

**San José State University**  
**Lucas Graduate School of Business**  
**Master of Science in Transportation Management**  
**MTM 236: Contemporary Issues in Transportation Management**  
**Spring-A 2022**

**Course and Instructor Contact Information**

**Class Day/Time:** Tuesdays, 5:30 – 9:30 pm, January 4 – March 8

**Classroom:** Zoom

**Course website:** Canvas (<http://sjsu.instructure.com>)

**Instructor:** Andrea Broaddus

**Office Location:** Contact instructor

**Telephone:** 510-314-1065

**Email:** [Andrea.Broaddus@sjsu.edu](mailto:Andrea.Broaddus@sjsu.edu)

**Office Hours:** By appointment

**Instructor:** Gurmeet Naroola

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**Office Hours:** By appointment

**Course Format**

This class will meet via live video conferencing using Zoom (<https://sjsu.zoom.us/>). 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.

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 ([Link](#))

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: ([link](#))

## Course Materials

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

## Course Description

*SJSU Catalog:* Management challenges posed by five technological trends: electrification, vehicle automation, connected vehicles and infrastructure, car sharing and ride sharing, and mobility as a service. Topics include: impacts on infrastructure, financing, and labor; managing technologies to support environmental, equity, and economic efficiency policy goals; and supporting collaboration between public agencies and private sector firms.

*Details for this year's course:*

Before the Covid pandemic, the transportation industry was in a state of upheaval due to the entrance of new tech-driven on-demand mobility services such as Uber, Doordash, and Lime. Long standing travel habits such as driving to the store were starting to change and be replaced by ride hailing, home delivery, and using shared bikes or e-scooters instead of a car. During the Covid crisis, people had to adapt their travel behavior even more, abandoning their commute under shelter-in-place orders and starting to bike and walk more around their local neighborhood. New high tech mobility options like flying taxis and space tourism were making headlines during the pandemic, yet people were actually buying traditional reliable options like used cars and bicycles in unprecedented numbers. Public transit ridership plummeted to historic lows, calling its survival into question, while fixed routes began to be replaced by on-demand services.

This course features a project investigating the question of what happens next, now the impacts of the pandemic are here to stay. Which long-term trends boosted by the pandemic are here to stay? Will some travel return to pre-pandemic norms? What new technological and institutional adaptations are required to serve the "new normal" for travel demand and traffic? We will address these questions using a mixed methods approach. First, the students will conduct a review the scientific and news literature to assess the emerging trends and understanding in the public dialogue on these topics. This review will be used to generate interview questions

with leading experts and practitioners. We will then interview leading entrepreneurs, technologists, executives, leading experts, top government officials in mobility and transportation businesses for their thoughts and opinions about their predications and expectations, taking pandemic impacts into account.

## **MSTM Program Learning Goals:**

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

**Goal 1: Transportation Systems and Society:** Craft management decisions that integrate knowledge of multi-modal transportation, social, and, environmental systems

**Goal 2: Innovation:** Develop innovative solutions to transportation management challenges

**Goal 3: Leadership:** Develop high-impact leadership styles and competencies (traits, skills, behaviors)

**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. Describe the characteristics and drivers of five technological trends which are impacting the transportation system: electrification, automation, connected vehicles and infrastructure, car and ride sharing, and mobility as a service.
2. Describe how the Covid pandemic has impacted the transportation system, including travel demand, traffic, transit ridership, and on-demand modes.
3. Describe the changes in travel behavior and systems operations which are expected as a result of these technology trends and start-up companies, and how the Covid pandemic has impacted travel behavior in the short and long term.
4. Identify potential positive and negative impacts on infrastructure, labor, and system performance resulting from technological change and new private sector transport services.
5. Describe the management challenges faced by private and public sector leaders, how they adapted to the pandemic, and how they are preparing for the “new normal”.

## **Required Texts/Readings**

All assigned readings will be provided on the course Canvas site. Due to the rapidly changing nature of contemporary transportation issues, formal studies are quickly outdated. Therefore, in addition to the required course readings, students are encouraged to regularly follow the news on course topics.

## **Course Requirements and Assignments**

There are four requirements for completion of the course: (1) Class participation during class and online, (2) Weekly reflections and comments on the course website in response to assigned readings and the news, (3) Completion of the literature review assignment, (4) Contributions toward the class project. All written assignments must be submitted by uploading them to Canvas (they will not be accepted by email).

### **1. Class participation**

Students are expected to attend all classes and contribute to the in-class discussion, as well as at least two comments to the weekly online discussion, and to work together in project teams. Students who attend and participate will receive 10 points.

## 2. Weekly reflections and lead discussant

Using the Discussion section of the course website, students will post a short weekly reflection in response to in-class discussions, assigned readings, and the news. These can be short (1-2 paragraphs), and should focus on key takeaway points and implications for the transportation system. Students are encouraged to include links to relevant news articles in their comments, and to pose questions inspired by the reading. You will not be able to see posts by your peers until you have submitted your reflections. After you have submitted your reflections, you should read and respond to at least two peer posts. *This assignment is due 48 hours before class* (Saturday at 5:30). Both your reflections and comments must be submitted by that time for full credit. Since others are dependent on your reflections to do their comments, and you upon theirs, it is advised that you upload your reflections earlier in the week, and then come back later to do your comments. This assignment is worth 20 points. For each week reflections are not submitted, or are submitted late, 5 points will be deducted.

## 3. Literature review

Students will select a topic to research in depth and write a summary for presentation. The topic could be selected from the list of course topics in the course schedule, or of the student's own choosing. The research will involve reviewing the scientific literature and other sources and summarizing the major findings and unknowns. The instructors will provide guidance and examples, and the final write-up is expected to be 3-5 pages. This assignment is worth 20 points.

## 4. Group project

Students will collaborate to produce an innovative "Video Case Study Project". The interviews with mobility leaders will be video recorded and edited into case studies. We will ask for consent from interviewees to share and disseminate the content. Once they agree to participate, they will be given a set of questions to aid with preparation. Each week, students will help to prepare the list of questions for an upcoming participant. The students will collaborate to develop open-ended questions with specific inquiries to draw out each interviewee's point of view, leadership strategy and actions. The final project will be hosted on the MTI website as a series of video case studies. The students will also produce an introductory video introducing the topic and presenting findings from their literature reviews, and a conclusion video summarizing key takeaways and learnings from the interviews. This assignment is worth 50 points.

## Grading Information

The five course requirements will be weighted in the final grade as follows:

Task	Percent of Course Grade	Course Learning Objectives Covered
Class participation	10%	1,2,3,4,5
Weekly reflections/discussant	20%	1,2,3,4,5
Literature review	20%	1,2,3,4,5
Group project	50%	1,2,3,4,5

Task	Percent of Course Grade	Course Learning Objectives Covered
Total	100%	

### Determination of Grades

Grades for each assignment, and for the course, will be assigned based upon the scores on the scale below. There are a potential of 500 points to be earned by meeting the five course requirements, which are weighted according to the policy above. A student may calculate their final grade by summing up the total points earned for each requirement, multiplying it by the weight, and summing the results. For example:  $(100 \cdot .10) + (100 \cdot .15) + (80 \cdot .15) + (80 \cdot .25) + (100 \cdot .25) + (90 \cdot .10) = 91$ , which equates to an A-.

Percentage	Grade
94% and above	A
93% - 90%	A-
89% - 87%	B+
86% - 84%	B
83% - 80%	B-
79% - 77%	C+
76% - 73%	C
72% - 70%	C-
69% - 67%	D+
66% - 63%	D
62% - 60%	D-
<b>below 60%</b>	<b>F</b>

### University Policies

Per University Policy S16-9, university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. will be 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/>

# MTM 236 / Contemporary Issues in Transportation Management, Spring 2022

## Course Schedule

*Note:* This schedule is subject to change with fair notice. Students will be informed of any changes via an email announcement on the course website.

Class Session	Class Topics	Readings	Assignments Due
1 January 4	<p>Review the syllabus. Student introductions, interests and expectations.</p> <p>Overview of literature review and class project assignments.</p> <p>Introduction to Blue Ocean strategy framework and entrepreneurship in transportation. GenZe case study.</p>	<p>Browse these websites for collections of ongoing studies:</p> <p>UC Davis Covid19 Mobility Study: <a href="https://postcovid19mobility.ucdavis.edu/">https://postcovid19mobility.ucdavis.edu/</a></p> <p>ASU Covid19 and the Future Survey: <a href="https://covidfuture.org/">https://covidfuture.org/</a></p> <p>Browse and sign up for email updates from:</p> <ul style="list-style-type: none"> <li>• Innovative Mobility Research, <a href="http://innovativemobility.org/">http://innovativemobility.org/</a></li> <li>• Citylab Transportation, <a href="https://www.citylab.com/transportation/">https://www.citylab.com/transportation/</a></li> <li>• Shared Use Mobility Center, <a href="http://sharedusemobilitycenter.org/">http://sharedusemobilitycenter.org/</a></li> </ul>	
2 January 11	Electrification	<a href="#">Arribas-Ibar (2021) Electric vehicles during the Covid19 pandemic</a>	Weekly reflections
3 January 18	Public transit	<p><a href="#">Menon (2020), Impact of COVID-19 on Travel Behavior and Shared Mobility Systems</a></p> <p><a href="#">Wilbur (2020) Impact of Covid19 on public transit accessibility and ridership</a></p>	Weekly reflections
4 January 25	Autonomy and car ownership	<a href="#">Circella (2021) Investigating temp vs long-term impacts of pandemic on mobility</a>	Weekly reflections

<b>Class Session</b>	<b>Class Topics</b>	<b>Readings</b>	<b>Assignments Due</b>
		<a href="#">Rezwana (2021) Impact of Covid19 on Telecommuting</a>	
5 February 1	Emerging modes and active travel	<a href="#">Litman (2021) New Mobilities: Smart planning for emerging transportation technologies</a>  <a href="#">Pardo (2021) What We Learned After Analyzing 5 Months of Active Mobility Responses to COVID-19</a>	Lit review
6 February 8	Shared mobility	<a href="#">Javadinasr (2021) Enduring effects of Covid19 on travel behavior in the US</a>	Weekly reflections
7 February 15	Goods delivery	<a href="#">Shamshiripour (2020) E-Shopping trends during and after the pandemic</a>	Weekly reflections
8 February 22	Infrastructure resilience	<a href="#">Litman (2021) Pandemic-Resilient Community Planning</a>	Weekly reflections
9 March 1	Social equity	<a href="#">Rahimi (2020) Impacts of the pandemic on disadvantaged populations</a>	Introductory video
10 March 8	Final presentations		Conclusion video