

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 2020

Course and Instructor Contact Information

Instructor:	Eric Eidlin
Telephone:	415.373.8629
Email:	eric.eidlin@sjsu.edu
Office Hours:	By appointment
Class Day/Time:	5:30 – 9:30 pm, weekly on Wednesdays, July 28 - September 29, 2021
Classroom:	
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:

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.

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

Course introduces students to fundamental principles for managing the planning and design of high-speed and intercity rail projects. Students analyze the challenges and opportunities that high-speed and intercity rail services face in the U.S., given prevailing travel behavior patterns, land-use patterns, and funding sources. Topics include the interrelationship of high-speed rail with conventional intercity rail and urban public transportation, the roles of different levels of government in planning and design, and the delivery and governance of rail corridors and stations. The course takes an international perspective, drawing lessons from around the globe and applying these principles to the U.S. context.

MSTM Program Learning Goals:

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

- Goal 1: Transportation Systems and Society:** Develop a systems-savvy and global perspective on solving transportation management challenges
- Goal 2: Transportation Policy:** Develop solutions to transportation management challenges that integrate knowledge of the transportation policy environment
- Goal 3: Leadership:** Identify and analyze leadership styles and traits
- Goal 4: Communications:** Communicate effectively with a diverse workforce and citizenry
- Goal 5: Analytical skills:** Identify and evaluate transportation management issues using appropriate data and methods

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.

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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

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 made available via weblinks on the course Canvas page. In some cases, instructor may make changes to the readings listed in the syllabus over the course of the semester, either to incorporate newly published work or to better align with the content presented by guest speakers. In the event of any changes, the instructor will notify students no less than one week prior to the class for which the readings are due.

Library Liaison

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

Course Requirements and Assignments

Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of 45 hours over the length of the course for instruction, preparation/studying, or course related activities, including but not limited to internships, labs, and clinical practica. Other course structures will have equivalent workload expectations as described in the syllabus.

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 Monday before each 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 11, the evening before the second class, via Canvas. The “after” paper is due on 11:59pm on October 5, 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. 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, submit them in Canvas, 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 18.

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 think tank or advocacy organization who is commenting on HSR-related project alternatives being considered.
- 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.

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 Sunday after the last class, October 11. In addition, you will give an overview of your memo, no longer than 10 minutes in length, during the final class on October 6.

Final Examination or Evaluation Information

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-.

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+

Percentage	Grade
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

For more information, check:

- [University Attendance and Participation 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 \(https://www.sjsu.edu/senate/docs/F18-5.pdf\)](https://www.sjsu.edu/senate/docs/F18-5.pdf)
- [University Syllabus Policy S16-9 \(http://www.sjsu.edu/senate/docs/S16-9.pdf\)](http://www.sjsu.edu/senate/docs/S16-9.pdf)

Classroom Protocol

Students should attend all classes and be online and ready to begin participation in the class at 5:30 on class days. Students who must miss a class should inform the instructor ahead of time. Students are expected to keep their cameras on during class. If, for exceptional reasons, a student cannot use their camera, they should notify the instructor ahead of time (either by e-mail or by mentioning it in the chat window in Zoom).

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.

Course Schedule

Course Schedule

Week	Date	Topics, Readings, Assignments, Deadlines
1	7/28	<p><i>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 • Presentation by instructor: “Why High-Speed Rail and Who is it for?” <p>Required Materials (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. • Why the US Has No High-Speed Rail (CNBC video, May 7, 2019) <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”
2	8/4	<p><i>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"> • Discussion of “Before” papers • Discussion of initial readings on California High-Speed Rail Project • Guest presentation by Boris Lipkin. <ul style="list-style-type: none"> ○ What was the initial vision? ○ How has the project evolved over time? ○ California Proposition 1A, 2008 ○ CAHSR Business Plans <p>Required Readings:</p> <ol style="list-style-type: none"> 1. Letter from CEO and Chapter 1, California High Speed Rail Authority Draft 2020 Business Plan 2. Review Wikipedia page of 2008 California Proposition 1A, “the Safe, Reliable High-Speed Passenger Train Bond Act for the 21st Century.” 3. Chapter 1 of textbook: Background on high-speed rail (Deakin) 4. Chapter 12 of textbook: Background on high-speed rail in California (Deakin) <p>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.</p> <p><i>Guest presentation: Boris Lipkin, Northern California Regional Director, CAHSR</i></p>

<p>3</p>	<p>8/11</p>	<p><i>Development of HSR Systems Worldwide</i></p> <p>Agenda</p> <ul style="list-style-type: none"> • Discussion of international case studies: UK, Japan, France, Italy, Spain, and Germany. In groups (generally of two), students will select and summarize one of the chapters below, giving their thoughts on the following: <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. • Discussion of SPUR’s Seamless Transit report and subsequent related initiatives with Arielle Fleisher, SPUR Transportation Policy Director <p>Readings</p> <ol style="list-style-type: none"> 1. From textbook: <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 Mohino) • Chapter 7 “High-speed rail and air travel complementarity: the case of Germany” (Werner Rothengatter) • Chapter 8 “Taiwan’s HSR and the financial crises of the Taiwan high-speed rail corporation” (Jason Ni, Jason Chang and T.C. Kao) • Chapter 9 “The influence of high-speed rail station site selection on travel efficiency: the case of the Shanghai Hongqiao Hub” (Haixiao Pan, Song Ye And Minglei Chen) 2. Please also 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: TBD</i></p>
<p>4</p>	<p>8/18</p>	<p><i>Efforts to Modernize Rail in Across Cities and Regions in California</i></p> <p>Agenda</p> <ul style="list-style-type: none"> • Presentation/discussion with Ratna Amin, Deutsche Bahn, on related issues • Additional readings and discussion of progress on California High-Speed Rail Project. <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. Skim Chapter 3 of 2020 California High-Speed Rail Draft Business Plan (pages 49-97) 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: Masahiro Nakayama, Central Japan Railways</i></p>
<p>5</p>	<p>8/25</p>	<p><i>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> <ul style="list-style-type: none"> • Guest presentation and discussion by Kyle Gradinger and Shannon Simonds on California State Rail Plan • Discussion this week's and last week's readings regarding efforts of California rail providers to coordinate and modernize their service. • Short presentations by students on community meetings attended (for those who are ready) <p>Required Readings</p> <ol style="list-style-type: none"> 1. Read Executive Summary, Chapter 3 (California Rail 3 Network Vision) of the 2018 California State Rail Plan. <p>Optional Readings</p> <ol style="list-style-type: none"> 2. Chapter 4 (Proposed Passenger Improvements and 4 Investments) of the 2018 California State Rail Plan. <p><i>Guest speakers: Kyle Gradinger and Shannon Simonds, Caltrans Division of Rail and Mass Transit (tentative date)</i></p>
<p>6</p>	<p>9/1</p>	<p><i>Development of other large infrastructure programs in the U.S. + Megaprojects and Risk</i></p> <p>Agenda</p> <ul style="list-style-type: none"> • 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 two members of the California High Speed Rail Authority's Independent Peer Review Group. This includes Lou Thompson, Chair of the Group, as well as Dr. Marty Wachs. <p>Required Readings</p> <ol style="list-style-type: none"> 1. Bent Flyvbjerg: What You Should Know about Megaprojects and Why: An Overview 2. Bent Flyvbjerg: Megaprojects and Risk, chapters 1-4. 3. Karen Frick: Pursuing the Technological Sublime: How the Bay Bridge Became a Megaproject <p>Recommended</p> <ol style="list-style-type: none"> 4. Freakonomics podcast: Here's Why All Your Projects Are Always Late — and What to Do About It <p><i>Guest speaker: TBD</i></p>

<p>7</p>	<p>9/8</p>	<p><i>Other Large Transportation Infrastructure Projects in Recent U.S. History</i></p> <p>Agenda</p> <ul style="list-style-type: none"> • Presentation by Masahiro (“Mark”) Nakayama on JR Central’s work globally including its rail operations in Japan, transit-oriented development, and work on the Texas HSR project. • Discussion of readings for the week Most HSR projects worldwide benefited from strong and consistent support from the highest levels of government. The California project, by contrast, is being implemented in a context of more inconsistent and uneven political support. 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: <ul style="list-style-type: none"> • 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? <p>Required Readings</p> <ol style="list-style-type: none"> 1. “The Interstate Decade,” Chapter 7 of McNichol, Dan (2006). <i>The Roads That Built America: The Incredible Story of the U.S. Interstate System</i>. 2. Please read: Forward, Pages 24-49, skim chapters 5-6 of Healy, Michael (2015). <i>BART: The Dramatic History of the Bay Area Rapid Transit System</i>. <p>Recommended</p> <ol style="list-style-type: none"> 3. Podcast: The dramatic history of BART is now a new book 4. Wikipedia page on California Proposition 1A (2008) <p><i>Guest speaker: TBD</i></p>
<p>8</p>	<p>9/15</p>	<p><i>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> <ol style="list-style-type: none"> 1. Harnessing High-Speed Rail (Terplan) 2. On High-Speed Rail, City Building, and a Visionary French Mayor: The Case of Lille (Eidlin) <p>Optional Materials</p> <ol style="list-style-type: none"> 3. Remainder of Making the Most of High-Speed Rail in California: Lessons from France and Germany (Eidlin). 4. Chapter 20 of textbook: High-speed rail stations as transportation nodes and places (Loukaitou-Sideris and Peters). 5. Talking Headways Podcast: High-Speed Rail Lessons from France and Germany 6. Talking Headways Podcast: How France Makes High-Speed Rail Meld With Cities: Part 1, Part 2

		<i>Guest speaker: TBD</i>
9	9/22	<p><i>Project Evaluation, Environmental Review, and Ideas for Improving Megaproject Delivery.</i></p> <p>Agenda</p> <ul style="list-style-type: none"> • Perspectives on class from former student • 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. • Ideas for improving megaproject delivery <p>Required Readings</p> <ol style="list-style-type: none"> 1. Chapter 16 from textbook: Environmental impact of HSR in California (Deakin) 2. Chapter 19 from textbook: NIMBY reactions to HSR (O'Hare and Ander Audikana) <p><i>Guest speaker: Laura Tolhoff, SPUR Transportation Policy Director (tentative date)</i></p>
10	9/29	<p><i>Final Presentations + Class Wrap-Up</i></p> <p>Agenda</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. • Rod Diridon, who has arguably done more than anyone to advocate for the California High-Speed Rail project and for mass transit in California generally, will join us to conclude the class. <p>Readings</p> <p>You will be busy this week preparing your final memos, and I will therefore not assign mandatory readings. However, I encourage you to read this short piece from Streetsblog San Francisco.</p> <p>Roger Rudick, High-Speed Rail's Potential 2020 Turning Point: 2008 will be remembered as the year California voters launched America's first HSR project. And 2020 could be the year America decides to complete it.</p> <p><i>Guest speaker: TBD.</i></p>

Additional Guest Speakers:

Confirmed guest speakers to be scheduled:

- Anna Harvey, Rail Program Manager, City of San Francisco, MTM graduate and student of the year 2021
- Mark Masahiro, Central Japan Railways
- Sadie Graham, Project Director, Link-21 / BART
- Sara Barz, Apple
- Agustin Arizti, Deutsche Bahn
- Arielle Fleisher, Waymo
- [Beverley Swaim-Staley](#)? President/CEO of the Washington D.C. Union Station Redevelopment Corp.

Possible additional guest speakers

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- Egon Terplan, California Strategic Growth Council