# University of Toronto Major Modification Proposal:

# New Field or Concentration Within an Existing Graduate Program

This template should be used to bring forward all proposals for new fields or concentrations in existing graduate programs for governance approval under the University of Toronto's Quality Assurance Process.

A field or concentration within a graduate program refers to an area of specialization or focus that is related to the demonstrable and collective strengths of the program's Faculty. Graduate programs are not required to have fields or concentrations in order to highlight an area of strength within a program.

The two terms are used interchangeably but one should be used consistently in the context of a specific program. In establishing fields or concentrations, select whichever term resonates most in your context.

Program:	M.Sc. Planning
e.g., Child Study and Education, Linguistics	
Existing fields or concentrations:	Urban Planning and Development
	Social Planning and Policy
	Economic Planning and Policy
	Environmental Planning
	Urban Design
Proposed new field or concentration:	Transportation Planning and Infrastructure
specify what level program this will apply to;	(Master's). This proposal also converts existing
i.e., master's, doctoral or both.	fields to concentrations.
Unit (if applicable):	Geography & Planning
Faculty/academic division:	Arts & Science/Social Science
Dean's office contact:	Professor Dwayne Benjamin
Graduate unit contact:	Professor Richard DiFrancesco
Version date:	December 6, 2017
please change as you edit this proposal.	

# 1 Summary

 Please provide a brief summary or overview of how the proposed field or concentration relates to existing fields or concentrations in the program summarizing many of the key points found in more detail elsewhere in the proposal. Please include:

- ► A clear statement of purpose
- ▶ Identification of existing fields or concentrations
- ▶ A description of the proposed field or concentration
- ▶ Rationale for its inclusion in the program
- ► The impetus for its development (including student demand) and how it fits with existing fields or concentrations
- ▶ Faculty and programmatic strength in the proposed area

We propose a new concentration, Transportation Planning and Infrastructure, as part of the current Master of Science in Planning (MScPI). We also propose to convert our existing fields to concentrations.

The fields of transportation and infrastructure planning are integral to urban planning and our existing offerings have always acknowledged this reality. Our existing fields (which will be converted to concentrations) in Urban Planning and Development (UPD), Economic Planning and Policy (EPP), Social Planning and Policy (SPP), Environmental Planning and Policy (ENV) and Urban Design (URD) all incorporate, to varying degrees, aspects which impinge on the role of transportation planning and various forms of public infrastructure in creating the "real world" in which human and non-human systems interact. To this point however, we have treated these important facets of the human sphere, transportation and infrastructure, as implicit components of existing concentrations. By creating an explicit concentration called "transportation planning and infrastructure", it is our intent to catalyze the formation of a more explicit (and indeed, more purposeful and energetic) hub of planning research and practice for planning faculty and students oriented around transportation planning and infrastructure issues.

The department has long had teaching and research expertise in transportation planning and infrastructure, but in the last 3 years, we have added three new tenure track faculty with additional core expertise in various aspects of transportation planning and analysis (Farber, Widener and Adams). This growing concentration of transportation research is reflected in the department's newly developed "Transportation Research Cluster" a group of faculty and graduate students that come together to enrich the experience of transportation researchers and students in our department via online discussions, seminar series, and networking events. We also gain from our close connections to the University of Toronto Transportation Research Institute, an Extra-Departmental Unit C, housed in Civil Engineering.

Furthermore, student-driven demand for transportation planning and infrastructure courses is on the rise. The transportation-related courses have seen growing enrollments, with total enrollments well above the departmental mean for elective graduate courses. This interest is also reflected in a large number of M.Sc.Pl. students that focus their Current Issues Paper on a transportation or infrastructure related

topic.

### 2 Effective Date

September, 2018

# 3 Academic Rationale

- Identification of existing fields or concentrations.
- Description of the field or concentration (its intellectual focus, etc.) and its relationship to existing fields or concentrations.
- Address how the proposed field or concentration relates to the current state of
  the discipline or area of study. Identify pedagogical and other issues giving rise to
  the creation of this program. Where appropriate, speak to changes in the area of
  study or student needs that may have given rise to this development.
- Appropriateness and consistency of the field or concentration name.
- Distinctiveness.
  - ► Identify any distinctive or innovative aspects of the proposed field or concentration.
  - ► To what extent is what is being proposed "the norm"? As appropriate, speak to similar offerings elsewhere at the University of Toronto or at other universities.

Our program, like the overarching discipline of planning and its cognate disciplinary fields, has long realized the degree to which decisions re: transportation and infrastructure stand to affect broader physical and social environments.

The current proposal to add a concentration in transportation planning and infrastructure is intended to build on our existing strengths in this area and to make clear to students the options available in this field of study in the Department of Geography & Planning at the University of Toronto. Several faculty additions over the past few years including, Professors Siemiatycki, Farber, Widener and Adams along with existing faculty including Professors Hess, Walks, Buluing, and Sorenson have given rise to a discernible critical mass in the fields of transportation analysis and planning, urban form, spatial analysis and GIS/Spatial Science. Our proposed new concentration will allow the Department to more explicitly advertise this capacity to new and existing graduate students, and more explicitly deliver expertise that is only becoming more important over time.

Transportation planning and infrastructure is a topic that is relevant to several units across the University of Toronto, including (but not necessarily limited to) the Departments of Geography & Planning (FAS), Civil Engineering (Faculty of Applied Science and Engineering), the School of Public Policy and Governance, (FAS) and the

Institute on Municipal Finance and Governance at the Munk School of Global Affairs. The Department of Geography & Planning has long-standing relationships with these units and has long shared resources with them (e.g., faculty collaboration, cosupervision of students, cross-listing of graduate courses, cooperation in colloquia etc.) in the delivery of transportation/infrastructure-planning related education and research. Notwithstanding this collegial cooperation and ongoing cross-unit collaboration, it is our long-standing belief that the planners' approach to transportation and infrastructure planning is sufficiently unique to justify our own treatment of these topics. Now that we have this critical mass in terms of faculty- and student-interest, we intend to explicitly focus it in this new concentration, while continuing to be open to collaboration and cooperation with other relevant units.

Transportation planning is a generally recognized sub-discipline within planning, and by creating our own explicit concentration in this area, we aim to emphasize to those in industry and government that graduates from the Graduate Tri-campus Department of Geography & Planning, and in particular those from its Master of Science in Planning (MScPI) degree program, have the necessary blend of broad conceptual and specialized technical training to operate successfully within this sphere.

### 4 Need and Demand

 Provide a brief description of the need and demand for the proposed field or concentration focusing, as appropriate, on student interest, societal need, employment opportunities for prospective graduates, accreditation requirements, etc.

Internal consultation with students currently in year 1 of the M.Sc.Pl. program revealed that as many as 6 of our current students would immediately transfer into this new specialization once available. These students are working on independent and group research projects which impinge, to varying degrees on the transportation planning and infrastructure domain - on projects ranging from physical design work, to cost-benefit analyses of alternate subway routes and transit modes, to the examination of the equity repercussions of alternate transit infrastructure investment schemes, to the development, refinement and application of spatial analytic methodologies in support of such decisions, etc. Anecdotal evidence from electronic sources including LinkedIn and public forums for the advertising of planning, and specifically transportation planning related, employment opportunities, there appears to be considerable demand for graduate level training in this aspect of planning. By offering an explicit concentration in transportation planning and infrastructure, it is

our belief that we will better position our transportation-planning students for employment in this segment of the planning profession. We also believe that we will be able to maintain a steady state annual intake of between 3 and 6 M.Sc.Pl. students into this new concentration (amounting to 6-12 transportation planning and infrastructure students registered in the MScPl at any one time). It is also possible that the addition of this concentration, by focussing our resources and creating "buzz" and excitement amongst students and potential employers, could ultimately result in the overall growth of the M.Sc.Pl program, though we will be sure to monitor this as growth beyond current levels in the M.Sc.Pl. program would require additional faculty resources.

Table 1: Graduate Enrolment Projections\*

Year in	Acaden	nic	Acaden	nic	Acaden	nic	Acaden	nic	Acaden	nic
Program	Year 20	18	Year 20	19	Year 20	20	Year 20	21	Year 20	22
	Total	# in	Total	# in	#	#	#	#	#	#
	#	Field	#	Field						
1		6	30	6	30	6	30	6	30	6
	30									
2		6	30	6	30	6	30	6	30	6
	30									
Total	60	12	60	12	60	12	60	12	60	12

<sup>\*</sup>Steady state projected in [2018-2019]

See responses to section 4 above. Our view at present is to maintain our current enrolment levels (i.e., a yearly intake of 30 students with 60 M.Sc.Pl. students in residence in any given year). Currently, students are split between the five existing fields (soon to be renamed concentrations). The addition of this new, sixth concentration will simply pull students out of existing fields into the new concentration, leaving total enrolment unchanged for the near-term.

# 5 Admission Requirements

- Comment on the relationship of the admission requirements for the field or concentration to those of the parent program.
  - ▶ If the same, describe the program admission requirements.
  - ▶ If different, describe the field or concentration admission requirements; indicate how they are different from those of the parent program, and provide a rationale for the difference in relation to the focus and learning outcomes of the field or concentration; i.e., how are these admissions requirements suitable to help support the success of students.
- How will these be administered?

The M.Sc.Pl. program currently requires that applicants possess a recognized

bachelor's degree (or its equivalent) – in planning, geography or social science or natural/life/engineering sciences or the humanities (provided this background includes significant coursework in the social sciences prior to entry) - with high academic standing and a minimum final year average of B+. Regardless of the concentration to be declared by students, these requirements are the same. The concentrations require that students take certain additional elective courses to satisfy the requirements of each.

## 6 Program Requirements

- Describe the requirements of the field or concentration. Please comment on the relationship of the requirements of the field or concentration to those for the program in general and any other fields or concentrations.
  - ► Provide, as an appendix, proposed calendar copy (with all changes tracked) including the specific program requirements, required courses, electives and prerequisites.
- Provide as an appendix, where appropriate:
  - ► A full list of the course numbers and titles, indicating clearly whether they are new or existing. Please note that new courses need to be proposed and approved separately following established Faculty/divisional procedures.

The MScPI requires the completion of 16 half courses (8 credits or FCEs), which full-time students complete within two academic years (four semesters), usually taking four half courses each term for four terms, in addition to a summer internship which is usually completed in the Summer between years one and two.

As part of this 8.0 FCEs, as of Fall 2018, all MScPl students must complete the following core curriculum:<sup>1</sup>

- PLA1101H (0.5 FCEs) Issues in Planning History, Thought, and Practice
- PLA1102H (0.5 FCEs) Planning Decision Methods I
- PLA1103H (0.5 FCEs) Legal Basis of Planning
- PLA1105H (0.5 FCEs) Planning Decision Methods II
- PLA1656H (0.5 FCEs) Land-Use Planning
- PLA1106H (0.5 FCEs) Workshop in Planning Practice
- PLA1520H (0.5 FCEs) Project Management and Conflict Resolution for Planners
- PLA1107Y (1.0 FCEs) Current Issues Paper

<sup>&</sup>lt;sup>1</sup> Please note that these program requirements, effective September 2018, reflect a minor modification to the MScPl that was approved by the Faculty of Arts & Science's Graduate Curriculum Committee on October 30, 2017. The calendar copy in Appendix B reflects the program requirements in place in the 2017-18 academic year.

for a total of 4.5 FCEs.

This leaves a total of 3.5 FCEs to be used to meet the requirements of the chosen concentration, as well as open electives. The new Transportation Planning and Infrastructure concentration requires the completion of an additional (i.e., in addition to the core curriculum for all MScPls) 2.5 FCEs comprised of the following four courses (PLA 1703H, PLA 1801H, JPG1554H, and JPG1400H) and one additional course (0.5 FCEs) to be taken from this list: PLA 1551H, PLA 1552H, PLA 1651H, PLA 1702H, PLA 1751H, JPG 1510H, JPG 1914H, JPG 1906H, JPG 1554H, JPG 1558H, CIV0534H, PLA 1516H, CIV 0531H, CIV 1507H, CIV 1535H, CIV 1538H. Please see Appendix A for a list of these courses with titles.

Please see Appendix B for proposed calendar copy.

# 7 Degree-Level Expectations (DLEs), Program Learning Outcomes and Program Structure

- Clearly outline the learning outcomes as they relate to the proposed field or concentration, underlining where these are similar to or different from those for existing fields or concentrations. Indicate the means by which students will satisfy the relevant DLEs.
- Demonstrate the clarity and appropriateness of the program's requirements and associated learning outcomes in addressing the institution's DLEs.

Table 2: Master's DLEs

Master's Degree-Level Expectations (Based on the Ontario Council of Academic Vice-Presidents [OCAV] DLEs)	Master's Program Learning Outcomes	How the Program Design and Requirement Elements Support the Attainment of Student Learning Outcomes
1. Depth and Breadth of	Professional planners need to	The program design and
Knowledge	be cognizant of the broader	requirement elements that
	theoretical debates and	ensure these student
A systematic understanding of	foundations which underlie	outcomes for depth and
knowledge, and a critical	planning and its many aligned	breadth of knowledge are:
awareness of current	disciplines. Planners must be	
problems and/or new insights,	able to visualize a given	Our new core course for this
much of which is at, or	planning problem as a series of	concentration (PLA1703H) will
informed by, the forefront of	competing interests and to	be structured so as to make
the academic discipline, field	understand that a solution	certain that all students in the

of study or area of necessarily involves trade-offs concentration are able to professional practice. along a variety of dimensions understand key conceptual including public good, private foundations including: good, and between degrees of - determinants of travel economic, environmental and behaviour and mode choice; social sustainability. - supply-side issues relating to the availability of certain forms of transportation infrastructure and its implications on behaviour, form, land use, economic activity and human and environmental health. - an understanding for the dynamic interaction between the demand- and supply-sides. - the role of the professional planner in the transportation and infrastructure planning process. - professionals working in the area of transportation planning require a particularly firm foundation traditional economic theories and quantitative methods of analysis (including spatial statistical analysis and GIS). As such, this particular concentration in the MScPl program offers a greater number of required core courses and fewer electives than do any of the other concentrations.

#### 2. Research and Scholarship

A conceptual understanding and methodological competence that

- enables a working comprehension of how established techniques of research and inquiry are used to create and interpret knowledge in the discipline;
- enables a critical evaluation of current research and advanced research and

Research and Scholarship are defined in the Research Master's Degree as the activity of designing projects that exhibit mastery of the most current paradigms and techniques in social science, that show methodological self-consciousness, and that illustrate the fullest utilization of available data sources. This is reflected in students who are able to demonstrate mastery of the relevant

The program design and requirement elements that ensure these student outcomes for research and scholarship include:

- core courses in planning theory as well as the required courses in the concentration that will ensure that graduates of the MScPl program in this particular concentration will have a thorough understanding of the theory and mechanics of

scholarship in the discipline or area of professional competence; and

- enables a treatment of complex issues and judgments based on established principles and techniques; and, on the basis of that competence, has shown at least one of the following:
  - the development and support of a sustained argument in written form; or
  - originality in the application of knowledge.

literatures, pose questions about controversial topics in the field, qualitatively assess outcomes, and critically engage with existing approaches.

transportation planning and infrastructure, in addition to courses that stress general research abilities (qualitative and quantitative), demands for substantial research essays, and project-based (i.e., real world) planning projects.

- a wide range of elective courses that can serve to broaden a student's understanding of the myriad issues surrounding transportation and infrastructure planning decisions.

# 3. Level of Application of Knowledge

Competence in the research process by applying an existing body of knowledge in the critical analysis of a new question or of a specific problem or issue in a new setting.

Application of Knowledge is defined in the MScPl program as producing a finished work demonstrating high competence in current methods and in the conceptualization, research design, and empirical study of well-chosen topics. In addition, the MScPI program adds the requirement that student work satisfies the demands of a mock external client (or outside reader). This is reflected in students who are able to write persuasive, research papers and professional reports and to present these in a comprehensible and interesting fashion.

The program design and requirement elements that ensure these student outcomes for level of application of knowledge are:

- Students will not only learn the theory and methodologies in the core course for this concentration (PLA 1703H), they will also have several opportunities throughout their studies to work with and learn from practicing professional planners.

# 4. Professional Capacity/Autonomy

- The qualities and transferable skills necessary for employment requiring
  - the exercise of initiative and of personal responsibility and accountability; and

► decision-making in

Professional
Capacity/Autonomy is defined as the ability to generate novel research questions and to find the appropriate methods for answering them.
This is reflected in students

This is reflected in students who are able to conduct research in accordance with existing ethics protocols, in particular human subjects

The program design and requirement elements that ensure these student outcomes for professional capacity/autonomy are:

The program design and requirements that ensure these student outcomes for professional capacity/autonomy are

complex situations; completion, where relevant, of research protocols and to • The intellectual show adequate respect to the ethical review documents or independence required for diversity of attitudes requirements, and the concerning political life among demonstrated capacity to continuing professional development; the human subjects of grasp ethical standards and research. In the planning research norms when • The ethical behavior context, this knowledge of and conducting research, as well as consistent with academic integrity and the use of respect for alternative the ability to articulate the perspectives is critical. policy and societal relevance appropriate guidelines and of their research work. procedures for responsible conduct of research; and • The ability to appreciate the broader implications of applying knowledge to particular contexts. 5. Level of Communication Communications Skills is The program design and Skills defined as the ability to requirement elements that convey complex ideas in an ensure these student organized and coherent way in outcomes for level of communication skills are: both seminar presentations and extended research essays. - each student in the MScPl program has multiple opportunities for group and independent work involving the production of deliverables of various types – from oral presentations, to written reports, to digital visualizations.

## 8 Assessment of Teaching and Learning

- Please describe the methods of evaluation for the various program requirements as they relate to the proposed field or concentration.
- Describe how the methods for assessing student achievement are appropriate
  and effective relative to established program learning outcomes and DLEs (in
  other words, how will faculty be able to determine whether students have
  learned and can do what we expect them to by the end of the program).
- How will the program document and demonstrate the level of performance of students consistent with the University's DLEs?

The DLEs associated with the MScPl are monitored in a number of ways. First and

foremost, we hold at least one meeting of the planning faculty each term to discuss our courses as well as thoughts and/or concerns regarding the scope and breadth of the MScPl program in relation to the demands of our accreditation body, current scholarly positions, and the needs and wants of our students. We also maintain an active relationship with our alumni through the "Planning Alumni Committee" (PAC) which is comprised of graduates working in all aspects of the planning profession. This connection is useful in many ways, not the least of which is the ability to gather intelligence regarding the nature of the professional landscape and the degree to which the MScPl curriculum and pedagogy is in alignment. Course evaluations are a standard device used in all MScPl courses and these can also be helpful in identifying particular courses which may require some adjustments.

### 9 Consultation

- Describe the expected impact of what is being proposed on the nature and quality of the unit's/division's program of study and any impact on other units/divisions.
- Describe any consultation with the Deans of Faculties/divisions that will be implicated or affected by the creation of the proposed field or concentration.

As noted, this concentration is not expected to disrupt the activities of any other unit. The Department of Geography & Planning MScPl program already offers many courses to students in the area of transportation planning and infrastructure; we do so, however, without the benefit of an explicit concentration called "transportation planning and infrastructure". We will add one new course, PLA 1703H: Transportation Planning and Infrastructure, that will be required for all students in the MScPl program who chose this concentration, and this could potentially impact enrolments in some other graduate courses in the Department of Geography & Planning as MScPl students taking this concentration see their total number of elective FCEs reduced by 0.5.

Professor Eric Miller of the Department of Civil Engineering has been consulted and he wholeheartedly endorses this new concentration and acknowledges that it will have no adverse effect on the transportation planning concentration in Civil Engineering. He also welcomes the cross-listing of the CIV courses included in the calendar entry should any MScPl students wish to take a more engineering focussed course. Other units/divisions do not stand to be impacted by this new concentration.

Cognate units in the Faculty of Applied Science and Engineering, the John H. Daniels Faculty of Architecture, and at the University of Toronto, Mississauga have been notified, via their Dean's offices, of our intent to create this new concentration.

### 10 Resources

- Describe any resource implications of the change(s) including, but not limited to, faculty complement, space, libraries and enrolment/admissions.
- Please specify where this may impact significant enrolment agreements with the Faculty/Provost's office.
- Indicate if the major modification will affect any existing agreements with other
  institutions, or will require the creation of a new agreement to facilitate the major
  modification (e.g., Memorandum of Understanding, Memorandum of Agreement,
  etc.). Please consult with the Provost's office
  (vp.academicprograms@utoronto.ca) regarding any implications to existing or
  new agreements.

This program modification will have resource implications. Professors Matti Siemiatycki and Paul Hess have agreed to rotate the teaching of PLA1703H initially by rotating their existing non-core graduate courses. All other faculty members teaching relevant courses will not see a change; some of the students in their courses will simply be counting the course towards a new concentration.

### **Faculty Complement**

- Brief statement to provide evidence of the participation of a sufficient number and quality of faculty who will actively participate in the delivery of the program.
  - Comment on the expertise of the faculty who will actively support or participate in the field or concentration and discuss the role of any adjunct or contractual faculty.
  - ► Comment on the impact of the field or concentration on the parent program, focusing on the extent of the diversion of faculty from existing graduate courses and/or supervision.
  - ► Comment on the provision of supervision of experiential learning opportunities, as appropriate.
  - ► If relevant, describe the plan to provide additional faculty resources to support the program.

As stated elsewhere in this document, the new concentration will be offered from the existing faculty complement. The Department of Geography & Planning currently possesses the human capital to mount this concentration – indeed it is currently offering it without the benefit of an explicit concentration identification. While the new concentration will call for the creation of a more deliberate and cohesive grouping of skills and objectives around transportation planning and infrastructure, new faculty resources will not be required. If any of the current concentrations in the MScPI program were to experience significant and sustained enrolment growth, new faculty resources would need to be sought as we are currently operating at capacity.

As noted however, we see this new concentration resulting in a re-allocation of the existing enrolment levels in the MScPl among the available concentrations.

Sessional/adjunct faculty currently play a critical role in the MScPl program and have for done so for decades. This is required given the professional orientation of the program and the need to offer courses in various aspects of professional practice. This will not change with the introduction of the new concentration.

Table 4: Detailed Listing of Committed Faculty<sup>2</sup>

Faculty Name and	Home Unit	Area(s) of
Rank		Specialization
Dr. Matti Siemiatycki,	Department of	Infrastructure planning;
Associate Professor	Geography & Planning	transportation;
		quantitative and
		qualitative analysis.
Dr. Paul Hess, Associate	Department of	Active transportation
Professor	Geography & Planning	planning, urban design,
		pedestrian
		environments, transport
		and equity.
Dr. Michael Widener,	Department of	Spatial Statistics, GIS,
Assistant Professor	Geography & Planning	quantitative analysis,
		health and
		transportation
		geography, agent-based
		modelling.
Dr. Steven Farber,	Department of	Transport geography;
Assistant Professor	Geography & Planning	spatial analysis;
		accessibility; public
		transportation;
		modelling landuse-
		transportation
Do Math Adams	December	interactions.
Dr. Matt Adams,	Department of	GIS; Exposure science;
Assistant Professor	Geography & Planning	urban pollution.
Dr. Don Boyes,	Department of	GIS; online and blended
Associate Professor	Geography & Planning	learning.
Teaching Stream	5 , , ,	6 . 1
Dr. Anna Kramer	Department of	Social justice and access

<sup>&</sup>lt;sup>2</sup> All faculty members in this table hold their graduate faculty memberships (GFMs) in the tri-campus Graduate Department of Geography & Planning. In addition, Professors Siemiatycki, Hess, DiFrancesco, Widener, Boyes, and Kramer are appointed in the STG Department of Geography & Planning, while Professor Buliung's appointment is at UTM, and Professors Sorensen, Farber, and Adams are appointed at UTSC.

Developed by the Office of the Vice-Provost, Academic Programs Template updated on March 7, 2017

	Geography & Planning	to the city; transit networks and land use.
		Hetworks and land use.
Dr. Ron Buliung,	Department of	Transportation
Associate Professor	Geography & Planning	geography; transport
		land use interaction;
		activity-travel analysis
		and modelling.
Dr. Andre Sorensen,	Department of	Urban geography; urban
Professor	Geography & Planning	form; planning history
		and theory.
Dr. Richard	Department of	Regional economic
DiFrancesco, Associate	Geography & Planning	development and
Professor		planning; global
		production networks.

# Space/Infrastructure

• Address any unique space/infrastructure requirements including information technology, laboratory space and equipment, etc.

None.		

# 11UTQAP Process

The UTQAP pathway is summarized in the table below.

Steps	Approval
Development/consultation within unit	Fall 2017
Consultation with Dean's office (and VPAP)	Fall 2017
Fall 2017	Graduate unit approval as appropriate
December 13, 2017	Faculty/divisional council
Submission to Provost's office	
Report to AP&P	
Report to Ontario Quality Council	

# Appendix A

#### Transportation Planning & Infrastructure Concentration – Course Requirements

Transportation and physical infrastructure are central planks of the planning and maintenance of healthy urban spaces. This concentration will focus developing the capacity in students to understand the dynamic relationship between social, economic and environmental sustainability and the planning, implementation and maintenance of transportation and other forms of infrastructure investments.

To complete this concentration, students must complete five half courses including PLA1703H, PLA1801H, JPG1554H, and JPG1400H, in addition to one other course (1.0 HCE) shown in the listing below. Other courses not listed below may be used for the 1.0 HCE requirement on the approval of the Director of Planning.

Transportation Planning & Infrastructure Concentration Courses				
Code	Title	Instructor		
PLA1703H (New)	Transportation Planning and Infrastructure: Concepts and Methods	Siemiatycki/Hess		
PLA1551H (Existing)	Policy Analysis and Implementation	ТВА		
PLA1552G (Existing)	City Planning and Management	Farrow		
PLA1651H (Existing)	Planning and Real Estate Development	ТВА		
PLA1702H (Existing)	Pedestrians, Streets and Public Space	Hess		

	T	T
PLA1751H (Existing)	Public Finance for Planners	ТВА
PLA1801H ((Existing)	Urban Infrastructure Planning	Siemiatycki
JPG1510H (Existing)	Recent Debates in Urban Form	ТВА
JPG1914H (Existing)	GIS Research Project	Boyes
JPG1400H (Existing)	Advanced Quantitative Methods	Widener
JPG1906H (Existing)	Geographic Information Systems	Boyes
JPG1554H (Existing)	Transportation and Urban Form	Farber
JPG1558H (Existing)	The History and Geography of Cycles & Cycling	Buliung
CIV0543H (Existing)	Solid Waste Management	ТВА
PLA1516H (Existing)	Transportation Futures: Funding, Energies and Technologies	
CIV0531H (Existing)	Transport Planning	Roorda
CIV1507H (Existing)	Public Transport	ТВА
CIV1535H (Existing)	Transportation and Development	Miller
CIV1538H (Existing)	Transportation Demand Analysis	Habib

# Appendix B - Calendar Copy

# **Geography and Planning: Introduction**

# **Faculty Affiliation**

Arts and Science

### **Degree Programs**

Geography

MA, MSc, and	Fields:
PhD	Environmental Geography and Resource Management
	Historical/Social/Cultural Geography
	Physical Geography and Natural Systems
	Spatial Information Systems
	Urban/Economic Geography

### **Planning**

MScPl	Fields Concentrations:
	Economic Planning and Policy
	Environmental Planning
	Social Planning and Policy
	Urban Design
	Urban Planning and Development
	Transportation Planning and Infrastructure
PhD	Fields:
	Cities in Global Context: Economic Development and Social Planning
	Environmental and Sustainability Planning
	Urban Development, Design and the Built Environment

### Geography and Planning: Planning MScPl

### Master of Science in Planning

#### **Program Description**

Students normally enrol for two years of full-time study, although part or all of the requirements of the program may be met by part-time study, with the approval of the Program Director.

#### Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Geography and Planning's additional admission requirements stated below.
- An appropriate bachelor's degree from a recognized university, with a minimum final-year standing in the social or life sciences, the humanities, or the professions, equivalent to at least a University of Toronto B+. Knowledge of introductory economics and statistics, as well as word processing and spreadsheet skills, is preferred prior to entry.

#### **Program Requirements**

- The program consists of **8.0 full-course equivalents (FCEs)** plus the PLA 4444Y **internship**, taken over two years, as follows:
  - o 4.5.0 FCEs in core courses
  - 3.54.0 FCEs chosen from the list of electives and from the offerings of other departments, centres, and institutes. At least 2.5 FCEs of these electives must fit into an approved specialization in one of the following five six fields concentrations:
    - Urban Planning and Development
    - Environmental Planning
    - Social Planning and Policy
    - Economic Planning and Policy
    - Urban Design
    - <u>Transportation Planning and Infrastructure</u>
  - PLA 4444H Internship (0.0 FCE). Students are required to pursue a planning internship between Years 1 and 2 of the program. Part-time students who are currently employed in a planning environment may be exempted from this requirement; however, the Planning Director retains final discretion in the decision.
- Progress into Year 2 of the program is normally dependent upon the achievement of an overall B average in the first year. Equivalent provisions apply to the part-time program.

#### **Program Length**

6 sessions full-time (typical registration sequence: F/W/S/F/W/S); 12 sessions part-time

#### **Time Limit**

3 years full-time; 6 years part-time

### Geography and Planning: Planning MScPI, PhD Courses

All courses are not given every year; some faculty members may be on research leave. Please consult the departmental graduate office for details.

#### Core Courses for the MScPI

PLA 1101H	Issues in Planning History, Thought, and Practice
PLA 1102H	Planning Decision Methods I
PLA 1103H or PLA 1656H	Legal Basis of Planning or Land Use Planning: Principals and Practice
PLA 1105H	Planning Decision Methods II
PLA 1106Y	Workshop in Planning Practice
PLA 1107Y	Current Issues Paper

### Core Courses for the PhD in Planning

JPG 1111H	Advanced Research Design (or a methods course in a related department subject to the approval of the supervisor)
PLA 2000H	Advanced Planning Theory
PLA 2001H	Planning Colloquium (CR/NCR)

#### **Elective Courses**

JPG 1140H	Discourse Analysis Methodology
PLA 1149H	Independent Study
PLA 1150H	Planning Field Trip Course

JPG 1400H	Advanced Quantitative Methods
JPG 1407H	Efficient Use of Energy
JPG 1410H	Institutional and Organizational Ecology
JGE 1413H	Workshop in Environmental Impact Assessment
JPG 1415H	Global Environmental Justice and Social Movements
JPG 1416H	Environmental Consequences of Land Use Change
JPG 1418H	Rural Land Use Planning
JPG 1419H	Aboriginal/Canadian Relations in Environmental and Resource Management
JGE 1420H	Urban Waste Management: an International Perspective
JPG 1421H	Health in Urban Environments
JPG 1423H	Political Ecology of the Global Agrifood System
JPG 1424H	Comparative Farming Systems
JPG 1426H	Natural Resources, Difference, and Conflict
JPG 1427H	The (Re)Localization of Food Production: Debates and Controversies
JPG 1428H	Managing Urban Ecosystems
JPG 1429H	The Political Ecology of Food and the Agrarian Question
JPG 1501H	The Political Economy of Cities
JPG 1502H	Global Urbanism and Cities of the Global South
JPG 1503H	Space, Time, Revolution
JPG 1504H	Institutionalism and Cities: Space, Governance, Property, and Power
JPG 1505H	The Multicultural City: Diversity, Policy, and Planning
JPG 1506H	State/Space/Difference: Understanding the New Social Geography of the State

JPG 1507H	Housing Markets and Housing Policy Analysis
JPG 1508H	Planning for the Urban Poor in Developing Countries
JPG 1510H	Recent Debates on Urban Form
JPG 1512H	Place, Politics, and the Urban
PLA 1514H	The Role of the Planner
JPG 1516H	Declining Cities
PLA 1516H	Special Topics in Planning II
PLA 1517H	Special Topics in Planning III
JPG 1518H	Sustainability and Urban Communities
PLA 1518H	City Building—Practice and Experience in Toronto and Other World Cities
PLA 1519H	Planning and Governance
PLA 1551H	Policy Analysis
PLA 1552H	City Planning and Management
PLA 1553H	Urban Transportation Policy Analysis
JPG 1554H	Transportation and Urban Form
JPG 1558H	Transportation: Historical and Geographical Perspectives
PLA 1601H	Environmental Planning and Policy
JPG 1607H	Geography of Competition
JPG 1615H	Planning and the Social Economy
JPG 1616H	The Cultural Economy
JPG 1617H	Organization of Economies and Cities
PLA 1650H	Urban Design: History Theory Criticism
PLA 1651H	Planning and Real Estate Development

PLA 1652H	Introductory Studio in Urban Design and Planning
PLA 1653H	Advanced Studio in Urban Design and Planning
PLA 1654H	Urban Design Research Methods
PLA 1655H	Urban Design and Development Controls
PLA 1656H	Land Use Planning: Principles and Practice
JPG 1660H	Regional Dynamics
JPG 1670H	Regional Economic Analysis
JPG 1672H	Land and Justice
PLA 1702H	Pedestrians, Streets, and Public Space
PLA 1703H	Transportation Planning and Infrastructure: Concepts and Methods
JPG 1706H	Violence & Security
PLA 1751H	Public Finance for Planners
PLA 1801H	Urban Infrastructure Planning
JPG 1802H	Political Spaces I
JPG 1804H	Space, Power, and Geography: Understanding Spatiality
JPG 1805H	Transnationalism, Diaspora, and Gender
JPG 1809H	Spaces of Work: Value, Identity, Agency, Justice
JPG 1810H	Globalization and Postmodernism
JPG 1812Y	Planning for Change: Community Development in Practice
JPG 1813H	Planning and Social Policy
JPG 1906H	Geographic Information Systems
JPG 1909H	Social Survey Methods
JPG 1914H	Geographic Information Systems Research Project

JPG 2150H	Advanced Seminars in Selected Topics
PLA 4444H	Internship (Credit/No Credit) (Designates the internship to be undertaken by master's students in the Planning Program. It cannot be used to fulfil other course requirements for the degree.)