

San José State University
Lucas Graduate School of Business
Master of Science in Transportation Management
MTM 201: Transportation Systems and Society
Fall-A 2019

Course and Instructor Contact Information

Instructor:	Kevin Fang
Office Location:	Contact instructor
Telephone:	(707) 664-3144
Email:	kevin.fang@sjsu.edu
Office Hours:	By appointment
Class Day/Time:	Wednesdays, 5:30 – 9:30 pm, on 7/31, 8/7, 8/14, 8/21, 8/28, 9/4, 9/11, 9/18, 9/25, and 10/2
Classroom:	Specified video-conferencing locations (For locations, contact MSTM Coordinator Michelle Waldron)
Credit units:	3
Grading	Normal grade rules
Credit units:	3
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/132857472>

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

Core transportation knowledge and systems thinking. Characteristics of travel modes and infrastructural elements that produce transportation systems; public, private, and nonprofit actors involved in transportation; transportation systems as levers toward achieving economic vitality, social equity, environmental sustainability, and community goals; and key challenges transportation system managers will face in the coming decade. Note: this course satisfies the GWAR for the MSTM program.

MSTM Program Goals:

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

Goal One: Management of Transportation Organizations: Develop a systems-savvy and global perspective on solving transportation management challenges

Goal Two: Transportation Policy: Develop solutions to transportation management challenges that integrate knowledge of the transportation policy environment

Goal Three: Leadership: Develop potential for leadership in transportation organizations

Goal Four: Communication Skills: Communicate effectively with a diverse workforce and citizenry

Goal Five: Analytical Skills: Identify and evaluate transportation management issues using appropriate methodological approaches

Course Learning Outcomes

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

1. Describe the primary modes of transportation and their functions, current levels of use, and likely levels of use in the future
2. Explain how “the transportation system” functions as interacting systems of infrastructure, services, and travel modes
3. Explain how transportation system performance is influenced by natural and man-made environments
4. Explain how transportation systems serve as tools to achieve fundamental social goals such as equity, economic vitality, and environmental health
5. Describe the roles of the many actors in the “transportation ecosystem,” including public agencies from the local to federal and international levels, private sectors firms providing transportation services and infrastructure, and individual travelers and shippers
6. Describe the key challenges facing transportation managers in the coming decade, including automated/connected, shared, and electric vehicles, and management strategies to respond to this new world
7. Describe the importance of innovation in technology and in organizational management practices in the transportation sector
8. Use library and online resources to identify relevant professional and scholarly literature on transportation topics

Required Texts/Readings

Writing Handbook

Students must purchase one required text:

Kate L. Turabian. *A Manual for Writers of Research Papers, Theses, and Dissertations*. 9th ed. Chicago: University of Chicago Press, 2018.

New copies can be purchased for about \$15.

Free e-textbook

We will also utilize the following text:

Jeffrey Tumlin. *Sustainable Transportation Planning: Tools for Creating Vibrant, Healthy, and Resilient Communities*. Hoboken, NJ: John Wiley and Sons, 2012.

The book is available for free online through the SJSU library. If you’d like to purchase the text, used copies start at around \$30.

Article Readings

Additional readings will be posted as links (see Course Schedule below or Canvas) or posted to the Files section of the course Canvas site.

Citation Style

It is important to properly cite any references you use in your assignments. For this class, use Kate Turabian's *A Manual for Writers of Research Papers, Theses, and Dissertations*, 9th edition. Turabian's book describes two systems for referencing materials: (1) "notes" (footnotes or endnotes), plus a corresponding bibliography, and (2) in-text parenthetical references, plus a corresponding reference list. In this class, students must use endnotes and a bibliography.

Library Liaison (Optional)

The Library Liaison for the Lucas Graduate School of Business is Christa Bailey (christa.bailey@sjsu.edu).

Course Requirements and Assignments

This course is taught as a seminar. Students are expected to engage with the course material and participate in class discussions. Please be respectful of your classmates during class and be aware of what is captured by your camera and microphone. Students course grades will be based on the sum of the following assignments:

Term Paper

The major assignment for the class is a term paper on a transportation management issue. Students will explore what scholarly research tells us about a transportation problem and potential solutions to that problem. Students will complete this assignment in three steps: a partial initial draft, an initial draft, and a final report. After the initial drafts, students will receive feedback from the instructor or their peers. Detailed instructions for each portion of the assignment will be shared on Canvas and discussed in class.

Term Papers should be between 3,000 and 4,000 words, exclusive of the bibliography and any appendices.

MTM 201 is a 3-unit course that satisfies the Graduation Writing Assessment Requirement (GWAR). To satisfy the GWAR requirement, students must receive at least a "C" grade on the Final Staff Report assignment. Students who receive a grade below "C" for this part of the course will not meet the GWAR requirement, even if their overall grade for the course is higher. Please check with the instructor or MSTM Program Director if you are unclear about these requirements.

Writing About Transportation Data Assignment

In addition to the term paper, students will complete a second, smaller writing assignment exploring a different genre of writing: about data. Students will access and explore data from a major transportation data source and practice summarizing key takeaways from the data.

Transportation News Presentations

Students will bring in interesting examples from transportation current events in the form of 5-minute presentations. The date of these presentations will be variable as a small number of students will give a presentation most of the weeks of the semester.

Final Exam

Students will complete a final exam on the last day of class which will evaluate student's comprehension of the material covered over the whole session. More details on the format of the exam will be discussed in class later in the session.

Grading Information

The course assignments will be weighted as follows:

Task	% of Course Grade	Learning Objectives Addressed
Term Paper – Peer Review	5%	2, 3, 4, 5, 8
Term Paper – First Draft	10%	2, 3, 4, 5, 8
Term Paper – Final Draft	35%	2, 3, 4, 5, 8
Writing About Transportation Data Assignment	15%	1, 2, 3, 4, 8
Transportation News Presentations	10%	4, 5, 6, 7
Final exam	25%	1, 2, 3, 4, 5, 6, 7

Determination of Grades

Letter grades for the course will assigned based on the cumulative total of points earned on assignments and the final exam according to the following table:

Final grade determination

Percentage	Grade
93.33% and above	A
93.33% to 89.5%	A-
89.5% to 86.67%	B+
86.67% to 83.33%	B
83.33% to 79.5%	B-
79.5% to 76.66%	C+
76.66% to 73.33%	C
73.33% to 69.5%	C-
69.5% to 66.66%	D+
66.66% to 63.33%	D
63.33% to 59.5%	D-
below 59.5%	F

Late papers

Late papers will be accepted with a 5% penalty per business day an assignment is late with a maximum penalty of 40%.

Classroom Protocol for the Lucas College Graduate School of Business

<http://www.sjsu.edu/cob/Students/policies/index.html>

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.

Lucas College and Graduate School of Business Mission

We are the institution of opportunity in Silicon Valley, educating future leaders through experiential learning and character development in a global business community and by conducting research that contributes to business theory, practice and education.

Course Schedule

Note: This schedule is subject to change with fair notice. Changes will be noted in class and via email.

Class 1 – Wednesday, July 31

Introductions

Transportation Basics

Key societal trends

Readings

- Tumlin (2012) – Sustainable Transportation Planning
Chapter 1: Introduction
Chapter 2: Sustainable Transportation (Pages 7-14)

Class 2 – Wednesday, August 7

Scholarly Writing and Research Tips, Part 1

Connections between land use patterns and transportation

Trends in automobility

- Bryan Morris, “From Horse Power to Horsepower,” *Access Magazine*, Spring 2007, <https://www.accessmagazine.org/wp-content/uploads/sites/7/2016/07/Access-30-02-Horse-Power.pdf>
- Giovanni Circella, Kate Tiedeman, Susan Handy, Farzad Alemi, and Patrica Mokhtarian. “What Affects U.S. Passenger Travel? Current Trends and Future Perspectives.” Davis, CA: National Center for Sustainable Transportation, 2016. <https://escholarship.org/uc/item/2w16b8bf> (Pages 1-28)

Class 3 – Wednesday, August 14

Scholarly Writing and Research Tips, Part 2

The implications/externalities of automobility, part 1

- Tumlin (2012) – Sustainable Transportation Planning
Chapter 2: Sustainable Transportation (Pages 15-22)
Chapter 3: Transportation and Public Health
- Susan Handy and Marlon Boarnet, “Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions.” Sacramento, CA: California Air Resources Board, 2014. https://ww3.arb.ca.gov/cc/sb375/policies/hwycapacity/highway_capacity_brief.pdf

Class 4 – Wednesday, August 21

Scholarly Writing and Research Tips, Part 3

The implications/externalities of automobility, part 2

Due: Writing about transportation data assignment

- Danielle Kurtzleben, “Suburban sprawl and bad transit can crush opportunity for the poor,” *Vox*, July, 23, 2014, <https://www.vox.com/2014/7/23/5881083/suburban-sprawl-public-transit-economic-mobility>.
- David Phillips, “Hiring Managers Biased Against People Who Live Farther Away,” *Harvard Business Review*, December 10, 2018, <https://hbr.org/2018/12/research-hiring-managers-are-biased-against-people-with-longer-commutes>.

Class 5 – Wednesday, August 28

Scholarly Writing and Research Tips, Part 4

Mass Transit

Due: Term Paper – Partial first draft for in-class peer review

- Tumlin (2012) – Sustainable Transportation Planning
Chapter 8: Transit
- Jarrett Walker, “Does Elon Musk understand urban geometry?,” July 21, 2016, <https://humantransit.org/2016/07/elon-musk-doesnt-understand-geometry.html>.

Class 6 – Wednesday, September 4

Active/Non-motorized Transportation

Transportation and Accessibility

Due: Term Paper – First draft (for instructor review)

- Tumlin (2012) – Sustainable Transportation Planning
Chapter 6: Pedestrians
Chapter 7: Bicyclists
- Alta Planning and Design, “Understanding the “Four Types of Cyclists,” August 10, 2017, <https://blog.altaplanning.com/understanding-the-four-types-of-cyclists-112e1d2e9a1b>

Class 7 – Wednesday, September 11

Transportation Revolutions, Part 1:

Autonomous Vehicles

Electric Vehicles

- Bloomberg Philanthropies/Aspen Institute. “Taming the Autonomous Vehicle: A Primer for Cities.” 2017. <https://www.bbhub.io/dotorg/sites/2/2017/05/TamingtheAutonomousVehicleSpreadsPDF.pdf>

Class 8 – Wednesday, September 18

Transportation Revolutions, Part 2:

Ridehailing

Micromobility

- Regina Clewlow, “Disruptive Transportation: The Adoption, Utilization, and Impacts of Ride-Hailing in the United States,” *Transfers Magazine*, Spring 2019, <https://transfersmagazine.org/disruptive-transportation-ride-hailing/>.
- Benjamin Schneider, “Why Little Vehicles Will Conquer The City,” *Citylab*, June 21, 2018, <https://www.citylab.com/transportation/2018/06/welcome-to-the-tiny-vehicle-age/563342/>.

Class 9 – Wednesday, September 25

Transportation Finance Basics

Cargo transportation

Due: Term Paper – Final draft

Class 10 – Wednesday, October 2

Course wrap-up discussion

Looking ahead: Writing in the rest of the program

Final Exam

- Tumlin (2012) – Sustainable Transportation Planning
Chapter 4: The City of the Future