SJSU SAN JOSÉ STATE UNIVERSITY

Lucas College and Graduate School of Business · Graduate School of Business

Transportation Systems and Society Section 01

MTM 201

Spring 2023 3 Unit(s) 03/21/2023 to 05/23/2023 Modified 03/20/2023

Contact Information

Instructor: Dr Kevin Fang

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Office Hours

Fridays 2-4pm or by appointment

For Friday office hours, sign up at calendly.com/kmfang

Email to set up an appointment at a different time

Course Description and Requisites

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.

Letter Graded

Program Information

Lucas College and Graduate School of Business Mission:
We are the institution of opportunity in Silicon Valley, educating future leaders through experiential learning and professional development in a global business community and by conducting research that contributes to business theory, practice and education.

MS Transportation Management Program Learning Goals:

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

Goal One: Transportation Systems and Society
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
Identify and analyze leadership styles and traits.

Goal Four: Communications
Communicate effectively with a diverse workforce and citizenry.

Goal Five: Analytical Skills
Identify and evaluate transportation management issues using appropriate data and methods.

Course Learning Outcomes (CLOs)

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

Course Materials

Sustainable Transportation Planning: Tools for Creating Vibrant, Healthy, and Resilient Communities

Author: Jeffrey Tumlin
Publisher: John Wiley and Sons
Availability: This is available as a free e-book through the SJSU library website. If you’d like to purchase a hard copy of the text, used copies start at around $30.

A Manual for Writers of Research Papers, Theses, and Dissertations

Author: Kate L. Turabian
Publisher: University of Chicago Press
Availability: New copies can be found for about $15

This book contains guides for the Turabian citation format, which is used throughout the MTM program. Students also read parts of this book in the Capstone course.

Additional article readings

See links on Canvas front page

Grading Information

Course grade calculated based off the course requirements below.

Late papers are accepted with a 10% deduction once late, plus an additional 5% deduction per additional business day an assignment is late, with a maximum deduction of 40%.

Criteria

Type	Weight	Topic	Notes
1) Streets of the World	8%	Students will look at examples of streets around the world and over time and explore the role of streets in society	Due Tuesday, March 28 by the start of class

Type	Weight	Topic	Notes
2) Travel Behavior Interviews	8%	Students will conduct two informal interviews to explore individual decision-making in transportation	Due Tuesday, April 18 by the start of class
3) Case Study Presentations	8%	Students will explore interesting examples on topics covered in the course in the form of short presentations (topic prompts will be provided). Several students will present each week in the second half of the course.	Variable in-class dates
4) Term Paper Initial Deliverables	8%	The major assignment for the class is a term paper series on transportation management issues. Students will explore what scholarly research tells us about a societal transportation problem and/or a transportation solution/strategy.In Part 1 of the Term Paper assignment, students will come up with a research question/outline, learn about citation formatting, and practice finding scholarly literature.	Due Friday, May 5 by 11:59pm
5) Term Paper Full Draft	26%	In Part 2 of the Term Paper assignment, students will draft their complete term paper.	Due Friday, May 26 by 11:59pm
6) End of Semester Reflections	4%	Students will briefly answer a few questions on their major takeaways and conclusions on the course content.	Due date TBA
Test 1	20%	Test covers course material through Class 5. The test will be self-administered online using Canvas during the beginning of Class 6.	April 25
Test 2	18%	Test covers course material through Class 9. The test will be self-administered online using Canvas during the beginning of Class 10.	May 23

Breakdown

Grade	Range	Notes
A	93.33 and above	
A-	89.5 to 93.32	
B+	86.67 to 89.49	
B	83.33 to 86.66	
B-	79.5 to 83.32	
C+	76.67 to 79.49	
C	73.33 to 76.66	
C-	69.5 to 73.32	
D+	63.67 to 69.49	
D	63.33 to 66.66	
D-	59.5 to 63.32	
F	Below 59.5	

University Policies

Per University Policy S16-9 (http://www.sjsu.edu/senate/docs/S16-9.pdf), relevant university policy concerning all courses, such as

student responsibilities, academic integrity, accommodations, dropping and adding, consent for recording of class, etc. and available student services (e.g. learning assistance, counseling, and other resources) are listed on Syllabus Information web page (https://www.sjsu.edu/curriculum/courses/syllabus-info.php) (https://www.sjsu.edu/curriculum/courses/syllabus-info.php). Make sure to visit this page to review and be aware of these university policies and resources.

Course Schedule

When	Topic	Notes
Class 1 (3/21)	Introductions, Transportation Basics, Key Trends	Readings • Tumlin (2012) – Sustainable Transportation Planning Chapter 1: Introduction Chapter 2: Sustainable Transportation (Pages 7-14)
Class 2 (3/28)	Discussion: Streets of the World, Transportation-Land Use Connection	• Tumlin (2012) – Sustainable Transportation Planning Chapter 5: Streets • 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 (https://www.accessmagazine.org/wp-content/uploads/sites/7/2016/07/Access-30-02-Horse-Power.pdf) • Reid Ewing and Robert Cervero. "Travel and the built environment: A meta-analysis." Journal of the American planning asso no. 3 (2010): 265-294.
Class 3 (4/4)	Introduction to Travel Behavior, Natural Environment Externalities	• Tumlin (2012) – Sustainable Transportation Planning Chapter 2: Sustainable Transportation (Pages 15-22) Chapter 3: Transportation and Public Health • Giovanni Circella, Kate Tiedeman, Susan Handy, Farzad Alemi, and Patrica Mokhtarian. "What Affects U.S. Passenger Trave Trends and Future Perspectives." Davis, CA: National Center for Sustainable Transportation, 2016. https://escholarship.org/uc/item/2w16b8bf (https://escholarship.org/uc/item/2w16b8bf) (Pages 1-28)
Class 4 (4/11)	Transportation Externalities: Safety	• Emma Fitzsimmons, "More Pedestrians and Cyclists are Dying in N.Y.C. Drivers are Often to Blame. March 15, 2020. • Alissa Walker, "Oslo saw zero pedestrian and cyclist deaths in 2019. Here's how the city did it,*Curbed*, January 3, 2020. https://www.curbed.com/2020/1/3/21048066/oslo-vision-zero-pedestrian-cyclist-deaths (https://www.curbed.com/2020/1/3/21048066/oslo-vision-zero-pedestrian-cyclist-deaths)
Class 5 (4/18)	Congestion, Discussion: Travel behavior interviews, Road building externalities	• Tumlin (2012) – Sustainable Transportation Planning Chapter 9: Motor Vehicles Chapter 10: Parking • Transportation For America, "The Congestion Con," 2020.http://t4america.org/wp-content/uploads/2020/03/Congestion-R 2020-FINAL.pdf (http://t4america.org/wp-content/uploads/2020/03/Congestion-Report-2020-FINAL.pdf) • Susan Handy and Marlon Boarnet, "Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenho Emissions." Sacramento, CA: California Air Resources Board, 2014. https://ww2.arb.ca.gov/sites/default/files/2020-06/Impact_of_Highway_Capacity_and_Induced_Travel_on_Passenger_Vehicle_Use_and_Greenhouse_Gas_Emissions_Policy (https://ww2.arb.ca.gov/sites/default/files/2020-06/Impact_of_Highway_Capacity_and_Induced_Travel_on_Passenger_Vehicle_Use_and_Greenhouse_Gas_Emissions_Policy • Michael Manville, "Longer View: The Fairness of Congestion Pricing,"*Transfers Magazine*, Spring 2019. https://transfersmagazine.org/longer-view-the-fairness-of-congestion-pricing/ (https://transfersmagazine.org/longe fairness-of-congestion-pricing/)
Class 6 (4/25)	Test #1, Transit, Informal Transit	• 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-understand-geometry.html (https://humantransit.org/2016/07/elon-musk-doesnt-understand-geometry.html)
Class 7 (5/2)	Non-motorized transportation	• Tumlin (2012) – Sustainable Transportation Planning Chapter 6: Pedestrians Chapter 7: Bicyclists • Alta Planning and Design, "Understanding the "Four Types of Cyclists," August 10, 2017https://blog.altaplanning.com/unde the-four-types-of-cyclists-112e1d2e9a1b (https://blog.altaplanning.com/understanding-the-four-types-of-cyclists-112e1d2

When	Topic	Notes
Class 8 (5/9)	Transportation Revolutions, Part 1: Electric vehicles	
Class 9 (5/16)	Transportation Revolutions, part 2: Autonomous 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 (https://www.bbhub.io/dotorg/sites/2/2017/05/TamingtheAutonomousVehicleSpreadsPDF.pdf) • Tumlin (2012) – Sustainable Transportation Planning Chapter 4: The City of the Future
Class 10 (5/23)	Test #2, Transportation Revolutions, part 3: Ridehailing, Course Wrap-up	• Regina Clewlow, "Disruptive Transportation: The Adoption, Utilization, and Impacts of Ride-Hailing in the United States," *Tran* *Magazine*, Spring 2019, https://transfersmagazine.org/disruptive-transportation-ride-hailing/ (https://transfersmagazine.org/disruptive-transportation-ride-hailing/)