

**Should CAPPa Have a Core?**  
**Lessons from International Comparisons of MPP/MPA Curricula<sup>1</sup>**

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## Introduction

On December 2, 2014, the CAPPa Executive Committee asked the authors prepare a paper for members of the Canadian Association of Programs of Public Administration (CAPPa) which would:

1. Estimate, through an examination of the publications of accrediting bodies and of publicly available syllabi of programs around the world, how much of a consensus exists regarding the appropriate or required core content for MPA and MPP programs.
2. To the extent that core content for each type of program can be identified, suggest applicable categories or classifications and examples of courses that might meet category expectations.
3. Suggest how Canadian programs might legitimately differ from those in other countries and/or from the consensus categories that emerge from #2.
4. Based on the course selections from other programs, offer an assessment of the extent to which mission-based competencies are being accommodated along with universal competencies currently in these programs; and, if possible, offer a suggestion for the appropriate balance that can be struck between the two without attenuating the accreditation standards for Canadian programs.

We have reformulated the questions into the four section headings that follow. The Canadian programs we address are listed in Table 1.

## **1. How much international consensus exists on competency standards and core curricular content for Master's-level public affairs programs?**

The short answer is that a good deal of international consensus exists on competency standards and the core curricular content for Master's-level public affairs programs. Indeed, in our companion paper, *Mapping the Topics and Learning Outcomes of a Core Curriculum* (Clark, Eisen, Lennon & Pal, 2015), we demonstrate that two well-established sets of standards for Master's level competencies can be used to identify the subjects and course-weeks of instruction that might be considered to constitute a common curricular core for MPP, MPA and similarly titled programs.

The standards are those promulgated by NASPAA (Network of Schools of Public Policy, Affairs, and Administration) through its Commission on Peer Review and Accreditation (NASPAA, 2012, pp 69-71) and by UNDESA/IASIA (United Nations Department of Economic and Social Affairs/International Association of Schools and Institutes of Administration) through its Task Force on Standards of Excellence for Public Administration Education and Training (United Nations, 2008, pp 9-10). We use the most finely-grained descriptions of competencies in these standards: the examples under the competency domains in the NASPAA standards and the subcomponents under the curriculum components in the UNDESA/IASIA standards. These are reproduced in abbreviated form in Tables 2 and 3.

Clark, Eisen & Pal (2014b) noted that these accreditation bodies have been reluctant to specify precise curricular content in their standards. There are several reasons for this reluctance. One is respect for mission diversity. NASPAA states that its use of "performance standards" rather than "design standards" enables its accreditation process to respect

differences among program missions.<sup>3</sup> A related reason is to avoid discouraging innovation.

The UNDESA/IASIA Standards of Excellence state that standards should not be “interpreted in a manner that might impede the development of special strengths or areas of specialization in each program.”<sup>4</sup> A third reason is to improve quality by encouraging competency-based curricular design and teaching. This usually includes an admonition to focus on outcomes rather than inputs or outputs. For example, NASPAA does not specify the subjects and topics to be covered in a program’s syllabi, but rather the “knowledge and competencies that all of its graduates should have to demonstrate that they’ve satisfied the requirements of its degree.”<sup>5</sup>

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<sup>3</sup> “In contrast to design standards (numerical requirements for inputs), NASPAA’s accreditation standards are performance standards (outcomes consistent with program mission).” (NASPAA, 2014b: 4-conditions-for-accreditation-review.pptx, slide 7, at <http://accreditation.naspaa.org/considering-accreditation/>, accessed 12 October 2014.)

<sup>4</sup> The UNDESA/IASIA Standards of Excellence for Public Administration Education and Training include as point 8 under Program Content (Final Report, pages 9-10): “Curriculum components: The program or training curriculum shall enhance the student’s competencies, values, knowledge, and skills to act ethically, equitably, effectively and with efficiency: Subject to the mission of the program, they should include ... These area requirements do not prescribe specific courses. Neither do they imply that equal time should be spent on each area or that these courses must all be offered by public affairs, public policy or public administration programs. Nor should they be interpreted in a manner that might impede the development of special strengths or areas of specialization in each program.” (At <http://unpan1.un.org/intradoc/groups/public/documents/un-dpadm/unpan034307.pdf>, accessed 17 October 2014.)

<sup>5</sup> Although NASPAA accreditation addresses “program level assessment and competencies, not simply the competencies associated with an individual course” noting that “the program is assumed to be more than just the sum of its ... courses,” NASPAA also states that individual course assessments are important: “Each course should be designed to instill particular competencies in a student and to contribute to the program level competencies the program has identified. As a result, you should be able to [identify the contributing elements] for each required course. ... Put differently, although accreditation doesn’t explicitly require you to do this for each required course, accreditation does require you to map your curriculum, which will be a challenge if you haven’t done this for required courses” (NASPAA, 2014, Notes for slides 5 and 9).

Nevertheless, our companion paper shows how the two international sets of standards can be used to generate a list of 120 “normed core topics”<sup>6</sup> that would, if appropriately taught, meet the core curriculum requirements. The results are brought together in Table 4, which sets out the number of course-weeks of instruction in each of 16 subjects required to meet the international competency standards. We have integrated the five NASPAA required competency domains and the eight UNSESA/IASIA components to create seven MPP/MPA core competencies that are aligned with the 16 subjects.

## **2. How can the core content associated with international standards be categorized for curriculum-design purposes and what are good examples of courses?**

The short answer is that the 33 subjects used by the Atlas of Public Policy and Management are explicitly designed to categorize the full range of content taught in MPP and MPA programs. Our analysis of the international standards suggests that 16 of these subjects are able to cover all the core content. We can refer these as “core subjects.”

In a paper prepared for the 2014 CAPP Conference, Clark, Eisen & Pal (2014a) reviewed 10 programs where syllabi were available to compare the required courses that the programs deemed to be their core. Virtually all programs had required courses in four subjects,

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<sup>6</sup> We define a normed core topic to be a body of subject matter, the learning of which is deemed to be required to satisfy competency standards, which can be taught in one course-week, that is, in 10 hours of combined in-class and outside-class study. The enumeration and elaboration of normed core topics could simplify the curriculum design and accreditation process. If an accrediting body endorsed a set of 120 normed core topics program directors could refer to pre-approved topic descriptions and ensure that all such topics were incorporated into the syllabi of the program’s required courses. For all but the shortest programs, this would still leave ample room for curricular specialization to support a program’s particular mission. A program seeking to demonstrate to an accrediting agency that it provides its graduates with the universal required competencies would then only have to provide evidence that its curriculum is designed so that all students are taught these core topics and assessed on them.

which we might refer to as “core of the core”: Policy and Management Analysis; Democratic Institutions and Policy Process; Economic Analysis; and Quantitative Methods. In the latter two subjects, where the degree of commonality among programs is greatest, the identification of core topics was relatively straightforward. Determining the core topics in the other two core-of-the-core subjects is more challenging. Policy and Management Analysis has a more multidisciplinary lineage than either Economic Analysis, which is firmly rooted in the discipline of microeconomics, or Quantitative Methods, which is firmly rooted in statistics and econometrics. Policy and Management Analysis draws from political science, management (often associated with business), as well as economics and psychology. Of the 33 subjects used in the Atlas framework, Policy and Management Analysis is the most uniquely tailored to MPP and MPA degrees.<sup>7</sup> Whereas many subjects taught in MPP/MPA programs would not be out of place in other graduate programs (e.g., economics or political science), courses on Policy and Management Analysis tend to have been developed specifically for MPP and MPA degrees.

The fourth core-of-the-core subject, Democratic Institutions and Policy Process, is rooted in political science and public administration, and covers a broad range of subject matter, principally in connection with the wider institutional context of policy and management. Indeed, our review of required courses suggests that both this subject and Policy and Management Analysis need more than the 12 course-weeks of a single course to deal with all the topics. Table 4 estimates the number of course-weeks of instruction required to teach the core MPP/MPA topics in each of 16 subjects, and it can be seen that these two subjects each

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<sup>7</sup> A good discussion of the unique subject matter in both MPP and MPA degrees can be found in Elwood (2008) and in Henderson and Chetkovich (2014).

require 18 course-weeks. In other words, MPP/MPA programs need at least three one-semester course equivalents of instruction to cover the total of 36 core topics in these two subjects.

It is interesting to compare the way that different programs design their courses to address the content in the two subjects. The Harvard MPP uses two required courses: MLD-101 Management, Leadership, and Decision Making; and DPI-101 Political Institutions and Public Policy. We assign the first to Policy and Management Analysis and the second to Democratic Institutions and Policy Process. The Berkeley MPP uses six required courses, five that we assign to Policy and Management Analysis because of their tools-and-skills orientation, and one that we assign to Democratic Institutions and Policy Process.<sup>8</sup> The Toronto MPP uses three required courses. We assign one (PPG-1007 Strategic Implementation of Public Policy Objectives) to Policy and Management Analysis and two (PPG-1000 Governance and Institutions and PPG-1001 The Policy Process) to Democratic Institutions and Policy Process.

The Carleton MA has three required courses in this broad area: PADM-5116 Policy Analysis and Contemporary Governance; PADM-5117 Public Management; and PADM-5115 Introduction to State and Society. These fit less neatly than the Harvard, Berkeley or Toronto courses into one or other of the two subjects; their constituent topics courses tend to be spread among both, with some duplication. The Policy Analysis course is a combination of tools, and the governance context (including public bureaucracy) within which they are used. The State and Society course historically was virtually unique in MPP/MPA programs as an introduction

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<sup>8</sup> We have assigned PP-200 Introduction to Policy Analysis, PP-205 Advanced Policy Analysis (double course), PP-250 Political and Agency Management, and PP-299 Political and Organizational Aspects of Public Policy Analysis to Strategy and Implementation. We have assigned PP-220 Law and Policy to Democratic Institutions and Public Policy.



to the classics of political economy (e.g., Smith, Marx, Weber, Schumpeter); it has evolved into a hybrid that still discusses these “classics,” but brings them to bear on the challenges of modern public policy and governance (e.g., globalization, inequality). We have assigned them as follows: the first to Policy and Management Analysis; the second to Democratic Institutions and Policy Process; and the third to Socioeconomic and Political Context.

### **3. How might the curricular content of Canadian programs legitimately differ from that which would meet international standards for public affairs programs?**

The short answer is that the curricular content of all Canadian programs can legitimately differ from that which would perfectly meet the international standards in just the same way as Master’s-level public affairs programs in other countries differ from the standards.

All of the 112 programs we have reviewed differ from one another. Each reflects its institutional, national and local context. Our sample includes private and public universities, and institutional arrangements within a university that vary from a handful of instructors within a political science department to a dedicated dean-led school. The geographic orientation varies from primarily local to explicitly global, and the subject-matter orientation varies from an emphasis on policy and analysis to an emphasis on management and administration.

Our 112-program sample is reasonably representative of some of the possible variations but it is not intended to be a random sample. We have included all Canadian programs listed on the CAPP Master’s Programs website except three that are clearly designated as Masters of Arts in Political Science. The 41 American institutions (with 49 programs) in the sample represent about 15 percent of the 282 members of NASPAA and include all the NASPAA

member programs that, as far we can determine, provide online access to a substantial number of course syllabi. But the sample is tilted toward high-ranked programs on the US News and World Report annual survey; it includes the top 10 or 20 programs in many of the categories and no program is ranked below the top quartile in that survey. Those selected for the UK are degrees were identified by a program search of the postgraduate taught degrees in the 24-member Russell Group (the self-declared most research-intensive universities). Those for Australia and New Zealand are drawn from ANZSOG's list of Member Universities, and are primarily Group of Eight (research intensive) institutions. Those for Europe, Asia and South America include the overseas members of NASPAA, and a number of new programs delivering their instruction primarily in English.

The three most crucial program design distinctions appear to be:

- The number of courses required for graduation, which is closely related to the normal time to completion.
- The subject-matter emphasis, which can be expressed in terms of the proportion of course work taken by the typical student in particular subjects.
- The extent to which the curricular subject matter requires familiarity with mathematics and economics, which can be expressed in terms of the proportion of courses taken by the typical student in quantitative methods and economic subjects.

We have used data from the 112 programs reviewed to date to create three categories for the magnitude of the course requirement and two categories for subject-matter emphasis, each of which has two categories for math-economics content.

Those programs requiring 16 to 20 one-semester equivalent courses to graduate we call High Course Requirement; those requiring 13 to 15 we call Medium Course Requirement, and those requiring 8 to 12 we call Low Course Requirement. Regarding subject-matter emphasis, we proceed as follows: Those programs where typical students undertake 60% or more of their course work in what we call policy-oriented subjects we call Policy-Oriented. Those programs where typical students undertake more than 40% of their course work in what we call management-oriented subjects we call Management-Oriented. We have designated one subject (Policy and Management Analysis) as 50-50, equally oriented to policy and management. It is worth noting that the PEACO calculations suggest that programs are well spread out along the continuum from highly policy-oriented to highly management-oriented. We have selected 60% as the dividing point, making just over half the programs Policy Oriented and just under half Management Oriented. It can be seen that there are very few MPP programs under 60% but there are many MPA programs over 60%. Regarding mathematics-economics content, those programs where typical students undertake 20% or more of their course work in the four most economics- and mathematics-intensive subjects (Economic Analysis; Quantitative Methods; Macroeconomic Policy; Financial Markets) we call Higher Math-Economics Content and those where typical students undertake less than 20% of their course work in those subjects we call Lower Math-Economic Content.

In Table 5 we name the resultant categories after two of the constituent programs. For the most populous type (high course requirement/policy-oriented/higher math-econ) we have divided the programs into two groups: the Harvard-Simon Fraser group, where the policy-oriented proportion ranges from 60% for the Virginia MPP to 70% for the Stanford MPP; and

the Columbia-Toronto group where the policy-oriented proportion ranges from just over 70% for the Toronto MPP to 87% for the Tokyo MPP. Within each group in Table 5 programs are listed in the order of the proportion of courses in policy-oriented subjects taken by the typical student.

We can see that the 23 Canadian programs are distributed across most of the 13 categories, with four being in the Syracuse-Carleton category of medium course requirement/policy-oriented/higher math-economics.

Some programs create explicit specializations to provide options for students to concentrate in particular subject-matter areas. These are being analyzed on the Atlas at Patterns in Specialization<sup>9</sup> and will be the subject of a separate presentation in the near future. Based on our analysis to date, it appears that about half the programs in the sample offer specializations; this proportion is lower among Canadian programs.

Do Canadian specializations, or specific missions, reflect anything that is unique about Canada or a particular region of the country? Our analysis of specializations/concentrations is at an early stage, but we can hazard a few thoughts. First, there is always a tension in program design between aspiring to what are understood (at the time) to be generic or universal features of the field and the actual faculty complement to teach it. So, for example, the Carleton degree has the unusual “State and Society” course because in its early days the School had a critical mass of political economy faculty on staff. While many have retired, their presence in the School over the years has contributed to a culture that generally agrees that a critical take on public

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<sup>9</sup> At [http://portal.publicpolicy.utoronto.ca/EN/MPPMPAPROGRAMS/PATTERNS\\_IN\\_SPECIALIZATION/Pages/default.aspx](http://portal.publicpolicy.utoronto.ca/EN/MPPMPAPROGRAMS/PATTERNS_IN_SPECIALIZATION/Pages/default.aspx)

policy and administration is important. So, the new State and Society course (Carleton is launching a new program in September 2016) will have less of a political economy flavour but retain a critical edge.

Second, historically, the older programs simply assumed that what they taught would have strong Canadian (and sometimes regional) content. A course on “Public Administration” inevitably was assumed to provide Canadian illustrations and examples. So the generic nature of many course titles belies what would have been strong Canadian/regional content in terms of assignments, research topics, papers, discussions, etc. A course on public policy in Calgary could not have avoided mentioning the Conservative dynasty (as it was then), and a course in Toronto could not avoid mentioning the Rae period.

Third, there has been expansion and multiplication of programs in the past ten years, either through the introduction of specializations/concentrations in existing programs, or the emergence of completely new programs. These are driven by presumed market demands and the imperatives of differentiation as competitive dynamics have seeped into the quiet groves of academe. Those competitive dynamics are complicated. Sometimes they arise from the research interests of a cluster of faculty who want to see those interests consecrated in curriculum and possibly new programs. Perhaps they come from the new incentive structures within universities, where everyone from presidents down to deans are enjoined to capture unoccupied academic territory, plant their flags, and then help press for resources from the Ministry which get converted into new faculty positions within the offering departments. Again, to use Carleton as an example, the MA in Sustainable Energy Policy (which is offered to

a mixed audience of MPA and engineering students) stemmed largely from a concentration of faculty talent and interest. The Master of Philanthropy and Nonprofit Leadership was spearheaded by one entrepreneurial faculty member who noted the complete absence of any such degree in Canada, in contrast to well-developed American analogues. The newest addition, a Diploma in Indigenous Policy and Administration, came about through a combination of pressure from the province, flagging this as an important area and inviting proposals, and internal pressure from higher administration to submit a (winning) proposal.

Perhaps another way of posing the question is to ask how a student coming out of a Canadian MPP or MPA program and parachuted into, say, the Lee Kuan Yew School of Public Policy, the Masters of Global Public Policy (Moscow), or the Oxford Blavatnik School of Governance, would perform? They would have a deficit in local and national knowledge, but we think that they would feel quite at home with the academic content.

#### **4. To what extent do the curricula of Canadian programs have subject-matter shortfalls relative to the international standards for public affairs programs?**

The short answer is that the curricular content of all Canadian programs differ from that which would perfectly meet the international standards, but the subject-matter shortfalls for most Canadian programs are comparable to those found in Master's-level public affairs programs in other countries.

The identification of the 16 core subjects with numerical course-week requirements allows us to perform a competency gap analysis on each program. We can calculate the subject-matter shortfall in each core subject experienced by a typical student in a program, taking

account through the PEACO Algorithm of which courses are required and which are elective. For example, if a typical student experiences 9 weeks of instruction in courses that we have assigned to Economic Analysis, the subject-matter shortfall in that subject would be  $12 - 9 = 3$  course-weeks; if a program offers no courses that can plausibly be assigned to Public Financial Management, the program's subject-matter shortfall in that subject would be  $6 - 0 = 6$  course-weeks.

The results for the 23 Canadian programs are displayed in Table 6. It is important to recognize that, depending on which courses a program designates as required and which it designates as elective, a subject-matter shortfall (competency gap) can occur even though the program offers courses that address all required competencies. For example, a program that has many electives, one of which addresses all the required competencies in human resource management, could still have a shortfall in Human Resource Management if the high number of available electives results in a low probability that a typical student will take the course. Indeed, our calculations using this methodology indicate that every single one of the 112 programs have shortfalls in one or more of the 16 core subjects.

What should we make of the observation that even the most highly regarded MPP and MPA programs have subject-matter shortfalls relative to the competencies in the NASPAA and UNDESA/IASIA standards? Do the standards include unnecessary competencies? Are the standards overly ambitious? Should programs take the competency standards more seriously in designing their curricula? We address some of these issues in our companion paper that

describes our attempt to specify 120 Normed Core Topics that would be capable of meeting the NASPAA and UNDESA/IASIA standards in 120 course-weeks of instruction.

## **Conclusions**

This is probably the place to provide our response to the second half of the fourth question put to us by the CAPP Executive Committee: “if possible, offer a suggestion for the appropriate balance that can be struck between [the mission-based and universal competencies] without attenuating the accreditation standards for Canadian programs.”

After reviewing the extent to which Canadian programs appear to meet the international competency standards and how they compare with the most highly rated in the United States and other countries, we suggest that there are even more important curriculum design questions than the balance between mission-based and universal. We suggest that the crucial first question is “How much do you want students to learn by the time they graduate from the program?” and the second is “How much subject matter with strong math-economic content do you want to students to learn in the program?” We believe that it takes a full 120 course-weeks of instruction to teach the MPP/MPA core competencies and that 30 of those course weeks are needed to meet the competency of “applying economics and statistics concepts.” Because fully 10 course equivalents are needed to address the universal competencies and every program would want at least two course slots for mission-based instruction, it is hard to see how a program with less than, say, 12 courses could hope to meet what we deduce to be the learning requirements in the international MPP/MPA standards.



But perhaps the prior question should be whether a program wishes to meet international standards for MPP and MPA programs. After all, only a minority of the 23 CAPPA programs in Table 1 lead to a degree named MPP or MPA. A program such as the York Master of Public Policy, Administration and Law (MPPAL) has a course requirement of 9 so it could not possibly meet our proposed 10-course core requirement within its regular curriculum. But it is a very specialized degree, aimed at a specific student need that is different from more standard MPP and MPA programs. Perhaps the goal of meeting the MPP/MPA core competencies is not appropriate in all cases. As Mel Cappe (2015) stated in his review of MPP and MPA programs for the Higher Education Quality Council of Ontario:

While subtle and sometimes small, the differences between public policy programs are significant. Ontario students have choice and choice is a good thing. ... Some might argue that the alphabet soup of MPP, MPA, MPPAL, MPS, MA, MPA, MPNL, MA LG, MA PPA, and MA PA (Toronto, Queen's, York, Waterloo, McMaster, Glendon, Carleton, Western, Carleton and Ryerson, respectively) leads to confusion. While it might seem confusing to have so many different degrees essentially covering similar essential learnings, the differences are themselves important and allowing the institutions to distinguish themselves by the nature of the degree granted is valuable. Thus, differentiation makes the Ontario offerings useful. (Cappe, 2015, 30)

However, for those programs that do wish to meet the MPP/MPA core competencies, the instructional detail provided on normed core topics on the Atlas should make it relatively easy to design required modules to fill the subject-matter shortfalls indicated in Table 6.

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**Table 1. Canadian Public affairs degrees listed on the CAPPa website**

University	Unit	Degree	Courses to Graduate	Program Established*	Graduates in 2014**	CAPPa Accreditation	
1. British Columbia	A&S	MPPGA	15	2015	<25	2009	
2. Calgary	SPP	MPP	11	2011	<25		
3. Carleton	SPPA	MA(PA)	15	1953	>50		
4. Concordia	DPS	MPP&PA	15	1980	25-50		
5. Dalhousie	SPA	MPA	18	1968	25-50		
6. Guelph-McMaster	DPS & DPS	MA (PP&A)	8.5	1994	<25		
7. Laval	DSP	MA(AP)	15	1976	<25		
8. Manitoba-Winnipeg	DPS & DP	MPA	16	1977	<25		
9. Moncton	DPA	MAP	20	tbc	<25		
10. Ottawa (DPS)	DPS	MA(PA)	8	tbc	<25		
11. Ottawa (GSPIA)	GSPIA	MAP&IA	15	2007	>50	2008	
12. Québec (ENAP)	ENAP	MAP	15	1969	>50		
13. Queen's	SPS	MPA	12	1969	>50		
14. Ryerson	DPPA	MAPP&A	10	2005	25-50		
15. Saskatchewan-Regina	JSGS	MPA; MPP	12	2006	25-50		2011
16. Simon Fraser	SPP	MPP	16	2003	25-50		2009
17. Toronto	SPPG	MPP	18	2007	>50		
18. Victoria	SPA	MPA	14	1974	25-50		
19. Waterloo	Arts	MPS	12	2010	<25		
20. Western	LGP	MPA	15	1990	<25		
21. York (Keele)	GPPP	MPP&AL	9	2007	<25		
22. York (Glendon)	GSPIA	MP&IA	15	2007	<25		

Note:

\* Source for most dates on Program Establishment: Cappe, M. (2015).

\*\* Author's estimates, accompanied by the suggestion that CAPPa members agree to collect and publish numbers that would reflect enrolment.

The following Master's programs in Political Science are listed on the CAPPa Master's Programs site but are not included above:

- Brock, Department of Political Science, MA in Political Science
- Guelph, Department of Political Science, MA in Political Science
- UQAM, Université du Québec à Montréal, Faculté de science politique et de droit, Maîtrise en science politique

**Table 2. NASPAA Standards**

<b>Domain with Examples</b>	<b>Course-Weeks</b>
<b>1. Management of Public Service Organizations</b>	
1. Leading and managing in public governance	0
1.1 Apply public management models and organization theory	5
1.2 Appraise organizational environment	2
1.3 Lead, manage, and serve a diverse workplace and citizenry	5
1.4 Lead and manage people	3
1.5 Manage projects	2
1.6 Manage information and networks	3
1.7 Manage contracts and public-private partnerships	2
1.8 Resolve conflict and negotiate	1
1.9 Understand relationship between policy and implementation	2
Domain Total	25
<b>2. Participating in and contributing to the policy process</b>	
2.1 Apply techniques for program evaluation and forecasting	6
2.2 Describe and work within inst'l, struct'l, and political contexts of policy making	6
2.3 Describe and execute the policymaking process	4
2.4 Incorporate int groups, exec-leg relationships ... media in policy process	6
2.5 Prepare a budget	2
2.6 Recognize the social construction of problems	3
Domain Total	27
<b>3. Analyzing, synthesizing, thinking critically, solving problems, making decisions</b>	
3.1 Measuring and improving human performance	3
3.2 Analytical tools for collecting, analyzing, presenting, and interpreting data	31
3.3 Alternative sources of funding	1
3.4 Plan strategy	2
3.5 Understand and apply the legal context	4
3.6 Understand and apply theories of decision-making and models	2
Domain Total	43
<b>4. Incorporating public values into decisions</b>	
4.1 Apply concepts of social equity	1
4.2 Behave ethically	1
4.3 Behave in a fair and ethical manner toward others	1
4.4 Distinguish short- from long-term fiscal consequences of decisions	3
4.5 Exercise ethical responsibility in research and making decisions	1
4.6 Identify environmental impacts	3
4.7 Understand and apply criteria appropriate to public affairs, admin, and policy	6
Domain Total	16
<b>5. Communicating and interacting productively</b>	
5.1 Written communication	1
5.2 Oral communication	1
5.3 Demonstrate flexibility	1
5.4 Demonstrate self-knowledge	1
5.5 Sensitivity to diversity	1
5.6 Facilitation	1
5.7 Negotiation	1
5.8 Relate to stakeholders	1
5.9 Work in teams	1
Domain Total	9
<b>Five-Domain Totals</b>	<b>120</b>

**Table 3. UNDESA/IASIA Standards (continued next page)**

<b>Component with Subcomponents</b>	<b>Course-Weeks</b>
<b>1. Management of Public Service Organizations</b>	
1.1 Human resource management	1
1.2 Budgeting and financial processes	5
1.3 Information mgt, new technology applications, and policy	2
1.4 Administrative and constitutional law	3
1.5 Effective communication	2
1.6 Organization and management concepts and behavior	4
1.7 Not for profit and private sector relationships and grant mgt	1
Component Total	18
<b>2. Improvement of Public Sector Processes</b>	
2.1 Development of high performing organizations	5
2.2 Management of networks and partnerships	2
2.3 The delivery of public goods and services	2
2.4 Management of projects and contracts	3
2.5 Supporting workforce diversity	1
2.6 Motivation and design of public sector organizations	3
Component Total	16
<b>3. Leadership Skills in the Public Sector</b>	
3.1 Creative and innovative problem solving	5
3.2 Leading institutional and organizational transformation	3
3.3 Conflict prevention and resolution strategies	1
3.4 Promoting equity in service delivery	1
3.5 Developing approaches to poverty alleviation	3
3.6 Promoting democratic institutional development	1
3.7 Public sector ethics	1
Component Totals	15
<b>4. Application of Quant and Qualitative Techniques of Analysis</b>	
4.1 Institutional and developmental economics	4
4.2 Pol and prog formulation, analysis, impl'tion and evaluation	25
4.3 Decision-making and problem-solving	4
4.4 Strategic planning	1
Component Total	34
<b>5. Understanding Pub Pol and the Organizational Environment</b>	
5.1 Political and legal institutions and processes	5
5.2 Economic and social institutions and processes	3
5.3 Historical and cultural context	1
5.4 The management of economic development	3
5.5 The implications of the "third party government"	1
5.6 Acknowledging and reconciling cultural diversity	1
Component Total	14

**Table 3. UNDESA/IASIA Standards (continued from previous page)**

<b>Component with Subcomponents</b>	<b>Course-Weeks</b>
<b>6. Public Sector Ethos</b>	
6.1 Democratic values	2
6.2 Respect for individual and basic human rights	1
6.3 Social equity and the equitable dist'n of goods and services	1
6.4 Social and cultural diversity	1
6.5 Transparency and accountability	1
6.6 Sustainable development	3
6.7 Organizational justice and fairness	1
6.8 Recognition of global interdependence	1
6.9 Civic engagement	1
Component Total	12
<b>7. Public Sector Skills</b>	
7.1 Analytical and critical thinking	D
7.2 Dealing with complexity	D
7.3 Flexibility	1
7.4 Dealing with uncertainty and ambiguity	4
7.5 Operating in a political environment	2
7.6 Building high performing organizations	D
7.7 Involving other groups and inst's in society to realize pol goals	1
7.8 Life time learning	D
7.9 Applying life experiences to academic and training activities	D
Component Total	8
<b>8. Public Sector Nature</b>	
8.1 Internationalization and globalization	D
8.2 The balance between centralization and decentralization	1
8.3 Impact of multinational organizations and agreements	1
8.4 Weakening of the state (the influence of cutbacks and NPM)	1
8.5 New modes of communication and their impact	1
8.6 Collaborative governance	D
Component Total	4
<b>All-Component Totals</b>	<b>120</b>

**Table 4: Estimated number of course-weeks of instruction (and thus normed core topics) needed to master each MPP/MPA core competency**

Core Subjects	MPP/MPA Core Competency							Course-Weeks	Course Equivs.								
	1	2	3	4	5	6	7										
1. Policy and Management Analysis				18				18	1.5								
2. Economic Analysis	12							12	1								
3. Quantitative Methods	12							12	1								
4. Analytic Methods		6						6	0.5								
5. Leadership Skills							9	9	0.75								
6. Communication Skills							3	3	0.25								
7. Democratic Institutions and Policy Process					18			18	1.5								
8. Socioeconomic and Political Context			6					6	0.5								
9. Ethics, Rights and Accountability					6			6	0.5								
10. Global Context			3					3	0.25								
11. Public Financial Management						6		6	0.50								
12. Evaluation and Performance Measurement		6						6	0.50								
13. Human Resource Management						3		3	0.25								
14. Information and Technology Management						3		3	0.25								
15. Macroeconomic Policy	6							6	0.50								
16. Environment			3					3	0.25								
<b>Course-Weeks Needed for Core Competencies</b>	30	12	12	18	24	12	12	120	10								
Course Equivalents (at 12 weeks per course)	2.5	1.0	1.0	1.5	2.0	1.0	1.0	10									
<p><b>Number Key for MPP/MPA Core Competencies</b></p> <table border="0"> <tr> <td>1. Applying Economics and Statistics Concepts</td> <td>5. Understanding Institutions and Processes, and Acting Ethically</td> </tr> <tr> <td>2. Applying Analytic Methods and Evaluation Concepts</td> <td>6. Managing Financial, Human and Information Resources</td> </tr> <tr> <td>3. Understanding Socioeconomic, Political and Global Contexts</td> <td>7. Leading and Communicating</td> </tr> <tr> <td>4. Applying Policy and Management Analysis Concepts</td> <td></td> </tr> </table>										1. Applying Economics and Statistics Concepts	5. Understanding Institutions and Processes, and Acting Ethically	2. Applying Analytic Methods and Evaluation Concepts	6. Managing Financial, Human and Information Resources	3. Understanding Socioeconomic, Political and Global Contexts	7. Leading and Communicating	4. Applying Policy and Management Analysis Concepts	
1. Applying Economics and Statistics Concepts	5. Understanding Institutions and Processes, and Acting Ethically																
2. Applying Analytic Methods and Evaluation Concepts	6. Managing Financial, Human and Information Resources																
3. Understanding Socioeconomic, Political and Global Contexts	7. Leading and Communicating																
4. Applying Policy and Management Analysis Concepts																	

**Definition of Terms in Table 5 (next page)**

- **Course Requirement:** Credit-bearing one-semester course equivalents (including dissertation and workshops) required to graduate.
- **Policy-Oriented:** 60% or more of total courses taken by the typical student are in the following 24 subjects: Policy and Management Analysis (50-50); Economic Analysis; Quantitative Methods; Analytic Methods; Professional Practice (50-50); Socioeconomic and Political Context; Intergovernmental and Global Context; Evaluation and Performance Measurement; and the 16 subjects of the Policy Sectors domain.
- **Management-Oriented:** More than 40% of total courses taken by the typical student are in the following 12 subjects: Policy and Management Analysis (50-50); Leadership Skills; Communication Skills; Professional Practice (50-50); Democratic Institutions and Policy Process; Ethics, Rights and Accountability; Public Financial Management; Human Resource Management; Information and Technology Management; Program and Service Delivery; Regulatory Policy and Management; and Nonprofit Management and Advocacy.
- **Higher Math-Economics Content:** 20% or more of total courses taken by the typical student are in the following four subjects: Economic Analysis; Quantitative Methods; Macroeconomic Policy; and Financial Markets.
- **Lower Math-Economics Content:** Less than 20% of total courses taken by the typical student are in the following four subjects: Economic Analysis; Quantitative Methods; Macroeconomic Policy; and Financial Markets.

Table 5: Curricular Types

Subject-matter Emphasis	High Course Requirement (16 to 20)		Medium Course Requirement (13 to 15)		Low Course Requirement (8 to 12)	
	Higher Math-Economics Content (>20% courses)	Lower Math-Economics Content (<20% courses)	Higher Math-Economics Content (>20% courses)	Lower Math-Economics Content (<20% courses)	Higher Math-Economics Content (>20% courses)	Lower Math-Economics Content (<20% courses)
<p><b>Policy-Oriented</b></p> <p>(typical student takes &gt;60% of courses in Policy-Oriented subjects)</p>	<p><b>Columbia-Toronto</b> Tokyo MPP/IP Princeton MPA Texas MPAff Jindal MPP USC MPP RANEPA MGPP Minnesota MPP GRIPS MAPP Columbia MPA UCLA MPP Cornell MPA Brunei MPPM Chicago MPP LSE IPA MPA <b>Toronto MPP</b></p> <p><b>Harvard-Simon Fraser</b> Stanford MPP Michigan MPP Maryland MPP <b>Sim Fraser MPP</b> Harvard MPP Berkeley MPP Hertie MPP Virginia MPP</p>	<p><b>Duke-Singapore</b> ANU MPP Sydney GIR MPP SciencesPo MPP Car'gie MSMPP ANU MPA Duke MPP Singapore MPP Harvard MPA</p>	<p><b>Syracuse-Carleton</b> Mich State MPP <b>Ottawa MAPIA</b> GW MPP <b>Carleton MAPA</b> Ariz. State MPP NYU MPA Wisconsin MPA American MPP <b>UBC MPPGA</b> <b>Laval MAPP</b> Syracuse MPA</p>	<p><b>Oregon-York Glendon</b> Beijing MCDC <b>York MPIAA</b> American MPA <b>Con'dia MAPPAA</b> Oregon MPA USC MPA Oxford MPP Ariz. State MPA</p>	<p><b>Kings-Queen's</b> Michigan MPA GRIPS MPP <b>Queen's MPA</b> Maryland MPM Kings MAPP</p>	<p><b>Warwick-Ryerson</b> Glasg. MScPUP Warwick MPP Edinburgh MPP Singapore MPA UNSW MSc <b>McMas'r-G MA</b> <b>Sask-Reg MPP</b> FGV Brazil MPA Macquarie MPP <b>Ryers. MAPP</b></p>
<p><b>Management-Oriented</b></p> <p>(typical student takes &gt;40% of courses in Management-Oriented subjects)</p>	<p><b>Indiana-Ohio</b> Indiana MPA Ohio MPA</p>	<p><b>Melbourne-Dalhousie</b> <b>Dalhousie MPA</b> <b>Man-Win MPA</b> <b>Moncton MPAMelb'rne MPPM</b></p>	<p><b>Albany-Georgia</b> Sac State MPPA Albany MPA Florida State MPA GW MPA Georgia MPA SF State MPA UI Chicago MPA Rutgers MPA</p>	<p><b>Kansas-UVic</b> New Mexico MPA Bocconi MPA <b>UVic MPA</b> Colorado MPA Kansas MPA-C Kansas MPA-I NC State MPA Tenn State MPA <b>Western MPA</b> <b>ENAP MPA</b> N. Carolina MPA</p>	<p><b>Cambridge-Calgary</b> NW'ern MPPA UC London MSc LSE Gov MSc <b>Calgary MPP</b> Cambridge MPP</p>	<p><b>Pennsylvania-ANZSOG</b> Sask-Reg MPA Q. Mary MPP Victoria MPP Griffith MPA Exeter MAP MBSRG MPA Penn. MPA Sydney MPA ANZSOG EMPA Victoria MPM Canberra MPA Waterloo MPS Melbourne MPA <b>York MPPAL</b> Hong Kong MPA</p>

**Notes:** Canadian programs in **bold**. For definitions of terms, see Box on previous page. Programs are listed in order of their subject-matter emphasis: Within each of the groupings, programs where the typical student takes a higher percentage of courses in Policy-Oriented subjects are listed higher.



**Table 6a: PEACO Calculations for Calgary, Carleton, Concordia, Dalhousie, ENAP and Laval**

CCR = Core Competency Requirement	Calgary	Carleton	Concordia	Dalhousie	ENAP	Laval
	MPP	MAPA	MPPPA	MPA	MPA	MA
Number of Courses Required for Graduation	11.0	15.0	15.0	18.0	15.0	15.0
Math-Economics Subjects (EA, QM, Macro, Fin Markets)	27.1%	23.4%	0.0%	15.3%	3.8%	16.2%
Policy-Oriented Subjects	50.8%	76.4%	65.7%	58.5%	30.7%	55.4%
Management-Oriented Subjects	49.2%	23.6%	34.3%	41.5%	69.3%	44.6%
<b>Analysis and Skill Subjects</b>	<b>53.5%</b>	<b>34.6%</b>	<b>18.1%</b>	<b>34.4%</b>	<b>52.1%</b>	<b>34.6%</b>
- Policy and Management Analysis	1.3%	11.2%	7.7%	13.4%	22.3%	20.0%
- Economic Analysis	23.3%	6.7%	0.0%	7.7%	3.8%	3.1%
- Quantitative and Analytic Methods	13.8%	16.7%	9.3%	11.4%	7.3%	11.5%
- Leadership and Communication Skills	15.1%	0.0%	1.1%	1.9%	18.7%	0.0%
<b>Institutions and Context Subjects</b>	<b>24.8%</b>	<b>20.1%</b>	<b>67.4%</b>	<b>15.3%</b>	<b>15.2%</b>	<b>27.7%</b>
- Democratic Institutions and Policy Process	21.7%	7.8%	22.7%	7.7%	7.0%	20.0%
- Ethics, Rights and Accountability	0.0%	1.1%	3.9%	0.0%	0.3%	1.5%
- Socioeconomic, Political, and Global Contexts	3.0%	11.2%	40.9%	7.7%	7.9%	6.2%
<b>Management Function Subjects</b>	<b>12.2%</b>	<b>10.2%</b>	<b>2.8%</b>	<b>30.9%</b>	<b>32.4%</b>	<b>14.6%</b>
- Public Financial Management	0.0%	2.3%	0.0%	1.9%	0.9%	3.1%
- Evaluation and Performance Measurement	0.4%	1.1%	0.0%	5.7%	0.3%	1.5%
- Other Management Functions	11.7%	6.8%	2.8%	23.2%	31.1%	10.0%
<b>Policy Sector Subjects</b>	<b>9.6%</b>	<b>35.0%</b>	<b>11.6%</b>	<b>19.3%</b>	<b>0.3%</b>	<b>23.1%</b>
- Macroeconomic Policy	0.4%	7.8%	0.0%	1.9%	0.0%	3.1%
- International Development	0.0%	4.5%	2.1%	5.7%	0.0%	3.1%
- Health	1.3%	3.4%	0.0%	1.9%	0.0%	6.2%
- Other Policy Sectors	7.8%	19.3%	9.5%	9.7%	0.3%	10.8%
Total	100%	100%	100%	100%	100%	100%
Course-Weeks in Core Subjects taken by Typical Student	106	129	164	162	179	141
Surplus or Shortfall Relative to Core Competency Reqs						
- Policy and Mgt Analysis (CCR = 18 course-weeks)	-16	2	-4	11	22	18
- Economic Analysis (CCR = 12)	19	0	-12	5	-5	-6
- Quantitative Methods (CCR = 12)	-8	2	-12	0	-12	6
- Analytic Methods (CCR = 6)	8	10	11	6	7	-3
- Leadership Skills (CCR = 9)	-8	-9	-7	-5	13	-9
- Communication Skills (CCR = 3 courses)	16	-3	-3	-3	9	-3
- Democratic Institutions and Policy Process (CCR = 18)	11	-4	23	-1	-5	18
- Ethics, Rights and Accountability (CCR = 6 courses)	-6	-4	1	-6	-5	-3
- Socioeconomic and Political Context (CCR = 6)	-3	8	38	6	-5	-6
- Global Context (CCR = 3)	-2	3	26	1	11	8
- Public Financial Management (CCR = 6)	-6	-2	-6	-2	-4	0
- Evaluation and Performance Measurement (CCR = 6)	-5	-4	-6	6	-5	-3
- Human Resource Management (CCR = 3)	-3	-1	2	1	51	12
- Information and Technology Management (CCR = 3)	-3	-1	-3	26	-1	-3
- Macroeconomic Policy (CCR = 6)	-5	8	-6	-2	-6	0
- Environment and Sustainability (CCR = 3)	-2	3	2	-3	-3	-3
Subject-Matter Shortfall for Typical Student (Sum of Shortfalls)	-67	-28	-59	-22	-54	-41

**Table 6b: PEACO Calculations for Manitoba-Winnipeg, McMaster-Guelph, Moncton, Ottawa and Queen's**

CCR = Core Competency Requirement	M-W MPA	McMas Guelph MA	Moncton MPA	Ottawa MA(PA)	Ottawa MAPIA	Queen's MPA
Number of Courses Required for Graduation	16.0	9.0	20.0	8.0	15.0	12.0
Math-Economics Subjects (EA, QM, Macro, Fin Markets)	5.1%	17.1%	11.0%	0.0%	29.6%	22.7%
Policy-Oriented Subjects	47.9%	66.4%	43.3%	45.8%	81.0%	68.6%
Management-Oriented Subjects	52.1%	33.6%	56.7%	54.2%	19.0%	31.4%
<b>Analysis and Skill Subjects</b>	<b>9.4%</b>	<b>75.0%</b>	<b>44.4%</b>	<b>55.6%</b>	<b>19.0%</b>	<b>42.8%</b>
- Policy and Management Analysis	1.5%	56.0%	24.3%	36.1%	0.0%	20.6%
- Economic Analysis	1.5%	0.0%	11.0%	0.0%	10.5%	11.3%
- Quantitative and Analytic Methods	6.4%	19.0%	2.2%	19.4%	8.5%	8.8%
- Leadership and Communication Skills	0.0%	0.0%	6.7%	0.0%	0.0%	2.1%
<b>Institutions and Context Subjects</b>	<b>79.4%</b>	<b>17.6%</b>	<b>35.4%</b>	<b>44.4%</b>	<b>37.8%</b>	<b>24.2%</b>
- Democratic Institutions and Policy Process	49.3%	5.6%	19.8%	27.8%	8.5%	10.8%
- Ethics, Rights and Accountability	1.0%	0.0%	2.2%	8.3%	10.5%	2.1%
- Socioeconomic, Political, and Global Contexts	29.0%	12.0%	13.3%	8.3%	18.7%	11.3%
<b>Management Function Subjects</b>	<b>1.5%</b>	<b>0.0%</b>	<b>18.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>8.8%</b>
- Public Financial Management	0.0%	0.0%	2.2%	0.0%	0.0%	2.1%
- Evaluation and Performance Measurement	0.5%	0.0%	2.2%	0.0%	0.0%	2.6%
- Other Management Functions	1.0%	0.0%	13.5%	0.0%	0.0%	4.1%
<b>Policy Sector Subjects</b>	<b>9.7%</b>	<b>7.4%</b>	<b>2.2%</b>	<b>0.0%</b>	<b>43.2%</b>	<b>24.2%</b>
- Macroeconomic Policy	2.0%	0.0%	0.0%	0.0%	10.5%	2.6%
- International Development	1.5%	3.7%	0.0%	0.0%	8.2%	2.1%
- Health	1.0%	0.0%	2.2%	0.0%	2.0%	5.2%
- Other Policy Sectors	5.1%	3.7%	0.0%	0.0%	22.4%	14.4%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
Course-Weeks in Core Subjects taken by Typical Student	178	101	224	96	121	110
Surplus or Shortfall Relative to Core Competency Reqs						
- Policy and Mgt Analysis (CCR = 18 course-weeks)	-15	43	40	17	-18	12
- Economic Analysis (CCR = 12)	-9	-12	15	-12	7	4
- Quantitative Methods (CCR = 12)	-10	7	-12	-12	3	1
- Analytic Methods (CCR = 6)	4	-4	-1	13	-6	-6
- Leadership Skills (CCR = 9)	-9	-9	7	-9	-9	-8
- Communication Skills (CCR = 3 courses)	-3	-3	-3	-3	-3	-2
- Democratic Institutions and Policy Process (CCR = 18)	77	-12	30	9	-3	-2
- Ethics, Rights and Accountability (CCR = 6 courses)	-4	-6	-1	2	13	-3
- Socioeconomic and Political Context (CCR = 6)	30	-3	15	-6	-2	1
- Global Context (CCR = 3)	17	7	8	5	27	6
- Public Financial Management (CCR = 6)	-6	-6	-1	-6	-6	-3
- Evaluation and Performance Measurement (CCR = 6)	-5	-6	-1	-6	-6	-2
- Human Resource Management (CCR = 3)	-2	-3	13	-3	-3	-3
- Information and Technology Management (CCR = 3)	-2	-3	2	-3	-3	-2
- Macroeconomic Policy (CCR = 6)	-2	-6	-6	-6	13	-2
- Environment and Sustainability (CCR = 3)	-2	-2	-3	-3	-3	-2
Subject-Matter Shortfall for Typical Student (Sum of Shortfalls)	-69	-75	-26	-69	-62	-34

**Table 6c: PEACO Calculations for Ryerson, Simon Fraser and Saskatchewan-Regina, Toronto and Victoria**

CCR = Core Competency Requirement	Ryerson MAPPA	Simon Fraser MPP	Sask-Reg MPP	Sask-Reg MPA	Toronto MPP	UVic MPA
Number of Courses Required for Graduation	10.0	16.0	12.0	10.0	18.0	16.5
Math-Economics Subjects (EA, QM, Macro, Fin Markets)	3.6%	38.6%	26.8%	19.3%	21.4%	19.4%
Policy-Oriented Subjects	55.7%	68.8%	59.3%	74.4%	70.3%	36.8%
Management-Oriented Subjects	44.3%	31.3%	40.7%	25.6%	29.7%	63.2%
<b>Analysis and Skill Subjects</b>	<b>30.1%</b>	<b>58.0%</b>	<b>48.8%</b>	<b>59.0%</b>	<b>27.1%</b>	<b>62.1%</b>
- Policy and Management Analysis	15.1%	19.3%	26.3%	28.6%	10.9%	21.4%
- Economic Analysis	0.0%	17.0%	8.6%	7.1%	6.7%	9.7%
- Quantitative and Analytic Methods	15.1%	21.6%	9.9%	21.7%	8.1%	10.4%
- Leadership and Communication Skills	0.0%	0.0%	4.1%	1.5%	1.4%	20.7%
<b>Institutions and Context Subjects</b>	<b>44.0%</b>	<b>21.6%</b>	<b>25.6%</b>	<b>14.5%</b>	<b>36.2%</b>	<b>23.4%</b>
- Democratic Institutions and Policy Process	18.7%	17.0%	15.7%	8.5%	13.3%	11.0%
- Ethics, Rights and Accountability	7.2%	0.0%	8.3%	0.3%	8.1%	10.4%
- Socioeconomic, Political, and Global Contexts	18.1%	4.5%	1.5%	5.7%	14.8%	2.0%
<b>Management Function Subjects</b>	<b>10.8%</b>	<b>6.8%</b>	<b>10.1%</b>	<b>2.3%</b>	<b>8.1%</b>	<b>13.8%</b>
- Public Financial Management	3.6%	0.0%	0.3%	0.3%	1.4%	9.7%
- Evaluation and Performance Measurement	0.0%	2.3%	9.1%	1.2%	6.7%	3.4%
- Other Management Functions	7.2%	4.5%	0.8%	0.9%	0.0%	0.7%
<b>Policy Sector Subjects</b>	<b>15.1%</b>	<b>13.6%</b>	<b>15.5%</b>	<b>24.2%</b>	<b>28.6%</b>	<b>0.7%</b>
- Macroeconomic Policy	0.0%	2.3%	9.1%	1.2%	6.7%	0.0%
- International Development	3.6%	2.3%	0.3%	0.3%	5.5%	0.0%
- Health	0.0%	2.3%	1.8%	6.0%	4.2%	0.0%
- Other Policy Sectors	11.4%	6.8%	4.4%	16.8%	12.3%	0.7%
Total	100%	100%	100%	100%	100%	100%
Course-Weeks in Core Subjects taken by Typical Student	98	166	130	92	174	197
Surplus or Shortfall Relative to Core Competency Reqs						
- Policy and Mgt Analysis (CCR = 18 course-weeks)	0	19	20	16	6	24
- Economic Analysis (CCR = 12)	-12	21	0	-3	2	7
- Quantitative Methods (CCR = 12)	-8	25	1	1	5	7
- Analytic Methods (CCR = 6)	8	-2	-5	7	-6	-5
- Leadership Skills (CCR = 9)	-9	-9	-8	-8	-6	31
- Communication Skills (CCR = 3 courses)	-3	-3	-3	-3	-3	-2
- Democratic Institutions and Policy Process (CCR = 18)	4	15	5	-8	11	4
- Ethics, Rights and Accountability (CCR = 6 courses)	3	-6	6	-6	11	15
- Socioeconomic and Political Context (CCR = 6)	11	-2	-5	0	8	-6
- Global Context (CCR = 3)	1	1	-2	-2	14	1
- Public Financial Management (CCR = 6)	-2	-6	-6	-6	-3	13
- Evaluation and Performance Measurement (CCR = 6)	-6	-2	7	-5	8	1
- Human Resource Management (CCR = 3)	1	-3	-3	-3	-3	-2
- Information and Technology Management (CCR = 3)	-3	-3	-2	-2	-3	-3
- Macroeconomic Policy (CCR = 6)	-6	-2	7	-5	8	-6
- Environment and Sustainability (CCR = 3)	-3	1	-3	-3	3	-3
Subject-Matter Shortfall for Typical Student (Sum of Shortfalls)	-51	-37	-36	-52	-24	-26

**Table 6d: PEACO Calculations for British Columbia, Waterloo, Western and York**

CCR = Core Competency Requirement	UBC	Waterloo	Western	York	York
	MPPGA	MPS	MPA	MPIA	MPPAL
Number of Courses Required for Graduation	15.0	14.0	15.0	15.0	9.0
Math-Economics Subjects (EA, QM, Macro, Fin Markets)	23.1%	30.0%	8.3%	8.3%	0.0%
Policy-Oriented Subjects	64.4%	55.0%	37.5%	79.9%	31.3%
Management-Oriented Subjects	35.6%	45.0%	62.5%	20.1%	68.8%
<b>Analysis and Skill Subjects</b>	<b>23.5%</b>	<b>70.0%</b>	<b>25.0%</b>	<b>26.9%</b>	<b>25.0%</b>
- Policy and Management Analysis	0.3%	10.0%	8.3%	8.3%	12.5%
- Economic Analysis	7.7%	20.0%	8.3%	8.3%	0.0%
- Quantitative and Analytic Methods	7.7%	20.0%	8.3%	10.2%	12.5%
- Leadership and Communication Skills	7.7%	20.0%	0.0%	0.0%	0.0%
<b>Institutions and Context Subjects</b>	<b>21.3%</b>	<b>20.0%</b>	<b>41.7%</b>	<b>46.4%</b>	<b>37.5%</b>
- Democratic Institutions and Policy Process	15.4%	10.0%	25.0%	12.1%	12.5%
- Ethics, Rights and Accountability	4.3%	0.0%	8.3%	3.8%	25.0%
- Socioeconomic, Political, and Global Contexts	1.5%	10.0%	8.3%	30.5%	0.0%
<b>Management Function Subjects</b>	<b>8.0%</b>	<b>10.0%</b>	<b>33.3%</b>	<b>0.0%</b>	<b>37.5%</b>
- Public Financial Management	0.3%	0.0%	8.3%	0.0%	12.5%
- Evaluation and Performance Measurement	0.0%	0.0%	8.3%	0.0%	12.5%
- Other Management Functions	7.7%	10.0%	16.7%	0.0%	12.5%
<b>Policy Sector Subjects</b>	<b>47.2%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>26.7%</b>	<b>0.0%</b>
- Macroeconomic Policy	7.7%	0.0%	0.0%	0.0%	0.0%
- International Development	28.6%	0.0%	0.0%	3.8%	0.0%
- Health	0.0%	0.0%	0.0%	1.9%	0.0%
- Other Policy Sectors	10.9%	0.0%	0.0%	21.0%	0.0%
Total	100%	100%	100%	100%	100%
Course-Weeks in Core Subjects taken by Typical Student	118	151	165	139	108
Surplus or Shortfall Relative to Core Competency Reqs					
- Policy and Mgt Analysis (CCR = 18 course-weeks)	-17	-1	-3	-3	-5
- Economic Analysis (CCR = 12)	2	22	3	3	-12
- Quantitative Methods (CCR = 12)	2	5	-12	-12	-12
- Analytic Methods (CCR = 6)	-6	11	9	12	8
- Leadership Skills (CCR = 9)	-9	8	-9	-9	-9
- Communication Skills (CCR = 3 courses)	11	14	-3	-3	-3
- Democratic Institutions and Policy Process (CCR = 18)	10	-1	27	4	-5
- Ethics, Rights and Accountability (CCR = 6 courses)	2	-6	9	1	21
- Socioeconomic and Political Context (CCR = 6)	-6	11	-6	18	-6
- Global Context (CCR = 3)	0	-3	12	28	-3
- Public Financial Management (CCR = 6)	-5	-6	9	-6	8
- Evaluation and Performance Measurement (CCR = 6)	-6	-6	9	-6	8
- Human Resource Management (CCR = 3)	11	-3	12	-3	11
- Information and Technology Management (CCR = 3)	-3	-3	-3	-3	-3
- Macroeconomic Policy (CCR = 6)	8	-6	-6	-6	-6
- Environment and Sustainability (CCR = 3)	6	-3	-3	4	-3
Subject-Matter Shortfall for Typical Student (Sum of Shortfalls)	-53	-38	-45	-51	-66

