

DEPARTMENT OF URBAN STUDIES AND PLANNING

Undergraduate Study

The Department of Urban Studies and Planning offers a Bachelor of Science in Planning; HASS Minors in Urban Studies and Planning, International Development, and Public Policy; and a variety of HASS concentrations. There is also an accelerated SB/MCP program which allows exceptional students to complete their undergraduate and master's degree work in five years.

In addition, DUSP also hosts MIT's Teacher Education Program (TEP), described under Career and Professional Options (<https://catalog.mit.edu/mit/undergraduate-education/career/teacher-licensure-education>) in the Undergraduate Education section. TEP provides an option for students interested in exploring new ideas in teaching and learning as applied to K-12 schools. Studies in TEP can also lead to licensure in math or science teaching at the high school or middle school levels.

Bachelor of Science in Planning (Course 11)

The Department of Urban Studies and Planning offers an interdisciplinary preprofessional undergraduate major (<https://catalog.mit.edu/degree-charts/planning-course-11>) designed to prepare students for careers in both the public and private sectors. The major also provides a foundation for students who are considering graduate work in law, public policy, international development, urban design, management, and planning. The subjects in the major teach students how the tools of economics, policy analysis, political science, and urban design can be used to solve social and environmental problems in the United States and abroad. In addition, students learn the skills and responsibilities of planners who seek to promote effective and equitable social change.

After satisfying the core requirements, students use their electives to pursue a specific track. We suggest one of the following, but will accept self-designed options to better meet a student's interest: urban and environmental policy and planning; urban society, history, and politics; or urban and regional public policy. The required laboratory emphasizes urban information systems and offers skills for measurement, representation, and analysis of urban phenomena. In the laboratory subject, students also explore the ways emerging technology can be used to improve government decision making.

Students are encouraged to develop a program that will strengthen their analytic skills, broaden their intellectual perspectives, and test these insights in real-world applications. Students must complete a senior project that synthesizes what they have learned. This project may consist of an analysis of a public policy issue, a report on a problem-solving experience from an internship or other field experience, or a synthesis of research on urban affairs.

Urban Science and Planning with Computer Science (Course 11-6)

Urban settlements and technology around the world are rapidly co-evolving as flows of population, finance, and politics are reshaping the very identity of cities and nations globally. We already see rapid and profound change, especially in mega-cities, including pervasive sensing, the growth and availability of continuous data streams, advanced analytics, interactive communications and social networks, and distributed intelligence. Examples of new technologies facilitated by or requiring big data and new informatics concentrated in urban areas include, but are not limited to, autonomous vehicles, sensor-enabled self-management of natural resources, cybersecurity for critical infrastructure biometric identity, the sharing or gig-economy, and continuous public engagement opportunities through social networks and data and visualization.

The Bachelor of Science in Urban Science and Planning with Computer Science (Course 11-6) (<https://catalog.mit.edu/degree-charts/urban-science-planning-computer-science-11-6>) emphasizes the development of fundamental skills in urban planning and policy, including ethics and justice; statistics, data science, geospatial analysis, and visualization; and computer science, robotics, and machine learning. The Course 11-6 program provides numerous opportunities for field-based problem-solving experience through labs, UROP assignments and client-based courses in which students synthesize and empirically integrate what they are learning about theory and practice at the intersection of computer and urban science. Students also have the opportunity to specialize through the selection of a customized concentration of upper-level electives in data visualization, applied spatial analysis, design, and public policy. Students in the program are full members of both departments and of two schools, Architecture and Planning and Engineering.

Email for more information (duspinfo@mit.edu) or call 617-253-1933.

Five-Year SB-MCP Option

Undergraduate Course 11 majors may apply for admission to the department's Master in City Planning (MCP) program in their junior year. Students accepted into the five-year program receive both the Bachelor of Science and the MCP at the end of five years. Admission is intended for those undergraduates who have demonstrated exceptional performance in the major and show commitment to the field of city planning. Criteria for admission include the following:

- A strong academic record in Course 11 subjects
- Letters of reference from departmental faculty
- Practical experience in planning, which could be gained through internships, practicums, studios, Undergraduate Research Opportunities Program experiences, summer jobs, etc.
- A mature and passionate interest for the field that warrants further study

Students can obtain more information on the five-year program from Sandra Wellford, undergraduate administrator, Room 7-346A, 617-253-9403.

Minor in Urban Studies and Planning

The six-subject Minor in Urban Studies and Planning offers students the opportunity to explore issues in urban studies and planning in some depth. Students initially take two Tier I subjects that establish the political, economic, and design contexts for local, urban, and regional decision making. In addition, students choose four Tier II elective subjects, which provide an opportunity to focus on urban and environmental policy issues or to study urban problems and institutions. Students are encouraged to craft a minor that reflects their own particular interests within the general parameters of the minor program requirements and in consultation with the minor advisor.

Requirements		
11.001[J]	Introduction to Urban Design and Development	12
11.002[J]	Making Public Policy	12
Electives		
Select four Course 11 elective subjects ¹		36-48
Total Units		60-72

¹ In consultation with the advisor, students can select from recommended concentrations described in the department's course maps or create their own stream tailored to a particular set of urban, policy, or planning concerns.

Minor in International Development

The HASS Minor in International Development aims to increase students' ability to understand, analyze, and tackle problems of global poverty and economic development in the developing world. Challenges include increasing urbanization; the need for industrial growth as well as jobs for an increasing number of educated youth; the crisis of resources and infrastructure; the fragmentation of state capacity and rising violence; ethical and moral issues raised by development planning; the role of appropriate technology and research; and popular discontent. The minor emphasizes problem-solving, multidisciplinary, and an understanding of institutions at various levels—from the local to the global—as the keys to solving today's problems in emerging countries.

The six-subject minor is structured into two tiers. The subjects in the first tier provide a general overview of the history of international development and major theories and debates in the field, and an introduction to the dilemmas of practice. They also introduce the challenges of applying models of interventions across contexts and the importance of understanding local institutional frameworks and political economies across scales and levels of governance.

Subjects in the second tier offer an array of more specialized and advanced subjects to allow students greater depth in specific sectors

and international development issues such as public finance, infrastructure and energy, sustainability, the role of technology policy, the form and structure of cities, the politics of urban change and development, the role of law and public policy in development, and the rethinking of development in terms of human rights.

Tier I: Introduction to International Development Theories and Practice

Select two of the following: 24

11.005	Introduction to International Development
11.025[J]	D-Lab: Development
11.140	Urbanization and Development

Tier II: Specialized Topics in International Development

Select four of the following (in consultation with the minor advisor): 42-48

11.002[J]	Making Public Policy
11.027	City to City: Comparing, Researching, and Reflecting on Practice
11.144	Project Appraisal in Developing Countries
11.147	Budgeting and Finance for the Public Sector
11.164[J]	Human Rights at Home and Abroad
11.165	Urban Energy Systems and Policy
11.166	Law, Social Movements, and Public Policy: Comparative and International Experience
EC.715	D-Lab: Water, Sanitation and Hygiene

Total Units 66-72

Additional subjects not listed above may be included in the minor at the discretion of the minor advisor.

Further information can be obtained from Professor Balakrishnan Rajagopal (braj@mit.edu), Room 9-432, 617-253-6315.

Minor in Public Policy

The interdisciplinary HASS Minor in Public Policy (<https://catalog.mit.edu/interdisciplinary/undergraduate-programs/minors/public-policy>) is intended to provide a single framework for students interested in the role of public policy in the field of their technical expertise. Because the Course 11 major has a strong public policy element and several subjects are redundant, Course 11 majors are not eligible for the Minor in Public Policy.

HASS Concentrations

The Department of Urban Studies and Planning offers many HASS concentrations tailored to a wide variety of student needs and interests. Sample programs (<https://dusp.mit.edu/undergraduate/#hass-concentrations>) are available online and include: designing

the urban environment, environmental policy, urban history, policy analysis and urban problems, legal issues and social change, and education.

Students can also create an individually designed HASS concentration that fits their particular interests while taking account of Institute guidelines. The department will assist students in selecting three HASS subjects that suit their concerns and background.

The DUSP concentration focusing on education can also lead to Massachusetts licensure in teaching math and science at the middle and high school levels. This requires taking:

Education Concentration Subjects		
11.129[J]	Educational Theory and Practice I	12
11.130[J]	Educational Theory and Practice II	12
11.131[J]	Educational Theory and Practice III	12
Core Subjects		
11.124[J]	Introduction to Education: Looking Forward and Looking Back on Education	12
11.125[J]	Introduction to Education: Understanding and Evaluating Education	12

More information is available from Eric Klopfer, Room E15-301, 617-253-2025.