

TRANSPORTATION NETWORKS AND SMART MOBILITY: Methods and Solutions

July 31-August 4, 2023 | Instructor: Moshe Ben-Akiva | professional.mit.edu/mstn

Note: All times are US Eastern Daylight Time. Schedule is subject to change.

	MONDAY, JUL. 31	TUESDAY, AUG. 1	WEDNESDAY, AUG. 2	THURSDAY, AUG. 3	FRIDAY, AUG. 4
LECTURE 1 9:30–11:00 am	Introduction, Traffic Performance I: Modeling and Simulation Approaches	Demand and User Behavior I: Overview of Discrete Choice Analysis	Traffic Assignment III: Testing Optimization Algorithms	Real-time Systems: Evaluations of Traffic Predictions	Freight Models I: Economic Activity Models
LECTURE 2 11:15 am–12:45 pm	Traffic Performance II: Microscopic and Mesoscopic Traffic Simulation	Demand and User Behavior II: Route and Time-of-Travel Choice	Traffic Assignment IV: Pricing and Travel Time Reliability	Public Transportation Models I: Framework and Low Frequency Services	Freight Models II: Logistics Choices
LECTURE 3 1:45–3:15 pm	Traffic Performance III: Static and Dynamic Network Supply Models	Traffic Assignment I: Framework for Demand/Supply Interactions	Calibration and Validation I: Estimation of Origin to Destination Flows from Counts	Public Transportation Models II: High Frequency Services	Transportation Systems Planning and Design: Modeling and Evaluation
LECTURE 4 3:30–5:00 pm	Case Study I: Future Mobility Sensing and SimMobility	Traffic Assignment II: Equilibrium and Day-to-Day Dynamics	Calibration and Validation II: Estimation of Behavioral Models, Simultaneous Calibration	Case Study II: High-Speed Rail	Conclusion: Questions and Answers
	VIRTUAL RECEPTION 5:15 pm				