

**San José State University**  
**Lucas Graduate School of Business**  
**Master of Science in Transportation Management**  
**MTM 202: Introduction to Transportation Funding & Finance**  
**Spring-A 2021**

**Course and Instructor Contact Information**

<b>Instructor:</b>	Will Kempton & Norma Ortega
<b>Office Location:</b>	
<b>Telephone:</b>	Will Kempton (714) 272-5270 Norma Ortega (916) 803-6239
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<b>Office Hours:</b>	By appointment
<b>Class Day/Time:</b>	Thursdays, 5:30 – 9:30 PM, January 7 – March 11
<b>Classroom:</b>	Online via Zoom – <a href="https://sjsu.zoom.us/j/109376814">https://sjsu.zoom.us/j/109376814</a>
<b>Course website:</b>	Canvas ( <a href="http://sjsu.instructure.com">http://sjsu.instructure.com</a> )

**Course Format**

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

**Online Access via Zoom:**

Students 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>

## Faculty Web Page and MYSJSU Messaging

Course materials such as syllabus, handouts, notes, assignment instructions, etc. can be found on [Canvas Learning Management System course login website](#) at <http://sjsu.instructure.com> or will be emailed by the instructors. You are responsible for regularly checking with the messaging system through [MySJSU](#) at <http://my.sjsu.edu> to learn of any updates.

## Course Description

This course provides a basic overview of federal, state, and local transportation funding and financing for all modes. The curriculum will review the development of transportation funding sources, assess the magnitude of program needs, examine the flow of transportation dollars, analyze the workings of transportation financing, and explore the potential of innovative financing mechanisms. The knowledge will then be applied in the recommendation for a new transportation funding source along with an implementation strategy to institute this mechanism.

## 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

Over a ten-week period, students completing this class will gain a basic knowledge of transportation funding at the federal, state, regional, and local levels. Course objectives include learning the fundamental concepts, history and evolution of transportation finance in the United States and California; understanding the sources, mechanisms and applications associated with highway, transit and rail funding; exploring the development and implementation of innovative funding approaches; and examining the workings of financial transportation programs and projects. Students will demonstrate this knowledge and progress will be measured through a class assignment involving the development of a new funding source for transportation.

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

LO1: Identify the basic transportation funding sources, how this funding flows, and how it is applied for all major transportation modes.

LO2: Apply the knowledge gained to assess and determine funding opportunities and strategies for transportation projects in a real-world situation.

LO3: Assess options and develop a viable recommendation for funding transportation in the future; one that is equitable, helps achieve climate change goals, and addresses basic needs to include a strategy for implementation.

## **Required Texts/Readings**

### **Textbook**

Too Big to Fail: American's Failing Infrastructure and the Way Forward – Barry B. LePatner, Foster Publishing, New York. ISBN-10: 0984497803. (Available at Amazon and other retailers for about \$26.00)

2020 Transportation Funding in California. Available at the following Caltrans website:

<http://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/transportation-economics/transportation-funding-booklet/2020-final-transportation-funding-a11y.pdf>

Other readings are listed on the attached schedule.

### **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.

This class is intended to be interactive. Students will be given the opportunity to ask questions, offer opinions, present and/or question ideas, and to interact with the instructors and fellow students. Active participation is required and represents 25% of the overall grade.

Assignment 1: Read “Too Big to Fail” and prepare a two to three page summary of your observations on this reading. Make a 5-minute presentation on your observations in class. Powerpoints are acceptable but not required. Students will present their observations in Sessions 3, 4, 5, 7, 8, and 9. Assignments will be made in Session 1. This assignment plus class participation represents 25% of the overall grade. *Due on your assigned presentation date.*

Assignment 2: Prepare a two to three page listing of possible new funding sources for transportation. Discuss particular challenges of securing these funds and timing associated with implementation. *This assignment represents 12.5% of the grade and is due January 28, 2021.*

Assignment 3: Prepare two to three page discussion of a recent transportation funding need facing your community. Discuss the funding source (s) and any issues with securing the funding. This assignment will be discussed in class and represents 12.5% of the grade. *Due February 18, 2021.*

### **Final Examination or Evaluation**

Assignment 4, Final Paper: Prepare a white paper on an alternative source of funding for transportation. Discuss the pro/cons, the timing of implementation, and the impact on key stakeholders. The project and format will be discussed at the opening session with the instructors. *This assignment represents 50% of the final grade. Assignment due March 11, 2021.*

### **Grading Information**

<b>Grade Calculation Task</b>	<b>% of Course Grade</b>	<b>Course Learning Objective(s) Addressed</b>
Assignment 2, Presentation and paper on Too Big to Fall	25%	LO1, LO2, LO3
Assignment 2	12.5%	LO1, LO2, LO3
Assignment 3	12.5%	LO1, LO2, LO3
Assignment 4, Preparation of New Funding Proposal	50%	LO1, LO2, LO3

## Determination of Grades

Late work will be assessed a penalty of 10% of the percentage of the assignment to the overall grade for every day late, and late work will not be accepted after 4 days past the due date. There will be no credit for missed assignments.

For Assignment 4, late work will not be accepted beyond March 12, 2021 as final grades need to be submitted.

Students will have an opportunity during Session 6 to discuss individual progress and to map out any remedial strategies to ensure successful completion of the class.

Percentage	Grade
97% and above	A+
93% to 96%	A
90% to 92%	A-
87% to 89%	B+
83% to 86%	B
80% to 82%	B-
77% to 79%	C+
73% to 76%	C
70% to 72%	C-
67% to 69%	D+
63% to 66%	D
60% to 62%	D-
<b>Below 60%</b>	<b>F</b>

## 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

*Note:* This schedule is subject to change with fair notice. Students will be notified in class and/or via email of any changes.

Date	Class Activities, Readings, & Assignments
Jan 7	<p><b>Session 1: First Day of Class – Welcome, Course Outline &amp; Project Review</b></p> <ul style="list-style-type: none"> <li>• Discussion of Class Structure and Assignments</li> <li>• Discussion of Assignment 1, Class Participation, Too Big To Fall</li> <li>• Discussion of Class Project: Identify a New Transportation Funding Alternative</li> <li>• Brief Review of Transportation System Structure</li> <li>• Overview of Transportation Funding – what it is and where does it come from</li> </ul> <p><b>Reading:</b>            “California’s Transportation System”, Legislative Analyst Office, June 7, 2018 at:  <a href="https://lao.ca.gov/rPublications/Report/2018/3860.pdf">https://lao.ca.gov/rPublications/Report/2018/3860.pdf</a></p> <p>“2020 Transportation Funding in California” Caltrans:  <a href="http://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/transportation-economics/transportation-funding-booklet/2020-final-transportation-funding-allly.pdf">http://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/transportation-economics/transportation-funding-booklet/2020-final-transportation-funding-allly.pdf</a></p>
Jan 14	<p><b>Session 2: Federal Transportation Funding</b></p> <ul style="list-style-type: none"> <li>• Federal Transportation Funding Overview</li> <li>• Reauthorization Act – From TEA21 to the FAST Act</li> <li>• How Federal Funding is Managed in CA</li> <li>• Highway Funding</li> <li>• Transit Funding</li> <li>• Flexible Funding</li> <li>• The Next Authorization Bill: The Future of Federal Transportation Funding</li> </ul> <p>Guest Lecturer – Vince Mammano, Division Administrator FHWA and Matt Carpenter, Director of Transportation Services, SACOG</p> <p><b>Reading:</b>            Financing Federal Highways  <a href="http://www.fhwa.dot.gov/reports/financingfederalaid/financing_highways.pdf">www.fhwa.dot.gov/reports/financingfederalaid/financing_highways.pdf</a>            Read the following sections: Introductions, Authorization Act, Federal Aid Financing Procedures, Appropriations, Limitations on Obligations, the Highway Trust Fund</p> <p>The Fixing America’s Surface Transportation Act (FAST of 2015 Act) Authorization Act at: <a href="http://www.fhwa.dot.gov">http://www.fhwa.dot.gov</a>. Read the following Fact Sheets:</p> <ul style="list-style-type: none"> <li>• Apportionments</li> <li>• Federal Share</li> </ul>

	<ul style="list-style-type: none"> <li>• Highway Trust Fund and Taxes</li> <li>• Surface Transportation Block Grant Program</li> <li>• Surface Transportation System Alternatives Program</li> <li>• Performance Management</li> <li>• Transportation Infrastructure Finance and Innovation Act</li> </ul> <p>The Build America Transportation Investment Center (BATIC): An AASHTO Center for Excellence website at: <a href="http://www.financingtransportation.org">http://www.financingtransportation.org</a>. Read the following sections:</p> <ul style="list-style-type: none"> <li>• Federal Funding</li> <li>• Proposed Funding Sources</li> <li>• Mechanisms to Leverage Federal Aid</li> </ul>
Jan 21	<p><b>Session 3: State Transportation Funding</b></p> <ul style="list-style-type: none"> <li>• Understanding transportation funding at the state level</li> <li>• Flow and process for securing transportation funds</li> </ul> <p><b>Reading:</b>  CTC’s 2020 Annual Report to the California Legislature at <a href="http://catc.ca.gov">catc.ca.gov</a></p> <p>Senate Bill (SB1), the Road Repair and Accountability Act of 2017 at <a href="http://rebuildingca.ca.gov">rebuildingca.ca.gov</a></p> <p>The following LAO transportation reports found in publications at <a href="http://www.lao.gov/Publications?Year=2020&amp;CategoryID=11&amp;Type+&amp;phrase=">http://www.lao.gov/Publications?Year=2020&amp;CategoryID=11&amp;Type+&amp;phrase=</a></p> <ul style="list-style-type: none"> <li>• Overview of the 2020 Transportation Funding Package</li> <li>• 2021 Budget: Transportation Proposals</li> <li>• Resources and Transportation Overview</li> <li>• California’s Transportation System</li> </ul> <p>2020 Annual Report to the California Legislature at <a href="http://catc.ca.gov">catc.ca.gov</a></p> <p>Guest Lecturer – Steven Keck, CFO, Caltrans</p>
Jan 28	<p><b>Session 4: Local Transportation Funds: A Large Landscape</b></p> <p>The Local Picture</p> <ul style="list-style-type: none"> <li>• Subvention Funds</li> <li>• Local Tax Measures (Self-help)</li> <li>• Funding for Transit</li> <li>• Funding for Local Streets and Roads</li> </ul> <p>Guest Lecturer – Bill Higgins, Executive Director, CALCOG</p>

	<p><b>Assignment 2 Due:</b> <i>Prepare a list of possible new sources of funds for transportation. Discuss particular challenges of securing these funds, including availability and timing. Two to three page maximum. 12.5 percent of grade.</i></p> <p><b>Reading:</b>  <b>Local Funding Charts</b>  “Transportation Funding in California,” Caltrans 2020 at <a href="http://www.dot.ca.gov/-/media/dot-media/programs/transportation-planning/economics-data-management/-economics/transportation-funding-in-ca">http://www.dot.ca.gov/-/media/dot-media/programs/transportation-planning/economics-data-management/-economics/transportation-funding-in-ca</a></p> <p><b>Local Option Sales Taxes: Analysis and Articles</b>  “Lessons Learned from 40 Years of Local Option Transportation Sales Taxes in California” by Jaime Lederman, Anne Brown, Brian D. Taylor, Martin Wachs. June 30, 2018 at: <a href="http://journals.sagepub.com">journals.sagepub.com</a></p> <p>“Local Option Transportation Taxes: Devolution as Revolution” by Martin Wachs, Access Number 22, Spring 2003 at: <a href="http://Accessmagazine.org">Accessmagazine.org</a></p>
Feb 4	<p><b>Session 5: Changing State Environment.</b>  <b>Other Funding Mechanisms – Congestion Pricing and Road Charge</b></p> <p>State Budget in Crisis and Sustainability Requirements</p> <ul style="list-style-type: none"> <li>• Shifting State Role <a href="http://www.scagrtp.net/gallery?t=chart">http://www.scagrtp.net/gallery?t=chart</a> (Figure 3.6)</li> <li>• Transportation Needs Assessment</li> <li>• CA Road Charge Pilot Program</li> <li>• Executive Order Transportation Funding and Climate Goals</li> </ul> <p>Guest Panel– Elissa Konove, Undersecretary, CALSTA  Tilly Chang, Executive Director, SFTCA and Lauren Pehoda, Caltrans Road Charge Manager</p> <p><b>Readings:</b>  Congestion Pricing: Q&amp;A’s – UCLA Institute of Transportation Studies, <a href="https://www.its.ucla.edu/for-the-press/congestion-pricing/">https://www.its.ucla.edu/for-the-press/congestion-pricing/</a></p> <p>California Road Charge Pilot Program Summary Report, June 2017  <a href="https://dot.ca.gov/-/media/dot-media/programs/road-charge/documents/final-report-summary-a11y.pdf">https://dot.ca.gov/-/media/dot-media/programs/road-charge/documents/final-report-summary-a11y.pdf</a></p> <p>Governor Newsom’s Executive Order N-19-19, <a href="http://www.ca.gov.gov">www.ca.gov.gov</a></p> <p>“Moving Toward Vehicle Miles of Travel Fees to Replace Fuel Taxes” 2011 at <a href="http://www.rand.org">www.rand.org</a></p>



Feb 11	<p><b>Session 6: Class Progress Discussions</b></p> <p>Instructors will contact students during this four-hour block to discuss individual progress and answer any questions and concerns about the class.</p>
Feb 18	<p><b>Session 7: Mega Project Funding</b>  <b>“Time is Money” Tolling, Bonding and other Financing Mechanisms</b></p> <ul style="list-style-type: none"> <li>• Funding Mega Projects</li> <li>• A primer on PPP funding</li> <li>• A review of financing plan for Presidio Parkway</li> <li>• Do PPPs work in California?</li> </ul> <p>Guest Lecturer – Anne Mayer, Executive Director, RCTC and Mark Kempton, Kempton Strategies</p> <p><b>Reading:</b></p> <p>Financing Transportation Infrastructure in California at:  <a href="http://www.rand.org/pubs/testimonies/2009/RAND_CT322.pdf">http://www.rand.org/pubs/testimonies/2009/RAND CT322.pdf</a></p> <p>“From Home Rule to Fiscal Rule: Taking a Measure of Local Government Finance in California” at: <a href="http://www.ppic.org/main/publication.asp?i=85">http://www.ppic.org/main/publication.asp?i=85</a></p> <p>Read the following sections:  Introduction, Documenting the Facts, Counties and Their Conundrum, and the Initiative Process and the Public Interest.</p> <p>Financial Analysis of Transportation-related Public Private Partnerships – Office of Inspector General, Federal Highway Administration Report November 2011: CR147 at: <a href="http://www.oig.dot.gov/node/5599">http://www.oig.dot.gov/node/5599</a></p> <p><b>Assignment 3 Due:</b> <i>Prepare a two to three page discussion of a recent transportation funding need facing your community. Discuss the funding source(s) and any issues with securing the funding. 12.5 percent of grade.</i></p>
Feb 25	<p><b>Session 8: Expectations and Challenges of Using Public Funds</b></p> <ul style="list-style-type: none"> <li>• Changing Role of CTC</li> <li>• Capital vs. Operating Budgets, Aligning funding sources</li> <li>• Project Costing: Escalation and Deflation</li> <li>• Packaging your Funding Options: Scheduling, Formula vs. Discretionary Funding Decisions</li> <li>• “Timely Use of Funds” and other Expenditure requirements</li> <li>• Accountability and Transparency</li> </ul>

	<ul style="list-style-type: none"> <li>• Reporting Requirements</li> </ul> <p>Guest Lecturer – Mitch Weiss, Executive Director, CTC</p> <p><b>Reading:</b> Executive Summary, 2020 Annual Report to the California Legislature at: <a href="https://catc.ca.gov/-/media/ctc-media/documents/ctc-reports/annual-reports/ctc_2020annualreport_final">https://catc.ca.gov/-/media/ctc-media/documents/ctc-reports/annual-reports/ctc_2020annualreport_final</a></p> <p>Sacramento Transportation Authority’s 2020 Ordinance &amp; Transportation Expenditure Plan (Review only) at: <a href="http://www.sacta.org">www.sacta.org</a></p> <p>Promises Made, Promises Kept Report at: <a href="https://catc.gov/.../proposition-1b-highway-safety-traffic-reduction-air-quality-and-port-drcurity-bond-act-2006">https://catc.gov/.../proposition-1b-highway-safety-traffic-reduction-air-quality-and-port-drcurity-bond-act-2006</a></p>
Mar 4	<p><b>Session 9: High Speed Rail Funding and Transit Funding</b> High Speed Rail</p> <ul style="list-style-type: none"> <li>• Review of staging plan and funding approach</li> <li>• Is HSR a reasonable investment for California?</li> <li>• Transit Funding Programs</li> </ul> <p>Guest Lecturer -Brian Annis, CFO, HSRA; Courtney Williams, Caltrans</p> <p><b>Reading:</b> High Speed Rail 2020 Business Plan at: <a href="https://hsr.ca.gov/about/business-plans/2020/">https://hsr.ca.gov/about/business-plans/2020/</a></p> <p>CA LAO Publication “Review of HSR 2020 High-Speed Rail Business Plan” and the 2020-21 Budget: Effect of Lower Cap and Trade Revenues on the High-Speed Project, June 4, 2020 at: <a href="http://www.lao.gov/Publications?Year=2020&amp;CategoryID=11&amp;Type+&amp;phrase=">http://www.lao.gov/Publications?Year=2020&amp;CategoryID=11&amp;Type+&amp;phrase=</a></p>
Mar 11	<p><b>Session 10: Review of Class Highlights and “Take Aways”</b></p> <ul style="list-style-type: none"> <li>• Funding Sources – Federal, State, and Local</li> <li>• Other Funding Alternatives – Sales Tax Measures, Bonding, Tolling, Congestion Pricing, High Speed Rail Funding and P3s</li> </ul> <p><b>Assignment 4, Final Project Due, 50% of grade, Discussion of An Alternate Funding Source for Transportation</b> <i>Final assignment due by email to the instructor no later than 4:30 pm PST. Discussion paper on a new funding source. Ten page maximum.</i></p>