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Master in Urban Planning

Transportation and Infrastructure Concentration 2025-2026

Advisors: Carole Voulgaris and Rachel Weber

Other Concentration Faculty: Diane Davis and Magda Maaoui

This area of concentration covers any form of infrastructure that is an important shaper of the built environment, particularly transportation, storm water, drinking water and sewage but also energy and telecommunications. Students are encouraged to take courses that examine infrastructure from a variety of perspectives, including:

- 1. Planning practice and policy
- 2. Analytic methods applied to infrastructure planning and operations
- 3. The physical design of infrastructure
- 4. The relationship between infrastructure and land use
- 5. Private infrastructure provision, regulation and finance
- 6. Specialized courses on modes of transportation or types of infrastructure

Note: Course offerings are subject to change. Courses that do not appear in this memo will not automatically have approval. To have a course not listed below count toward your concentration requirement, the Concentration Advisor(s) will need to review the syllabus and send written approval to Sarah Hutchinson.

Recommended introductory courses:

The following courses are recommended to those interested in the concentration. They are introductory level courses that give a good overview of the topics and subject matter covered in more depth by other courses in the concentration:

SCHOOL	COURSE NUMBER	COURSE TITLE	UNITS	FACULTY
GSD	5437	Transportation Economics and Finance (Fall) ¹	4	Voulgaris
GSD	5463	Planning for Pedestrians and Cyclists (Spring)	4	Voulgaris

^{1.} Only if not taken to satisfy Economic Methods Requirement.

FALL 2025 APPROVED COURSES:

SCHOOL	COURSE NUMBER	COURSE TITLE	UNITS	FACULTY
GSD	3241	Theories of Landscape as Urbanism	4	Waldheim,
				Doherty
GSD	5437	Transportation Economics and Finance ¹	4	Voulgaris
GSD	6381	Power Energy: Mapping the Thickened Ground of Labor	4	Monacella
FAS	ESPP 171	Solid Waste in Developing Countries	4	Thomas
HKS	API 141	Finance ²	4	Deep
HKS	MLD 601	Operations Management	4	Fagan
MIT	1.205	Advanced Demand Modeling ³	4	Ben-Akiva
MIT	1.232	The Airline Industry	4	Allroggen
	15.054			
	16.71J			
MIT	1.286	Urban Energy Systems and Policy ⁴	4	Hsu
	11.477	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3		



MIT	1.303	Infrastructure Design for Climate Change ⁵	2	Einstein
	11.273			
MIT	1.818	Sustainable Energy ⁵	4	Shirvan
	2.65			
	10.391			
	11.371			
MIT	11.381	Infrastructure Systems in Theory and Practice ⁶	4	Hsu
MIT	11.478	Behavioral Science, AI, and Urban Mobility ⁵	4	Zhao
MIT	11.529	Mobility Ventures: Driving Innovation in Transportation Systems	4	Zhao,
	15.379			Moavenzadeh
MIT	11.540	Urban Transportation Planning	4	Aloisi

- 1.Only if not taken to satisfy Economic Methods Requirement.
- 2. Priority enrollment is given to HKS students and may not be available to GSD students.
- 3. Prerequisite: <u>1.202</u> or permission of instructor
- 4. Prerequisite: 11.203, 14.01, or permission of instructor
- 5. Enrollment requires permission of instructor.
- 6. Prerequisite: $(\underline{14.01} + \underline{11.202})$ or $\underline{11.203}$, or permission of instructor

SPRING 2026 APPROVED COURSES:

SCHOOL	COURSE NUMBER	COURSETITLE	UNITS	FACULTY
GSD	4374	Cities, Infrastructures, and Politics: From Renaissance to Smart Technologies	4	Picon
GSD	5463	Planning for Pedestrians and Cyclists	4	Voulgaris
FAS	ECON 1661	Economics of Climate Change and Environmental Policy (jointly offered by HKS)	4	Stavins
HKS	API 135	Economics of Climate Change and Environmental Policy (jointly offered by FAS)	4	Stavins
HKS	API 148	Advanced Risk Management and Infrastructure Finance ¹	4	Deep
HKS	DEV 209	Management, Finance, and the Regulation of Public Infrastructure in Developing Countries	4	Lee
HKS	MLD 411M	Introduction to Budgeting and Financial Management (Spring 1)	2	Blimes, Iammartino
HKS	MLD 605	Systems Thinking and Supply Chain Management: Climate, Poverty and Human Rights	4	Fagan
HKS	MLD 620M	The Data Smart City: Driving Innovation with Technology (Spring 2) ¹	2	Goldsmith
MIT	1.C01	Machine Learning for Sustainable Systems ²	2	Amin
MIT	1.200 11.544 IDS.675	Transportation: Foundations and Methods ³	4	Wu
MIT	1.202	Demand Modeling	4	Ben-Akiva
MIT	1.251 11.526	Comparative Land Use and Transportation Planning	4	Duarte
MIT	1.253 11.543	Transportation Policy, the Environment, and Livable Communities ⁴	4	TBD
MIT	1.263 11.263	Urban Last-Mile Logistics (Spring 2) ⁵	2	Winkenbach
MIT	11.324	Modeling Pedestrian Activity in Cities	4	Sevtsuk
MIT	11.449	Decarbonizing Urban Mobility	4	Salzberg
MIT	11.543	Transportation Policy, the Environment, and Livable Communities ⁴	4	TBA
MIT	11.547 SCM.287	Global Aging & the Built Environment	4	TBA

^{1.} Priority enrollment is given to HKS students and may not be available to GSD students.

- 2. Prerequisite: (1.000 and 1.010) or permission of instructor; Co-requisite: 6.C01
- 3. Prerequisite: 1.000, (1.00 and 1.010), or permission of instructor.
- 4. Enrollment requires permission of instructor.
- 5. Prerequisite: <u>SCM.254</u> or permission of instructor

APPROVED BUT NOT OFFERED IN 2025-2026:

For the below courses to be approved for the current academic year, they <u>must be offered with the same **course number**, <u>title</u>, <u>and instructor</u>. The course must be reapproved if it doesn't match the below version of the course.</u>

SCHOOL	COURSE	COURSE TITLE	UNITS	FACULTY
	NUMBER			
GSD	4362	Structuring Urban Experience: From the Athenian Acropolis to	4	Smith
		the Boston Common (last offered 2024-2025)		
GSD	5380	Experimental Infrastructures (last offered 2022-2023)	4	Spinak
GSD	5394	Travel Behavior Forecasting (last offered 2024-2025)	4	Voulgaris
GSD	5511	Public Transit (last offered 2024-2025)	4	Voulgaris
GSD	6277	Survey of Energy Technology (last offered 2022-2023)	4	Aziz
FAS	AFRAMER	Mobility, Power and Politics (last offered 2023-2024)	4	Agbiboa
	130Y			
FAS	E-PSCI	The Climate Energy Challenge: A Foundation in Science,	4	Schrag
FAS	239	Technology and Policy (last offered 2024-2025)	4	
HBS	MBA 1487	Cities, Structures, and Climate Shocks (last offered 2024-2025)	4	Macomber
HKS	IGA 402	The Climate Energy Challenge: A Foundation in Science,	4	Schrag
		Technology and Policy (last offered 2024-2025)		
HKS	IGA 411	The Energy-Climate Challenge (last offered 2020-2021)	4	Lee, Holdren
HKS	IGA 565	Analytical Methods for Complex Adaptive Systems (last offered	4	Siddiqi
		2022-2023)		
HKS	MLD 410	State and Local Financial Policy (last offered 2019-2020)	4	Chodos
HLS	2040	Autonomous Vehicles and the Law (last offered 2020-2021)	4	Weinstock
HLS	2227	Autonomous Vehicles and Local Government Lab (last offered	2	Crawford
		2019-2020)		
HLS	2813	City Use of Technology (last offered 2022-2023)	4	Crawford
HSPH	ID 539	Built Environment, Human Transportation, Public Health, and	4	Lusk
		Climate Change (last offered 2022-2023)		
MIT	11.S953	Public Transportation Analytics and Planning (last offered	Contact	Stewart
		2024-2025)	registrar	

