

San José State University
Lucas Graduate School of Business
Master of Science in Transportation Management
MTM 202: Introduction to Transportation Funding & Finance
Spring-A 2020

Course and Instructor Contact Information

Instructor:	Will Kempton & Norma Ortega
Office Location:	
Telephone:	Will Kempton (714) 272-5270 Norma Ortega (916) 803-6239
Email:	Will – Willkempton1947@yahoo.com Norma – norm7al@yahoo.com
Office Hours:	By appointment
Class Day/Time:	Thursdays, 5:30 – 9:30 PM, January 9 – March 13
Classroom:	Online via Zoom – https://sjsu.zoom.us/j/109376814 or specified videoconferencing locations (For locations, contact MSTM Coordinator Michelle Waldron)
Course website:	Canvas (http://sjsu.instructure.com)

Course Format

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

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

MTM Class Videoconferencing Sites:

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

Online Access via Zoom:

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

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

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

To access class sessions by Zoom, click on the following link from your computer or tablet: <https://sjsu.zoom.us/j/109376814>

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](http://sjsu.instructure.com) at <http://sjsu.instructure.com>. You are responsible for regularly checking with the messaging system through [MySJSU](http://my.sjsu.edu) at <http://my.sjsu.edu> (or other communication system as indicated by the instructor) 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 examine the development of transportation funding sources, review 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 preparation of financial strategy for a real world transportation project.

Lucas College and Graduate School of Business Program Goals

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

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- Goal 1: Business Knowledge:** Understand basic business principles and demonstrate discipline-specific competencies as applied to local and global environments.
- Goal 2: Communication:** Communicate ideas clearly, logically, and persuasively in oral and written format, using technology appropriately.
- Goal 3: Ethical Awareness:** Recognize, analyze, and articulate solutions to ethical issues that arise in business.
- Goal 4: Leadership, Teams and Diversity:** Comprehend the challenges and opportunities of leading and working in diverse teams and environments.
- Goal 5: Critical Thinking:** Comprehend, analyze, and critically evaluate complex and unstructured qualitative and quantitative business problems, using appropriate tools and technology.
- Goal 6: Innovation:** Recognize, analyze, and articulate strategies for promoting creativity and innovation.

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, 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 financial strategy to fund a real life transportation project.

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, through the assigned financial strategy project, the scope of transportation needs compared to available funding and identify option for closing the gap between these parameters, as well as the challenges to achieving that closure.

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)

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.

Class participation - Read “Too Big to Fall” and prepare a two to three page summary of your observations on this reading. Make a 5-minute presentation on your observations in class. Students will present their observations in Sessions 3, 4, 5, 7, and 8. Assignments will be made in Session 1. 25% of the overall grade.

Assignment 1: Prepare two or three page summary of federal, state, local and private sources of funds for assigned transportation project (see assignment details that will be handed out separately). Discuss particular challenges of securing these funds, including availability, completion, and timing. *This assignment represents 12.5% of the grade and is due February 6, 2020.*

Assignment 2: Prepare two to three page pro/con analysis of vehicle miles traveled approach to transportation funding versus a continuation of the current fuel tax-based system of financing the transportation program. This assignment will be discussed in class and represents 12.5% of the grade. *Due February 20, 2020.*

Final Examination or Evaluation

Final Evaluation, Assignment 3: Prepare a financial strategy for funding an assigned transportation project. The student project is 50% of the grade. The project will be identified by the instructors and the assigned projects and format will be discussed at the opening session. *Assignment due March 13, 2020*

Grading Information

Grade Calculation Task	% of Course Grade	Course Learning Objective(s) Addressed
Class participation: Presentation on Too Big to Fall	25%	LO1,LO2, LO3
Assignment 1	12.5%	LO1, LO2,LO3
Assignment 2	12.5%	LO1, LO2, LO3
Final Assignment, #3: Preparation of Financial Strategy	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. There will be no credit for missed assignments.

For Assignment 3, late work will not be accepted beyond March 14th, 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-
Below 60%	F

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 9	<p>Session 1: First Day of Class – Welcome, Course Outline & Project Review</p> <ul style="list-style-type: none"> • Discussion of Class Structure and Assignments • Discussion of Class Project: Preparing a Financial Strategy for a Major Transportation Project • Brief Review of Transportation System Structure • Overview of Transportation Funding – what it is and where does it come from <p>Reading: “California’s Transportation System”, Legislative Analyst Office, June 7, 2018 at: http://www.lao.ca.gov/handouts/transportations</p> <p>“2018 Transportation Funding in California” Caltrans: http://www.dot.ca.gov/hq/tpp/offices/eab/fundchrtfiles/TransportationFundinginCalifornia</p>
Jan 16	<p>Session 2: Federal Transportation Funding 1</p> <ul style="list-style-type: none"> • Authorization Appropriation, Obligations • Highway Transportation Funding • Sources and Eligibility: Highway and Transit • Transit Funding • Flexible Funding • How Federal Funding is Managed in California • Funding and Politics: From TEA 21 to the FAST ACT: What it means for CA • American Recovery and Reinvestment Act: A Recap • The Next Authorization Bill: The Future of Federal Transportation Funding • Guest Lecturer <p>Reading: Financing Federal Highways www.fhwa.dot.gov/reports/financingfederalaid/financing_highways.pdf 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: http://www.fhwa.dot.gov. Read the following Fact Sheets:</p> <ul style="list-style-type: none"> • Apportionments • Federal Share • Highway Trust Fund and Taxes • Surface Transportation Block Grant Program • Surface Transportation System Alternatives Program • Performance Management • Transportation Infrastructure and Innovation Act

	<p>The Build America Transportation Investment Center (BATIC): An AASHTO Center for Excellence website at: http://www.financingtransportation.org. Read the following sections:</p> <ul style="list-style-type: none"> • Federal Funding • Proposed Funding Sources • Mechanisms to Leverage Federal Aid
Jan 23	<p>Session 3: State Transportation Funding</p> <ul style="list-style-type: none"> • Understanding the transportation funding at the state level • Flow and process for securing transportation funds <p>Reading: 2018 Annual Report to the California Legislature at catc.ca.gov Senate Bill (SB1)- Road Repair and Accountability Act of 2017 at Rebuilding California.gov</p> <p>SB1 program fact sheets at catc.ca.gov Adopted 2020 STIP and Aeronautics Fund Estimate, August 2019 at catc.ca.gov</p> <p>The following LAO transportation reports found in publications at http://www.lao.gov</p> <ul style="list-style-type: none"> • Overview of the 2017 Transportation Funding Package • 2019-20 Budget: Transportation Proposals • Resources and Transportation Overview • California’s Transportation System <p>2020 Annual Report to the California Legislature at catc.ca.gov</p>
Jan 30	<p>Session 4: Local Transportation Funds: A Large Landscape</p> <p>The Local Picture</p> <ul style="list-style-type: none"> • Subventions vs. Self-Help • Funding for Transit • Funding for Local Streets and Roads <p>Assignment 1 Due: <i>Prepare a list of federal and state eligible sources of funds for your assigned project, based on Sessions 2, 3, and 4. Discuss particular challenges of securing these funds, including availability and timing. 12.5 percent of grade.</i></p> <p>Reading: Local Funding Charts “Transportation Funding in California,” Caltrans 2019 at http://www.dot.ca.gov/hq/tpp/eab/fundchrt files/Transportation Funding in California 2019 pdf</p> <p>Local Option Sales Taxes: Analysis and Articles “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: journals.sagepub.com</p>

	<p>“Local Option Transportation Taxes: Devolution as Revolution” by Martin Wachs, Access Number 22, Spring 2003 at: Accessmagazine.org</p>
Feb 6	<p>Session 5: Changing State Environment. How to Present Funding Requests</p> <p>State Budget in Crisis and Sustainability Requirements</p> <ul style="list-style-type: none"> • Shifting State Role http://www.scagrtp.net/gallery?t=chart (Figure 3.6) • Transportation Needs Assessment • CA Road Charge Pilot Program • Executive Order Transportation Funding and Climate Goals • Guest Lecturer <p>Project Funding Requests: The Do’s and Dont’s of making financial and funding information understandable to policy makers and other human beings.</p> <p>Readings:</p> <p>Governor Newsom’s Executive Order N-19-19, www.ca.gov.gov</p> <p>“Moving Toward Vehicle Miles of Travel Fees to Replace Fuel Taxes” 2011 at www.rand.org</p>
Feb 13	<p>Session 6: Class Progress Discussions</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 20	<p>Session 7: Recent Transportation Initiatives “Time is Money” Bonding and other Financing Mechanisms</p> <ul style="list-style-type: none"> • Funding Mega Projects • Guest Lecturer <p>Reading:</p> <p>“Funding and Financing Highways and Public Transportation”, Congressional Research Service, January 11, 2018 at: everycrsreport.com</p> <p>Financing Transportation Infrastructure in California at: http://www.rand.org/pubs/testimonies/2009/RAND CT322.pdf</p> <p>“From Home Rule to Fiscal Rule: Taking a Measure of Local Government Finance in California” at: http://www.ppic.org/main/publication.asp?i=85</p> <p>Read the following sections: Introduction, Documenting the Facts, Counties and Their Conundrum, and the Initiative Process and the Public Interest.</p> <p>Assignment 2 Due: <i>Prepare a 2-3 page pro/con analysis of vehicle miles traveled approach to transportation funding versus a continuation of the current fuel tax-based system of financing the program. The assignment will be discussed in class.</i> 12.5 percent of grade.</p>

Feb 27	<p>Session 8: Project Budgeting and Reporting with Public Funds</p> <ul style="list-style-type: none"> • Prerequisites: The Planning and Environmental Process • Capital vs. Operating Budgets • Project Costing: Escalation and Deflation • Packaging your Funding Options: Scheduling, Formula vs. Discretionary Funding Decisions • “Timely Use of Funds” and other Expenditure requirements • Reporting Requirements • Guest Lecturer
Mar 5	<p>Session 9: High Speed Rail Funding and Public Private Partnerships</p> <p>High Speed Rail</p> <ul style="list-style-type: none"> • Review of staging plan and funding approach • Is HSR a reasonable investment for California? • Guest Lecturer <p>Public Private Partnerships</p> <ul style="list-style-type: none"> • A premier on PPP funding • A review of financing plan for Presidio Parkway • Do PPPs work in California? <p>Reading: High Speed Rail 2018 Business Plan at http://www.hsr.ca.gov LAO Publication “ Review of HSR 2019 Project Update Report at: lao.ca.gov</p> <p>Financial Analysis of Transportation-related Public Private Partnerships – Office of Inspector General, Federal Highway Administration Report November 2011: CR147 at: http://www.oig.dot.gov/node/5599</p>
Mar 13	<p>Session 10: Review of Class Highlights and “Take Aways”</p> <ul style="list-style-type: none"> • Funding Sources – Federal, State, and Local • Other Funding Alternatives – Sales Tax Measures, Bonding, Tolling, etc • High Speed Rail Funding Package and P3s • Project Budgeting and Reporting <p>Final Evaluation, Assignment 3: Final Project Due – 50% of grade</p> <p><i>Final project financial strategies are by email to the instructor no later than 5:30 pm PST. Project elements are detailed in Final Project descriptions in the Project Profiles, including the following:</i></p> <ul style="list-style-type: none"> • <i>Project schedule, including planning, environment, design and construction</i> • <i>Capital budget and fund sources, to match project schedule</i> • <i>Operating/maintenance budget and funding sources, for at least a 10-year period</i> • <i>Advocacy plan for securing discretionary funding</i>