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 2022

Course and Instructor Contact Information

Instructor:	Eric Eidlin	
Email:	eric.eidlin@sjsu.edu	
Office Hours:	By appointment	
Class Day/Time:	5:30 – 9:30 pm, weekly on Wednesdays,	July 27 - September 28, 2022
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: 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.
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.

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.

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 the evening before the second 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 the beginning of the third class.

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 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 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.

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

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**

For more information, check:

- *University Attendance and Participation Policy F15-12 (http://www.sjsu.edu/senate/docs/F15-12.pdf)*
- *University Grading System Policy F18-5 (https://www.sjsu.edu/senate/docs/F18-5.pdf)*
- *University Syllabus Policy S16-9 (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), 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	7/27	*Introduction to Class: Basics on High-Speed and Intercity Rail* *Note: no reading response is due for this class.* **Agenda** • Introductions by students (students introduce themselves, explain what they hope to learn from the class) • Overview of syllabus • Guest presentation by Boris Lipkin, Northern California Regional Director, California High-Speed Rail Authority **Required Materials (in advance of class)** • Op-ed: High-speed rail is a win-win for America (Chicago Tribune, LaHood, Foxx, Mineta) • Train to nowhere: can California's high-speed rail project ever get back on track? (The Guardian, Gumbel, May 29, 2022) • Why the US Has No High-Speed Rail (CNBC video, May 7, 2019) **Optional Materials:** • 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" *Guest speaker: Boris Lipkin, Northern California Regional Director, CAHSR*
2	8/3	*What is the Role of High-Speed Rail in an Integrated Statewide Passenger Rail System?* **Agenda** • Guest presentation by Shannon Simonds and discussion on California State Rail Plan • Presentation by instructor: "Why High-Speed Rail and Who is it for?" • Discussion of readings • Discussion of "Before" papers **Required Readings** • Running Public Transportation Like a Swiss Watch (Streetsblog) • Executive Summary, Chapter 3 (California Rail 3 Network Vision) of the 2018 California State Rail Plan. (Note: 2022 Plan in process) • Executive Summary of Eric Eidlin, Making the Most of High-Speed Rail in California: Lessons from France and Germany.

		Optional Readings • Chapter 4 (Proposed Passenger Improvements and 4 Investments) of the 2018 California State Rail Plan. Guest speaker: Shannon Simonds, Caltrans Division of Rail and Mass Transit.
3	**8/10**	*Evolution of the California High-Speed Rail Project* **Note: reading response due Monday, August 15th, at 11:59pm.** **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? • California Proposition 1A, 2008 • Student presentations on international high-speed rail case studies **Required Readings:** • 2022 Business Plan, chapters 1 and 2 • Chapter 1 of textbook: Background on high-speed rail (Deakin) • Chapter 12 of textbook: Background on high-speed rail in California (Deakin) **Optional Readings:** • Review Wikipedia page of 2008 California Proposition 1A, "the Safe, Reliable High-Speed Passenger Train Bond Act for the 21st Century." 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. **Note: class taught by guest instructor / MTM 246 instructor John Litzinger**, Engineer for HNTB, California High-Speed Rail Project, Mineta Instructor of MTM 246 (Inter City and High-Speed Rail Part 2). *Guest instructor: John Litzinger, Mineta Instructor, HNTB Senior Engineer*
4	**8/9 (class rescheduled from 8/17)**	*Development of HSR Systems Worldwide + Background info on Transportation Governance* **Agenda** **Part 1** • Continuation of instructor's presentation "Why High-Speed Rail and Who It's for?" focusing on governance today. • 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: a. Development of HSR systems worldwide (what were factors?) b. Role of different levels of government in funding and implementing those projects c. Relevance for the U.S. **Part 2** • Guest presentation by Ian Griffiths, Policy Director and Co-Founder, Seamless Bay Area • Guest presentation by and discussion of SPUR's Seamless Transit report and subsequent related initiatives with Arielle Fleisher, former SPUR Transportation Policy Director **Readings**

		1. From textbook (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" (Enni`o 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: Ian Griffiths, Policy Director and Co-Founder, Seamless Bay Area; Arielle Fleisher,* former SPUR Transportation Policy Director, now Policy Analyst at Waymo.
7	**8/24**	*Other Large Transportation Infrastructure Projects 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? **Required Readings** 1. 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. 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. Podcast: The dramatic history of BART is now a new book 4. Wikipedia page on California Proposition 1A (2008) *Guest speaker: Mike Healy, former BART head of public relations [postponed until 9/7]*
6	**8/31**	*Development of other large infrastructure programs in recent U.S. history + 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.

		• Ideas for improving megaproject delivery • HSR in comparison to (and in relation to) another emerging megaproject: Link-21 **Required Readings** • Bent Flyvberg: Megaprojects and Risk, chapters 1-4. • Karen Trapenberg Frick: Pursuing the Technological Sublime: How the Bay Bridge Became a Megaproject • More for Less (SPUR report) **Recommended** • Freakonomics podcast: Here's Why All Your Projects Are Always Late — and What to Do About It • Bent Flyvbjerg: What You Should Know about Megaprojects and Why: An Overview *Guest speakers: Sadie Graham, Project Director, Link 21[confirmed]*
5	**9/7**	*Improving Local and Regional Transit Connections to Support Intercity Passenger Rail: What is the Problem and How Might we Solve it?* **Agenda** • Presentations by class on community meetings (part 1) • Rescheduled presentation by Mike Healy on history of BART • Continued discussion of Seamless Transit • Presentation by instructor on recent travels in Europe and connections to key concepts from class • Presentation by Kenji Anzai on the German model for regional transit coordination, the "Verkehrsverbund" **Readings** • SPUR's Seamless Transit Report (Amin, Barz) • American Exceptionalism off the Rails (Henderson, Abbott) **Optional Readings** • Capitol Corridor Vision Implementation Plan, pages 3-21 • Caltrain Business Plan; Summary Memo on service vision; Related presentation *Guest speakers: Mike Healy, former BART head of public relations* *Kenji Anzai, Metropolitan Transportation Commission [tentative]*
8	**9/14**	*Station Area Development: How to Make the Most of HSR Stations at the Neighborhood and Citywide Scales* **Agenda** • Presentations by class on public meetings (part 2) • Governance models and financial tools necessary to make the most of the economic development potential of HSR? • Financing tools, including tax increment financing tools and SB 961 • Diridon Station **Required Materials** 1. Harnessing High-Speed Rail (Terplan)

		2. On High-Speed Rail, City Building, and a Visionary French Mayor: The Case of Lille (Eidlin) 3. Public presentation on Diridon Integrated Station Concept Plan. Fast-forward to 44:51 and watch until 1:29. **Optional Materials** 1. Talking Headways Podcast: High-Speed Rail Lessons from France and Germany 2. Talking Headways Podcast: How France Makes High-Speed Rail Meld With Cities: Part 1, Part 2
9	**9/21**	*The Tension Between Place and Node: Creating Stations that Facilitate Rail Travel While Being Attractive Destinations in and of Themselves* **Agenda** 1. Discussion of readings on the multiple roles of train stations as transportation facilities and destinations in their own rights 2. Presentations by students on community meetings attended part 2 (for those who have not yet presented) **Required Readings** 3. Skim Capitol Corridor Vision Implementation Plan, pages 3-21 4. Remainder of Making the Most of High-Speed Rail in California: Lessons from France and Germany (Eidlin). 5. Chapter 20 of textbook: High-speed rail stations as transportation nodes and places (Loukaitou-Sideris and Peters). *Guest speakers: Jim Allison, Planning Manager, Capitol Corridor [tentative]; Jenn Phelps Quinn, Planning and Tourism Expert; Linda Meckel, Plan*
10	**9/28**	*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 8 minutes with four 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, and I will therefore not assign mandatory readings. *Guest speaker: Anna Harvey*