

# DUSP Handbook

Department of Urban Studies and Planning  
Massachusetts Institute of Technology

2016–2017



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# Links to Different Formats

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For the online html version, visit [http://web.mit.edu/dusp/dusp\\_extension\\_unsec/handbook/index.html](http://web.mit.edu/dusp/dusp_extension_unsec/handbook/index.html)



# Chapter 1

## Introduction

### Who is who?

#### School of Architecture and Planning (SA+P)

DUSP is located within the School of Architecture and Planning, one of the five schools at MIT: Architecture and Planning; Engineering; Humanities, Arts, and Social Science; Management (The Sloan School); and Science. The School of Architecture and Planning, under the direction of Dean Hashim Sarkis, consists of the Department of Architecture, the Department of Urban Studies and Planning, and the Program in Media Arts and Sciences (MAS). The School also includes the Media Laboratory (ML), the Center for Real Estate (CRE), the Center for Advanced Urbanism (CAU), and the Center for Advanced Visual Studies (CAVS). Both departments, as well as ML and CRE offer advanced degrees and include opportunities for joint programs with other departments. The Center for Advanced Visual Studies does not confer a degree but is research based, offering an art-based platform for collaborations between artists, scientists, and technologists. The School offers the following programs:

1. Undergraduate degree programs.
2. Master's degree programs in architecture, architecture studies, city planning, media arts and sciences, visual studies, and real estate.
3. PhD programs in architecture history, theory and criticism, art, and environmental studies, urban and regional studies, urban and regional planning, and media arts and sciences.
4. Dual degree programs in architecture, planning, transportation, and real estate, as well as with degree programs in other departments.

## Department of Urban Studies and Planning (DUSP)

The Department of Urban Studies and Planning at MIT seeks to educate practitioners and scholars who will be able to affect urban and regional development, community and economic development, physical planning and design, and environmental policy. The department is committed to educating planners who can effectively advocate the interests of under-represented constituencies. The department offers three formal degree programs:

1. The Undergraduate Program, which leads to a Bachelor of Science in Planning (SB) and can potentially lead to the five-year SB/MCP Program. Within the major, specializations are available in Urban Society, History and Politics; Urban Development and Public Policy; and Urban and Environmental Policy and Planning.
2. The Masters Program, which leads to a Masters in City Planning. (An M.S. is also an option in some cases).
3. The PhD Program.

In addition, the department sponsors two special non-degree courses of study:

1. The Special Program for Urban and Regional Studies (SPURS)/Humphrey Program; and
2. The Community Innovators Lab (CoLab).

Within the department there are four program groups which cut across the degree offerings:

1. City Design and Development (CDD)
2. Environmental Policy and Planning (EPP)
3. Housing, Community and Economic Development (HCED)
4. International Development Group (IDG)

There are also three cross-cutting areas: Transportation Policy and Planning, and Urban Information Systems (also an area of specialization for PhD candidates), and Regional Planning.

## Faculty

The University System differentiates between academic ranks as follows: a *professor* is a faculty member of the highest rank and is fully tenured. There are two categories of *associate professors*: one has been tenured and the other is working toward tenure (usually within four years). An *assistant professor* is on a tenure track. A *lecturer* or *adjunct professor* has an appointment of one to five

years. In this department, lecturer and adjunct professor positions are usually held by practitioners with considerable professional experience. The designation of *professor/associate professor of the practice* is for faculty with many years of experience who are appointed for long-term contracts and have corresponding status to professors and associate professors.

In addition to teaching in DUSP:

- Several members of the teaching staff hold joint appointments with other MIT departments, including the Departments of Architecture, Economics, and Civil and Environmental Engineering.
- Some work with consulting firms, commissions, citizens groups and state governments in the United States and abroad.
- Faculty are also engaged in research projects supported by government agencies, private foundations, and private industry. In some cases, these projects involve teams of faculty and students. This firsthand experience enriches classroom experience and broadens job and fieldwork contacts for students, but it also means that not all faculty are always available, since each year several are on leave.

## Staff

DUSP administrative and support staff can help you navigate MIT bureaucracy. Support staff who work with particular professors can assist you by providing reading lists and class assignments, or by scheduling appointments.

Two key staff members are listed here; many others are included in ‘Administrative Officers and Responsibilities’ on page 10.

- Karen Yegian is DUSP’s Administrative Officer. She can assist you with administrative/financial aid problems; Janine Marchese is her assistant.
- Sandy Wellford is the Academic Advisor for all degree programs; Ellen Rushman is her assistant.

## Committees and Committee Assignments

### Committee Membership

A number of committees are involved in the day-to-day operation of the department. Some of these committees offer students the opportunity to play a direct role in departmental governance. Students are elected to DUSP committees early in the fall semester. Committee membership for 2016–2017 is as follows:

### Steering Committee

- Eran Ben-Joseph, Chair
- Amy Glasmeier, Head, HCED

- Ezra Glenn, Chair, Undergraduate Program
- Ceasar McDowell Co-Chair, MCP Program
- Balakrishnan Rajagopal, Head, IDG
- Brent Ryan, Head, CDD
- Larry Susskind, Head, EPP
- Larry Vale, Chair, PhD Program (Fall only)
- Chris Zegras, Co-Chair, MCP Program

**PhD Committee**

- Larry Vale, Chair (Fall only)
- Brent Ryan (Chair, Spring)
- Sandy Wellford, Administrator
- Gabriella Carolini
- Joe Ferreira (Spring)
- Amy Glasmeier
- Janelle Knox-Hayes
- Jinhua Zhao (Fall)
- Student representatives

**MCP Committee**

- Ceasar McDowell Co-Chair
- Chris Zegras, Co-Chair
- Sandy Wellford, Administrator
- Mariana Arcaya
- Dennis Frenchman
- Balakrishnan Rajagopal
- Justin Steil
- Sarah Williams
- Student representatives

**Undergraduate Committee**

- Ezra Glenn, Chair
- Cherie Abbanat
- Eric Klopfer
- Ellen Rushman
- Bruno Verdini
- Student representatives

**UROP Coordinator**

- Eric Klopfer

**Public Policy Minor Advisor**

- Phil Thompson

**Energy Minor Advisor**

- Amy Glasmeier

**Committee on Graduate School Policy (Representative)**

- Joe Ferreira
- Sandy Wellford, Administrator

**Committee Functions**

The MCP, PhD and Undergraduate committees administer the rules and regulations of their respective programs, make decisions regarding the academic status of students, sponsor changes in the rules and policies, make financial aid allocations, and—in the case of the MCP and PhD committees—administer the admissions processes for their degree programs.

For issues that transcend degree programs or are relevant to the entire department, the full faculty and the entire student body each meet at intervals during the academic year. The tenured faculty and DUSP Steering Committee (comprised of Program Group Heads and Degree Committee Chairs) also meet regularly. The full faculty shares responsibility for reviewing departmental policy and handling issues that cut across the degree and special programs. Student body meetings provide an opportunity for elected student representatives to discuss issues with fellow students. Students also play a role in the admissions process for the MCP and PhD programs. More detailed information on student participation in admissions is provided early in the spring semester.

### **Search Committees**

From time to time the department is involved in conducting hiring searches for new faculty. Students may participate on these committees and are also encouraged to attend job talks and provide feedback on prospective applicants. The process and timetable vary for each search; details are announced at the appropriate times.

### **Student Groups**

A number of organizations operate from time to time in the department, depending on interest and necessity. These range from informal social groups to task-oriented, ad hoc initiatives related to academics and daily well-being. Standing groups include:

#### **DUSP Student Council (DSC)**

The DSC is a student-run organization that works to improve the quality of student life by facilitating communication among faculty, administration, and students. The DSC seeks to represent the broad interests of the student body by providing a representational council voice. Members are elected from the student body, and the group, encourages and thrives on a high level of student participation. The DSC supports student networks, including academic and professional development, as well as non-academic life. Throughout the school year, it provides funding for student activities organizes student meetings including Town Hall, contributes to department events like Open House, and hosts study breaks and other social activities. The DSC board can be reached at <mailto:dsc@mit.edu>.

#### **Students of Color Committee (SCC)**

The mission of the SCC is to increase the number of underrepresented minorities in terms of race, class, and gender in the field of planning. In addition to focusing efforts on student and faculty recruitment, SCC aims to build community and serve as a support network within the Department for diverse students and those who identify with the Committee's mission and goals. SCC is a politicized body working from a social consciousness to guide goals, projects, and ideas, which ensure diversity in the Department, Institute, and the profession of planning. The SCC has played a critical role in recruiting students and faculty of color, bringing topics related to diversity into the core curriculum, and connecting DUSP to community organizations that serve disadvantaged populations. For information, please contact <mailto:duspscc@mit.edu>.

#### **Queers in the Built Environment (QuBE)**

QuBE aims to highlight and create dialogue around the intersection of queer identity and the built environment through a variety of media including speakers,

conferences, partnerships, publications, and social events. QuBE also serves to support and increase the visibility of queer students, faculty, and staff in the School of Architecture + Planning and the MIT community at large.

### **Resources for Easing Friction and Stress (REFS)**

The REFS (Resources for Easing Friction and Stress) provides peer support to help with difficult situations and thereby ameliorate stress, increase communication, and improve relationships. REFS can also help direct you to appropriate resources available elsewhere at MIT.

### **DUSPviz**

DUSPviz is a student-led initiative to improve capacity in data analysis, visual representation, and the communication of truthful stories for effective planning. The DUSPviz team helps the department find new ways to teach these skills.

### **Student Interest Organizations**

Students with common interests often establish groups and organizations to discuss issues related to specific areas of planning or related fields (*e.g.*, The Urban Leadership Forum, Housing Group, GreenSAP, Sustainable Urban Design Society (SUDS), DUSP Water Interest Group, and others).

### **Student Chapters of National Planning-Related Organizations**

Students interested in national professional organizations in planning and related fields (the American Planning Association (APA), Planners Network, and others) should contact Ezra Glenn <mailto:eglenn@mit.edu>. First-year students are eligible for a free one-year student membership to the American Planning Association, and will be automatically enrolled by the Student Services Office.

### **MIT Graduate Student Council**

The Graduate Student Council (GSC) consists of elected representatives from academic departments and graduate living groups. The GSC is primarily concerned with promoting the general welfare and concerns for the graduate student body, and communicating with the MIT faculty and administration on their behalf. The major functional goals are:

1. Improving communications
2. Strengthening internal MIT collaborations
3. Increased accountability

The GSC also sponsors many social, cultural, and athletic events throughout the entire year to help improve the quality of life for graduate students. The Graduate Student Council can be reached at: x3-2195 or <http://gsc.mit.edu/>.

### **Veteran's Groups for MIT Students**

MIT has a number of resources for students who are veterans including two MIT veteran student clubs, a committee dedicated to veterans outreach comprised of faculty, staff and students, and a special space (room 50-010) exclusively for veteran students. For more information, please contact Mary Kathryn (x4-7824 / <mailto:mjuskiew@mit.edu>).

## **Administrative Officers and Responsibilities**

### **Headquarters**

**Department Head** Eran Ben-Joseph, Room: 7-337M; <mailto:ebj@mit.edu>; Administrative Assistant: Sandra Elliott; <mailto:sandrame@mit.edu>. *Responsible for administration of all departmental business: prepares and administers the budget in conjunction with the Dean of the School of Architecture and Planning; makes all recommendations regarding appointments, promotion, and tenure to the Dean of the School and the MIT Academic Council; serves as chairman of the faculty for all policy discussions; and represents the DUSP at all MIT functions. Member of the School Council.*

**Special Assistant to the Department Head** Ezra Haber Glenn; <mailto:eglenn@mit.edu>; Support Staff: Sandra Elliott; <mailto:sandrame@mit.edu>. *Responsible for communications and publications, alumni/ae and external affairs, special projects and events.*

**Administrative Officer** Karen Yegian; <mailto:kyegian@mit.edu>. Support Staff: Janine Marchese; <mailto:neen610@mit.edu>. *Responsible for administration of all departmental funds, personnel, purchasing, and student financial aid. Responsible for administration of research contracts and grant proposals. Liaison to other Institute offices and departments. Safety Officer.*

**Academic Advisor** Sandy Wellford; <mailto:wellford@mit.edu>. Support Staff: Ellen Rushman; <mailto:erushman@mit.edu>. *Admissions and student services; administrator for MCP, PhD, and Undergraduate programs.*

**Professional Development Director** Mary Jane Daly; <mailto:daly@mit.edu>. *Responsible for Internship Programs, career development activities, coordination with the Office of Career Services, and alumni/ae affairs.* Support Staff: Sue Delaney; <mailto:sld@mit.edu>.

**CRON**

*CRON staff are responsible for planning, implementing, and supporting DUSP academic computing; managing student consulting and UROP staff; and consulting to the community on computer issues. For all computing requests, email <mailto:cron@mit.edu>.*

**Director** Duncan Kincaid; <mailto:dsk@mit.edu>.

**Program Group Heads**

*Responsible for administration and direction of the curriculum program groups in the department.*

**Head, City Design and Development** Brent Ryan.

**Head, Housing, Community, & Economic Development** Amy Glasmeier.

**Head, Environmental Policy and Planning** Larry Susskind.

**Head, International Development Group** Balakrishnan Rajagopal.

**Degree Programs**

**Director, PhD Program** Larry Vale. *Responsible for administration and direction of PhD Program. Chairs PhD Committee.*

**Director(s), MCP Program** Ceasar McDowell & Chris Zegras. *Responsible for administration and direction of MCP Program. Chairs the MCP Committee.*

**Director, Undergraduate Program** Ezra Glenn. *Responsible for administration and direction of SB Program and Five -Year SB/MCP Program.*

**Administrator, Dual Degree Program in Architecture and Planning** Dennis Frenchman. *Responsible for managing DUSP's dual degree applications to Architecture and the Center for Real Estate.*

**Non-Degree Programs**

**Center for Advanced Urbanism** Alan Berger (Co-Director) and Alexander D'Hooghe (Co-Director). <mailto:abberger@mit.edu> and <mailto:adhooghe@mit.edu>.

**CoLab** Dayna Cunningham, Executive Director. *Responsible for the administration and direction of CoLab.*

**Scheller Teacher Education Program** Eric Klopfer, Director. `mailto:klopfer@mit.edu`.

**SENSEable City Lab** Carlo Ratti, Director. Assaf Biderman, Associate Director; `mailto:senseable-contacts@mit.edu`.

**SPURS Program** Bish Sanyal, Director. *Responsible for administration and direction of Special Program in Urban and Regional Studies/Humphrey Program.* Administrator: Nimfa de Leon; `mailto:nvdeleon@mit.edu`.

## General Information

### MIT Terminology

#### Course and Class Numbering Systems

Academic departments at MIT are denoted by a name and a roman numeral. For example, Materials Science is referred to as “Course Three” (III); Architecture as “Course Four” (IV); Electrical Engineering and Computer Science as “Course Six” (VI), and so on. The Department of Urban Studies and Planning, referred to as DUSP, is “Course Eleven” (XI).

The method of assigning numbers to classes is to write the course/department number in Arabic numerals followed by a period and three digits, which are used to differentiate classes. Most classes retain the same number from year to year, for example, 11.220, Quantitative Reasoning. Some numbers, usually beginning with 11.9xx and referred to as “rubber numbers,” are used for classes that change from year to year.

Subject *units* are also expressed according to a system of three numerals separated by hyphens, such as this: “3-0-9”. The total of these numbers indicates how many units the class is worth in counting toward graduation requirements. The three parts translate into hours per week theoretically attributed for time spent in class; in recitation, studio or lab; and on homework assignments. Many classes are worth 12 total units, though others may be worth anywhere from three to 24. You can get a feel for the pattern of the class by looking at this three-part number system, especially to see how long you will be expected to attend scheduled class meetings during the week.

Classes which are jointly offered by two departments (e.g., DUSP and Civil Engineering) may be known by either of two numbers and are followed by a “J”. The “J” suffix simply stands for a cross-listed class. Example: 4.254J/11.303J, Design for Urban Development, has numbers for both DUSP and Architecture.

## **Buildings and Room Numbers**

All MIT buildings are numbered; a typical location such as DUSP Headquarters, 7-337, translates to Building 7, Room 337. The first 3 in 337 means the room is located on the third floor. The numerical order of some MIT buildings and room numbers actually do have a rationale to them. Even-numbered buildings are EAST of Building 10; odd-numbered buildings are WEST of Building 10. The lowest numbers begin at the river and increase to the NORTH (away from the river). Buildings 1 through 10 are all in the central MIT complex. Some of the peripheral building numbers are prefaced by an E, N, or W, which indicates their direction from the main complex.

## **DUSP Environment**

### **Location of DUSP Offices**

The School of Architecture and Planning (including DUSP) is mainly housed around or near Lobbies 7 and 10, at the heart of MIT. Key permanent DUSP facilities are located as follows:

#### **Building 7**

- Department Headquarters (7-337) (floor 3)
- Department Head (7-337M)
- Student Services and Program Administration (9-413 and 9-419)
- Admissions (9-413)

#### **Building 9**

- Housing, Community and Economic Development
- International Development Group
- Environmental Policy and Planning
- SENSEable City Lab
- SPURS Program
- CRON

#### **Building 10**

- City Design and Development
- Center for Advanced Urbanism

#### **Elsewhere**

- Teacher Education Program (E15)

A complete list of faculty office addresses, phone numbers and e-mail addresses is available on <http://dusp.mit.edu/people>.

### Mail and Notices

All students have an Athena account. Notices of DUSP events are posted on <http://plaza.mit.edu/>. Check it daily to keep informed. Some administrative functions can be performed electronically.

Masters and undergraduate student have mail folders in the DUSP Common Room. Please do not subscribe to magazines and other publications using this address.

Mailboxes are also maintained for CDD students in 10-485 and for PhD students in 9-569.

### Security

MIT is an open campus, with 24-hour access to most facilities. In order to reduce the chance of becoming victims of crime, we must practice constant vigilance and caution. We recommend the following security measures to safeguard both your person and your property:

1. When moving about on campus at night, stay in lighted areas, use the free shuttle (SafeRide), or walk with a companion. If necessary, contact Campus Police, Ext. 3-1212 for an escort.
2. Be sure the Common Room door remains locked at all times.
3. Secure personal belongings in lockers, locked offices, or other safe places. Do not leave possessions unattended, even in the libraries or computer room.
4. Do not give out combinations or other security information. Please note that electronic combinations to computer facilities are changed regularly.
5. Report security breaks to Karen Yegian and the Campus Police.

## DUSP Publications and Communications

### Plaza

The primary vehicle for communication in the department is a website called "Plaza," (<http://plaza.mit.edu/>). All DUSP members can post announcements, opinions, and discussion points. Questions go to <mailto:plaza@mit.edu>. Email lists for the department exist, but are used sparingly.

### DUSP Google Calendar

The DUSP Events Google Calendar includes all events of interest to the DUSP community. The calendar is accessible to the public but the audience is our community. Lectures, brown bag presentations, happy hours, career events, receptions, t-shirt sales, and more are all candidates for posting.

The calendar can be seen embedded in the main DUSP website at <http://dusp.mit.edu/department/departmental-calendar>. For instructions on other ways to view the calendar, or to obtain rights to add to and edit events, see this post on Plaza: <http://plaza.mit.edu/viewtopic.php?f=102&t=3424&p=3776#p3776>.

### DUSP-Related Web Sites

- DUSP: <http://dusp.mit.edu/>.
- The School of Architecture and Planning: <http://sap.mit.edu/>.

### PLAN

The alumni/ae newsletter of the School of Architecture and Planning, *PLAN*, covers news of the School of Architecture and Planning, including DUSP. It includes a printed summary and an on-line version accessible through the School's Home Page at: <http://sap.mit.edu>.

### DUSP Awards

Departmental awards are given out at the Commencement Lunch in June. In the past, awards for students have included the Departmental Service Award, Outstanding Contribution to Intellectual Life of the Department, AICP Outstanding Student Award, and Outstanding MCP Thesis, Undergraduate Thesis, PhD Dissertation, to name a few. The Rolf R. Engler Outstanding Professional Service Award recognizes administrative and support staff. Students initiate awards for faculty contributions to advising, teaching, student life and student quality of life. The nomination process begins in the middle of the spring semester and will be announced on <http://plaza.mit.edu/>.

### MIT Policies

For all official MIT Policies, including the **MIT Policy on Equal Opportunity** and the **MIT Policy on Harassment**, see <http://web.mit.edu/policies/index.html>. For the official **MIT Policies on Academic Integrity**, see the online *Academic Integrity Handbook* at <http://integrity.mit.edu>.



## Chapter 2

# DUSP Program Groups

The Department of Urban Studies and Planning comprises four program groups. While the groups reflect distinct cultures of practice and research, there is considerable overlap among them and many students associate with more than one group. Below is an overview of the academic and research emphasis of each group, plus suggested course programs for Master's students. PhD, undergraduate and non-degree students should contact the program group or their advisors for guidance on course selection and research.

### City Design and Development

The Joint Program in City Design and Development (CDD) is an academic and research program concerned with shaping and designing the built and natural environment of cities and suburban territories.

CDD is a collaboration of the MIT Departments of Urban Studies and Planning and Architecture, as well as the Center for Advanced Urbanism, Center for Real Estate and the Media Lab. As such, it joins key actors and disciplines that are shaping cities and metropolitan territories. Together, we seek to better understand complexities of urban environments to inform their future changes through innovations including: new visualization and modeling, new architectural forms, thoughtfully improved public policies, sustainable development protocols and products, and myriad technologies that will improve the quality of urban life.

The program is led by scholars and practitioners who are committed to interdisciplinary research as well as action in the field, developing new modes of professional intervention. Our extensive course offerings and projects allow advanced students to develop specialized skills, while enabling those new to the field to achieve professional competence in city design.

The program addresses both cities and urban regions. It examines ways that they have been designed, planned, and developed in the past, while proposing new visions for the future. It is also international in scope, with studios and re-

search projects in the US and worldwide. In all of these venues the faculty brings a commitment to reflective practice, to involving those who will be affected by city design decisions, to sustaining the natural setting and local culture, and to promoting a long range perspective on the consequences of actions that shape the urban fabric.

Students in CDD come from many countries with diverse backgrounds and experiences. Some have prior professional degrees in architecture, landscape architecture, and planning; others come from varied academic fields in the sciences and arts. Faculty advisors help students to tailor the program's extensive subject offerings and research opportunities into individualized areas of study, supported by the unparalleled information and technology resources of MIT.

The City Design and Development group is located in Room 10-485. Stop by to see announcements of new course offerings, seminars, forums, and research projects. The Director of the CDD group is Professor Brent Ryan; the coordinator for the group is Jordan Pettis.

### **CDD Faculty**

See <http://dusp.mit.edu/disciplines/cdd/people> for a complete list of CDD faculty.

### **CDD Curriculum**

Students concentrating in City Design and Development are required to take 11.301J/4.242J, Introduction to Urban Design and Development. (An undergraduate version of this course is also available, as 11.001J.) Students with no prior design background who are planning on taking CDD studios or workshops are required to take 11.328J, Urban Design Skills: Observing, Interpreting, and Representing the City. Building on this introduction, students are encouraged to take subjects in all of the following categories:

- Overview Subjects
- Theory and History
- Implementation
- Development Processes
- Workshops/Skills
- Studios

Note that for students with no prior design background—defined as a prior degree in architecture, landscape architecture, or urban design—11.328J is a prerequisite for Urban Design Studios and is required for the Urban Design Certificate.

For additional information about course offerings, see <http://dusp.mit.edu/disciplines/cdd/subjects>.

## Areas of Concentration

While educational offerings are diverse, there are at least three areas of concentration in City Design and Development:

### Urban Design

*For those who wish to be involved in shaping the public realm and large-scale physical environments.* this includes designers and planners of large-scale projects, civic spaces, waterfronts, parks, commercial centers, and residential neighborhoods, as well as managers of public environment or preservation programs. Subjects in this area include: Urban Design and Development, History of Urban Form, Urban Design Politics, Environmental Design Policy and Action, Urban Design Studio and workshops, Urban Design Skills, Urban Design Seminar. Each year, Urban Design studios and workshops undertake real projects in either an international or domestic setting. Recent projects have included a range of scales, including: the design of entirely new urban typologies in Japan, Mexico, Middle East, and Africa; densification of existing neighborhoods in Europe and the US; transit-oriented development in Barcelona; downtown mixed-use in Singapore; redevelopment of Southwest Washington, DC; and university-related high-tech development in the UK.

### Land Use Planning

*For students who wish to work as municipal planners or consultants, or who wish to be involved in planning large-scale developments or regional projects in the U.S. and abroad.* Subjects offered include: Community Growth and Land Use Planning, Law and Politics of Land Use, Urban Transportation Planning, Site and Urban Systems Planning, Landscape Urbanism and Ecological Planning. Recent workshops in this area have centered on revitalizing town centers, planning for transit-related development, innovative techniques for regulating land development, ecological systems in landscape master-planning, long-range scenarios for land management and urban growth/shrinkage.

### Urban Development

*For those who wish to manage development projects for private or public sector organizations.* Educational opportunities include the full range of courses offered in the Real Estate program, as well as those aimed specifically at City Design and Development students, including: Legal Issues in the Development Process, Development Finance and Investment, Management of Development Organizations, Real Estate Economics, and Downtown Development. Each year in the Real Estate Development studio, students prepare professional design and financial proposals for development projects and sites in the Boston area.

## Urban Design Certificate

The Department of Urban Studies and Planning and the Department of Architecture collaborate through the Joint Program in City Design and Development, to offer a course of study in urban design. Students who successfully complete the program receive an Urban Design Certificate from MIT at graduation. The purpose of the urban design program is to provide the fundamental knowledge and special skills required to design urban and regional environments. For more information on this option, see Section 3 on page 64.

## Environmental Policy and Planning

The Environmental Policy and Planning group (EPP) focuses on the decision-making tools by which society conserves and manages natural resources and ensures sustainable development. Areas of concern include toxic and hazardous waste management, environmental technology, water and air quality, global climate change, facility siting, environmental justice and brownfield development.

The Environmental Policy and Planning (EPP) group invites talented undergraduate and graduate students with a passion for solving environmental problems to study in the Department of Urban Studies and Planning (DUSP) at MIT. EPP includes a diverse set of faculty and students who share a commitment to sustainable development, environmental justice, and a thoughtful integration of science and values in environmental policymaking and planning.

EPP draws on the expertise of its world-renowned faculty, as well as the extraordinary resources of DUSP and MIT, to train aspiring leaders in the public, private, and nonprofit sectors. Faculty research and teaching address a range of pressing environmental issues including urban sustainability, pollution prevention, climate mitigation and adaptation, energy efficiency, environmental justice, and conflict-resolution. In addition, EPP faculty members have been directly involved in environmental planning and policymaking at the local, national, and international levels.

In addition to working closely with faculty on research and planning projects, EPP students sample from the array of courses and resources available at MIT and other Boston-area universities. Many also play critical roles in environmental and sustainability initiatives within the department, across the MIT campus, and in Cambridge, Boston, or other nearby cities. In the process, they gain a deep understanding the scientific, political, and social complexities they will face over the course of their careers

## EPP Faculty

See <http://dusp.mit.edu/disciplines/epp/people> for a complete list of EPP faculty.

## **EPP Curriculum**

Students who wish to specialize in this area are required to take 11.601, Environmental Policy and Planning, in the fall term. This class is intended to introduce students to theories of regulation.

For additional information about course offerings, see <http://dusp.mit.edu/disciplines/epp/subjects>.

## **Areas of Concentration**

Three course sequences building on subjects offered elsewhere at MIT and at Harvard and Tufts have been identified:

### **Systems and Sustainability**

Engineered systems, social systems and ecological systems interact to create the possibilities for sustainable development. We are interested in the kinds of social partnerships, at every scale (from local to global), that can play a role in encouraging technological innovation and managing natural resources in sustainable ways. We continue to imagine new approaches to regulation and new roles for government, new ways of harnessing market forces and engaging business interests, and new roles for civil society that will allow us to deal with science-intensive issues like climate change in a more timely and effective fashion. While EPP is place-oriented, like the rest of DUSP, we are equally concerned about the maintenance of larger ecosystems and human-ecosystem interactions that transcend governmental boundaries and the short-term time horizons of most elected officials.

### **Information and Assessment**

It is not easy to benchmark levels of sustainability or the scope and pace of environmental change. We are trying to develop new tools and strategies for forecasting, modeling, monitoring, and assessing the environmental and social impacts of development of all kinds (at all scales). We are also interested in the politics of environmental analysis and the ways in which science and expert knowledge are used (and misused) in public policy-making.

### **Governance and Decision-making**

In the final analysis, “triple bottom line” considerations (i.e., economic impact, environmental impact, and social impact) lead to debates about trade-offs that must sometimes be made. In a democratic society, such trade-offs ought to be the product of informed deliberation and collaborative decision-making (i.e. groups and individuals affected by such decisions ought to have some say about them). How to structure collaborative decision-making and societal learning so that resources are wisely managed and justice or fairness is guaranteed, is very much the focus of our teaching, research and practice.

## Environmental Planning Certificate

Any student in DUSP who meet the requirements will be eligible to receive an of Environmental Planning Certificate when he or she graduates. The requirements are completion of (1) 11.601 (the graduate Introduction to Environmental Policy and Planning; (2) an environmental management practicum such as 11.360 or 11.362; and (3) six subjects, at least one from each of five listed sub-areas: Science, Health and Political Decision-making; Land Use, Growth Management and Restoration; Ecology and Landscape; Facility Siting, Infrastructure and Sustainable Development; and Methods of Environmental Planning and Analysis. The goal is to give graduates of DUSP seeking jobs in the environmental planning field a competitive edge by acknowledging the specialized competence and skills they have acquired. For more information on these requirements, see the <http://web.mit.edu/dusp/epp//pdfs/EPCertificateApplication.pdf>.

## Housing, Community, and Economic Development

HCED focuses on the equitable development of American communities at the neighborhood, city and regional levels.

For decades the group's faculty and students have helped shape policy, practice and research in housing, economic, workforce and comprehensive community development. Teaching students to practice and research in these substantive areas has been driven by a deep faculty commitment to expanding opportunity and improving quality of life for historically disadvantaged groups.

In addition to serving MIT undergraduates, we provide courses and advising as one of four specializations within the Master in City Planning (MCP) program offered by the department, and we supervise students in the Ph.D. program as well. See 'Program.'

We sustain comparative and cross-disciplinary connections to other parts of the department and MIT. A number of our faculty are affiliated with other groups or centers, extending our expertise and reach in energy and environmental sustainability, international development and globalization, smart cities and planning technologies, city design and development, real estate, and other areas. See 'People.'

A defining feature of HCED is our sustained local partnerships within and beyond the greater Boston region. These partnerships enrich our teaching and research. But they also seek to directly improve the quality of life in communities confronting complex economic restructuring, rapid technological change, the special challenges and opportunities that follow natural disasters, and more. See 'Projects.'

## HCED Faculty

See <http://dusp.mit.edu/disciplines/hced/people> for a complete list of HCED faculty.

## **HCED Curriculum**

Students concentrating in HCED are required to take 11.401, Introduction to Housing and Community Development. The class provides a framework for looking at the field in terms of its historic evolution and the current policy and programmatic context within which HCED planners must operate. The subject also gives students a basis for deciding whether to choose a specialization in one of the two major HCED specializations: housing policy (including public and private housing) or economic development (including both local and regional issues in the private and non-profit sector). In either concentration, students are expected to take one field practicum.

Students in HCED are also encouraged to take offerings in other program groups which are relevant to their educational goals. For example, HCED students focusing on housing policy can enroll in physical design courses within the City Design and Development group. HCED students focusing on economic development often take computer-mapping courses offered by the Urban Information Systems unit. There is a rich array of opportunities for expanding the HCED umbrella, in the broader MIT community, and at Harvard.

## **Community Partnerships**

A central part of HCED's curriculum, research and engagement in the planning field is through long-term partnerships with local organization and cities. These partnerships enhance the resources and capacity of organizations in low-income communities, provide community-level learning opportunities for students, and cultivate innovation by exploring new approaches to urban community development. Students may participate in partnerships through enrolling in practicum courses, interns with partner organizations and research assistance positions for a variety of projects.

## **International Development Group**

The International Development group (IDG) is the longest standing and largest program within a U.S. planning school devoted to graduate study and research in subjects specific to the developing world, and their relevance and relation to global development.

The program focuses on development and implementation challenges across different scales — communities, cities, regions, and the globe — and asks how 'just' development can be pursued in an increasingly unequal and violent world, but which has also seen the rise of formerly poor and weak countries.

The program consists of leading experts in development — both academics and practitioners — who have vast interdisciplinary experience working in diverse regions of the world. The diversity of our faculty (and strong links to other parts of the Institute) provides students with an integrated view of the legal/institutional, economic, physical and socio-political factors necessary for effective planning in today's world.

The courses aim to prepare students who develop a deep sensibility towards the practice and knowledge of development, with an ability to learn across diverse fields, while focusing on specific locales. The courses cover areas such as land and housing, legal dimensions of property rights and reform, water and sanitation, public finance, the use of diverse forms of technology, displacement and the impact on communities, cities and regions, human rights and development, reform of public institutions and governance, globalization and sustainability, public policy implementation including through the courts, and transportation, land use and urban change.

Approximately one-quarter of the Master's students entering DUSP each year choose the IDG specialization, as do approximately one-third of the entering PhD students.

In addition to the faculty, classes, and seminars available within DUSP, IDG students draw upon the rich resources and facilities throughout MIT and at other universities in the Boston area. Students commonly take elective classes and seminars in other MIT departments, such as the Departments of Economics, Civil and Environmental Engineering, Anthropology, Architecture, Political Science, and the Sloan School of Management. IDG students may also take graduate-level electives outside of MIT where cross-registration is available.

The Center for International Studies (CIS), IDG, and the Department of Political Science jointly host a fellowship list, which is posted on: <http://web.mit.edu/cis/dbsearch.html>.

The head of the group is Professor Balakrishnan Rajagopal (<http://dusp.mit.edu/faculty/balakrishnan-rajagopal>). The coordinator is Phil Sunde (<mailto:psunde@mit.edu>).

## **IDG Faculty**

See <http://dusp.mit.edu/disciplines/idg/people> for a complete list of IDG faculty.

## **IDG Curriculum**

In addition to the courses required as part of the MCP core, each IDG student in the Master's program is required to take 11.701, "Introduction to International Development." For additional information about course offerings, see <http://dusp.mit.edu/disciplines/idg/subjects>.

## **Areas of Concentration**

While the IDG group does not require MCP students to formally commit to a sub-specialization, they are advised to select courses based on their aggregate contribution to a specific body of knowledge, of which these three are merely exemplary.

### **Governance, Institutions and Globalization**

To demonstrate competence in applying institutional analysis to a wide range of real-world planning problems in developing countries, in the context of globalization/late capitalism.

To understand the way the exercise of political and legal authority is being transformed at different levels, from city, regional, national and global levels and to be able to do institutional analysis of bureaucracies, non-governmental organizations, markets, and community groups.

Topics include policy and institutional aspects of technology and industrial development, transformation of traditional agriculture, urbanization and urban economic development, regional economic development, labor and human capital, foreign aid, and public finance, economic, social and environmental impact analyses, economic and social networks, regional and industrial restructuring, intra firm, regional, and global supply chains, the impact of global trade and financial regimes, the politics of international institutions, specific policy components of governance and development such as decentralization, anti-corruption, rule of law and human rights, and the appropriate design of institutions for democratic management of the global economy.

### **Land, Housing, Displacement and Human Settlement Policies**

To analyze displacement, housing and human settlement problems and policies at national and local levels, understand linkages between national development strategies and land acquisition, consider spatial arrangements required for optimal, just and equitable allocation of resources, and understand the role of housing as a productive investment and a fundamental human right in the development process. Emphasis is on property rights in law and society, the role of national resettlement and land acquisition as well as urban policies and laws, city size distribution, municipal finance, and spatial decentralization policies. Analysis focuses on price and subsidy policies for housing, methods of land acquisition, taxation, and delivery mobilization of housing finance at national and local levels, impact assessment of displacement and eviction (social and environmental).

At the local level, city forms, land-use regulations and urban management policies, design and implementation of housing projects, multiple forms of housing including co-ops, tools and methods of evaluating eviction impact, land pooling and common arrangements such as community land trusts, revitalization of housing in the city core, and review of rent control policies are all examined.

### **Infrastructure and Development Planning**

To understand mega projects involving appropriation of land and control of resources (such as dams, mining etc) and the urban support systems that function in networks (including transportation, water supply, sanitation, telecommunications, etc.), which tend toward monopoly, involve operation by or substantial control by government, and are basic to the function of urban settlements. The

planning of mega projects, service systems and the evaluation of programming of such projects, pricing, and financing are included. Studies also encompass institutions for service delivery and choosing appropriate technologies. The broader questions of national allocation policies for infrastructure, social and environmental cost, land acquisition, and the relationship of infrastructure to land development and economic development are covered.

### **IDG Practica**

All IDG students enrolled in the MCP are required to take at least one practicum before graduating, in order to receive hands on experience in development planning challenges. Over the past several years the regional and country foci of these offerings have changed, depending on faculty availability, student interest, and funding. Because IDG believes that deep knowledge of history, institutions, and local practices of any given locale is a prerequisite for serious development planning, practica enrollment are often limited to native language speakers of the country under study, although exceptions can and have been made where appropriate. To date, international practicum offerings have included Gujarat (India), Mozambique, Mexico City, New Delhi, Malaysia, and South Africa. Students can also meet the MCP Practicum requirement by taking a domestic U.S. practicum.

## **Cross Cutting Areas**

The Department of Urban Studies and Planning also offers courses in the areas of Urban Information Systems, Transportation Policy and Planning, and Regional Planning.

### **Urban Information Systems (UIS)**

This is a cross-cutting area of doctoral study that focuses on the use of information technologies to understand the relationships underlying urban spatial structure and on the use of technology to facilitate broader and deeper participation in the planning of urban futures. Each of the four program groups has faculty with particular interests in applying computing technology. Faculty and student interests go beyond specific computing technologies or techniques in order to understand the ripple effects of computing, communications, and digital spatial information on urban and regional planning processes and on the methods for shaping and nurturing metropolitan areas. Some of this work is conducted through the SENSEable City Laboratory (<http://senseable.mit.edu>).

See <http://dusp.mit.edu/disciplines/uis/people> for a complete list of UIS faculty.

## **Transportation Policy and Planning**

Although we do not have a separate program group dedicated to issues of transportation, many DUSP students informally choose this as an area of focus. In addition to departmental classes that investigate smart growth and the history, policy and politics of urban transportation, many students affiliate with MIT's world-renowned Center for Transportation and Logistics (CTL) and some choose to complete a dual degree. More information on this center is available at: <http://ctl.mit.edu>.

See <http://dusp.mit.edu/disciplines/transportation/people> for a complete list of Transportation faculty.

## **Regional Planning**

We recognize that the problems facing today's planners are at the scale where the old categories of urban, suburban and rural no longer suffice. All program groups, therefore, operate at the scale of the city-region, while also acknowledging the important role of global, national and local forces. More information on the Department's activities relating to regional planning can be found at <http://dusp.mit.edu/mrp/program/overview>.

See <http://dusp.mit.edu/disciplines/mrp/people> for a complete list of Regional Planning faculty.



## Chapter 3

# MCP Program

### Overview

The professional degree offered by DUSP is the Master in City Planning (MCP). The two-year MCP Program emphasizes the mastery of the tools necessary for effective practice and is therefore distinct from liberal arts programs in urban studies. An intensive course of study stresses skills for policy analysis, advocacy, design, and institutional intervention in cities worldwide.

The requirements for the MCP program in 2016–2017 are:

1. Completion of a sequence of Core Subjects and an Introductory Subject to one of the department's program groups. Core Subjects should be completed in the first year.
2. Completion of a departmental approved Practicum subject that involves developing planning proposals in field situations.<sup>1</sup>
3. An acceptable program of individual study developed by the student in consultation with his or her advisor, and approved by the MCP Committee.
4. A formal process of Thesis Preparation leading to the completion of a thesis.
5. Thesis.

Approximately 140 MCP students are enrolled in the department. These include not only students in the two-year sequence, but also undergraduates in the Five-Year SB/MCP Program, and candidates for the various dual degree programs including: architecture, transportation, real estate and business.

The MCP Committee, composed of faculty and students, is responsible for governing and continuously improving the Master's Program. Student members,

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<sup>1</sup>Completion of the Urban Design Certificate satisfies this requirement as well.

representing first- and second-year MCP students, are elected early in the fall semester and typically serve a two-year term.

In the first semester, MCP students are assigned faculty advisors. Students are free to change advisors at any time with the agreement of the new advisor. If you wish to change advisors, notify Sandy Wellford, Academic Advisor, as well as your former advisor, following discussion with your prospective advisor.

## Procedural Information: Credits and Requirements

To obtain the MCP degree, both Institute and DUSP requirements must be met, any exceptions must be petitioned to the MCP Committee:

1. A minimum of 150 units of academic credit are required for the MCP degree: 126 units of course-work in graduate-level subjects plus 24 units for the thesis including satisfactory completion of thesis preparation. Subjects with U-level (undergraduate level) units do not count for graduate-level credit, although on occasion, by doing additional academic work, students may petition to upgrade them.
2. Each first-year student must submit a completed Program Statement to the MCP Committee by the end of the fall semester. The planning process is vital: the Program Statement constitutes the student's proposed work program and timetable for completing the requirements of the MCP program and should be developed with the assistance of a student's advisor and program group. The statement will be reviewed for approval by the advisor and the MCP Committee. After approval, significant changes in the program should be noted on a revised Program Statement and submitted for reconsideration by the advisor. It should be a "working document," based on a strategy for making the most of the program.
3. Thesis work may be initiated in the second or third semester by enrolling in an approved thesis preparation subject or petitioning the MCP Committee to undertake thesis preparation in another substantive context. We encourage you to discuss your thesis interests with prospective advisors by the second semester. Students typically complete their research and write the thesis in the fourth semester. Students register for 11.THG for two semesters of thesis prep/thesis work and receive 24 units of credit upon satisfactory completion. When students meet all the requirements of a thesis preparation subject, or thesis preparation in another substantive context, including the writing of an acceptable Thesis Proposal, they receive a grade of J. When the thesis has been completed and graded in the fourth semester, that grade is applied to the entire 24 units of thesis credit. If a student has not completed an acceptable thesis proposal by the end of the third semester they will receive a U (unsatisfactory) grade

and will not be allowed to register for thesis in the fourth semester until they have submitted an acceptable proposal.

4. While C is a passing grade at MIT, a C is considered by the MCP Committee to be an indication that the student may have problems completing her or his graduate program. A student with a grade of C (or lower) in a core subject will receive a warning letter from the department.
5. The MCP program is designed to be completed in four semesters. However, it may be possible to complete the program in three semesters or to take an additional semester. See details below.

## The Professional Core

The Professional Core is an integrated set of subjects and requirements designed to introduce students to the forces affecting cities, city planning traditions, methods, and the institutions with which planners work. Through lectures, case studies, group activities, and workshops, students become familiar with different avenues of professional practice and the challenges and opportunities in the field. The Core also aims to expose students to the central, recurring themes and issues of city planning, involving: power and money; race, class and gender; physical form and place; the natural environment; and institutional complexities. Developing core competencies in analysis and communication is also a major aim of the Core Subjects. Upon completing the Core, students should:

1. Understand the challenges they are likely to confront in planning practice and the problem solving strategies they can employ;
2. Understand the institutional settings in which plans and policies are made and implemented and feel comfortable working in these settings;
3. Appreciate the concerns of various types of stakeholders or social groups that comprise cities and societies;
4. Have both the skills and the theoretical background needed to develop and implement planning proposals and take action in the field.

Core subjects and requirements are summarized below, followed by more detailed descriptions:

### First Semester

- 11.201, “Gateway: Planning Action”: A single integrated subject; required of all incoming students.
- 11.203, “Microeconomics”: Part-semester module for those *without* prior economics training; test-out offered.

- 11.202, “Planning Economics”: Part-semester module; required of all incoming students.
- 11.205, “Introduction to Spatial Analysis”
- 11.301-701, “Specialization Introductions”: Introductory subjects offered by the four DUSP Groups; students select at least one—but may enroll in more than one as part of the two-year program.

### Second Semester

- 11.220, “Quantitative Reasoning”: Introduces statistical methods, communicating lessons of data analysis, and related computing tools; test out offered.

### Second or Third Semester

- 11.xxx, “Practicum” Field experience in planning; students required to select one from approved list of subjects. (May be taken in any semester, but recommended for the second or third; see Core Practicum.)
- 11.THG, “Thesis Preparation”: Guidance to develop Thesis topic, proposal; required. (See Thesis.)

### Fourth Semester

- 11.THG, “Thesis”: Independent research, directed, or with studio (see below); required. (See Thesis.)

Students must complete the Core subject requirements in their first year (except for Thesis Prep/Thesis and the Practicum requirement) unless the MCP Committee approves a formal petition to do otherwise. Advisors should not sign a registration form that does not include the Core courses for the appropriate semesters unless the student has tested out of a Core subject or has an approved petition from the MCP Committee to meet the requirement in another way.

## Core Subjects

### Fall Term

**11.201 Gateway: Planning Action Test-out Examination** Not offered; required subject.

**Objectives and Description** The class has three interconnected objectives. First, to help students with diverse backgrounds and equally diverse professional destinations understand that they are part of a larger community of professionals who are interested to improve the

quality of life in either at the community, city, regional or even national level. Second, the subject will build on the experience and idealism of students by sensitizing them to organizational issues which affect the way normative yearnings and good intentions are ultimately expressed as actions by various institutions—public, private and non-governmental. And third, the subject will sensitize the students as to why some professionals are more effective than others in influencing social betterment efforts, and what kind of professional knowledge and skills contribute to such effectiveness.

The subject attempts to achieve these multiple objectives by starting with historical accounts of how others with normative yearnings had acted, the impact of such actions, both intended and unintended, and the lesson the students can draw as they join the community of professionals with similar intentions. The subject relies on both lectures and case studies to cultivate an organizational understanding of how planning efforts unfold in practice, and why some efforts are more successful than others. Also, the case studies introduce the students to the diversity of thinking among the DUSP faculty. Jointly, the lectures and case studies provide an understanding of the mindset and skills of effective planners and, hopefully, will reinforce the students' confidence in their own ability to become innovative practitioners. Extensive discussions and debates among the students themselves are necessary to build a sense of an emerging community of budding practitioners. Such discussions in small groups are a central learning mechanism for the subject whose purpose is to help students develop the art of persuasion, self-reflection, and consensus building for social actions.

**Requirements** Students are expected to be prepared for and to participate in class discussions. There is a brief writing diagnostic in week one, a team-based oral briefing (simulated decision-making context), a midterm exam of take-home essay questions, a professional decision memorandum tied to a case, and a structured observation (also in memo form) of a local planning event (typically, a public meeting).

**Acquired Skills** 11.201 will help students deepen critical thinking skills about where planning has come from and where it is going (or should go) as a practice, strengthen their skill at communicating to improve planning decisions, and better understand what they need to do during their two years at MIT to prepare for effective and satisfying careers. It will also enable them to participate in on-going debates within the field (and the DUSP community) regarding the history, theory and practice of planning. Finally, it will equip them to meaningfully analyze planned interventions and identify the key assumptions being made about collective action on public problems.

**11.203 Microeconomics Prerequisites** None.

**Test-out Examination** Offered during MCP Orientation.

**Format** Part-semester module. Class runs from the beginning of the semester through mid-November.

**Objectives and Description** Microeconomics is an introductory subject, covering basic topics including: the operation of markets, resource allocation among competing uses, and profit maximizing behavior. Theory is illustrated using topics of current interest including why firms are dropping health insurance, the trouble facing major airlines, and the impact of computerized work and off-shoring on employment and earnings inequality.

**Requirements** Required readings include a textbook and additional readings on empirical topics.

**Acquired Skills** After taking 11.203, followed by 11.202 (don't ask), students should possess a good conceptual grasp of microeconomic principles as applied to problems of planning. The subject also prepares students for additional economics subjects.

**Fulfilling the Requirement** The MCP economics requirement can be fulfilled in one of three ways:

1. Take 11.202 and 11.203, passing each with grade of "C" or better.
2. Take and pass the test-out examination for 11.203. Successfully testing out of 11.203 still requires taking 11.202 and does not reduce the total units required for the MCP degree.
3. Take and pass a more advanced subject in another department at MIT or elsewhere. For example, the microeconomics subject taught to first-year MBA students at the Sloan School. This option does not include subjects taken before enrolling in the MCP program, although students who have taken such a subject are encouraged to take the place-out examination. Any alternative subjects must be approved by the Department — if you elect this option, you must petition through the student services office within the first five weeks of the Fall semester.

**11.202 Gateway: Planning Economics Prerequisites** 11.203 or test-out.

**Test-out Examination** Not offered; required subject.

**Format** Part-semester module.

**Objectives and Description** Gateway: Planning Economics is the second module of the Gateway subject. The module is designed to introduce students to applying economic reasoning to problems of relevance to planners. We will focus on four areas:

1. Urban Structure and the Basic Economic Problem of Cities
2. The Economics of Public Goods and Externalities
3. Urban Economic Development Policies

4. Rudiments of housing finance.

We will marry economic theory with political and institutional and political aspects of the problem.

**Requirements** Students are expected to be prepared for and involved in all class sessions. The subject will have weekly problem sets containing both mathematical and non-mathematical problems. There will be a final exam.

**Acquired Skills** The module prepared students to use economic concepts and techniques as a part of their tool kit, just as they would think about using design, institutional analysis, legal analysis and so on. Our perspective is that very few planning problems can be solved by economics alone but most planning problems include one or more aspects that economic analysis can illuminate. In other words, economics really is your friend.

**11.205: Introduction to Spatial Analysis Prerequisites** None.

**Test-out Examination** Offered during MCP orientation.

**Format** Short subject offered in the fall or spring semester.<sup>2</sup>

**Objectives and Description** Introduction to Spatial Analysis and GIS Workshop are two half-semester subjects which are meant to teach you the basics of Geographic Information Systems (GIS). The Introduction to Spatial Analysis subject (11.205) is a requirement for the MCP degree. The second half of the semester the department offers a GIS Workshop (11.520, not a requirement) which focuses on developing a research project using GIS as well as introduction to some advanced topics in data collection and web-mapping. Students of all GIS backgrounds are welcome to take the GIS Workshop subject. Experienced students may be interested in taking the GIS Workshop subject, in order to test out ideas for thesis or investigate project ideas that use spatial analysis. Working on your own GIS project is the best way to learn GIS as it teaches you to apply the concepts you learn beyond the set-by-step tutorial you will learn in class.

**Fulfilling the Requirement** This requirement can be fulfilled in one of two ways:

1. Take and pass 11.205; or
2. Take and pass the test-out exam.

## Spring Term

**11.220 Quantitative Reasoning and Statistical Methods Prerequisites**

None. However, to take full advantage of the subject, students need a working familiarity with key mathematical skills, including algebra.

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<sup>2</sup>Starting in 2016–2017, this course will also be offered in both Fall and Spring semesters.

**Test-out Examination** A test-out examination will be given in late-January/early-February. Information on the exam is posted on the 11.220 web site.

**Objectives and Description** Many, if not most, planners work frequently with quantitative data. Some summarize, analyze, and present data they have collected themselves or have obtained from secondary sources; others must review quantitative analyses and assess the validity of arguments made therein. This subject is designed to prepare you to critically review analyses prepared by others, as well as to conduct basic statistical data analysis yourself. Using examples of “real world” quantitative analysis related to the planning profession, we will become familiar with a variety of tools for describing and comparing sets of data, as well as those used to generate estimates and test hypotheses. We will also emphasize the development of sound arguments and research design, such that students appreciate both the power and limits of quantitative analysis in argumentation, noting relevant examples of the *mis-use* of data and statistical analysis.

**Requirements** Students complete homework sets, as well as a paper that requires the analysis of a set of “raw” data. Students also complete a midterm and a short final quiz. Periodically held computing laboratories and homework assignments utilize software for data management, mapping and statistical analysis. Each student is expected to be up-to-date on all required readings, including the primary texts and additional articles. Active participation in class is expected.

**Acquired Skills** Completion of 11.220 provides students with the background needed to take other methods classes in DUSP and outside the department.

**Fulfilling the Requirement** This requirement can be fulfilled in one of three ways, listed below. In order for you to make use of these skills in other subjects and in your own research at DUSP, this requirement must be completed during your first year in the program.

1. Take and pass 11.220 it with a grade of “C” or better;
2. Take and pass the test-out examination. For those students with a background in statistics, this option will allow you to meet the requirement early and leave you free to take higher level subjects (or other electives);
3. Take a substitute subject at MIT or elsewhere. Some students elect, for scheduling or other reasons, to take a comparable statistics subject elsewhere, whether in another MIT Department or at Harvard. This path is acceptable, as long as the subject has been approved by the Department. If you elect this option, you must petition through the student services office within the first 5 weeks of the Spring semester.

**11.205: Introduction to Spatial Analysis Prerequisites** None.

**Test-out Examination** See above (“Fall Semester”).

**Format** See above (“Fall Semester”).

**Objectives and Description** See above (“Fall Semester”).

**Fulfilling the Requirement** See above (“Fall Semester”).

## Core Specialization Subjects

The Master in City Planning program attracts a student body with a wide range of experiences and interests. Core subjects in the program are designed to span those interests, by providing skills and knowledge necessary to be effective in all types of practice as careers evolve over many years. Students also have the opportunity to select an area of specialization and to take subjects which will vary according to the area of study and the student’s interest. Four specializations, or “Program Groups” in the department, reflect major types of planning practice:

1. City Design and Development (CDD)
2. Environmental Policy and Planning (EPP)
3. Housing, Community and Economic Development (HCED)
4. International Development Group (IDG)
5. Transportation (by petition only)

In each of the four specialization areas, an introductory subject is offered in the fall semester. *As part of the Core, students are required to take at least one introductory subject in one of the specialization areas.* The introductory subjects for the four specialization areas are:

### **11.301J Introduction to Urban Design and Development**

Examines the spatial structure of cities and ways they can be changed. Includes historical forces that have produced cities, models of urban analysis, contemporary theories of urban design, and implementation strategies. Core lectures supplemented by student projects and discussion groups focusing on student work. Guest speakers and field trips present cases illustrating current projects and the scope and methods of urban design practice.

### **11.401 Introduction to Housing and Community Development**

Explores how public policy and private markets affect housing, economic development, and the local economy; provides an overview of techniques and specified programs policies and strategies that are (and have been) directed at neighborhood development; gives students an opportunity to reflect on their perspective on the housing and community development process; emphasizes the institutional contexts within which public and private actions are undertaken.

**11.601 Introduction to Environmental Policy and Regulation**

First subject in the Environmental Policy and Planning sequence. Reviews the basics of federal environmental policy-making as well as the philosophical debates concerning growth and scarcity, utilitarianism vs. deep ecology, “command-and-control” vs. market-oriented approaches to regulation and expertise vs. indigenous knowledge. Heavy emphasis on analytical techniques including environmental impact assessment and, cost-benefit analysis. Emphasis on the role of consensus building and dispute resolution in environmental planning.

**11.701 Introduction to International Development**

Explores the planning process in developing countries. Interaction between planners and institutions at both national and local levels. Overview of theories of state, organizational arrangements, implementation mechanisms, and planning styles. Case studies of planning: decentralization, provision of low-cost housing, and new-town development. Analyzes various roles planners play in different institutional contexts. Professional ethics and values amidst conflicting demands. Restricted to first-year MCP and SPURS students.

**Core Practicum Subjects**

The overriding goal of the MCP Core Practicum requirement is to provide students with experience in the practice of city and regional planning by providing the opportunity to develop integrated planning solutions within the constraints of real-world settings and scenarios. DUSP intends these subjects to place students and faculty at the leading edge of planning practice by exploring innovative ways to integrate planning disciplines, work with clients and communities, apply reflective practice and connect theory and practice.

By participating in practicum subjects, students will gain experience confronting difficult tradeoffs while working on multidisciplinary planning problems in specific settings. Additionally, the practicum subjects will expand on skills and concepts introduced in the MCP Core and serve as the centerpiece for the Department’s sustained involvement in communities. The Core Practica subjects are intended to bridge the broad range of interests and expertise among DUSP faculty and students by fostering interdisciplinary learning and cutting across program groups

With the exception of students completing the Urban Design Certificate, each incoming MCP student is required to complete at least one of the designated Core Practica subjects. (Beyond this special case, there are no exceptions or substitution of alternative subjects for the practicum requirement.) Students may complete the requirement in any semester; however, it is anticipated that most students will complete the requirement in the spring of their first year or fall of their second year. Students should recognize that practica subjects might

involve a more rigorous workload than a typical DUSP subject because of the nature of field-based projects.

Students who plan to fulfill the requirement by enrolling in an international practicum should be aware that these subjects have limited enrollment. Students should have a domestic alternative in case they are not accepted into the international subjects. The selection process for international workshops will be completed in a timely manner to facilitate student planning.

For a current list of subjects that meet the Core Practicum requirement, see <http://dusp.mit.edu/subjects>. Please note that this list may expand if additional practicum subjects are designated.

## Policy on Studios, Workshops, Practica

*adopted by the MCP Committee, March 2013.*

The Department offer an engagement with problem-based work through studios and workshops. Studios and workshops provide learning through action—an investigative and creative process driven by research, exploration, and experimentation; planning and designing come together, accompanied by critique and reflection.

Studios and workshops may be designated as fulfilling the department's practicum requirement for the MCP degree. Such designation is determined and announced at the beginning of each semester, and is intended to occur before enrollment begins.

### Definitions

#### Studios

Studios entail five essential elements:

1. a culture of students and teachers who build a creative community;
2. a mode of teaching and learning characterized by processes of critical reflection;
3. small class sizes that permit periods of face-to-face student-teacher contact;
4. a program of projects and activities that reflect and integrate professional practice; and
5. a physical shared space where teaching and learning and making occurs.

Studios are time intensive, characterized by non-linear, iterative practices. This entails expectations for engagement that go beyond the formal structure of MIT subject unit timetable/distribution, and studios do carry higher numbers of credit units. DUSP offers studios that adhere closely to the design-centered tradition, but also designates “planning studios,” which follow a studio pedagogy

but typically engage a broader array of skills and methods beyond urban design, and can therefore more easily accommodate students with less training in design who bring other skillsets and orientations.

### **Workshops**

A workshop is an applied planning class designed to develop specific plans, proposals or designs to address a planning problem or issue. Workshops can be project-based in which they address a problem or issue in the context of a specific organization and/or place or researched-based to explore solutions to planning issues through case study or other research methods but are not tied to specific organizations or places. Other kinds of workshops center on design inquiry taught in a broad research or case study format. The specific planning problem or issue and potential solutions are explored in depth but workshops entail fewer credit units and usually entail less time devoted to in-class exploration and reflection than studios. They provide a more flexible pedagogical exploration of planning issues and methods and the formulation of proposals and solutions through field research, analysis, client interaction, hands-on exercises, and case studies. Planning problems and issues tackled in workshops may be policy, programmatic, prototypical designs or place-based plans. Workshops do not substitute for studios but are offered to increase the range of planning and design practice, learning and inquiry.

### **Practica**

The MCP committee designates particular subjects as fulfilling the DUSP practicum requirement. A practicum designation typically implies that a subject provides an opportunity to synthesize planning or design solutions within the constraints of client-based project. The designation is determined on a case-by-case basis and may include studios and workshops. Students and professors may not petition the MCP Committee for practicum status after the beginning of a semester in which a course is offered. In assessing the suitability for practicum approval, the MCP committee considers how a subject meets the following criteria:

1. Client-based (“answering” in some sense to a real client);
2. Interaction with a “community” in the course of developing and assessing alternative proposals;
3. Commitment to furthering reflective practice;
4. Formal inter-disciplinary teaching; and
5. A final deliverable.

## Sequence and Prerequisites

### Studios

Entering students who wish to take studios will normally take them during semesters 2 or 3. MCP1 students are strongly advised not to enroll in any design studios during their first semester, unless they already have a professional design degree and have obtained approval from their advisor. Students wishing to take a studio in their last semester will need to adjust their course load accordingly, especially if they are also working to complete a thesis, though it is also possible to use a final semester studio as a vehicle for working on a Design Thesis. Admission to studios is determined on a case-by-case basis at the discretion of the professor, which may require portfolio submittals for competitive selection. Studios may also qualify as Practica depending upon the nature of the work conducted.

### Workshops

Only one workshop may be taken in a semester during which a student is registered for an additional design studio. Admission to Research/Design Workshops is determined on a case-by-case basis at the discretion of the professor. Workshops may also qualify as Practica depending upon the nature of the work conducted.

### Studio and Workshop Scheduling

In order to avoid schedule conflicts, all department studios will be encouraged to be scheduled during the timeslot T-TH 1:00–6:00PM in order to coincide with the larger studio offerings throughout the SA+P. Workshops are encouraged to avoid this timeslot to reduce enrollment conflicts.

### Practica

All MCP students are required to enroll in one practicum subject for degree fulfillment, typically in semesters 2, 3, or 4. Urban Design Certificate students can have their practicum requirement fulfilled by taking an approved certificate studio.

## Preview of Studios, Workshops, Practica

At the beginning of each semester (or before IAP in some circumstances), every faculty member who will teach a studio workshop, or practicum makes a 7-minute presentation of his/her program to the assembled department. This is the opportunity for students to learn about offerings before making their choices. In this session, professors are asked to present subject expectations, content, travel requirements, costs, and selection process. DUSP does not hold a studio lottery, and student selection is determined by each professor based on the project's needs. The sessions are open to the department community,

and everyone is encouraged to stop in. In the case of spring or summer studios, workshops or practica that involve January or summer travel—and which therefore may require students to be selected well in advance of the semester—a well-advertised session must be held before launching a selection process.

### **Studio/Workshop/Practicum Culture and Travel Policy**

DUSP promotes a learning environment that supports the diverse values of the entire MIT community of students, faculty, administration, staff, and guests. Fundamental to the mission of planning education is the stewardship of this diversity in a positive and respectful learning environment that promotes the highest intellectual integrity and cultural literacy. As studio, workshop, and practicum learning is often accomplished through project-based activities during and outside of class times, maintaining this environment at all times is the responsibility of the entire community. Faculty and students should strive to understand and mutually respect the varied commitments of each other and work together to manage expectations of time and effort devoted to assignments, pin-ups, and public reviews. Required travel for these types of subjects should take place to avoid conflicts of time with normal semester work. It is recommended that travel take place during IAP, pre-semester, or during planned spring/fall breaks and holiday weekends. When travel conflicts do arise with other courses, the student's participation in travel becomes optional, with no adverse effects on their grading.

### **Studio Credits and Hours**

Studio workload is close to or equivalent to taking two regular subjects. Studios earn 18 to 21 units of credit with a minimum of 8 hours of contact a week (4–5 hours of studio time twice a week)

## **Minimum Competencies**

### **Computer Literacy**

Information and communication technologies (ICTs) formerly understood and utilized primarily by specialists have become ordinary tools that planning professionals must use or manage on a daily basis. For example, there is a minimal computer literacy level required for effective practice and a need for some professionals to have higher levels of training. The minimal literacy level is not so much a list of software applications, say, that one needs to learn as it is a clear understanding of planning-relevant needs and tools that supports life-long learning as technologies evolve. DUSP subjects increasingly assume that students have basic computer skills, such as knowledge of spreadsheet models, database management packages, mapping, presentation graphics, and use of the World Wide Web.

The online computing instruction in Excel, 11.205 (Introduction to Spatial Analysis), and 11.220 (Quantitative Reasoning) provide the typical MCP student with what we feel is minimal computer literacy. Rather than teaching students software keystrokes, the classes contextualize essential computing tools by linking them to the themes and challenges faced by planning professionals.

## Professional Communication Skills

You have been accepted to DUSP not only on the basis of your outstanding record but also your demonstrated potential to grow and develop your abilities, both academically and professionally. Perhaps the most important of these is the ability to communicate the results of your planning work to diverse audiences, both within and outside the academic environment, and to develop that work through effective interaction with those audiences.

We know that success in both academic work and professional practice is tied closely to your ability to communicate clearly and effectively. The most effective planners can ask probing questions and listen effectively across cultural and other boundaries, organize and analyze data, and formulate conclusions that become compelling pieces of action plans or—at the very least—persuasive arguments about how one should address an issue or problem.

For these reasons, the Department of Urban Studies and Planning has consistently treated communication skills, written and oral, as core competencies. We expect these skills of all graduating students, and we provide a range of resources that you should use to develop and demonstrate these skills.

This first part of working on your communications skills begins with the online summer modules that you complete before you start your program in DUSP. The modules outline the ways in which the Department seeks to recognize the current level of your communication skills, evaluate them with regard to its standards for graduation, and provide resources to assure proficiency in writing, speaking, the visual display of information, and the arts of persuasion.

In the Fall, your writing will be formally assessed. Specifically, you will be asked to write a one-page paper as part of your assignment for DUSP's critical introduction to planning: Gateway (11.201). This writing sample will be used to assess your writing skills in order to determine what level of additional guidance, if any, you may need re: your writing. Given the stress placed on clear writing in all DUSP subjects, in addition to the thesis, DUSP considers it important to identify early on those who might find individualized levels of writing instruction beneficial in furthering their academic and professional careers. Also, the diagnostic exercise enables us to open a dialogue with each of you about your writing strengths and weaknesses and to help you identify strategies that will help you progress while you are here in DUSP. Your papers will be evaluated primarily on the presence of a clearly defined and presented central idea with a well-organized, persuasive, and coherent structure of support. In addition, we will look for well-developed paragraphs with clear topic sentences; smooth transitions; concise, grammatically constructed sentences; use of concrete nouns and active verbs; idiomatic usage; precise word choice; and correct punctuation,

mechanics, and spelling.

Some students may decide early on to take 11.225 in the fall: a writing class that focuses on argumentation skills, paragraph development, sentence structure, and grammar (described below). Others may decide to take 11.229 in the spring: an advanced writing workshop that uses assignments from your other classes, including thesis work, to refine thesis questions, craft literature reviews, and discuss the presentation of data and findings to a variety of audiences. Reading and writing assignments and other exercises in both classes stress the connections between clear thinking, critical reading, effective writing, and the demands of professional practice.

All students who are not native speakers of English also take the English Evaluation Test, given by the faculty in Foreign Languages and Literatures (FLL) during Orientation week, for an early diagnosis and evaluation of their abilities in both speaking and writing. This test is required even if for students who have previously attended a college or university in an English-speaking country.

Any subjects recommended by the FLL faculty are considered requirements by DUSP. The results of this review will determine whether students will be required to take one or more of the following ESL subjects to achieve professional-level proficiency in English:

- 21F.211 Intermediate Spoken and Written Communications
- 21F.213 High-Intermediate Spoken and Written Communications
- 21F.223 High-Intermediate Workshop in Speaking and Listening Skills
- 21F.219 High-Intermediate Workshop in Written Expression
- 21F.227 Advanced Workshop in Writing for Architecture and Social Sciences

The Department considers competency in English at the level of 21F.227 prerequisite for completion of the MCP degree. Proficiency in spoken English and proficiency in writing are treated as entirely distinct and students must demonstrate both if they are to successfully complete their course of study in DUSP.

#### **11.225 Argumentation and Communication Prerequisites** None

**Test-out** Determined by writing assessment

**Format** Class meets once a week for two hours.

**Subject Objectives and Description** This subject is a 6-unit class that helps students present their ideas in cogent and persuasive written and oral arguments. Students practice writing, editing, peer review, and creating effective graphics. Reading and writing assignments are sometimes related to other course-work expected of students. In-class short exercises will stress the connections between clear thinking, critical reading, effective writing, and the demands of academia and professional practice.

**11.229 Advanced Writing Seminar**

**Prerequisites** 11.225 or place-out in the writing assessment, and proficiency in English (with permission of instructor)

**Test-out** None. This is an elective subject, but students may be encouraged to take it by either their advisor or the Head of their program group.

**Format** Offered in the spring semester. Class meets once a week for two hours.

**Subject Objectives and Description** This seminar provides the opportunity for students to push their writing skills one step further. Students work intensively on developing the research claims and arguments in their writing for their other classes and/or thesis. Students bring to class a writing project—thesis, dissertation, proposal, journal article, etc.—and engage in collaborative feedback and peer review under the guidance of the instructor. The first part of the semester is devoted to exposing students to a number of different types of professional writing assignments including memos, proposals, consulting reports, etc. The reading and writing assignments guide students in focusing on the connections between research claims, the evidence that supports those claims, and the reasoning that underlies that support. In the latter part, students will work independently on successive drafts of writing for their projects and use group commentary and guidance in revision. Also, students will present their work to the class for review and commentary. Much class time will be focused on presenting, videotaping and reviewing presentations. Both Master's and doctoral students are welcome, and the subject is designed to maximize cross-fertilization between programs and research areas.

**Other Resources**

In addition to these subjects, there are other resources available to students who want to strengthen their communication skills:

**Writing and Communication Center** Instructors help students with issues ranging from developing skills in analyzing a topic, organizing a paper, and planning a thesis to problems in overcoming writer's block and specific problems in grammar, mechanics, and style. Tutoring is available on a drop-in basis during slow times, but it is recommended that students make appointments. Work is tailored to individual or group needs (<http://web.mit.edu/writing>, x3-3090).

**English Language Studies (ELS) Program** ELS helps those students whose first language is not English. The program includes instruction from beginning to advanced levels of English language, as well as writing subjects on general and technical matters. A fully equipped language lab

supplements these subjects (<http://web.mit.edu/fll/www/languages/English.html>, x3-4771).

**Program in Writing and Humanistic Studies** Offers instruction in writing at beginning, intermediate, and advanced levels. Its curriculum encompasses three broad areas: exposition and rhetoric, scientific and technical writing, and creative writing. Subject offerings range from expository writing to poetry to scientific and engineering writing for both expert and lay audiences. The staff includes essayists, novelists, and poets, as well as specialists in technical communication.

Some advice for entering students: Expect to be challenged by the number and nature of writing assignments in your Core subjects. Every professor is a different audience and may expect a different style of writing from you. Some assignments may require brief memos, while others may require that you develop extended arguments and evidentiary support in longer, more academic papers. Do not be discouraged if, at first, you feel you are not working up to speed. Effective writing about complex phenomena, especially in a new field, takes work, dedication and an open mind. Over time, and with feedback from many different readers, even the most accomplished writers continue to develop their writing potential. We hope that your work in DUSP will help you to continue to build your writing and presenting skills. And remember that the faculty are here to help you achieve your goals.

## Thesis

The MCP thesis is an independent piece of analytic work, organized around a set of research questions. A broad range of studies can qualify as a thesis. Some are academic research projects; others are closer to being professional reports (for a client) on planning practice and policy questions. Still others may be design proposals or documented formal models. The thesis must have an analytical dimension that addresses issues of implementation, design, public policy or planning practice.

### What Purpose does the Thesis Serve?

The thesis requirement offers the opportunity to:

1. Synthesize your previous learning and experiences and reflect on their meaning;
2. Strengthen and demonstrate your competence in framing questions, designing a process for answering questions and interpreting the meaning of findings;
3. Deepen your knowledge of a specialized topic;

4. Design and complete a significant independent project which has significance for planning or policy; and
5. Produce a document you may wish to show to prospective employers or clients (though this is not a DUSP requirement).

### Several Points Apply to all DUSP Theses

1. All theses must be appropriately rigorous, which means that questions and hypotheses are explicitly formulated and tested against data; and that conclusions are drawn and their implications assessed;
2. The analysis presented in the thesis must be systematic;
3. The form that the thesis takes should clearly relate to its intended audience. If the thesis consists of a design proposal, film project, or a project in another medium, written documentation must accompany the film, plans, etc.;
4. The length of the thesis is not important, though it should be no longer than is required to achieve its goals; and
5. If the thesis is drawn from a group project, each individual must carry out and submit a self-contained topic and product for their thesis.

### Non-Traditional Thesis Options

The program recognizes both the “traditional” thesis approach (*independent* work on a topic defined and developed by the student in concert with a thesis advisor) and a “structured” approach (work on a topic emerging out of the student’s participation in *on-going research directed by a faculty member*, who will also serve as the thesis advisor). Beyond this, the program recognizes the following alternative thesis options, each described in more detail below:

1. Client-Linked Thesis
2. Design Thesis
3. Media Thesis

#### Client-Linked Thesis

*approved by MCP committee 3/13.*

The Client linked thesis focuses on addressing a professional planning problem with an outside client/sponsor organization. For this type of thesis, the topic definition, planning approach and methods are developed in the context of a client-focused planning issue or problem rather than being based on a student defined research question. Consequently, the methods used and thesis

format will more closely resemble a professional report than a research-based thesis.

Students opting for the client-linked thesis need to have their client/sponsor arrangement approved by their thesis advisor prior to initiating the project, ideally in advance of the third semester of the program. This approval is to ensure that the student is not being asked to by the client/sponsor to conduct work outside of the educational milieu intended for this thesis option, thereby minimizing the chance of exploitation.

The following thesis preparation process is recommended for professional project theses:

1. MCP students will ideally elect the client-linked thesis option by the second week of their third semester and will have identified a sponsoring client organization by this time.
2. A faculty thesis advisor will be identified and confirmed by October 1 (or March 1 if the spring term is their 3rd semester).
3. Students completing a client-linked thesis work with a faculty member with professional planning experience to address the issues associated with completing a client/sponsor project and producing a professional project report. Such issues include the client/sponsor role, communication and relationship, appropriate planning methods and analysis, and professional report content and format.
4. Students complete a thesis proposal under the supervision of their thesis advisor (who must be a member of the DUSP faculty) and with client/sponsor input. The client/sponsor becomes similar to the role of the “reader”. The final thesis proposal is to be signed by both the thesis advisor and client.
5. Both the thesis advisor and client/sponsor consult on assigning a final thesis grade. As with other MCP theses, the submitted thesis is signed by the faculty thesis advisor.

### Design Thesis

*approved by MCP committee 3/13.*

A Design Thesis can be of two forms: *Design* or *Design Research*.

**Design:** The student’s thesis is a design project that would be fully articulated in a series of design drawings, and discussed in an accompanying brief written component (under 3000 words). Theoretically the breakdown of content would be 75% design and representation, 25% written.

**Design Research:** The student’s thesis is a set of analytical drawings based on research of a physical design issue accompanied by equal written component. Theoretically the breakdown of content would be 50% analytic drawings and representation, 50% written.

In both thesis forms, drawings and representations of physical, multiscalar spatial issues are the center of the student's thesis and written text is to be used in a supporting role to the original visual presentation materials.

Because the Design Thesis centers on visual representation rather than writing, students who choose this path would not be relying as heavily on social science models of research that currently are taught in DUSP. Rather, they would require instruction in the research methods more closely aligned with those of design disciplines, such as analytical drawing and mapping techniques and how to formulate arguments for a design intervention. Therefore, students taking the Design Thesis option could have combined thesis prep with SMArchS Urbanism students or could take a DUSP thesis prep subject oriented to physical planning.

### Media Thesis

*approved by MCP committee 3/13.*

Various forms of media—including photography, digital visualization, lighting, film, computer and mobile phone applications—are ubiquitous in urban planning research and practice. The Media Thesis allows students to investigate (research) and implement (design) various forms of media to develop and answer research questions focused on urban planning, development, and policy, including spatio-temporal and place-based interventions. The Media Thesis differs from the traditional MCP thesis in that students who choose a media thesis will implement/design their research ideas through a medium they choose. While a traditional MCP thesis might analyze how multi-media could be used for planning practices, students who choose a media thesis will be innovating in the medium itself using it as a method to address an issue linked to urban planning. Students interested in the Media Thesis must have a research question that explains the importance of using their chosen medium to answer a planning question.

In addition to the media product, the Media Thesis will have written component that describes the media method developed. The write-up should include:

- A theoretical framework for contextualizing the planning issue being addressed. In other words, why is the topic important for a planner to investigate?
- An explanation for why the chosen media approach will further expand knowledge or be innovative.
- A description of the media approach and its outcomes. The description of the media approach should include images, diagrams, system architecture and development sketches (where relevant), and other materials that explain the media (or multi-media) approach.
- An analysis of results and potential impacts on the field of urban planning.

Media Thesis students are encouraged to take whichever thesis prep subject best matches their substantive interests. In some situations a thesis prep faculty instructor may know the substantive content of the field the student is studying but may not have sufficient expertise in the desired medium of conveyance. In these circumstances, with consent of their advisor and notification provided to the MCP committee, an alternative approach to thesis prep can be arranged with an expert in their chosen medium. If this happens, the student will still need to identify a DUSP faculty member to serve as the designated advisor for the thesis, but the person providing special media expertise may be expected to play a strong role as the thesis reader. The Media Thesis cannot be pursued if these issues are not covered and approved at the beginning of the thesis prep semester (i.e., not later than the beginning of the penultimate semester of the student's program).

It should be noted that any copyright of the Media Thesis and product will follow MIT policies, which can be found, on the following web site. <http://libraries.mit.edu/archives/thesis-specs>

## The Thesis Experience

The thesis process is a multi-semester experience including a formal process of Thesis Preparation and the Thesis for which 24 units of credit are received. Students may begin the process of selecting a thesis topic upon entry to the program, but certainly by the second semester. A thesis preparation subject or another approved context helps to structure this initial stage, but typically the bulk of data collection, analysis, and writing of the thesis occurs in the final semester. Key steps and requirements in the thesis process include:

1. Thesis Preparation: Completed by taking a department offered Thesis Preparation subject in the second or third semester or petitioning the MCP Committee to undertake thesis preparation in another context. (See 'Thesis Preparation' on page 51)
2. Thesis Proposal: Completed during a Thesis Preparation subject or in another approved context. The Proposal must be signed by the thesis advisor by the given deadline at the end of the semester.
3. Thesis: Completed under the direction of an Advisor and Reader who constitute the Thesis Committee (see details under 'Thesis Advising' on page 55). When theses are completed and final grades have been determined by the Thesis Committee, 24 units of credit are allotted, with that final grade attached. The MIT transcript will indicate a grade of "J" or "U" for the thesis preparation; the grade for the thesis will be given following its completion.
4. Thesis Defense & Submission: A thesis defense must be held at least ten days prior to the official due date. Following the approval of the thesis by the committee, two copies of the thesis, formatted to Institute

specifications and signed by the student and the faculty advisor must be presented to the Student Services office on the date noted in the DUSP Calendar.

### **Thesis Preparation**

Thesis Prep (11.THG) is a required, 24-unit course within the MCP curriculum that is taken preparatory to a student's enrolling in thesis (also 11.THG). Thesis Prep is graded J/U to indicate that a student has either satisfactorily (J) or unsatisfactorily (U) completed the requirements to begin thesis writing. Thesis prep may also be pursued "in another context" with an individual instructor, but the requirements are the same. (See "Fulfilling the Requirement," below)

**Overview.** Thesis Prep is a critical component of the MCP curriculum. The difficult task of Thesis-writing is greatly aided by a well-developed, clear thesis proposal. Selecting an advisor is also greatly aided by a thesis proposal that is formulated prior to a student's approaching faculty. Thesis Prep is intended to assist the student in:

- Understanding the character, format, and requirements of a thesis at MIT;
- Identifying a topic and research question;
- Scoping literature and resources available to develop the topic; Deciding on methodologies to be employed and where to obtain information and skills in these; A
- Assisting students through the COUHES process for protecting research subjects (an ethical obligation for all researchers and students, as well as faculty);
- Developing an acceptable thesis proposal; and
- Assembling a thesis committee, including the Thesis Advisor, and one or two readers.

**Subject offerings and schedule.** Students may select from among three Thesis Prep subjects offered by the MCP program. The three courses vary in emphasis, reflecting different topics and methods employed in various planning fields:

1. 11.THG Thesis Prep (Fall): Built environment-oriented topics with more qualitative and design methods (CDD)
2. 11.THG Thesis Prep (Fall): Policy oriented with a mix of quantitative and qualitative methods (EPP/HCED)
3. 11.THG Thesis Prep (Spring): More quantitative oriented, enabling students to conduct field research over summer (IDG)

All Thesis Prep subjects are taught as seminars in which student ideas are discussed in a group setting; student surveys have indicated that students prefer discussion of individual topics to lecture, and that written feedback on proposals is extremely helpful.

**Thesis Prep content.** It is expected that Thesis Prep courses will provide instruction and assistance to students in developing the following:

- A thesis topic that is specific and related to current concerns in urban studies and planning;
- A research question or problem that clearly states what conceptual or practical issue the student seeks to resolve in the thesis;
- A thesis literature or precedent review that is robust enough to convey a reasonable command of relevant information in the area of the student's thesis topic;
- A methodology, either qualitative or quantitative or design based, that will enable the student to gather a sufficient amount of sound primary data appropriate to the type of thesis;
- A research hypothesis stating what a student expects to find upon the conclusion of the thesis research, conveying some prior thinking about possible outcomes;
- An understanding of possible impact of the thesis, in a professional or conceptual sense.

And if possible, a theoretical framing that permits the student to understand how their work is situated within larger inquiries and understandings of urban studies and planning.

Note that the above content is geared towards the majority of students pursuing the "traditional" model of research thesis. Those pursuing a "client-linked" thesis are expected to prepare their proposals with their advisor and the client ("in another context"). "Design" thesis students are expected to take the CDD Thesis Prep, more oriented to issues of the built environment. "Media" based theses may be pursued in any of the thesis prep classes or contexts. For more information on the above, see "Non-Traditional Thesis Options" in the DUSP Handbook.

**Thesis advisor selection and timing.** Thesis Prep is expected to provide the vehicle for introducing students to advisors in a consistent manner among the three courses. Based on experience, proposed activities and approximate benchmark dates for the fall semester (spring would follow a similar sequence) are as follows:

**October 5.** Students develop a one-page thesis proposal that can be shared with faculty. Thesis Prep instructors suggest possible faculty ‘matches’ for each student, and share these student ‘matches’ with faculty. Students may not contact faculty prior to this date.

**November 1.** Students present their developing thesis ideas in a public session(s) open to faculty and potential advisors (any format). By this point, students should have made contact with at least one faculty member in DUSP regarding possible thesis advising.

**November 25.** Students are required to have confirmed a thesis advisor.

Throughout the October 5–November 25 student-advisor matching process, Thesis Prep instructors are expected to remain aware and assist students and faculty in making contact for possible advising. The ultimate responsibility of confirming thesis advising rests with individual students and faculty.

**Fulfilling the Requirement** The department offers two main options for thesis preparation:

1. Enrollment in one of the Department’s Thesis Prep subjects: Students intending to begin their thesis over the summer should enroll in thesis prep in the Spring semester. All others should enroll in one of the two thesis prep subjects offered in the Fall semester.
2. Thesis preparation in another context: Student may petition to prepare for thesis and develop a proposal under the supervision and guidance of a DUSP faculty member in another context. Typical versions of this option will be either to develop the proposal as an adjunct to a subject in the student’s substantive area of research interest, or to develop the proposal in the context of an on-going research project. This option is intended for students who have a more definitive idea of their topic and a faculty member they would like to work with as their thesis advisor.

To pursue this option, a student is required to submit a signed petition to the student services office and receive approval from the MCP Committee. Students filing petitions should do so as soon as arrangements are made, but no later than the first Friday of the semester. Once the petition is approved, the student may register for 11.THG to receive credit for the work. The contents of the petition and criteria for approval are as follows:

- A detailed discussion of the appropriateness of the context (e.g. substantive course, ongoing research project, or other supervised experience);
- The process of thesis preparation to be pursued, demonstrating that the student will be undertaking the equivalent of 9 units of work towards the thesis (over and above credit received for a context subject or project);

- Products anticipated such as: literature review and bibliography, research question, methodology, schedule, etc.
- Anticipated date for submission of a signed Thesis Proposal (no later than December 15 in the student's third semester).

Faculty who are supervising Thesis Preparation under this option will also serve as the student's Thesis Advisor. In the event that this is not feasible, the faculty member supervising Thesis Preparation will be responsible for ensuring that the student is matched with an appropriate advisor and reader.

Students filing petitions should do so as soon as arrangements are made, but no later than the first Friday of the student's third semester. Appropriate forms are available from Sandy Wellford. Once the petition is approved, the student may register for 11.THG to receive credit for the work.

### **Thesis Proposal**

The thesis proposal is a careful and compelling description of the thesis project and how the student intends to conduct it. The proposal must be signed by the Thesis Advisor and a reader must be listed, but need not sign the proposal. The narrative should include:

1. A brief description of the specific questions and issues to be addressed;
2. A description of the relevance and importance of the subject;
3. Goals in undertaking this particular thesis;
4. A description of the research and analytical methods to be used to address the research question and goals;
5. An outline of the final document, including a preliminary organization of chapter titles (a narrative may be substituted for the outline);
6. Sources of data to be used (for example, interviews, library research, surveys, field observations) and a description of how the data will be analyzed;
7. The schedule of dates for completion of the major tasks, from data collection to analysis, drafting, revision, initial defense, and final revision and submission (see below); and
8. A list of committee members on the proposal cover sheet.

## Thesis Advising

Thesis advising is a critical component of students' academic and intellectual development. Ideally, thesis advising should be an outgrowth of the thesis prep process, with the transition to an advisor occurring within the last month of thesis prep. The following guidelines are intended to establish a framework for advising expectations and responsibilities on the part of both the advisor and student.

**Advisor Selection.** Students may approach any faculty member in the department to serve as their thesis advisor, at the appropriate time (see above). Students should recognize that faculty whose primary affiliation is within a student's program group will likely have a higher level of interest and capacity in advising that student's thesis, and that faculty outside of a student's program group may have existing advising commitments within that faculty's own program groups. Nevertheless, students are not required to select advisors within their program group, or to do a thesis with their academic or RA advisor (unless such a relationship is a condition of admissions and or funding outlined in the admissions letter.)

The thesis advisor must be a DUSP faculty member. In unusual circumstances, students may petition the MCP Committee to accept a non-DUSP member of the MIT faculty as a thesis advisor. Dual degree students are required to have two thesis advisors: one in DUSP and one in the other degree program which the student is pursuing. (see "Dual Degrees" section of this Handbook)

**Expectations.** Different faculty have their own advising styles and understandings of advising responsibilities and obligations. Students have different skills and advising needs. For these reasons, it is important to discuss and agree on expectations before an advising relationship is established. A schedule of regular meeting times, product delivery expectations, and resource needs is required to approve a final Thesis Proposal submitted to the department and signed by the student and advisor. These guidelines are offered to provide some parameters: however, the thesis advising relationship is ultimately the responsibility of both thesis advisor and thesis student, not the MCP Committee.

**Research resources.** Research and design based methods cannot be fully taught within the time constraints of a Thesis Prep seminar. Methods subjects are available elsewhere in the curriculum, and students should be advised to pursue thesis topics commensurate with their skills, or to take appropriate subjects in preparation. Nevertheless, students often do need guidance in applying methods to their particular topic. The thesis advisor is expected to make students aware of, and assist them in connecting with faculty or methodology resources in DUSP or elsewhere at MIT. Some methods areas that are likely to require additional guidance are: statistics, interview and survey, design methods and visual thinking, and spatial analysis.

**Thesis meetings.** Thesis advisors and advisees are expected to meet on a regular basis, as mutually agreed, but typically on a bi-weekly basis. It is the responsibility of both the student and the advisor to insure that regular communications, meetings, and reviews, occur throughout the thesis period. Issues with communications and meetings should be referred to Sandra Wellford.

**Thesis feedback and deadlines.** Thesis advisors and advisees should agree on a time frame for submitting draft chapters and full thesis drafts. At a minimum, most faculty will expect to have a full thesis draft at least one week prior to the formal thesis defense. If full thesis drafts are submitted less than one week before the thesis defense, the defense may be postponed at the advisor's discretion. Readers are responsible for reading full thesis drafts prior to the defense and may read drafts prior to that point if they agree to do so.

**Thesis writing.** Thesis advisors are expected to provide guidance on thesis writing that is commensurate with their academic role. It is the responsibility of advisees to ensure that the work they submit does not contain grammatical errors or other technical writing problems. It is advisees' responsibility to seek assistance from the MIT Writing Center prior to submitting work to correct these issues. Faculty advisors are not obligated to read thesis work that has not been proofread.

**Thesis defense and acceptance.** Students are responsible for scheduling the time and place for the thesis defense, in consultation with their advisor and other Committee members (readers and/or second advisor, in the case of dual degrees). The advisor conducts the thesis defense, reviewing any revisions requested by the Committee at or after the defense, certifying that the completed thesis has Committee approval, and awarding a letter grade. The thesis advisor and the Chair of the MCP Committee sign the accepted thesis.

The purpose of the oral thesis defense is to make a final assessment of the quality of the thesis and for the committee to determine the acceptability of the thesis and the quality of the work.

This meeting, which is attended by all members of a student's thesis committee and which may be opened to others as well (e.g., announced and held in a classroom for a larger audience), begins with a brief presentation by the student, summarizing issues addressed and presenting key findings. The committee (and other attendees, if applicable) then asks questions and expresses criticisms, to which the student responds. This meeting is often a combination of critical responses to the document and discussions of the issues covered in the thesis project.

At the conclusion of the meeting, after the student has left the room, committee members discuss the thesis and decide on a "finding." The committee may accept the thesis at this stage; reject it; or accept it conditionally, specifying changes to be made prior to submission of the final copy. The conditional approval is at the committee's discretion and only available within the time

constraints reflected in the calendar. The committee cannot extend a due date. If a thesis is not completed by the due date, a grade of “U” or “J” will be given.

Granting an oral defense is not tantamount to approval. Occasionally a committee may recommend that a defense not be held because of the poor quality or incompleteness of the draft. Acceptable theses are awarded grades of: “A” (outstanding/excellent), “B” (very good), or “C” (acceptable but with a significant deficiency or several minor deficiencies).

### **Thesis Deadlines**

No thesis grade will be accepted without a final copy of the thesis signed by the student and the faculty advisor on the date noted in the DUSP Calendar. Failure to adhere strictly to this Institute rule will result in the student being withdrawn from the degree list. Please see Academic Advisor Sandy Wellford for all questions regarding thesis deadlines:

- Petition to pursue thesis prep in another substantive context: As soon as arrangements are made or no later than the first Friday of the semester. Students who do not submit a petition by this date must be (or have been) enrolled in a Thesis Prep subject.
- Identification of a Thesis Advisor: By November 1 of the student’s third semester (April 15 for those enrolled in Spring Thesis Prep).
- Identification of Thesis Reader: By December 1 of the student’s third semester (May 15 for those enrolled in Spring Thesis Prep).
- Submission of a completed Thesis Proposal signed by the faculty member responsible for supervising Thesis preparation and the Thesis Advisor: By December 15 of the student’s third semester (May 15 of the student’s second semester for those enrolled in Spring Thesis Prep). Students who do not meet this deadline will not be able to register to complete their thesis.

### **A Realistic Schedule (Typical Thesis)**

#### **September (or February for second semester thesis preparation)**

1. Register for Thesis Prep 11.THG.

#### **October (or March)**

1. Draft a thesis memo as a discussion document.
2. Meet with one or more prospective faculty advisors.
3. Identify a thesis advisor by the end of the month.
4. Meet to discuss thesis goals, methodology, resources, schedule.
5. Use a thesis prep seminar to perform “pre-thesis” exploration and to obtain feedback from advisor and other faculty members, if helpful.

6. Draft a thesis proposal and circulate it.

**November (or April)**

1. Select reader and any additional thesis committee members.
2. Start thesis research; review relevant theory and literature.

**December (or May)**

1. Submit final, signed thesis proposal.
2. Discuss January (or summer) thesis plans with advisor.
3. Present semester work plan to advisor and committee members.
4. Make January (or summer) research arrangements.
5. Continue thesis research.

**January**

1. Continue thesis research.
2. Make up incomplete grades and finalize any other administrative issues.

**February-March**

1. Register for thesis (11.THG).
2. Complete the Degree application on WebSIS by the end of the first week of classes
3. Review Institute thesis specifications available online at: <http://libraries.mit.edu/archives/thesis-specs/index.html>.
4. Circulate thesis drafts.

**April**

1. Circulate second thesis drafts.
2. Receive feedback from all committee members on all successive drafts.
3. Schedule the oral defense (typically for early May).
4. By required date, present committee members with a copy of the thesis that can be defended in the oral exam.

**May**

1. Hold the thesis defense at least ten days prior to the official due date.
2. Make revisions on the “approved thesis” and present two copies on archival paper to Sandy Wellford.

## Resources

Students have full responsibility for the design and execution of the thesis project. The department seeks to support students' efforts by providing a suite of formal and informal activities throughout the first and second year:

1. Students who want to browse possible research topics may consult previously completed theses available online at MIT's D-Space (<http://dspace.mit.edu/handle/1721.1/7582>).
2. Thesis prep seminars offered by the department.
3. Advice and guidance on writing is available for both general and specific problems. Information describing these resources in more detail can be found in the Writing section of this handbook.
4. Informal student support groups. Students regularly arrange to meet and discuss questions of common interest with others who are working on related thesis topics, or who are at the same stage of thesis writing. Typically these groups are initiated by students. Some thesis preparation seminars have decided to continue informally through the spring semester.

## Completion of Thesis During Summer

While the MCP program is designed to be completed in four semesters, occasionally a student may seek to extend his or her time in the MCP program by completing a summer thesis. We do not encourage this practice.

Students should be aware that most DUSP faculty are on 9-month contracts and are not paid to teach or work with students during June, July, and August. Leaving the pay issue aside, faculty often rely on the summer months to meet critical professional obligations—such as research fund-raising, fieldwork, and writing—as well as personal obligations. Accordingly, any student seeking to complete MCP thesis work over the summer and to be placed on the September degree list must be certain in advance about the willingness and availability of the advisor and reader to take on this responsibility. *Any student seeking to complete thesis over the summer must submit a signed written statement from all members of the thesis committee attesting to their willingness and availability over the summer to take on this responsibility.*

Failure to do this will make the student ineligible for the September degree list. Any student who has not made arrangements in advance to complete thesis over the summer as described above, and who does not complete his/her thesis on the required due date in the spring semester, will be required to submit his/her thesis and hold the defense during the succeeding fall term, and will need to pay the pro-rated fall semester tuition.

## Dual Graduate Degrees

The Department offers a number of opportunities to pursue dual degrees concurrently, including the Dual Degrees in Planning and Architecture, Planning and Transportation, and Planning and Real Estate.

### Dual Degrees in Planning and Architecture

The School of Architecture and Planning offers students the opportunity to pursue concurrently graduate degrees in the Department of Urban Studies and Planning and the Department of Architecture, based on an approved program of study. Students may write a single thesis for both degrees, and complete their studies in less time than it would ordinarily take if they worked toward the degrees separately. These combinations require a minimum of two additional semesters in residence beyond the longer of the two degrees. This means six semesters for a MCP/SMArchS dual degree, and from seven to nine semesters for a MCP/MArch dual degree, depending on whether the student enters the MArch program with advanced standing (*i.e.*, either in a five-semester or seven-semester MArch program).

The Dual Degree Program is monitored by the Dual Degree Committee, composed of faculty and degree administrators from both departments. The function of the committee is to advise students prior to application; to review the proposed program for dual study; to evaluate students' record of performance and capability to successfully complete proposed program; to recommend students to admissions committees of respective programs; and to review and monitor students' progress.

**Procedures for applying for the dual degree program** Students interested in the dual degree should obtain an information package containing policies and procedures from the DUSP Student Services Office in 9-413 or their degree program administrator. These policies are the final word on the program.

1. Students prepare a written program proposal and a new application for admission to the degree program to which they are applying in the Department of Urban Studies and Planning or the Department of Architecture. Students should also request that their original admissions applications be forwarded to the dual degree committee to be included in their folder. Applications and requirements should be obtained from the department to which you are applying. Applications are due by January 3<sup>rd</sup>.
2. The Dual Degree Committee reviews the program proposals and application. The Committee makes one of three findings: not recommended (student's application rejected; no appeal); recommended (student's application forwarded to the appropriate admissions committee with recommendation to accept); or special circumstances (forwarded to admissions committee for review with no prejudice, along with a note explaining

special circumstances). Decisions from the Dual Degree Committee are announced on or about February 15<sup>th</sup>.

3. The applications and program proposals are then reviewed by the appropriate admissions committee of the Department of Urban Studies and Planning or the Department of Architecture. In reviewing dual degree applications, degree committees may take into consideration whether the applicant is comparable to other students who have been admitted to the degree program, and other factors. In considering dual degree applicants, MIT degree students do not compete for the small number of regularly available places in degree programs of the Department Architecture and the Department of Urban Studies and Planning.

Decisions from the Departmental Committees are sent out on or about April 3<sup>rd</sup>.

This process is designed to ensure that the program of study represents a meaningful educational path and that the quality of dual degree candidates remains high. Not all dual degree applications will be approved—only those which demonstrate a formulated educational program, and the capability to pursue it.

**Eligibility for Program** A student must apply by January 3rd before beginning the last full year of graduate study on the first degree. This means that MCP and SMArchS students must apply during their first year at MIT. Second year students of these programs are not eligible to apply to the Dual Degree Program. MArch students (planning a normal  $3\frac{1}{2}$  year program) must apply during or before their second year.

**Course Requirements** Students will be expected to complete the coursework and core requirements of each of the two departments. Immediately upon being accepted into the MCP program, a student must begin the core courses in September of the second year. The core courses must have been successfully completed before a student can register for thesis.

Subjects that carry joint numbers may be counted only towards work in one department or the other. For example, MArch students must complete the studio sequence and the required number of subjects in each of the other mandatory areas. MCP and SMArchS students must fulfill the respective core and other program requirements. The Institute policy as of March 1980 states that a student who is a candidate for the simultaneous award of two masters degrees and submitting one thesis must satisfy completely the minimum requirements for both departments separately—example: 164 MArch 66 SMArchS; 126 MCP (without thesis). (In certain circumstances, a student may petition to reduce the number of credits for one degree or the other. Please consult with department administrators.)

In order to be eligible for the simultaneous award of two master's degrees, a student is required to file a petition with the Registrar, approved by both

departments, at least two terms prior to graduation, stating the expected program in both departments. Students are expected to file this petition in their home department administrator immediately upon acceptance into the Dual Degree Program. For further information on the format of this petition, consult Architecture or DUSP Administrators Department.

**Registration** For SMArchS students accepted into the MCP program, the student registers in Architecture for the first and second year, DUSP the third year. For MCP students accepted into the SMArchS program, the student registers in DUSP the first year, Architecture the second year, and DUSP the third year. The student must be registered for a minimum of two full semesters beyond what would have been necessary to get the first degree. MArch students register for three and a half years in Architecture, or less as it is reduced by advanced standing; followed by at least two full semesters registered in DUSP. MCP students accepted into the MArch program will register in Architecture from their second year on.

**Thesis** Dual degree students must complete a thesis that is acceptable to both departments. All dual degree students must register for thesis prep and Thesis in DUSP and the thesis process will be governed by administrative procedures in DUSP. However, thesis topics must be approved by a faculty thesis advisor from each department and at least one faculty member from each department must be represented on the thesis committee. The faculty thesis advisor from each department must sign the completed thesis (two signatures).

**Financial Aid** Financial aid relating to MCP and SMArchS students will be the responsibility of the “home” (first) department for the first two years of study, the other (second) department the last year of study. No aid is guaranteed. Financial aid involving MArch students will be determined by the department in which the student is registered.

## Dual Degree with Transportation

The Master of Science in Transportation (MST) degree is a two-year, inter-departmental graduate degree program, administered by MIT’s Department of Civil and Environmental Engineering. The Master of City Planning (MCP) degree is a two-year accredited degree program, offered by the Department of Urban Studies and Planning within the School of Architecture and Planning. Given the strong links between transportation and city planning, interested students can choose the dual MCP/MST degree option at MIT. Note, however that the dual degree option is not for everyone, and students can study transportation within the MCP program or can study urban transportation within the MST program without pursuing the dual degree option.

**Entering the MCP/MST Dual Degree Program** There are three ways for a student to enter the dual degree program:

1. Students already enrolled in the MCP program can, during their first year of study, apply to the MST program. To do so, they must fulfill the requirements as outlined on the MST web-site: <http://cee.mit.edu/graduate/dual-degree-transportation-city-planning>. Students will typically be notified of their acceptance to the MST program by the end of their second semester.
2. Students already enrolled in the MST program can, during their first year of study apply to the MCP program. In this case, students must fulfill the normal DUSP application requirements, including meeting the official January deadline, and will be notified of their acceptance by no later than the end of their second semester.
3. Students can simultaneously apply to both the MST and the MCP programs. Acceptance decisions to both programs are made independently.

**Academic Requirements** Students enrolled in the MCP/MST dual degree program must fulfill the minimum course requirements of both degree programs. In other words, students must complete the 66 course units (including all core requirements, but not including thesis) required of the MST degree, as well as the 126 course units (including all core requirements, but not including thesis) required of the MCP degree. Students enrolled in the dual degree may petition the MCP Committee to reduce the MCP degree course credit requirements by up to 24 units. This petition should be submitted for approval together with the student's proposed course of study. That is, students must take a minimum of 168 total course units (not including thesis) to qualify for the MCP/MST dual degree. Courses taken for credit towards one degree cannot be counted towards the other degree program.

Typically, a single thesis can be written for both degrees. The thesis research must be carried out under the supervision of an approved member of one of the two degree programs, with the other program providing the thesis reader. The single thesis cannot be used to satisfy the thesis requirements of any additional graduate degree programs. Students must fulfill the MCP thesis prep requirement; it is possible to fulfill this requirement through the MST guided research program and related research meetings.

In extraordinary circumstances, the dual MCP/MST degree can be finished in two years (4 semesters). More typically, the degree is completed in 2.5 years (5 semesters) or 3 years (6 semesters).

**Typical Course Selections** Students in the dual degree are free to tailor their course selection to their own interests, as long as they fulfill the course credit requirements outlined above, as well as the core course requirements and additional program requirements of each degree. Naturally, students who come

to the MCP from the MST program will normally have fulfilled the MST core during their first year, such that year 2 of the program focuses on the MCP core requirements. For students entering the MST program from the MCP program, the reverse is the case. For students entering both degree programs simultaneously, it is recommended that students focus primarily on one set of core courses in the first year. The Academic Advisor will help guide the student in structuring the course selection.

**Administrative Requirements** After admission, students must fill out a petition indicating that they intend to complete a dual degree, and listing the subjects they plan to take to fulfill the requirements for each degree. This petition must be signed by a representative from both degree-granting departments, and by the Dean of the Graduate School.

### Other Dual Degrees

Students may also choose to pursue dual degrees in other subject areas such as a Master in City Planning/Master of Science in Real Estate Development, or a Master in City Planning/Master of Science in Business Administration. In principle, a dual Master's degree program can be created with any other MIT department. For information on application procedures to another program, students should consult the appropriate other department in the late fall of their first semester of graduate study. Applications to a second program are typically made in January of the first year of graduate study on the first degree. Dual degree study entails meeting all thesis requirements for both programs.

See Karen Yegian, Administrative Officer, to confirm the terms and conditions of DUSP financial aid when enrolled as a dual degree student.

### Urban Design Certificate Program

The Department of Urban Studies and Planning and the Department of Architecture collaborate through the Joint Program in City Design and Development, to offer a course of study in urban design. Students who successfully complete the program receive an Urban Design Certificate from MIT at graduation. The purpose of the urban design program is to provide the fundamental knowledge and special skills required to design urban and regional environments. Students who complete the program have the skills to begin work as professional urban designers.

Students in the Master of Architecture, Master of Science in Architecture Studies, Master in City Planning, or Master of Science in Urban Studies and Planning degree programs are eligible for a Certificate in Urban Design if they complete a specific curriculum of subjects drawn from the two departments and also complete all requirements for their normal degrees. Subjects taken as part of the Certificate program may be counted towards fulfillment of their normal degree requirement. For example, the Urban Design Studio may be

counted toward the studio requirement for the MArch degree, or towards the specialization requirement for the MCP degree. The Certificate can be achieved without adding additional time to what it normally takes to achieve a degree.

To earn the Urban Design Certificate students must fulfill the following requirements:

- All students must take 11.333J/4.244J, Urban Design Seminar, which provides a common experience and base of knowledge for students in the Urban Design area. The Seminar deals with how we judge excellence in urban design and trends that are shaping the future of city design and practice.
- Students without prior design training—defined as a degree in architecture, landscape architecture, or urban design—are required to take 11.328J/4.240 Urban Design Skills.
- Complete at least one subject in each of the six curriculum areas identified on the Urban Design Certificate Form (<http://dusp.mit.edu/cdd/program/academics>).
- Include at least one “intensive level” subject from among those identified as such on the Urban Design Certificate Form (<http://dusp.mit.edu/cdd/program/academics>).
- Complete a thesis on a topic substantially related to urban design, with at least one member of the committee from the faculty listed below. Students’ thesis proposals must be reviewed and agreed to by the Urban Design Certificate Committee.

Students wishing to pursue an Urban Design Certificate need to declare this at least two semesters before graduation, and must complete a Program Statement that indicates which of the above subjects they intend to take.

Urban Design Certificate Program Statement Forms are available from Room 10-485, or online at <http://dusp.mit.edu/cdd/program/academics>. The statement must be signed by a student’s advisor and approved by the Urban Design Certificate Committee. Any modifications to the program or petitions for subject substitutions must be approved in writing by the Committee (see <http://dusp.mit.edu/sites/all/files/attachments/simple/PETITION%20FORM.PDF>).

## Accelerating the MCP Program

There are several possible ways to accelerate work on the MCP degree:

- Test out of core courses. While students do not receive credit for courses they test out of, it does free up time to take other courses.

- Petition for credit for graduate-level courses taken at another institution, which have not been applied to any other degree. Register for summer classes between the first and second year and petition for transfer credit toward the MCP (up to 21 units). Credit from other institutions will not be accepted for core courses.
- Take courses for credit during IAP (January) of both years. Students may take a maximum of 12 units during each IAP.

*Please note: Students will only be allowed to accelerate their programs if their Program Statement reflects that intention or a petition revising the Program Statement has been approved by the beginning of the third semester.*

## **Master of Science in Urban Studies and Planning (SM)**

Under special circumstances, admission may be granted to a limited number candidates seeking a one-year Master of Science (S.M.) degree. The SM is a non-professional degree intended for professionals with a number of years of distinguished practice in city planning or related fields who: have a clear idea of the courses they want to take at MIT, the thesis they want to write and the DUSP faculty member with whom they wish to work. That faculty member must be prepared to advise the candidate when at MIT and to submit a letter of recommendation so indicating as part of the candidate's application. This process means that prior to submitting an application, the candidate must contact the appropriate DUSP faculty member and work out such a relationship. To successfully obtain the SM students must have satisfactorily completed a program of study of at least 66 subject units, including a submitted thesis proposal, signed by a thesis advisor at the end of the fall semester, and a completed thesis at the end of the spring semester. The SM degree does not require the candidate to take the core courses, which are mandatory for the MCP degree.

## Chapter 4

# MCP Financial Aid

This document is intended to clarify DUSP’s financial aid policies and provide information regarding the cost of education and living expenses you will need to plan for as a graduate student at MIT. Please read through all the information presented here to answer questions you may have about financing your education.

*Please note, prospective students should refer to these documents, and information from DUSP headquarters staff — not well-meaning students or faculty! — for reliable information and advice regarding financial aid.*

### The Process

Each year Program Groups in DUSP are allocated a share of the Department’s financial aid resources for the incoming class; both admissions and financial aid decisions are made at the Program Group level, based on factors including merit and need, as well as applicants’ fit with ongoing research projects within their respective Groups. DUSP allocates its entire pool of financial aid resources for the incoming class during this process (with the exception of funding designated to support internships and a number of hourly-paid student jobs — more on both of these later); thus, initial offers of financial aid or admission with no aid cannot be supplemented or enhanced to match competing offers from other universities or meet applicants’ individual needs. In the event a prospective student declines our offer of admission with financial aid, that aid will be reallocated to the next eligible candidate in the Program Group.

Education and living costs in the Boston/Cambridge area are high; with limited resources, we strive to establish a balance between our dual goals of providing “meaningful” financial aid packages that substantially reduce the costs of the program for students, and funding as many students as possible. Given that the need for financial aid far outweighs our available resources, we are unable to provide offers of funding for many highly deserving students.

## **Types of Financial Aid Awarded by DUSP**

DUSP provides financial support to MCP students in the form of either Graduate Assistantships (with a research work obligation) or Fellowships. Your admission letter specifies whether you have been offered any financial aid, and if so, which type. Financial aid offers are for the two years of the MCP program unless otherwise specified in the letter, contingent upon maintaining good academic standing. The tuition portion of an Assistantship or Fellowship is credited directly to the student's account, as is the extended health insurance if applicable. Stipends are paid over the 9-month academic year on the final working day of each month. Students will be asked to complete direct deposit information for these payments.

### **Graduate Assistantships (aka Research Assistantships or RAs)**

These financial aid packages cover a designated portion of tuition costs, full cost of single student extended health insurance, and a monthly stipend. The work requirement for graduate assistantships follows MIT policy, which is 20 hours/week for full time, and hours are prorated for any position less than full time. Most department-supported assistantships are half time (50% effort), with a work requirement of 10 hours/week and an estimated stipend of \$1,340 per month for the 2016–17 academic year, beginning September 1, 2016 through May 31, 2017. Students will receive more detailed information regarding the terms and conditions of these research appointments during the summer. The tuition and insurance portion of the assistantships are credited directly to your student account.

### **Tuition Fellowships**

Tuition fellowships cover a designated portion of tuition costs, and are credited directly to your student account.

### **Off-campus Internship Program and Hourly Paid Student Jobs**

Both of these programs are supported by departmental funds and are available to all students. Unlike graduate assistantships and fellowships, however, students apply for these positions on a semester-by-semester basis. Students seeking hourly paid jobs and off-campus internship positions should check regularly for postings on Plaza, DUSP's electronic bulletin board. The positions are typically posted at the start of each term.

### **Hourly Paid Student Jobs**

Each semester the Department hires several students to work as teaching assistants or research assistants on an hourly basis. Students submit weekly timesheets for hours worked. Typically these positions require about 10-12 hours per week; the hourly rate for the 2016–17 academic year is \$20.

### **Off-Campus Internship Program**

All MCP students are eligible to participate in the Department's off-campus internship program, which places students in public, non-profit or private agencies on a semester-by-semester basis. Compensation is dependent on the length of the internship and is in the form of a fellowship stipend. Typically, students complete 12-week internships and receive a \$3,500 fellowship stipend paid over the course of the semester on a monthly basis. (Note: fellowship stipends do not incur tax withholding and students do not receive tax forms from MIT; it's up to individuals to declare the income and pay taxes on the fellowship stipend.)

## **Non-Departmental Funding Sources**

The financial aid types listed above are, with few exceptions, all supported by centrally budgeted departmental funds. Below is some information regarding non-departmental financial aid options students may elect to pursue. While departmental aid is awarded at the time of admission and can be factored into prospective students' decision making, the opportunities for non-departmental funding described below most often become available sporadically and unpredictably.

Students who have been awarded departmental financial aid may apply for sponsored RA positions and non-departmental fellowships; in this case, the funding may either supplement OR supplant the financial aid award from the Department for the relevant semester, depending on the specific circumstances.

### **Sponsored Research Assistantship**

Each year a limited number of Research Assistantships on externally-sponsored projects are available through individual DUSP faculty members who have a research grant or contract, and occasionally through faculty from other departments with overlapping areas of interest. All students may apply for these positions, regardless of financial need or degree program. The terms of these positions vary widely: some may be full time or half time and cover a proportional amount of tuition along with a monthly stipend; others may pay only a stipend, or be paid on an hourly basis. Sponsored research assistantships sometimes require specific skills, and principal investigators seek to hire the most qualified student(s).

## MIT and External Fellowships

The Office of the Dean for Graduate Education (ODGE) at MIT maintains a list of fellowships, both internal and external, on their website <http://odge.mit.edu>. Prospective students interested in pursuing fellowship opportunities should carefully consult this resource, noting that many of the listings have very specific eligibility requirements, and application deadlines that have already passed for the upcoming academic year. A note regarding the listings under “ODGE Fellowships”: as stated on the website, nominations for these fellowships must be submitted by an MIT department. Each year DUSP proactively reviews all admitted student applications for eligibility, and nominates the most competitive candidates. Prospective students who have been selected by the ODGE as recipients of a fellowship will be notified immediately upon our learning of the awards.

## Loans

Students admitted with or without aid are eligible to apply for loans at any time. Students who are not U.S. citizens or permanent residents are not eligible for federal government loans, but may qualify for a private education loan. The procedures for applying for loans at MIT are outlined on the Student Financial Services web page below. Loan applications are processed and administered centrally at MIT; the Department is not involved in any phase of applying for or administering loans. Questions should be directed to:

Student Financial Services, Room 11-120  
phone: 800-537-6012; fax: 617-258-0700  
<mailto:loan-services@mit.edu>  
<http://web.mit.edu/sfs/loans/index.html>

## Financial Planning for your Graduate Program at MIT

The cost of completing the two-year MCP program, including tuition, fees and living expenses, makes careful financial planning a necessity. Students enter the program with widely varying amounts of undergraduate debt and available personal finances, and very different levels of comfort regarding the amount of additional debt they may have to assume to complete the program. Anecdotally, some students report having been encouraged to “just enroll, and figure out the finances later...” However, students who enroll without a plan, or who have a high level of discomfort financing their education with loans, find that financial concerns substantially detract from their overall educational experience. DUSP is unable to provide full financial aid packages (covering full tuition and living costs) for any MCP students, and as stated previously, DUSP does not maintain

a reserve of financial aid to allocate to students who find themselves in financial difficulty; there are no easy remedies for such situations.

We encourage you to make use of the materials and worksheet provided by DUSP HQ at admission to develop a plan, and to calculate your expenses that must be supported by personal finances and/or loans.

## FAQs

*Q — I've been admitted without financial aid (or with aid that doesn't meet my needs); what are my chances of getting additional aid?*

A — Following the April 15 response deadline for students with financial aid offers, any aid declined will be allocated by Program Groups to the next eligible student in that Group. We are unable to predict your chance of receiving any further financial aid, but will notify students with aid offers asap.

*Q — I've received a more generous financial aid package from another university, but MIT/DUSP is my first choice; can DUSP match it?*

A — Unfortunately, DUSP cannot make counteroffers of additional aid; we allocate the total available to incoming students.

*Q — When, where and how can I apply for sponsored RAships?*

A — These positions become available unpredictably, and potentially at any time during the year. Faculty post positions on Plaza, and sometimes fill positions by word of mouth. As a student, you can let the faculty members in your Program Group, and particularly those whose research interests are similar to your own, know that you would be interested in a research position if available.

*Q — Can I supplement my financial aid from DUSP with a sponsored RAship or other non-DUSP aid?*

A — In general, yes, as long as total work requirements do not exceed 20 hours per week, and both academic and work performance are satisfactory.

*Q — I have financial aid that covers a portion of my tuition; do I need to pay my full tuition bill and be refunded?*

A — No, you need only pay that portion of your bill that is NOT covered by your financial aid award. We try to process the awards in advance of the first tuition bill being mailed, but cannot always make the deadline. If your tuition bill does not reflect the tuition you will be receiving as financial aid, you may simply deduct it from your bill and pay the amount you owe.

*Q — How do I receive my fellowship stipend or RA stipend?*

A — The email confirmation of your fellowship or RA appointment will contain information about direct bank deposit for your stipend. Stipends are paid monthly at the end of each month.

*Q — Will I need to fill out an I-9 Form (employment eligibility) at MIT? Will I need a US Social Security number as an international student?*

A — All students admitted with RA funding must complete an I-9 form at the I-9 desk in the Card Office in W20 no later than Friday, September 2, 2016. We highly recommend that all other students also complete the I-9 form in the first few days of the term, in the likely event you will be employed at MIT at some time during your program. International students will need to apply for a US Social Security number. Please check the Student Financial Services website [http://web.mit.edu/sfs/jobs/getting\\_hired\\_and\\_paid\\_by\\_MIT.html](http://web.mit.edu/sfs/jobs/getting_hired_and_paid_by_MIT.html) for detailed information and instructions.

Additional questions concerning this financial aid policy should be addressed to:

Karen Yegian, Administrative Officer  
Room 7-337  
Phone: (617) 452-2865  
E-mail: <mailto:kyegian@mit.edu>

This financial aid policy is set each year in consultation with the department head, the administrative officer, and the MCP Committee. Except for the specific commitments made in award letters, the Department may change aspects of this policy as necessary.

*The financial aid information contained in this document is the policy that applies for students admitted to the MCP program for the fall of 2016, and supersedes all previous statements of the Department's financial aid policy for MCP students.*

## Chapter 5

# Undergraduate Program

### Bachelor of Science in Planning

The Department of Urban Studies and Planning offers an interdisciplinary pre-professional undergraduate major designed to prepare students for careers in either the public or private sector. It also provides a sound foundation for students intending to do graduate work in law, public policy, development, urban design, urban studies, management, and planning. The goal of the major is to teach students how the tools of economics, policy analysis, political science, sociology, and design can be brought to bear on social and environmental problems in the U.S. and abroad. In addition, students learn the special skills and responsibilities of planners who promote efficient and equitable social change.

#### Required Subjects: 69 Units

*All of the following:*

- 11.001J Introduction to Urban Design and Development, 12 units, HASS (4.250J)
- 11.002J Making Public Policy, 12 units, HASS-D, CI-H (17.30J)
- 14.01 Principles of Microeconomics, 12 units, HASS
- 11.188 Urban Planning and Social Science Laboratory, 12 units, LAB, CI-M (permission of instructor)

#### Planned Electives: 78–81 Units

Majors in Course 11 are required to formulate or select one stream of course-work for further concentration. 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. Within their selected stream, students must take at least 78 units of course-work; majors are invited to propose other subjects that are relevant to their chosen stream, including courses in other MIT departments.

## Urban Field Experience

We encourage declared majors to take the optional urban field experience class, 11.027 City to City (CI-M), which is taught in the spring and includes a trip during spring break. Students may take this course multiple times, as the content differs each year, but it may only be counted once as a planned elective.

## Thesis

Majors are required to write a senior thesis or complete a senior project. The thesis/project writing process is accompanied by a required undergraduate thesis seminar, which meets in the fall.

**11.ThT** Thesis Research Design Seminar, 12 units, CI-M

**11.ThU** Undergraduate Thesis Seminar and Thesis, 12 units

For DUSP majors interested in spending a semester abroad, we recommend the International Honors Program (IHP), which has a semester-long program called “Cities in the 21 st Century.” (For further information, see <http://studyabroad.sit.edu/studyabroad/location-comparative.cfm/>.) The department offers transfer credit for courses taken as part of the IHP.

*No subject can be counted both as part of the 17-subject GIRs and as part of the 180 units required beyond the GIRs. Every subject in the student’s departmental program will count toward one or the other, but not both.*

## Five-Year SB/MCP Program

Undergraduate majors in Course 11 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 of study. 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:

1. strong academic record in Course 11 subjects
2. letters of reference from departmental faculty
3. practical experience in planning which could be gained through internships, practica, studios, UROPs, summer jobs, etc.
4. a mature and passionate interest for the field which warrants further study.

In the fall semester of the senior year, five-year students are considered participants in the MCP program and begin meeting its requirements. At the same time, they can be completing requirements for the undergraduate degree.

## Requirements

Fulfill undergraduate requirements, plus 42 H units, 30 G units and 24 thesis units, to equal 96 units for the fifth year.

Potential applicants should notify Sandy Wellford as early as possible.

## Criteria for Admission

While there is no explicit minimum grade point average, we expect applicants to have demonstrated a strong academic performance at MIT, especially in Course 11 and related subjects. In the past, approximately half of the applicants have been accepted into our Five-Year Program.

## 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 units)
- 11.002[J] Making Public Policy (12 units)
- Select Four Course 11 elective subjects(36-48 units;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.)

### **Total units: 60-72**

See <http://dusp.mit.edu/degrees/undergraduate> for more information.

## Minor in Public Policy

Public policy is an academic field that looks at the nature of public problems and how we attempt to address those problems through government action. The interdisciplinary HASS Minor in Public Policy is intended to provide a single framework for students in engineering and sciences who are interested in the

role of public policy in the field of their technical expertise. The six-subject minor is organized in three tiers.

The first tier provides a foundation in the study of the public and private institutions in which public policy decisions are made and implemented. All students are required to take two subjects that introduce them to rationales for government action, justifications that form the fundamental basis for making public policy. The second tier explores methods of analyzing and assessing the impacts of policy change. The aim is to provide a basic level of competence so that students are knowledgeable about the range of approaches that professionals use to analyze public policies. The third tier offers an in-depth program of study in one substantive field of policymaking. All minors select one substantive policy field and take three subjects within that area of specialization. Students may substitute a semester-long internship for one subject in their chosen field, with the approval of their minor advisor. The internship must be at least 9 units and must be for a letter grade.

The Public Policy Minor is administered jointly by the Department of Urban Studies and Planning and the Department of Political Science. Each department has designated a Public Policy Minor Advisor who is responsible for advising students in the minor. Students interested in this minor should begin by contacting DUSP Professor Phil Thompson.

## Structure of Subjects

### Introduction to Markets, Politics, and Public Policy

Two required subjects:

- 11.002J Making Public Policy, 12 units, HASS-D, CI-H (17.30J)
- 14.01 Principles of Microeconomics, 12 units, HASS

### Methods of Policy Analysis

One required subject:

- 11.003J Methods of Policy Analysis, 12 units, HASS, (17.303J), and prerequisites: 11.002J, 17.30J, 14.01

### Policy Concentration

Three subjects chosen from a policy concentration track (see <http://dusp.mit.edu/degrees/undergraduate> for up-to-date listings). Students may also propose their own track for approval by their Minor Advisor. Students may substitute a semester long internship in their chosen field for one of the specialized subjects listed here, subject to the approval of their Minor Advisor.

## Minor in International Development

MIT students have enormous interest in tackling problems of global poverty and economic development in the poor regions of the world. The minor in international development will increase the capability to understand, analyze and tackle today's problems in emerging countries, including the challenges of dealing with increasing urbanization, the need for industrial growth and jobs for increasing number of educated youth, the crisis of resources and infrastructure, the fragmentation of state capacity and rising violence, the ethical and moral issues raised by development planning, the role of appropriate technology and research, and the challenge of dealing with popular discontent. Through research and teaching, we combine a robust introduction to the theoretical framework of the field, with a strong analytical orientation and problem-solving method tested through field engagement. Taught by faculty from one of the world's premier academic centers of expertise in planning, at the Department of Urban Studies and Planning, and with more than a quarter century of experience in dealing with problems of international development, the minor is a new offering to MIT students that emphasizes problem-solving, multidisciplinary and an understanding of institutions at various levels from the local to the global as the key to solving today's problems in emerging countries.

### Structure of Subjects

The six-subject minor is structured into two tiers. The first tier gives students 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. It will also introduce students to 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. The second tier of classes offers an array of more specialized and advanced subjects to allow students greater depth in specific sectors and international development issues with faculty immersed in a variety of disciplines. These sectors range from public finance, infrastructure and energy, sustainability, the role of technology policy, the form and the 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.

The courses seek to combine the real world resources of experienced practitioners by taking advantage of fifteen mid-career international development and planning practitioners (Spurs/Humphrey fellows), who are hosted by DUSP each year, and who can serve as a major resource for connecting MIT undergraduates to the international world of development planning practice.

### **Tier I: Introduction to International Development Theories & Practice**

Choose two:

- 11.025 D-Lab: Development
- 11.005 Introduction to International Development
- 11.140 Urbanization and Development (meets with 11.480)

### **Tier II: Specialized Topics in International Development**

Choose four in consultation with the minor advisor:

- 11.002 Making Public Policy
- 11.027 City to City
- 11.144 Project Appraisal in Developing Countries
- 11.147 Innovative Budgeting & Finance for the Public Sector
- 11.164J Human Rights in Theory and Practice
- 11.165J Infrastructure & Energy Security Challenges
- 11.166 Law, Social Movements, & Public Policy
- 4.233 The New Global Planning Practitioner
- EC.715 D-Lab: Disseminating Water, Sanitation and Hygiene Innovations for the Common Good

Additional information can be obtained from the Department of Urban Studies and Planning.

## **Fields of HASS Concentration**

The Department of Urban Studies and Planning offers many possibilities for creating a concentration tailored to your needs and interests. The section on “HASS Concentration” on <http://dusp.mit.edu/degrees/undergraduate> suggests some of the possible combinations of subjects. When more than three subjects are listed, the student should select three (3) in consultation with the Concentration Advisor.

The DUSP concentration focusing on Education can also lead to Massachusetts Certification in math and science at the middle and high school levels, if two additional subjects are taken at Wellesley. More information is available from Eric Klopfer, Room 10-337, 617-253-2025 (see Teacher Education Program).

You can also always create a concentration that fits your particular interests within Institute guidelines. We will assist you in selecting three subjects that suit your concerns and background. Since some subjects are offered only every other year, we encourage you to discuss the possibilities with us by the end of your sophomore year. For further information, contact Sandy Wellford, 9-413, phone 253-4409.

Course offerings change on an annual basis and students should check with the Department for the latest information.

## Teacher Education Program (TEP)

MIT now offers a teacher certification program that can be done entirely at MIT or in conjunction with courses at Wellesley College. This program certifies students to teach mathematics and science in grades 8-12. The Teacher Education Program, offered through the Department of Urban Studies and Planning, prepares MIT students to become teachers who are competent to teach in their field, willing to challenge established norms, able to bridge the boundaries among disciplines, and eager to help students develop the desire to question and explore.

The subjects in this program will also help to prepare students for teaching at the university level (as undergraduate TAs or as faculty) and in industry. MIT students interested in becoming educators should take 11.124 and 11.125 in conjunction with a major in the School of Engineering or the School of Science. Students who wish to go for Teacher Certification must also take complete a three-course sequence at MIT or Wellesley College (see below) that includes a component of supervised student teaching.

### Teacher Certification and Course Sequences

The MIT Teacher Education Program leads to Massachusetts State Certification in an appropriate secondary school science or mathematics discipline. Wellesley students who are interested in teaching math and science are encouraged to join MIT students in these classes, and MIT students have the option of joining classes at Wellesley for their practice teaching.

To complete the Teacher Education Program and meet the State requirements, students must complete a major in the subject area in which they wish to teach (or equivalent) and take the following courses:

- 11.124 (Fall) Introduction Teaching and Learning Mathematics and Science (E. Klopfer), HASS, CI-H
- 11.125 (Spring) Exploring K-12 Classroom Teaching (E. Klopfer), HASS, CI-H
- One of the following sets of classes:
  - Option 1 at MIT
    - \* 11.129 (Fall) Educational Theory and Practice I (E. Klopfer/R. Gibb)
    - \* 11.130 (IAP) Educational Theory and Practice II (E. Klopfer/R. Gibb)
    - \* 11.131 (Spring) Educational Theory and Practice III (E. Klopfer/R. Gibb)
  - Option 2 at Wellesley

- \* Education 300 (Fall) Educational Theory, Curriculum, Evaluation (B. Beatty)
- \* Education 302 & 303 Supervised Practice Teaching (K. Hawes)  
(taken concurrently in Spring)

*These classes include the required 75 hours of supervised classroom observation, and 150 hours of supervised practice teaching. For those who wish to complete their certification requirements by doing their practice teaching after graduation, the Wellesley “fifth year program,” which provides for a substantially reduced tuition during a fifth year, is often the most accessible option.*

For more information, contact TEP Director Professor Eric Klopfer at 3-2025 or email <mailto:education@mit.edu> or see <http://education.mit.edu>.

## The Undergraduate Research Opportunities Program (UROP)

The Undergraduate Research Opportunities Program (UROP) provides an opportunity for students to participate in ongoing MIT faculty research, off-campus research, or other kinds of field experiences. UROP offers the chance to try out a potential major and to apply classroom learning to a real-world problem.

UROP Projects can supplement course-work and provide opportunities for professional experience. Recent projects in DUSP have explored these areas: legal studies, housing and real estate, computer mapping and spatial analysis, environmental and city design, public service, economic and social development, energy, environmental impact, housing, and social welfare. The possibilities are wide. A project can provide academic credit or wages, or can be done on a volunteer basis. Funding typically comes from the professor sponsoring the project, but the UROP Office funds a limited number of projects, and can sometimes fund materials or services to carry out the project.

Students are urged to review the research profiles for DUSP Faculty on the UROP website (<http://web.mit.edu/urop/index.html>) and contact the faculty members directly to identify opportunities.

### Additional Information

Undergraduates are invited to take advantage of all departmental resources and events (other than those specifically designated for graduate students).

Early in the fall term, the department will host an Undergraduate Gathering to introduce undergraduates to each other and the department. The e-mail address <mailto:dupund@mit.edu> can be used to contact all Course XI undergraduate majors.

## Chapter 6

# PhD Program

### General Information

The PhD program focuses on preparing advanced students for research and teaching careers in urban and regional planning, urban and regional studies, and applied social research. The program emphasizes flexibility in the design of special areas of study, research competence, and joint student/faculty research and teaching.

PhD students normally take four semesters of classes, before taking their general examinations. Students with very strong preparations can reduce this time by two semesters. After passing general examinations, students should expect to take another three to four semesters to complete a dissertation.

The PhD Committee, made up of faculty, students, and staff, has responsibility for administering the program, reviewing the academic standing of doctoral students, and proposing changes in program policies.

### Faculty Advisor

Each PhD student has an assigned faculty academic advisor with whom s/he should work out a plan of study. The PhD Committee tries to match each incoming student with an advisor who shares that student's interests. The first contact occurs in the fall semester when a student first selects courses and begins his/her first year research paper. All faculty are concerned with promoting good personal and academic relationships between students and advisors. If it becomes clear that the match is not a good one, students should feel free to request a switch. Initiating a change in advisors is the responsibility of the student. The student should:

1. Talk to the other faculty member about her/his willingness to serve as a doctoral advisor;

2. Inform the current advisor about the desired change in advisors (ideally the decision would be made in discussions with the current and future advisor);
3. If the issue becomes complicated, discuss the move with the Head of the PhD Committee;
4. Inform Sandy Wellford, Academic Advisor.

### Advising Norms

Below are the guidelines for faculty advisors for PhD students and general guidelines for the PhD students in interacting with their advisors.

1. Advisor assignment. At admission, each doctoral student is assigned a faculty advisor. At any time thereafter, students may change advisors as long as the new advisor agrees, and the student notifies both Department Headquarters and the old advisor.
2. Student registration and progress review. Faculty advisors are responsible for signing the registration for the doctoral student at the beginning of each semester, reviewing the student's progress, meeting with their advisee on a regular basis (especially during the first two years of the student's doctoral program), and alerting the student and Department Headquarters if any issues arise concerning satisfactory progress towards completing the student's degree requirements. If the student is nonresident, the student and faculty should communicate on a regular basis with each other concerning the progress being made, the timing to be determined jointly by the student and faculty member.
3. Faculty presence on campus. During the academic year, advisors are expected to be on campus (unless on leave). During the summer, faculty may meet with their doctoral advisees but are not required to do so.
4. Financial assistance. Faculty advisors should be aware of the financial aid provided to their doctoral advisees and should help, when possible, to locate teaching and/or research positions.
5. Recommendations. Faculty advisors may be asked for recommendations by the student, but the student must give ample (preferably two weeks) notice of the need for such a recommendation and details concerning the award or job to which the student is applying, date the recommendation is to be mailed (or received), to whom it is to be mailed, and other relevant details.
6. Qualifying paper (currently called the First-Year Paper). Doctoral students are expected to complete the Qualifying paper under the supervision of a DUSP faculty advisor, who may or may not be the student's faculty advisor. First-Year Papers are due in May. Students who need additional

time to complete their paper should work directly with their paper advisor to come up with a summer advising arrangement.

7. **General Examinations.** The general examinations consist of a written and an oral component, with details provided by the student in a written proposal submitted to Department Headquarters that is signed by all members of the general examination committee. The committee must be composed of at least three faculty members, and the chair must be from DUSP, but need not be the student's faculty advisor. The written component is composed of a First and a Second field. A student who wishes to take the exam in fields other than the standard ones must submit a detailed explanation in the proposal, and the student should be aware that the proposal may take longer to be approved than if standard fields are selected. The head of the examination committee should help the student in selecting the other members of the committee, setting the dates and times for the examination, and assuring the student receives timely comments on the proposal and takes appropriate classes to prepare for the examination. The oral examination should be administered within three weeks of the submittal of the written examination.

The student must give a copy of the written examination to each member of the committee and the Department Headquarters. As soon as the oral examination is completed, the head of the examination committee must report to the student and to the Department Headquarters whether the student has passed the General Exams (written and orals), or whether additional follow-up work is required (and if so, exactly what is required and by when).

Doctoral students should not expect to take General Exams during the summer months, nor should they count on the Department to complete a review of proposed exams or exam questions that are submitted after June 1 or before September 1. Reviews take up to one month, depending upon the number of revisions required.

8. **Dissertation Advising.** All PhD students need to file a Dissertation Proposal, signed by all members of the committee, and to present it at a public colloquium. The student selects three faculty members for the Dissertation committee; the head must be a faculty member in DUSP. Doctoral dissertation members should meet with doctoral students on a timely basis to discuss draft dissertation proposals and plan a colloquium presentation.

The head of the committee and other members should review the doctoral students' progress several times each year and are expected to provide written feedback on dissertation drafts in a timely fashion. Students should expect to receive (preferably written) comments from each member of the committee within three to four weeks of the date the drafts are received by the committee member. Students should not assume that dissertation

committee members are available to give dissertation advice (and particularly to review dissertation drafts) over the summer. Dissertation defenses are not supposed to take place over the summer months.

9. **General Publishing Advice.** Doctoral advisors are expected to provide publishing advice to their advisees with regard to the dissertation, including when it is appropriate for faculty to be part of a joint publication. Advisors are also expected to suggest when it makes sense for a dissertation to be published as articles or as a book.
10. **Professional Development Assistance.** Faculty advisors are expected to provide career development assistance to their advisees. This should cover, at least, how to use conference presentations and other events to build a network of professional contacts. The advisors should help students assess opportunities to present papers and make presentations at professional meetings.
11. **Teaching Advice.** All doctoral students receiving departmental financial aid are expected to accept three semesters of teaching assignments in the Department. Some teaching positions may be available for some students during their last year in the PhD program. Advisors should help their advisees to assess their teaching efforts and to identify departmental or campus resources that students might use to enhance their teaching capabilities.
12. **Job Search.** Doctoral faculty advisors should provide assistance, or find others to help the student, in organizing job searches and should use their personal networks to identify job opportunities that might be of interest to their advisees.
13. **Post-MIT Assistance.** Doctoral advising never ends. Advisees will continue to need letters of recommendation and on-going career assistance long after they leave MIT. It is reasonable for advisees to expect their doctoral advisors to continue to write letters of recommendation for them, of course with due notice and after the advisee has provided an update.

## Student Support

*Section added: 11/2012*

The Department Head, Chair of the PhD Committee, and Head of Student Services should be sought out when students have questions about their progress in the doctoral program, and when any individual problems and challenges arise that require advisement and support from a departmental administrator. Specifically, the Chair of the PhD committee is available to address questions about advising and advisors, program design and development, and RA or TA assignments. In instances where the Chair of the PhD Committee is unavailable,

or when additional advisement or high-level intervention is required, students should meet with the Department Head. In addition, the Head of Student Services plays a critical role in providing guidance and input on the ins and outs of navigating DUSP and MIT, including the timing and protocols to be followed for meeting departmental and institute requirements and managing residency status and tuition requirements.

## Subject Requirements

*All incoming PhD students must fulfill the following course requirements:*

### First Year Fall Semester

1. **Research Design and Methodology (11.233).** In their first (fall) semester, students are required to take 11.233. There are no exceptions or substitutions to this requirement. The outcome of this class is a research proposal that can form the basis for the required first-year research paper. The purpose of the first year paper is to assess the student's ability to make a reasoned argument based on evidence that s/he has collected and to allow the student to work closely with a faculty advisor.
2. **Planning Ideas that Matter (11.910).** This 6-unit subject, launched in Fall 2014, is intended to introduce incoming doctoral students to the DUSP faculty, while also providing a forum for discussing a range of ideas in the field. In 11.910, DUSP faculty and others to debate key issues in applied planning theory. Sessions focus on questions of livability, territoriality, governance, and reflective practice. The subject meets every other week on Wednesdays over lunch, and is required for first-year DUSP PhD candidates, but the six debate sessions are open to the full department community. The doctoral students meet separately to debrief on the debates and discuss additional readings. This session is scheduled in the Thursday afternoon timeslot that parallels the Tuesday session used for 11.233. (*Section added: 8/2014*)

### First Year Spring Semester

1. **Doctoral Research Seminar: Reading and Writing Research (11.800).** The Doctoral Research Seminar supports the writing of the required First Year Paper by introducing first-year doctoral students in their second-semester to the many research and writing traditions in the planning, policy, and development fields. The 9-unit seminar meets weekly for two hours. Students are also expected to meet with their advisor on a bi-weekly basis to discuss their First Year Paper's progress and 11.800 provides periodic opportunities for students to share progress on this paper and receive feedback. There are no substitutions or exceptions to this requirement.

2. **First Year Paper (11.801).** All first-year students sign up for 11.801 in their second-semester and work with their advisor to complete their First Year Paper. Students are expected to finish the paper in the spring of their first year, though an extension to the beginning of the third semester is possible with the advisor's permission. A student cannot register for the third semester of coursework until the first year paper has been completed and approved by the student's advisor. Upon submitting the paper, the student will receive a grade with 9 units assigned by his/her advisor. Failure to complete the paper on schedule will result in a Dean's warning.
3. **Quantitative and Qualitative Methods.** All PhD students must complete one class in quantitative methods and one class in qualitative methods from a list of approved subjects (currently available on the wiki) by the end of their fourth semester.
  - (a) When a student wishes to take a qualitative or quantitative course that is not on the approved list, s/he should request permission from the PhD Committee prior to enrolling, including a course syllabus with this petition. If the course is acceptable, the student can take the course and the course will be added to the approved list.

The baseline for approving a quantitative course is that it covers techniques up to and including a full treatment of multiple regression. Qualitative courses will be approved if they offer in-depth coverage of one or more data collection and analysis techniques. Those that are mainly a general introduction to research design, are survey courses of data collection techniques, focus on theory, or that are combined qualitative and quantitative courses do not meet this threshold.
  - (b) Students who have completed quantitative or qualitative coursework at the graduate level at another university can petition the PhD Committee to waive either of these requirements. To be considered, coursework must meet the threshold indicated above (3a). Petitions involving classes taken at other institutions must include the syllabus for each class and evidence of performance at a grade 'A' level.

## First Year Review

*Section revised: 3/2013*

During the second semester, there is a mid-year review for first-year doctoral students. Students meet with a member of the PhD Committee and their faculty advisor to discuss their first semester and plans for the future. The meeting is intended as a means for reviewing experience in the program and to establish a foundation for success in the program.

To develop this foundation, students are required to prepare a draft of their Program Statement. The program statement should contain the following information:

1. Intellectual Focus
  - (a) Description of intellectual focus and interests
  - (b) One to two paragraph summary of potential dissertation topic
  - (c) Description of intellectual focus and interests
  - (d) One to two paragraph summary of potential dissertation topic
2. First Year Paper
  - (a) Brief description of first year paper topic and progress to date
3. Classes
  - (a) List of subjects taken in the first year and grades and credits received
  - (b) Proposed subjects to be taken in the second year
4. General Exam
  - (a) Statement of proposed first field and ideas for the second field
  - (b) Summary of how proposed classes support the second field and intellectual interests
  - (c) Projected general exam committee members
5. Timeline of Doctoral Activities
  - (a) This should include information about the timing of coursework, general exams, proposal submission, data collection, and dissertation writing.
6. Funding
  - (a) Expected funding for second, third, and fourth years
7. RA and TA Experience
  - (a) For students with departmental funding, a statement of semesters when expected to fulfill RA and TA requirements, along with an indication of classes suitable to TA
  - (b) For students without departmental funding, a statement of how research and teaching experience will be obtained

Each student should submit the draft program statement to his/her advisor and the designated PhD Committee representative at least one week prior to the review. The committee will discuss the statement and make suggestions for options to pursue. *In order to register, the final version of the program statement, approved the student's advisor, is due by fall registration day of the second year.*

## Independent Reading Subjects

Under ordinary circumstances, a first-year doctoral student will be allowed to take only one independent reading subject during the year. Other doctoral students will be allowed to take no more than two independent reading subjects per year. A student may ask the PhD Committee for permission to take more than the specified number of independent reading subjects. The PhD Committee will grant permission only if the student can give compelling reasons and the student's advisor endorses the request.

## Credit Requirements

*Section modified: 5/4/2017*

Students who enter the program with a Masters degree will be expected to complete a minimum of 72 units pre-dissertation (a full academic year) followed by 36 units for the dissertation. The 72-unit requirement is designed to place emphasis on a student's ability to pass General Examinations rather than on course units *per se*. Previously, students without a Masters degree in the Urban Studies field needed to complete a minimum of 126 credits before taking General Examinations. Beginning this year, the student's exam committee may determine if more than 72 units of course work are needed prior to generals.

## General Examinations

General Exams will ordinarily be taken either in early fall of the third year or in late spring of the second year. These examinations contain a written and an oral component. The general examination allows faculty to assess how well a student has mastered the content and methods of at least one discipline and, at least, one substantive area of planning or applied public policy. All PhD students are expected to prepare for an examination in two fields. The first field must be a discipline or equivalent systematic approach to social inquiry. Faculty advisors in each area are:

### Fields of Study

#### First Field

**City Design & Development** Eran Ben-Joseph, Alan Berger, Dennis Frenchman, Brent Ryan, Anne Whiston Spirn, Lawrence Vale, Christopher Ze-gras

**International Development** Gabriella Carolini, Karen Polenske, Bish Sanyal

**Urban Information Systems** Eran Ben-Joseph, Joseph Ferreira, Jr., Dennis Frenchman, David Hsu, Eric Klopfer, Carlo Ratti, Sarah Williams, Jinhua Zhao

**Public Policy and Politics** Xavier de Souza Briggs, Amy Glasmeier, Janelle Knox-Hayes, Balakrishnan Rajagopal, Bish Sanyal, Lawrence Susskind, J. Phillip Thompson

**Urban History** (*currently under redevelopment as “Planning History and Theory”*) Robert Fogelson, Jennifer Light, Lawrence Vale

**Urban and Regional Economics** Karen Polenske, Albert Saiz, William Wheaton

**Urban Sociology** Xavier de Souza Briggs, Justin Steil, J. Phillip Thompson

### Second Field

A second field must be an area of application. The following are examples:

**Environmental Planning and Natural Resource Management** Mariana Arcaya, David Hsu, Janelle Knox-Hayes, Anne Whiston Spirn, Lawrence Susskind, James Wescoat

**Housing and Real Estate Development** Xavier de Souza Briggs, Dennis Frenchman, David Geltner, Brent Ryan, Albert Saiz, Justin Steil, Lawrence Vale, William Wheaton

**Labor and Employment Policy** Paul Osterman, Bish Sanyal

**Neighborhood and Community Development** Mariana Arcaya, Xavier de Souza Briggs, Gabriella Carolini, Justin Steil, J. Phillip Thompson

**Negotiation and Dispute Resolution** Lawrence Susskind

**Planning in Developing Countries** Gabriella Carolini, Karen Polenske, Balakrishnan Rajagopal, Bish Sanyal, Christopher Zegras

**Regional Development** Amy Glasmeier, Karen Polenske, William Wheaton

**Transportation and Land Use** Terry Szold, Christopher Zegras, Joseph Coughlin, Nigel Wilson, Jinhua Zhao

Descriptions of first fields including bibliographies (and sometimes recommended including courses) have been recently updated. If a student proposes a first field other than those listed above, it must be described in detail in the student’s examination proposal (see below) and reviewed and approved by both the student’s general examination committee and the PhD Committee.

### Steps in Preparing for the General Examination

1. A student should plan to assemble a Committee of three faculty members in the fall of his or her second year. The faculty committee must be chaired by a DUSP faculty member and include at least one other member of the MIT faculty. The third member must be a faculty member at MIT or at another university.
2. Together with the examination committee, the student will usually select a first field from the list of standard fields (see above) and will define a second field. Decisions will be made in accordance with the guidelines specified below.
3. Students who take a standard first field will submit a brief examination proposal (see below for specifics) to the PhD Committee. Students taking a non-standard first field should refer to the specifics below. Each member of the examination committee must sign and date the cover sheet of the student's proposal.
4. The PhD Committee will not consider the examination to be complete until it has received a written memo from the head of the examination committee, briefly describing the examination results. All PhD general examinations are given on a pass/fail basis.

### Guidelines for the PhD General Examination and Written and Oral Examinations

These are general guidelines for the examination committee and student to follow. Justification must be provided to the PhD Committee at the time of submission of the examination proposal or, where relevant, at the time of the examination for any major variations from these guidelines. Also, if one or more members of the examination committee change after the signatures are received, a signed statement must be submitted to the head of the PhD Committee by the new member indicating that s/he has read the original proposal and examination questions and agrees to sit on the examination committee.

### Examination Proposal

The following information should be submitted as part of the examination proposal in approximately the order given here, so that the PhD Committee can quickly check to be certain both the format and substance of the proposed examination are satisfactory.

1. Format: Forms, which are available from Sandy Wellford, should be submitted for the first two pages of the examination proposal. The student should indicate (a) the number of days for the written examination (generally 4-5 days), specifying the proposed beginning and end date of the written examination, (b) the number of questions asked (generally three

- or four from each of the two fields, or six to eight total), (c) the number of questions answered (generally two from each of the two fields, or four total), and (d) the date of oral examination.
2. Members of examination committee: On the first page of the examination proposal in the space provided, the student should type the names of the examination committee, and each member of the examination committee must sign the proposal.
  3. Description of fields: The student needs to list his or her first field and provide a brief description of the coverage for the second field. If the first field is not a standardized field, the student must provide thorough descriptions of the field (2-3 pages), two or three sample questions, and a good rationale for specifying a new field. (Note: in the case of a new field, students should allow extra time for the review, both by their examination committee and by the PhD Committee.)
  4. Proposed Sample Questions: Students taking a standard first field should submit two or three sample questions for their second field only as part of the examination proposal. Students taking a non-standard first field should also submit two or three sample questions for the first field: students with a standard first field may choose to propose sample questions, but this is not required. The purpose of this submission is only to assure that the examination committee and the student are in agreement as to the type of question to be asked. The examination committee should not use these questions for the actual examination.

### **Actual Examination**

The student will receive the examination questions from the head of the examination committee, or if prearranged, from the department headquarters.

The written examination is a take-home examination. Students may refer to relevant literature and personal and class notes, etc. If the student does not understand a question, s/he may call a member of the examination committee to ask for clarification but should not confer with anyone other than those on the committee while the examination is in progress.

The student must deliver one copy of the written examination answers to each member of the examination committee at the time and place specified by the committee. The student must also submit a copy of the answers to Sandy Wellford.

The oral examination is expected to be given within one to two weeks after the written examination is completed, and is approximately two hours in length. All faculty members of the examination committee must be present at the oral examination. If the examination is not satisfactory, the examination committee may decide that the student should: (a) retake the entire examination at a mutually agreed time, but within one year of the previous examination, (b) retake one or more parts of the examination, or (c) be terminated from the

program. If the examination (or parts of it) is (are) retaken, the examination committee should be very clear as to what is expected from the student and when. The committee, for example, may decide that the student should take one or more additional classes and/or read specific literature. This information should also be transmitted by the head of the examination committee to the head of the PhD Committee.

The head of the examination committee must submit a copy of the answers to Sandy Wellford after the examination has been satisfactorily passed. If the student has not passed the written and oral parts of the examination, the head of the examination committee needs to inform the head of the PhD Committee in writing, indicating whether a new examination will be given and when and reasons for the failure.

All examination proposals, questions and answers will be kept on file in Rotch Library.

## Dissertation

Within three months after successful completion of the general examination, each PhD candidate is expected to submit to the PhD Committee a five-to six-page *preliminary dissertation research proposal*.

1. The proposal should include the dissertation topic, the importance of the topic, the research method, the types of information to be used, the means of obtaining the required information (surveys, statistical testing, literature, etc.), and a selected bibliography.
2. The preliminary dissertation proposal must be approved and signed by the thesis advisor on the student's committee. The dissertation committee must be chaired by a member of DUSP and include at least one other member of the MIT faculty.
3. The PhD Committee will review the proposal and if it is not satisfactory, the PhD Committee will suggest changes.
4. Membership of the general examination and dissertation committees need not overlap.
5. Within one year after passing the general examinations, the student must submit a full proposal for approval by the PhD Committee. Full proposals should expand upon the topics covered in the preliminary proposals and must be signed by all members of the student's dissertation committee.

## Full Dissertation Proposal

All doctoral students must submit a full dissertation proposal. In this proposal (usually 25-30 pages in length), the student should provide details on the

research design and preliminary ideas (e.g., hypotheses) that will guide the research effort. S/he should also discuss the relevant literature and potential data sources.

All students are expected to organize a colloquium in which they discuss their dissertation proposal before their full committee and other interested members of DUSP and MIT more generally. The student is expected to notify all DUSP members of the time and place of the colloquium and the dissertation proposal cannot be approved until the colloquium has been held. No colloquia will be held during the last two weeks of the semester, or final exam week, or during the summer. Check with Sandy Wellford for details.

All preliminary or full dissertation proposals will be kept on file in Rotch Library and will be available to students.

### **Oral Dissertation Examination**

After the dissertation committee and the student indicate that the dissertation is completed, the committee head will ask for the student to appear for an oral examination. The oral examination will customarily last for two hours and will be attended by all members of the dissertation committee. Other faculty and/or students may be allowed to attend the oral examination at the discretion of the dissertation committee. If revisions, normally slight, to the dissertation are suggested by the committee, the head of the committee may be solely in charge of approving the revised document. If major revisions are needed, all members of the committee need to review the revised document, and, in some cases, another oral examination may be required.

Guidelines for preparation of the dissertation document are available from Sandy Wellford. The student must follow these guidelines carefully. The student submits the final dissertation document, signed by the head of the dissertation committee, to the PhD office for signature by the head of the PhD Committee. Students will be removed from the degree list for graduation if the appropriate signed copies have not been delivered to 9-413 by the deadline set each semester by MIT. All PhD dissertations are graded on a satisfactory basis.

### **Non-Resident Doctoral Dissertation**

For the first three semesters of non-resident status, the non-resident tuition rate is equal to 5% of the regular full tuition. After that, non-resident tuition is 15% of the regular full tuition for an additional three semesters.

In a few selected cases, non-resident students in the fourth year of their program may be selected as Dissertation TAs, making them eligible to serve as paid TAs for key departmental subjects.

### **The Three-Essay Dissertation**

This option is based on three related publishable papers and is designed to be used in situations where the thesis material is better suited to three papers

on the same general topic rather than turning the dissertation into a book. A dissertation cannot be comprised of essays on three totally separate topics.

Both the summary and full dissertation proposal are still required, with a dissertation committee consisting of a chair and two readers. The three-papers option should represent different aspects of the same topic.

Students wanting to write a three-paper dissertation should discuss it with their dissertation advisor and include the projected structure of papers, the same as chapter outlines in a traditional dissertation proposal. Approval of the three-paper option will be made by the faculty member designated to review the proposal as part of the colloquium.

### **Completion of Dissertation During Summer**

Please be aware that most DUSP faculty are on 9-month contracts, and are not paid to teach or work with students during June, July, and August. Accordingly, any student seeking to complete PhD thesis work over the summer in order to be placed on the September degree list must be certain about the willingness of the advisor and readers to take on this responsibility. Any student seeking this arrangement must submit a form signed by all members of the advising team, attesting to their willingness and summer availability. This form should be submitted to Sandy Wellford no later than the Spring thesis due date. Failure to do so may result in removal from eligibility for the September degree list. If this happens, a student would need to submit his or her thesis and hold the defense during the fall term, and would need to pay the pro-rated fall semester's tuition

### **Procedures for Obtaining and Retaining Nonresident Status**

1. Eligibility: Prior to seeking approval for nonresident status, the student must have been in residence at MIT as a graduate student for at least four regular terms, have completed the general examinations, and be ready to begin work on his/her dissertation. Periods of residence at other educational institutions may not be counted as meeting this requirement.
2. Procedures:
  - (a) Initial Application: Students seeking nonresident status for the first time should obtain and complete a standard application form for nonresident status, which is available from Sandy Wellford. A full (preliminary) dissertation proposal, indicating departmental approval, must accompany this application.
  - (b) Application for Renewal: Renewal of nonresident status is also made on the standard application form. A written report of progress toward completion of the student's proposed dissertation must accom-

pany the application. Renewals ordinarily will be for an academic year (two non-summer terms), subject to a six-term limit.

### 3. Approvals

- (a) **Dissertation Proposal:** A preliminary dissertation proposal must be submitted for inclusion with the initial application for nonresident status. Also, a detailed dissertation proposal, approved by the student's dissertation committee and the PhD Committee, must be included, for departmental use. Arrangements must be described through which nonresident dissertation work will be supervised by a member of the faculty or a senior staff member approved by the department. Students then have one year from the date they pass their general examinations to turn in a full proposal and schedule a colloquium. If a full proposal is not turned in at that time, nonresident status will be canceled and the student may not apply again until a full proposal is submitted and approved by the student's dissertation committee and the PhD Committee.
- (b) **Progress Reports:** Accompanying each request for renewal of nonresident status, the report of progress toward completion of the research proposal must be approved by the dissertation committee and the PhD Committee. No student will be granted renewal of non-resident status if considered not in good standing.
- (c) **Applications for Nonresident Status:** Before nonresident status can be granted, each application for new or renewed nonresident status must be approved by the dissertation committee, the Committee on Graduate School Policy representative, and the Dean for Graduate Education.

4. **Deadlines:** Applications for nonresident status must be submitted to Sandy Wellford by May 15 to be approved for periods beginning in the subsequent fall semester, and by December 17 for periods beginning in the spring semester. This deadline must be met even if a student plans to complete the requirements for nonresident status between the relevant date mentioned above and the beginning of the next semester. Two copies of the full (preliminary) dissertation proposal must be submitted to Sandy Wellford for approval by the PhD Committee.

5. **Cancellation of Nonresident Status:** When students cancel his or her nonresident status, he or she becomes liable for full tuition for that semester. A student may not submit an advanced degree application for graduation to the PhD while on nonresident status; i.e., s/he must pay tuition during the final semester.



## Chapter 7

# PhD Financial Aid

The financial aid information contained in this document is the policy that applies for students admitted to the doctoral program in the fall of 2016.

Each year the department offers a limited number of financial aid packages to incoming doctoral students. These packages provide full support during the first four years in the doctoral program, including full tuition plus a monthly stipend for the nine months of each of the four academic years, as well as single student health insurance for the entire four years. If you have been selected to receive one of these packages, the details will be spelled out in your letter of admission. Each semester, continuation of your financial aid is contingent upon maintaining full-time resident student status, and good academic standing.

Students who receive financial aid have teaching and research assistantship (TA/RA) work requirements that are detailed in the letter offering admission. In accordance with MIT policy, full RA and TA positions have a work requirement of 20 hours per week for the duration of each semester, defined as:

- Fall term: September 1 through January 15.
- Spring term: January 16 through May 31.

The doctoral stipend rate for the 2016–17 academic year is \$2,900 per month, totaling \$26,100 over the 9-month period. Stipends are paid monthly at the end of each month of the academic year.

A limited number of Research Assistantships on externally funded sponsored projects are available through individual faculty members who have a research grant, and occasionally through other departments with overlapping areas of interest. Research assistantships are typically either full-time or half time, and pay up to full tuition and stipend, prorated for assistantships that are less than full time. Thus, a 50% RA appointment would pay 50% of tuition and 50% of the full RA stipend for the term of the assignment. All students may apply for these positions, regardless of financial need or degree program. Sponsored research assistantships sometimes require specific skills, and principal investigators are free to choose the most qualified student(s).

Students who are receiving one of the departmental financial aid packages may apply for an externally funded RA and/or a TA assignment outside the Department. In this case some or all of their financial support may be paid from the project or other academic area rather than from the Department's financial aid budget. Such students do not lose their eligibility for department aid in the other semesters for which aid has been promised, and may be able to use such opportunities to extend their funding beyond the fourth year, contingent upon departmental approval. Students may not hold two positions simultaneously.

Similarly, a number of fellowship programs are administered by various parts of the Institute, and our students often apply for and receive such support. Students are informed of such opportunities as they become available.

All students admitted with or without aid are eligible to apply for loans at any time. The procedures for applying for loans at MIT are outlined on the Admitted Students web page below [http://web.mit.edu/admissions/graduate/planning\\_guide/index.html](http://web.mit.edu/admissions/graduate/planning_guide/index.html). The Department of Urban Studies and Planning is not involved in administering any part of the loans program. If you intend to apply for a loan, be sure to file the necessary forms well in advance of arriving at MIT, so you have the administrative details out of the way when the semester begins. Questions about loans should be directed to:

Student Financial Services

Room 11-120

Phone: 617-258-8600

Fax: 617-258-0700

[ssc@mit.edu](mailto:ssc@mit.edu)

<http://web.mit.edu/sfs/loans/index.html>

Students who are not U.S. citizens or who do not possess a permanent resident visa are not eligible for federal government loans, nor are they eligible for MIT loans during their first year at MIT. International students must be prepared to meet their expenses for the first year without recourse to loans from the Institute. Continuing international students should have a reasonable plan to meet their expenses at MIT, which must not be limited to MIT loans. All loans awarded by the Institute require a credit-worthy co-signer who is a citizen or permanent resident of the United States or Canada.

Questions concerning this financial aid policy should be addressed to:

Karen Yegian, Administrative Officer

Room 7-337

Phone: (617) 452-2865

E-mail: <mailto:kyegian@mit.edu>

This financial aid policy is set each year in consultation with the department head, the administrative officer, and the Ph.D. Committee. Except for the specific commitments made in award letters, the Department may change aspects

of this policy as necessary.



## Chapter 8

# Student Travel Funds

The Department administers a number of funds to assist students with research-related travel and attendance at planning-related conferences. *Please note: In accordance with Institute policy, non-resident Ph.D. students are not eligible to receive department funding for reimbursement of travel expenses incurred during the period of their non-resident status.*

### The Lloyd and Nadine Rodwin Fund

The *Lloyd and Nadine Rodwin Fund* grants up to three international travel fellowships of up to \$1,000 each per year. These are to be used to assist students “pursuing research or writing theses while at MIT with special preference, where feasible, for students from poor countries or regions.” All students registered in the Department are eligible to apply. Applications are due in the spring and reviewed by a faculty committee assembled by the Head of the International Development Group. Funds are available for immediate use. Announcements of application procedures and deadlines will be emailed to students and posted on <http://plaza.mit.edu>.

### The William Emerson Fund

The *William Emerson Fund* has been designated by the Department to support student research-related travel. All students registered in the Department are eligible to apply. Travel may be in the US or abroad, and may be completed during IAP, spring break or over the summer. These travel awards will be reviewed on a competitive basis by a faculty committee assembled by the Department Head, and each semester three or more awards of up to \$500 each will be made. Announcements of application procedures and deadlines will be emailed to students and posted on <http://plaza.mit.edu>.

## The Ross Silberberg (1990) Memorial Fund

The *Ross Silberberg (1990) Memorial Fund* provides grants to support student travel related to research in social justice and design. Applications may be submitted by individuals or pairs and cross-discipline collaboration is encouraged; decisions are made by a committee consisting of the Department Head, the Head of CDD, and the Director of CoLab. Travel may be in the US or abroad, and should be completed over the summer. These travel awards will be reviewed on a competitive basis, and each year two awards of up to \$500 will be made. Announcements of application procedures and deadlines will be posted on <http://plaza.mit.edu> in the early spring.

## Conference Travel Reimbursement

The department offers students a partial subsidy to reimburse travel costs associated with attending or presenting work at planning-related conferences, as described below.

Expenses eligible for reimbursement include transportation, accommodations and conference registration. Please note: meals and incidental expenses cannot be reimbursed; unused subsidy/reimbursement cannot be transferred or accumulated.

This policy and its reimbursement limits are intended to ensure our ability to extend the benefit to all qualified applicants, given finite resources. We acknowledge that in many cases reimbursements may not cover the full cost of attending a conference, and are intended to subsidize students' personal or other resources in those instances. The policy is subject to change at any time, based on available finances.

## Undergraduate Students

Undergraduate students who have declared Course XI majors (not minors) may request financial assistance to subsidize the cost of attending one professional conference during their undergraduate years. To be eligible, conferences must meet one of the following criteria:

- be sponsored by APA
- be sponsored by ACSP
- offer AICP CM credits
- be a planning-related conference approved by the chair of the Undergraduate Committee

Undergraduate students may apply for reimbursement up to \$450 for eligible expenses, including transportation, accommodations and conference registration.

## MCP Students

MCP students may request financial assistance to subsidize the cost of attending one professional conference during the two-year MCP program. To be eligible, conferences must meet one of the following criteria:

- be sponsored by APA
- be sponsored by ACSP
- offer AICP CM credits
- be a planning-related conference approved by the student's advisor

MCP students may apply for reimbursement up to \$450 for eligible expenses, including transportation, accommodations and conference registration.

## PhD Students

Resident PhD students may request financial assistance to subsidize the cost of attending professional conferences. All conferences must be approved by the student's academic advisor. (Non-resident students cannot receive reimbursement during their non-resident status, per MIT policy.)

Reimbursement may be applied to one or multiple conferences, with total not to exceed \$600 per fiscal year (July 1 through June 30); if a paper is presented in at least one conference, this not-to-exceed total may be increased to \$800 per fiscal year.

## The Process

- At least one week prior to your departure (and preferably earlier), fill out a Student Travel Application Form and turn it in to Janine Marchese in Headquarters (7-337). If a paper is being presented, provide a copy of the conference program or other documentation. (Forms available at Headquarters.)
- You will receive email notice from Janine regarding the approval of your request.
- Save all receipts.
- Upon your return, fill out a Concur Report, attaching all original receipts to the form and submit it to Janine.
- In approximately two weeks you will receive a check in the mail reimbursing you for the conference expenses.
- Please note: funds are available to reimburse based on actual expenses incurred, up to the total allowed; unspent funds may not be reserved or otherwise "banked."

*Note: undergraduate students are not eligible for this conference travel subsidy.*

## Chapter 9

# Registration

### Advisors

#### Finding an Advisor

Undergraduate students, incoming MCP students and incoming PhD students are assigned an advisor for the fall term; after that, students may select an advisor of their own choice. In addition to assisting in registration, advisors are expected to play a strategic part in helping students to formulate their academic agenda or to deal with personal or other issues that may affect their education at MIT. Many students find it valuable to meet with their advisor a few times during the semester. This midstream review is particularly important for MCP students, who must prepare a Program Statement (signed by the advisor) in December of their first semester. If you are interested in the work a faculty member is doing, feel free to approach him or her to discuss your interest and possible research opportunities. All faculty members have office hours and make appointments with students. We recommend that all students touch base with their advisors at least once a month.

#### Changing Advisors

Because the advisor is such a critical person in a student's life, there should be a good personal and academic relationship between advisor and advisee. If it becomes clear that a student would be better off with a different advisor, s/he should feel free to make a change. Initiating this change is the responsibility of the individual student, who should:

- Speak with another faculty member about his/her willingness to fulfill the role.
- Inform the current advisor about the change. (Ideally the decision would be worked out through discussions with the current advisor.)
- Inform the Academic Advisor, Sandy Wellford.

## Pre-Registration Procedures for Continuing Students

For the fall and spring terms, returning students must pre-register online in December and May.

Students pre-register via WebSIS, MIT's on-line Student Information System: <http://student.mit.edu>.

Please refer to the Registrar's academic calendar for deadlines and fees associated with late pre-registration: <http://web.mit.edu/registrar/calendar/index.html>.

## Subject Selection

It is valuable to spend the first week of classes gathering information before finalizing subject schedules. MIT catalogue listings represent only approximations of classes. You can access evaluation reports from previous terms online at <http://web.mit.edu/subjectevaluation/>. In addition, fellow students and faculty advisors provide information on subjects offered in the department, Institute and elsewhere at universities around Boston. After your initial registration you will need to use an Add/Drop form to make changes to your registration.

## Cross Registration

MIT students may take classes at Harvard University, Brandeis University, Tufts University and Wellesley College.

### Harvard University

Graduate students can cross-register on-line. Bring a printed copy of your registration to Headquarters (9-413) for signatures. During any given semester, students may not take more units at Harvard than they are taking at MIT. You must abide by the rules of both MIT and the Harvard school into which you are cross-registering. Harvard's course catalogue is available at <http://crossreg.harvard.edu/OASIS/CourseCat/schools.jsp>.

**Dates to Remember** Harvard cross-registration deadlines are different for each school, and may be earlier than the MIT deadline (in which case the earlier deadline prevails). The Harvard academic calendars can be found at: <http://crossreg.harvard.edu/OASIS/CourseCat/calendar.jsp>

All undergraduate students—regardless of their major or the subject they plan to take at Harvard—must cross-register with the HASS Academic Administrator, Room 4-240.

## Brandeis University

A cooperative arrangement exists between the MIT Department of Urban Studies and Planning and the Florence Heller Graduate School for Advanced Studies in Social Welfare at Brandeis University. Cross-registration is restricted to one or two subjects per term in the areas of social welfare at Brandeis and urban studies at MIT. Check first with the professor teaching the course to ensure that space is available in the class. You should register for an Pass/Fail Independent Study through the Student Services office in 9-413. Please be aware that the grading system at Brandeis University's The Heller School is Satisfactory (S) or Unsatisfactory (U).

The Heller School is located on the Brandeis campus, 415 South Street, in Waltham.

Information: <http://heller.brandeis.edu/index.html>.

## Tufts University

**Department of Urban and Environmental Policy and Planning** There is an informal cross-registration policy between Tufts University's Department of Urban and Environmental Policy and DUSP.

Students who are interested in taking a course there should first get permission from the instructor. You should register for an Independent Study through the Student Services Office in 9-413.

Information: <http://ase.tufts.edu/uep/>.

## Wellesley College

All Wellesley College courses are at the undergraduate level. Graduate students who cross-register for a Wellesley class will not receive graduate level credit for the subject. If you believe the subject justifies graduate level credit, you can seek the approval of your department to change the subject level credit. If your department approves the request, they will ask the Registrar's Office to make the change on your MIT record.

## Changing Registration, Adding, and Dropping

You may check your registration status at any time online on WebSIS (<http://student.mit.edu/>). Changes in registration can be made on this site as well. Please refer to the Registrar's academic calendar for deadlines for adding and dropping courses: <http://web.mit.edu/registrar/calendar/index.html>.

After these dates, registration status corrections can only be made by petition.

## Personal Leave, Medical Withdrawal, Childbirth Accommodation

For information on special circumstances that may affect your registration status, please see the official registration page from the Dean of Graduate Education: <http://odg.mit.edu/gpp/registration/changes/>.

## Petitions

Petitions are required when:

1. A student wants to add or drop a subject after the deadline
2. A grade of incomplete is changed to a letter grade (after the five-week deadline)
3. Credit is transferred from another school, or from an undergraduate to a graduate level
4. A program of study is amended, such as the election of a dual degree
5. A student requests approval to write a joint thesis

Petitions can be obtained in the Student Services Office, 9-413. Once it is filled out and signed by you and your advisor, return it to the Student Services Office. It will then be sent for approval of the Dean of the Graduate School. There is a \$50 fee for petitions.

## Independent Study

If there is a topic you wish to explore in depth, or if there is someone on the faculty with whom you would like to work, ask the professor to sponsor an independent studies project, or reading tutorial, for you. In some cases, fieldwork for academic credit may also be arranged as an independent study. Independent Study forms can be picked-up in the Student Services Office, 9-413.

This form must be signed by the supervising professor, countersigned by your advisor, and submitted to the Student Services Office before you can register for the subject. At the completion of independent study, the professor must submit an evaluation of your work.

## Fieldwork

While students are expected to register for a full class load, many students also choose to work part-time. In addition to classes, fieldwork is a means of acquiring practice-related skills, and provides experience to bring back into the academic setting for reflection. Students are encouraged to speak with the chair

of their degree program committee; to pursue contacts in outside organizations (graduate students); or to see UROP listings (undergraduates).

## Grades

**Pass/Fail** Most subjects given in the department are graded with letter grades. Some classes, by pre arrangement with the Institute, are graded pass/fail.

**Incompletes** Incompletes may, under some circumstances, be given for subjects taken in the department. Past experience indicates that it is infinitely preferable to take a class load that can be completed during the semester than to be burdened with incompletes. Individual professors or the degree committee may set deadlines by which a subject must be completed in order to receive credit.

Incompletes from the previous semester should be finished by the fifth week of the following term. When you complete the work for a subject in which you received an incomplete, the professor should submit your grade to the Student Services Office to be recorded.

## Policy on Registration in Case of Course Schedule Conflict

The Department of Urban Studies and Planning does not allow registration in subjects with conflicting schedules. (Marginal conflicts, e.g., one-half hour of a recitation session once per week, may be accepted by explicit permission of the instructor(s) involved.)

The Department of Urban Studies and Planning expects attendance of registered students at scheduled meetings of subjects. Whether explicitly stated by an instructor or not, she or he may weigh attendance in evaluation of the student's work.

## Grades Policy

### Warnings and Other Disciplinary Actions—Graduate Students

While we would all prefer that it would never be necessary to take any disciplinary actions for DUSP students, from time to time such action becomes unavoidable. At the end of each semester the department holds a grades review to determine the progress of every student during the just-completed semester. Often, it becomes necessary to seek further information from academic advisors whose students records are under review. There are four levels of disciplinary action. From least to most severe they are the following:

Table 9.1: Warnings and Actions

| Action                         | MCP Committee  | PhD Committee   |
|--------------------------------|--|---|
| Committee Letter               | <ul style="list-style-type: none"> <li>- Low cumulative units</li> <li>- Two or more incompletes</li> <li>- Paperwork incomplete [program statement, missing petitions, missing add/drop cards]</li> </ul>   | <ul style="list-style-type: none"> <li>- Low cumulative units</li> <li>- Two or more incompletes</li> <li>- Paperwork incomplete [program statement, general exam proposal, non-resident forms, dissertation summary, dissertation proposal]</li> <li>- Slow progress in program.</li> </ul>  |
| Departmental Warning           | <ul style="list-style-type: none"> <li>- One grade of C in core.</li> <li>- Failure to rectify problems that led to a Committee Letter.</li> </ul>   | <ul style="list-style-type: none"> <li>- Low grades.</li> <li>- Failure to rectify problems that led to a Committee Letter.</li> </ul>  |
| Dean's Warning                 | <ul style="list-style-type: none"> <li>- Two C's in core courses.</li> <li>- A grade lower than a C in a core course.</li> <li>- U (unsatisfactory progress) in thesis prep or in thesis.</li> </ul>   | <ul style="list-style-type: none"> <li>- Chronic low grades.</li> <li>- U (unsatisfactory progress) in 11.800.</li> <li>- Doctoral Research Paper not completed by program deadline.</li> <li>- U (unsatisfactory progress) on dissertation.</li> <li>- Failure to pass General Exams first time.</li> <li>- Non-resident student not in touch with advisor.</li> </ul> |
| Denial of Further Registration | <ul style="list-style-type: none"> <li>- Inability to successfully complete core courses.</li> <li>- Failure to complete an acceptable thesis within a reasonable amount of time.</li> <li>- Failure to complete any other conditions set out in a Dean's Warning letter.</li> </ul> | <ul style="list-style-type: none"> <li>- Failure to complete an acceptable Doctoral Research Paper.</li> <li>- Failure to pass General Exams second time.</li> <li>- U (unsatisfactory progress) on dissertation over more than one semester.</li> <li>- Failure to complete any other conditions set out in a Dean's Warning letter.</li> </ul>                        |

1. Committee Letter;
2. Department Warning;
3. Deans Warning (from the Dean for Graduate Education); and
4. Denial of Further Registration.

All four levels must be voted at the departmental grades meeting. The third and fourth levels must also be voted by the Committee on Graduate School Policy (CGSP) upon recommendation of the department. Generally, the department begins with the mildest action that it feels appropriate in a particular situation, moving to more severe actions in later semesters. Before a student can be denied further registration at MIT, the Committee on Graduate School Policy normally insists that the student have spent at least one semester under a Dean's Warning. Though circumstances vary from case to case, the Department of Urban Studies and Planning generally uses each level of action according to

Table 9.1 on the preceding page. On very rare occasions the Department has taken disciplinary actions that are not listed in this table—e.g. circumstances involving plagiarism or fraud in research—and these actions are determined on a case-by-case basis in consultation with the Dean for Graduate Education and the Committee on Graduate School Policy.



# Chapter 10

## Career Services

### MIT Global Education and Career Development (GECD)

*Building E39, Room 305; (617) 715-5329*

The MIT GECD assists all students with making informed decisions about career development and finding opportunities related to their professional objectives. Services include individual career counseling; job listings; assistance with resume writing, interviewing, and salary negotiation; alumni/ae and employer information; graduate placement information; collaboration with DUSP on professional development seminars; print and electronic career-related library resources; and a variety of career workshops.

GECD resources and programs include:

- Career planning and professional development workshops are offered throughout the year. Topics include self-assessment, competency development, resume and cover letter writing, interviewing, portfolio development, job and internship search strategies.
- A website with information about salary negotiation, interviewing, job search, resume samples, and links to relevant resources. (<http://gecd.mit.edu>)
- A password-protected database of job announcements advertised by employers who are seeking MIT students and alumni/ae (<https://www.myinterfase.com/mit/student/home.aspx>).

Many employers that hire planners recruit new staff through job announcements and personal networks, rather than on-campus recruiting. However, each year a number of employers who are interesting to DUSP students participate in on-campus recruiting. These have included consulting and urban design firms, financial institutions and public agencies.

## DUSPCareers

### Professional Development at DUSP

Other resources related to professional development are offered within the Department of Urban Studies and Planning. These include:

- DUSPCareers Website (<http://duspcareers.mit.edu>): The DUSPCareers website assists current students, as well as Departmental alumni/ae in the development of their careers. In addition to links to a number of relevant external sites, this website offers access to job postings and a variety of MIT and external career resources.
- Job Listings: Job and internship listings are posted on a password-protected Job Bank on <http://plaza.mit.edu>, the departmental electronic bulletin board. Internships, and to a lesser extent job listings, are also posted on bulletin boards near DUSPCareers in building 9. The bulletin boards are divided into sections for internships, professional jobs, and academic jobs.
- Professional Development Seminars: DUSP in collaboration with the MIT GECD and the MIT Center for Real Estate sponsor sessions, alumni/ae forums, and employer open houses for students on career planning and professional development issues. Activities are announced on <http://plaza.mit.edu> and in weekly DUSPCareers Digest.
- Alumni/ae Directory and Referrals: Sign up for the Infinite Connection at <http://alum.mit.edu> to view the alumni/ae directory online. There is also an active DUSP Linked-In group at <https://www.linkedin.com/groups/MIT-DUSP-Community-2613/about>.
- The DUSP Career Development Internship Program assists students in locating educationally relevant planning experience. Internships provide students with an opportunity to earn financial support while at MIT, and to gain valuable professional experience to enhance their academic experience.

### Internships

**Career Development Internship Program** As part of their professional training in the Department of Urban Studies and Planning, Master's degree candidates are encouraged to participate in the Career Development Internship Program. Through this program, students are assisted in locating educationally relevant planning internships.

Since 1991, hundreds of students and employers have benefited from this program. The following is a partial list of where students have done internships:

- Boston Harbor Association
- Boston Redevelopment Authority

- City of Cambridge, Community Development Department
- City of Cambridge, Environmental and Transportation Planning Department
- The Community Builders
- Consensus Building Institute
- EVI
- Federal Reserve Bank
- Goody, Clancy & Associates
- Local Initiatives Support Corporation
- Madison Park Economic Development Corporation
- Mt. Auburn Associates
- Metropolitan Area Planning Council
- City of Somerville Planning Department

**DUSP/PSC Summer Internship Program** DUSP, in association with the MIT Public Service Center, sponsors a program offering DUSP students a limited number of summer internships in domestic and international planning.

