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 2025

Course and Instructor Contact Information

Instructor:	Eric Eidlin
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Email:	eric.eidlin@sjsu.edu
Office Hours:	By appointment
Class Day/Time:	5:30 – 9:30 pm, weekly on Wednesdays, July 30 – October 1, 2024
Classroom:	Zoom
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/)

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: https://www.sjsu.edu/learnanywhere/how-tos/zoom/index.php

Course Description

This 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.
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 (~$52 for a paperback copy from Amazon) or access it for free via the SJSU library via this 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 class. No reading response is due for the first or last class. Additionally, you have one “free pass” during the semester. Please let me know that you are using this free pass by typing “free pass” on the assignment page in Canvas.

In addition, students will kick off the discussion of the week’s readings each week. In about 5-8 minutes, you (or perhaps with a partner, depending on class size) will touch on some of the key points of the readings that resonated with you and pose a couple of questions to the class.

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 the Monday before the first class, via Canvas. The "after" paper is due on 11:59pm on 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 11:59 Friday, August 15th.

Final Assignment: Prepare and Present a Professional Memo

Propose and submit a memo, 2,000-2,500 words (approximately 6-8 pages) in length, in which you argue a position, likely on the project tracked in Assignment 2, 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.

While it may not be common to carefully cite all of one's sources in a professional memo, I ask that you do this for this assignment. Please use either endnotes or footnotes. You don't need to follow a particular style guide for this, but I ask that you be consistent. I suggest that you follow the Chicago Manual of Style.

Very important: You should ensure that your topic is defined narrowly enough in order to be able to be discussed in a 6-8-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.

This memo will be due by 11:59pm on Friday after the last class. In addition, you will give an overview of your memo during the final class.

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 late. 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 1: Before Paper	(pass/fail, reflected in grade for reading responses)	
Reading responses	25%	LOs 1-7,9,10
In-class participation	25%	LOs 1-7,9,10
Assignment 2: Public meeting	(pass/fail, reflected in class participation grade)	
Final Assignment: Memo	40%	LOs 1-10
Presentation of Memo	10%	L0s 9,10
Total	100%	

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

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), 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 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	**7/30**	*Introduction to Class: Basics on High-Speed and Intercity Rail* **Agenda** • Introductions by students (students introduce themselves, explain what they hope to learn from the class) • Guest welcome remarks by Ben Tripousis, former Northern California Regional Director of California High-Speed Rail and former instructor of MTM-245 • Presentation by Rod Diridon: HSR as key transportation mode in fighting climate change. • Overview of syllabus • Discussion of "Before Papers" • Presentation by instructor: "A Few Thoughts on Rail and Cities" *Note: "Before Paper" is due at 11:59pm on 7/29, the night before the first class.* *Guest speakers:* *Ben Tripousis, Former Northern California Regional Director, CAHSR* *Rod Diridon. Credentials include: long-time Santa Clara County Supervisor: Co-Chair US High Speed Rail Coalition; Chair Emeritus, California High Speed Rail Authority Board; Emeritus Executive Director (Ret.) Mineta National Transit Research Consortium.*
2	**8/6**	*The California High-Speed Rail Project – Its Origins, Current Status, and Evolution* **Agenda** • Discussion of initial readings on California High-Speed Rail Project • What was the initial vision for California HSR? How has the project evolved over time? • Guest presentation by Boris Lipkin, Former Northern California Regional Director, CAHSR **Required Materials (in advance of class)** 1. Why California Won't Give Up the Dream of High-Speed Rail (Los Angeles Times, June 16, 2025, Beenan) 2. It's Clear We're Going It Alone on High-Speed Rail (Streetsblog, July 22, 2025, Newton) 3. California's Bullet Train Is a Model of Progressive Governance (Wall Street Journal, July 20, 2025, Finley) 4. 2025 California High-Speed Rail Progress Update Report, beginning – Chapter 4 5. Chapter 12 of textbook: Background on high-speed rail in California (Deakin) **Optional Materials:** 6. Why California's High-Speed Rail Is Taking So Long (CNBC video, May 17, 2023) 7. 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. 8. 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"

		9. Review Wikipedia page of 2008 California Proposition 1A, "the Safe, Reliable High-Speed Passenger Train Bond Act for the 21st Century." 10. 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. *Guest speaker: Boris Lipkin, Former Northern California Regional Director, CAHSR*
3	**8/13**	*What is the Role of High-Speed Rail in an Integrated Statewide Passenger Rail System?* **Agenda** • Guest presentation on high-speed rail in China • Guest presentation and discussion on California State Rail Plan + integrated service **Required Readings** 1. Running Public Transportation Like a Swiss Watch (Streetsblog) 2. Executive Summary, Chapter 2: Network Vision; Chapter 3: Passenger Network Strategy of the 2023 Draft State Rail Plan. 3. High-Speed Rail's Global Momentum: Do Infrastructure Costs Balance with the Benefits? (Chen, Jiang) **Optional Readings** 4. Chapter 4 (Proposed Passenger Improvements and 4 Investments) of the 2018 California State Rail Plan. 5. Caltrain Business Plan; Summary Memo on service vision; Related presentation 6. Capitol Corridor Vision Implementation Plan, pages 3-21 *Guest speaker: Shannon Simonds, Chief, Caltrans Office of Rail Planning & Implementation*

4	**8/20**	*Development of HSR Systems Worldwide*
		
		Agenda
		• Presentations by students and discussion of international case studies: UK, Japan, France, Italy, Spain, Germany, Taiwan, and China. In groups (generally of two), students will select and summarize one of the chapters below, giving their thoughts on the following:
		  ○ 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.
		  ○ In addition to reading and presenting on the chapters highlighted below, students will do a little bit of web research of their own on high-speed rail in the countries that they are presenting on.
		
		Readings
		1. Chapter 1 of textbook: Background on high-speed rail (Deakin)
		2. Executive Summary of Eric Eidlin, Making the Most of High-Speed Rail in California: Lessons from France and Germany
		3. In class, **you will select one of the following chapters** to read and do a short summary / discussion kick-off with class:
		• 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) • 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) *Guest speakers: Zhenhua Chen, Ph.D., Associate Professor, Dept of City and Regional Planning, Knowlton School of Architecture, Ohio State University (tentative)*

5	**8/27**	*California High-Speed Rail as a Megaproject + Challenges of Transit Governance; the Bay Area as Case Study* **Agenda** • Guest presentation by Ian Griffiths, Policy Director and Co-Founder, Seamless Bay Area • Discussion of Seamless Transit reading **Readings** 1. SPUR's Seamless Transit Report (Amin, Barz) 2. Routes to Seamlessness (Anzai) **3.** Introduction to How Big Things Get Done : The Surprising Factors That Determine the Fate of Every Project, From Home Renovations to Space Exploration and Everything In Between **Optional Materials:** Why Projects Like California's High-Speed Rail Almost Always Fail | Business Insider *Guest speaker: Ian Griffiths, Policy Director and Co-Founder, Seamless Bay Area (tentative)*
6	**9/3**	*Development of Other Large Infrastructure Programs in Recent U.S. History* **Agenda** • 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: • 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? • Presentation by instructor on Diridon Station **Required Readings** 1. BART: The Dramatic History of the Bay Area Rapid Transit System. Please read: Forward, Pages 24-49, skim chapters 5-6 of Healy, Michael (2015). 2. "The Interstate Decade," Chapter 7 of McNichol, Dan (2006). The Roads That Built America: The Incredible Story of the U.S. Interstate System. **Recommended** 3. Freakonomics podcast: Here's Why All Your Projects Are Always Late — and What to Do About It 4. Podcast: The dramatic history of BART is now a new book 5. The Big Dig Podcast (9 episodes) *Guest speaker: Anna Harvey, TJPA Deputy Director of Engineering & MTM 2021 alum (tentative)*

7	**9/10**	*Megaprojects and Risk, Organizational and Governance Challenges of Large Transportation Infrastructure Projects* **Agenda** • Guest presentation by Prof. Eric Goldwyn of NYU, "Speeding up Domestic High-Speed Rail Project Delivery" • Guest presentation by Camille Tsao, Link-21 Program Lead, Capitol Corridor Joint Powers Authority. **Discussion Topics** • 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. • Ideas for improving megaproject delivery • The particular challenges of station development, both internationally and especially in the U.S. context. • HSR in comparison to (and in relation to) an emerging megaproject: Link-21 **Required Readings** 1. Bent Flyvbjerg: What You Should Know about Megaprojects and Why: An Overview 2. Bent Flyvbjerg: How Big Things Get Done : The Surprising Factors That Determine the Fate of Every Project, From Home Renovations to Space Exploration and Everything In Between, chapters 1,2,3 + Coda: Eleven Heuristics for Better Project Leadership **Recommended Readings** 3. Karen Trapenberg Frick: Pursuing the Technological Sublime: How the Bay Bridge Became a Megaproject 4. More for Less (SPUR report) 5. American Exceptionalism off the Rails (Henderson, Abbott) *Guest speakers:* *Eric Goldwyn, Program Director, Marron Institute of Urban Management, NYU* *Camille Tsao, Link21 Program Lead, Capitol Corridor Joint Powers Authority (tentative)*
8	**9/17**	*Stations and Station Area Development* **Agenda** • Presentation by Amitabh Barthakur, Partner, HR&A Advisors, on Diridon Station governance options. • Presentations by class on community meetings • Governance models and financial tools necessary to make the most of the economic development potential of HSR? **Readings** 1. Harnessing High-Speed Rail (Terplan) 2. Remainder of Making the Most of High-Speed Rail in California: Lessons from France and Germany (Eidlin). 3. On High-Speed Rail, City Building, and a Visionary French Mayor: The Case of Lille (Eidlin: *note that you will need to download to avoid blurriness*) **Optional Materials** 4. Public presentation on Diridon Integrated Station Concept Plan. Fast-forward to 44:51 and watch until 1:29. *Guest speaker: Amitabh Barthakur, Partner, HR&A Advisors (tentative)*

9	**9/24**	*Station Area Development + the Potential for Robust Rail Service to Leisure Destinations* **Agenda** • How might California provide robust rail service to less densely populated vacation areas? Tahoe as case study. Group planning exercise in-class. • Presentation and panel discussion with experts who have been involved in long-term planning and strategic thinking around the future of rail travel statewide, and especially to and around Lake Tahoe. **Required Materials** 1. California Today: Stunning Views on the Train to Tahoe (McPhate) 2. The Best Ski Resorts (in the Alps) for Travelling by Train (from the UK) (Elkan). **Optional Materials** 3. Talking Headways Podcast: High-Speed Rail Lessons from France and Germany 4. Talking Headways Podcast: How France Makes High-Speed Rail Meld With Cities: Part 1, Part 2 *Guest speakers: Jim Allison, Planning Manager, Capitol Corridor; Jenn Phelps Quinn, Planning and Tourism Expert; Linda Meckel, Palisades Tahoe Ski Patrol / CHS Consulting (tentative)*
10	**10/1**	*Final Presentations + Class Wrap-Up* ***Note: no reading response is due for this class.*** **Agenda** • Presentations by students on their final memos. Presentations will be strictly limited to six minutes with three minutes for questions. • Presentation by instructor on Diridon Station, panel discussion with Anna Harvey of the Transbay Joint Powers Authority. **Readings** You will be busy this week preparing your final memos, so you don't need to read anything!