - a. California High-Speed Rail Project
 - b. Texas High-Speed Rail Project
 - c. Midwest High-Speed Rail Project
 - d. Pacific Northwest High-Speed Rail Project
 - e. International Projects: Spain, France, Italy, Germany, UK, Japan, China
3. Describe the key institutional, legislative, and funding mechanisms that have instrumental in the development of high-speed rail systems worldwide.
4. Explain the appropriate role of different levels of government (local, regional, state, federal), as well as the private sector, in HSR in California.
5. Explain the difference between accessibility and mobility as goals of transportation planning
6. Describe the relationships between transportation, land use and urban form.
7. Describe the critical components of managing public transportation organizations.
8. Gather quantitative data and use that as evidence in a presentation or report.
9. Present both sides of a policy argument and balance competing interests in coming up with a recommended approach.
10. Describe the potential of a high-speed rail system to shape or impact development and the barriers to achieving it.

Required Texts/Readings

Textbook

Blas Luis Pérez Henríquez and Elizabeth Deakin eds. (2018). *High-Speed Rail and Sustainability: Decision-Making and The Political Economy of Investment*. New York: Routledge. ISBN-13: 978-1138891975. You may purchase this book or access it for free via the SJSU library via the [following link](#).

Other Readings

Other readings will be available via weblinks on a Dropbox folder set up for this class.

Other technology requirements / equipment / material

Students will be able to join the class remotely via Zoom. (See instructions above)

Citation Style

It is important to properly cite any references you use in your assignments. For this class, use Kate Turabian's *A Manual for Writers of Research Papers, Theses, and Dissertations*, 9th edition. Turabian's book describes two systems for referencing materials: (1) "notes" (footnotes or endnotes), plus a corresponding bibliography, and (2) in-text parenthetical references, plus a corresponding reference list. In this class, students must use endnotes and a bibliography.

Library Liaison

The Library Liaison for the Lucas Graduate School of Business is Christa Bailey (christa.bailey@sjsu.edu).

Course Requirements and Assignments

In addition to the general guidance provided below, I will provide specific guidance on individual assignments over the course of the semester.

Weekly readings and class participation

You will be required to complete weekly readings, submit weekly reading responses with questions relating to the readings, and participate in class discussion. The class size facilitates significant conversation and discussion of the topics in the readings and how they relate to examples in the past Bay Area and statewide. Your weekly reading responses should address the following:

- What are the key takeaway points from the reading?
- What interesting or relevant news articles did you find on this topic?
- At the end of your reading response, please also formulate two or three questions for class discussion based on the reading.

Reading responses are due by 11:59pm on the evening before class.

Students will be assigned a pass/fail grade based on their participation in class. A passing grade means that a student regularly contributes to class discussion and submits thoughtful questions each week that demonstrate an understanding of assigned readings.

Assignment 1: Before and After Student Position Papers (pass/fail):

Each student will write a one-page position paper on California High Speed Rail at the start of the class, and another at the end of the class. You can support or oppose the project, or you can simply suggest what you think the implications of the project might be for the future of California. These papers should be carefully written, but they will be graded pass/fail. The point of this exercise is to assess whether the course affects your thinking about this important project and the ongoing policy debate that surrounds it. The “before” paper, must be turned in by 11:59pm on August 6, the evening before the second class, via Canvas. The “after” paper is due on 11:59pm on October 1, the eve of the last class.

Assignment 2: Track A Project or Part of The High-Speed Rail Process and Attend a Public Meeting

Each student will track a specific project or portion of the high-speed rail project over the course of the semester. The purpose is to gain a deeper understanding of California’s present-day urban and regional planning opportunities and challenges and to understand the complexities and tradeoffs involved in a planning process. If possible, the project should be related to the group project that you will be working on throughout the semester. Some suggested projects to track include: the planning around Diridon Station in San Jose, the extension of BART to San Jose, the Pacheco Pass Tunnel, the extension of Caltrain to Transbay Terminal (DTX), the Caltrain Corridor Business Plan, decisions on where to site stations in Gilroy or Bakersfield, or other portions of the high-speed rail system. A meeting of the California High-Speed Rail Authority would also suffice. All students must attend at least one public meeting related to the project as part of this assignment.

To complete the assignment, each student will attend the public meeting, take notes and then share two observations, a lesson and question back to the class orally. This should be a 5-7 minute presentation without slides. Your observations might include:

- Who convened the meeting and for what purpose?

- Who attended the meeting (both public officials and agency staff as well as members of the public). What were their roles or perspectives? Who do they represent, if anyone other than themselves?
- What are key tensions and public choices and tradeoffs that were discussed in the meeting?
- Were there any public choices and tradeoffs that were not discussed?
- What was the role of this group, the broader public, the private sector, and elected and appointed officials in making decisions about these choices and tradeoffs?
- What observations do you have about the quality of the information, discussion and outcomes of the meeting?

Early in the semester, you will meet with the instructor to discuss what element of the CHSR project that you will choose to focus on. You will make an ultimate decision by the beginning of Class 3 on August 13.

Final Assignment: Prepare and Present a Professional Memo

Propose and submit a memo, 2,500-3,000 words (eight to ten pages) in length, in which you argue a position, likely on the project tracked in Assignment 3, but not necessarily so.

You can write this memo from a variety of possible vantage points, including, but not limited to, the following:

- An employee of a public agency who is preparing a memo for a board or city council to argue the pros and cons of various alternatives being considered for HSR infrastructure elements.
- An employee of a public agency who is preparing an informational memo to inform a board or city council about various implementation tools that could be used to fund HSR-related infrastructure elements.
- An employee of a think tank or advocacy organization who is commenting on HSR-related project alternatives being considered.

While the purpose of this memo will largely be informational, it should include recommendations at the end that makes recommendations on a specific course of action that a public agency should pursue on the HSR-related project that you select.

Very important: You should ensure that your topic is defined narrowly enough in order to be able to be discussed in an 8-10-page document. Additionally, it is essential that the conclusions that you draw in your document be supported by information that can be deemed reliable and authoritative. Specifically, this means that your memo should present information that is quantitative or qualitative, historical or analytical, drawn from newspapers or mathematical models, or that presents the opinions of experts or public officials. The conclusions that you draw in your memo must be supported by these sources of information. You should not state your personal opinion in this document.

This memo will be due by 11:59pm on Friday after the last class, October 4. In addition, you will give an overview of your memo, no longer than 10 minutes in length, during the final class on October 1.

Final Examination or Evaluation

During the last class session, you will present your Final Assignment, the professional memo. More details on this final assignment will be provided separately.

Grading Information

Detailed information on grading will be provided in separate handouts describing the grading for individual assignments.

Penalty (if any) for late or missed work not completed by the due date will be a third of a grade for each three days. For example, if a paper is submitted 1-3 days after the due date and earns a grade of A, the final grade after the penalty will be an A-.

More guidelines on grading information and class attendance can be found from the following two university policies:

- [University Syllabus Policy S16-9](http://www.sjsu.edu/senate/docs/S16-9.pdf) (http://www.sjsu.edu/senate/docs/S16-9.pdf)
- [University policy F15-12](http://www.sjsu.edu/senate/docs/F15-12.pdf) (http://www.sjsu.edu/senate/docs/F15-12.pdf)
- [University Grading System Policy F18-5](#)

Task	% of Course Grade	Learning Objectives Addressed
Assignment 4: Memo	40%	LOs 1-10
Presentation of memo	10%	LOs 9,10
In-class participation	25%	LOs 1-7,9,10
Reading responses	25%	LOs 1-7,9,10
Total	100%	

Sample Letter grade calculation. Please change it as required.

Percentage	Grade
94% and above	A
93% to 90%	A-
89% to 87%	B+
86% to 84%	B
83% to 80%	B-
79% to 77%	C+
76% to 73%	C
72% to 70%	C-
69% to 67%	D+
66% to 63%	D
62% to 60%	D-
below 60%	F

Classroom Protocol for the Lucas College Graduate School of Business

<http://www.sjsu.edu/cob/Students/policies/index.html>

University Policies

Per [University Policy S16-9](http://www.sjsu.edu/senate/docs/S16-9.pdf) (http://www.sjsu.edu/senate/docs/S16-9.pdf), information relevant to all courses, such as academic integrity, accommodations, dropping and adding, consent for recording of class, etc. is

available on Office of Graduate and Undergraduate Programs' [Syllabus Information web page](http://www.sjsu.edu/gup/syllabusinfo/) at <http://www.sjsu.edu/gup/syllabusinfo/>". Make sure to visit this page, review, and be familiar with these university policies and resources.

Lucas College and Graduate School of Business Mission

We are the institution of opportunity in Silicon Valley, educating future leaders through experiential learning and character development in a global business community and by conducting research that contributes to business theory, practice and education.

Course Schedule

Note: This schedule is subject to change with fair notice. I may need to rearrange the order of some classes in order to accommodate the schedules of guest speakers. When changes to the weekly schedule occur, I will give you as much advance notice as possible, but at least one week’s advance notice.

Date	Class Activities, Readings, & Assignments
7/30	<p><i>Week 1: Introduction to Class</i></p> <p>Agenda</p> <ul style="list-style-type: none"> • Introductions by students (students introduce themselves, explain what they hope to learn from the class) • Overview of syllabus • Introduction to CA High Speed Rail and to Student Responsibilities <p>Required Reading (in advance of class)</p> <ul style="list-style-type: none"> • Executive Summary of Eric Eidlin, Making the Most of High-Speed Rail in California: Lessons from France and Germany, June 11, 2015. <p>Optional Materials:</p> <ul style="list-style-type: none"> • If you are new to the topic of High Speed Rail, you might enjoy and benefit from watching an informative and easy-to-watch series that appeared in 1982 on the PBS television network entitled “Tracking the Supertrains,” A six-part series that is remarkably “current” given when it was made. See here. • A nice comparison of views on California High Speed Rail was presented in ACCESS magazine in 1994 - Peter Hall was a strong proponent of the California HSR system and Adib Kanifani was a skeptic. See: Hall’s “Time for Rail Again” and Kanafani’s “No Rush to Catch the Train” <p><i>Guest speaker: Ben Tripousis, Former Northern California Regional Director, CAHSR (currently Vice President HNTB)</i></p>
8/6	<p><i>Week 2: What is high-speed rail and how are we planning for it in California?</i></p> <p>Agenda</p> <ul style="list-style-type: none"> • Presentation by instructor: “Why High-Speed Rail and Who is it for?” • Discussion of readings <p>Required Readings:</p> <ul style="list-style-type: none"> • Chapter 1 of textbook: Background on high-speed rail (Deakin) • Chapter 12 of textbook: Background on high-speed rail in California (Deakin) • Review the Web Site of the California HSR Authority, taking note of its Board membership, and its recent news releases. See: http://www.hsr.ca.gov/. Sign up for news updates.

8/13	<p><i>Week 3: Development of HSR Systems Worldwide</i></p> <p>Agenda</p> <ul style="list-style-type: none"> • Development of HSR systems worldwide (what were factors?) • Role of different levels of government in funding and implementing those projects • Relevance for the U.S. • Students will select and summarize one of the chapters below, address the issues above <p>Readings</p> <p>Textbook chapters on development of HSR worldwide:</p> <ul style="list-style-type: none"> • Chapter 2: “Realising the potential of HSR: the United Kingdom experience” (David Banister and Moshe Givoni) • Chapter 3: “The Shinkansen and its impacts” (Yoshitsugu Hayashi, Aoto Mimuro, Ji Han and Hirokazu Kato) • Chapter 4: “Where high-speed rail is relevant: the French case study” (Yves Crozet) • Chapter 5: “Evidence from the Italian high-speed rail market: competition between modes and between HSR operators” (Ennio Casceta and Pierluigi Copola) • Chapter 6 “High-speed rail in Spain: territorial management and sustainable urban development” (José M. de Ureña, Manuel Benegas and Inmaculada Mohíno) • Chapter 7 “High-speed rail and air travel complementarity: the case of Germany” (Werner Rothengatter) • Additionally, please read SPUR’s Seamless Transit report as background information that will be relevant for many classes throughout the semester (Amin, Barz) <p><i>Guest speaker: Martin Brinkhuis, Project Manager for the Diridon Integrated Station Concept Plan, Arcadis Netherlands (formerly of the Dutch National Railways)</i></p>
8/20	<p><i>Week 4: Efforts to Modernize Rail in Across Cities and Regions in California</i></p> <p>Agenda</p> <ul style="list-style-type: none"> • Initial reading on the California High-Speed Rail Project • Efforts to provide more robust and integrated rail service across cities, regions and megaregions <p>Readings</p> <ol style="list-style-type: none"> 1. Blog post by Laura Tolkoff on SPUR’s Megaregional Rail Strategy: “Giving Old Infrastructure New Life” 2. California HSR Project Update, pages 1-11 3. Caltrain Business Plan <ul style="list-style-type: none"> • Please read Summary Memo on service vision • Please also skim related presentation 4. Capitol Corridor Vision Plan <ul style="list-style-type: none"> • Read pages 3-21 of Capitol Corridor Vision Plan (you can skim this if you are shorter on time, but good to read in full) <p><i>Guest speaker: Lora Tolkoff, Regional Planning Policy Director, SPUR</i></p>

8/27

Week 5: Development of other large infrastructure programs in the U.S. + Megaprojects and Risk

Agenda

While the California HSR project is unique in some respects, many of the issues and challenges that it faces are typical of large transportation megaprojects. In this week's class, we will discuss some key readings from the large body of literature on this topic. We will also welcome [Dr. Marty Wachs](#) to our class, one of the leading transportation academics in the U.S. for several decades. Dr. Wachs' presentation to the class can be [downloaded here](#).

Required Readings

- Bent Flyvbjerg: [What You Should Know about Megaprojects and Why: An Overview](#)
- Bent Flyvbjerg: [Megaprojects and Risk](#), chapters 1-4.
- Karen Frick: [Pursuing the Technological Sublime: How the Bay Bridge Became a Megaproject](#)

Recommended

- Freakonomics podcast: [Here's Why All Your Projects Are Always Late — and What to Do About It](#)

Guest speaker: Professor Emeritus Dr. Marty Wachs, UCLA

9/3

Week 6: Other Large Transportation Infrastructure Projects in Recent U.S. History

Agenda

1. Discussion of readings for the week

Most HSR projects worldwide benefited from strong and clear support from the highest levels of government. The California project, by contrast, is being implemented in a context of much greater uncertainty. In this class, we will compare the HSR project to other large transportation infrastructure projects that have successfully been implemented in the U.S., including the Interstate Highway Program and BART. We will ask:

- How were these other large infrastructure programs discussed and evaluated when they were first being considered?
- How is the California HSR project similar and/or different from these?

2. Guest presentation by Boris Lipkin.

- What was the initial vision?
- How has the project evolved over time?
- California Proposition 1A, 2008
- CAHSR Business Plans

Required Readings

3. [“The Interstate Decade,”](#) Chapter 7 of McNichol, Dan (2006). *The Roads That Built America: The Incredible Story of the U.S. Interstate System*.
4. Please read: [Forward, Pages 24-49, skim chapters 5-6](#) of Healy, Michael (2015). *BART: The Dramatic History of the Bay Area Rapid Transit System*.

Recommended

5. [Podcast: The dramatic history of BART is now a new book](#)
6. [Wikipedia page on California Proposition 1A \(2008\)](#)

Guest speaker: Boris Lipkin, Northern California Regional Director, CAHSR

9/10	<p><i>Week 7: The 2018 State Rail Plan: What is the Role of High-Speed Rail in an Integrated Statewide Passenger Rail System?</i></p> <p>Agenda</p> <ol style="list-style-type: none"> 1. Short presentations by students on community meetings attended (for those who are ready) 2. Guest presentation by Lori Severino on her work as Diridon Community Engagement Manager for the City of San Jose 3. Guest presentation and discussion by Kyle Gradinger and Shannon Simonds on California State Rail Plan <p>Required Readings</p> <ul style="list-style-type: none"> • 2018 California State Rail Plan, pages 1-50. <p><i>Guest speakers:</i> <i>Lori Severino, Diridon Civic Engagement Manager, City of San Jose</i> <i>Kyle Gradinger and Shannon Simonds, Caltrans Division of Rail and Mass Transit</i></p>
9/17	<p><i>Week 8: What is HSR-Oriented Development and how to Maximize it in California?</i></p> <p>Agenda</p> <ul style="list-style-type: none"> • Governance models and financial tools necessary to make the most of the economic development potential of HSR? • The death of redevelopment in California: what now? • Legislative proposals in California to address these issues (e.g. Chiu’s AB 3037) • Presentation by Elizabeth Scanlon on career in public and private sectors (Honolulu Area Rapid Transit, Caltrain, now Diridon Program Manager for the Diridon Partner Agencies) <p>Required Readings</p> <ul style="list-style-type: none"> • Harnessing High-Speed Rail (Terplan) • On High-Speed Rail, City Building, and a Visionary French Mayor: The Case of Lille (Eidlin) • Chapter 16 from textbook: Environmental impact of HSR in California (Deakin) <p>Optional Readings</p> <ul style="list-style-type: none"> • Chapter 5, “Environmental Impacts and Risks” from Megaprojects and Risk (Flyvberg). • Chapter 19 from textbook: NIMBY reactions to HSR (O’Hare and Ander Audikana) <p>Optional Readings</p> <ul style="list-style-type: none"> • Remainder of Making the Most of High-Speed Rail in California: Lessons from France and Germany (Eidlin). • Chapter 20 of textbook: High-speed rail stations as transportation nodes and places (Loukaitou-Sideris and Peters). <p><i>Guest speaker: Elizabeth Scanlon, Diridon Program Manager, Kimley-Horn Associates</i></p>
9/24	<p><i>Week 9: Environmental Review and Community Engagement for Large Capital Projects</i></p> <p>Agenda</p> <ul style="list-style-type: none"> • Discussion with Rod Diridon on future of high-speed rail in California

	<ul style="list-style-type: none"> • Short presentations by students on community meetings attended (for those who have not yet presented) • High-speed rail, environmental review, and community outreach in California/U.S. • Alternative models from abroad that place a greater emphasis on strategic planning. • Students each check in with instructor regarding progress on their final memos. <p>Required Readings</p> <ul style="list-style-type: none"> • “Opinion: Why California should continue building high-speed rail” (Rod Diridon) • Chapter 19 from textbook: NIMBY reactions to HSR (O’Hare and Ander Audikana) <p><i>Guest speaker: Rod Diridon, Former CAHSR Board Chair (+ many other positions)</i></p>
10/1	<p><i>Week 10: Final Presentations + Class Wrap-Up</i></p> <p><u>Agenda</u></p> <ul style="list-style-type: none"> • Presentations by students on their final memos. Presentations will be strictly limited to 10 minutes with five minutes for questions. • To conclude the class, Jeff Wood, host of the Talking Headways podcast, will join us to conclude the class. Jeff has interviewed hundreds of experts in transportation and urbanism, will help provide context and will help us reflect on what we’ve discussed in the class and to help us anticipate what might be ahead for high-speed and intercity rail in California. <p>Optional Resources</p> <ul style="list-style-type: none"> • Talking Headways Podcast: High-Speed Rail Lessons from France and Germany • Talking Headways Podcast: How France Makes High-Speed Rail Meld With Cities: Part 1, Part 2 <p><i>Guest class co-host: Jeff Wood, Principal and Founder, the Overhead Wire</i></p>