Carnegie Mellon University
HeinzCollege
INFORMATION SYSTEMS • PUBLIC POLICY • MANAGEMENT

Academic Year 2024-2025

Master of Science in Public Policy and Management (MSPPM) Student Handbook Addendum
Updated 10/8/2024

Degree Programs Covered by This Handbook:
MSPPM 2: Two-Year Track
MSPPM 3: Three-Semester Track
MSPPM-DC: Washington, D.C. Track
MSPPM-DA: Data Analytics Track

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1. Introduction

This handbook provides specific information on the curriculum and program requirements for the Master of Science in Public Policy and Management (MSPPM) program. The Heinz College also publishes a separate handbook which details College-wide policies and procedures pertaining to educational planning, program committee, teaching, scheduling and course credit, performance standards, academic standing, ethics and discipline, student privacy rights and major forms and deadlines.

While this handbook is specific to your academic experience in the department, it is just one element of the Graduate Student Handbook Suite. There are several other resources within the suite that you should consult when needed:
- The Heinz College Handbook
- University-Wide Graduate Student Handbook (Office of Graduate & Postdoctoral Affairs)
- The Word Student Handbook

2. MSPPM Mission Statement

The Heinz College educates students of intelligent action. Its Master of Science in Public Policy and Management program prepares ethical leaders who analyze and implement policy; ground decisions in scientific evidence; create, transform, and manage organizations; and develop innovative solutions to important societal issues around the world.

We achieve that end through curricular and co-curricular activities that stress problem-solving and team-based learning within a diverse community of individuals who are committed to serving the public interest.

3. Department Personnel

The staff listed below are directly associated with the MSPPM program. There is a robust team at Heinz College and CMU available to help you navigate your education, from financial aid and student services to disability services and more.

Alexandra Lutz	Interim Associate Dean for Public Policy, Program Director for MSPPM	alutz@cmu.edu
Marie Coleman	Executive Director, Heinz College Washington, D.C.	mcoleman@andrew.cmu.edu
Angeline Sandor	Academic Advisor, MSPPM-DA Track	asandor@andrew.cmu.edu
Jessi Znosko	Academic Advisor, MSPPM 2, MSPPM 3, and D.C. Tracks	jessi@cmu.edu
Annie Julian	Associate Director of Student Affairs	ajulian@cmu.edu
Diane Taylor	Senior Associate Director, Career Advisor for MSPPM-DA and D.C. Tracks	detaylor@andrew.cmu.edu
Tiaona Cade	Assistant Director, Career Advisor for MSPPM 2 and 3 Tracks	tcade@andrew.cmu.edu

4. Curriculum Requirements

You will complete the MSPPM two-year program (flagship, D.C., or DA track) in four consecutive semesters and the MSPPM three semester program in three consecutive semesters, excluding the summer semester. The MSPPM curriculum is structured with a set of common core courses, a set of bin course requirements, and free electives. To successfully complete the MSPPM program, you must complete the following:

- 192 units of course credit (2-year, D.C., and Data Analytics tracks) or 162 units of course credit (3-semester track),
  - You can take a maximum of 36 units of graduate-level, degree-relevant courses outside of the Heinz College to count towards your unit minimum.
- All core courses (unless you exempt them),
- Advanced / Bin coursework as applicable (see requirements for your track and semester start),
- Internship between the first and second year (required for MSPPM 2, D.C., and MSPPM-DA programs),
  - optional for MSPPM 3 program

- DC Track students are required to complete a Heinz Policy Fellowship during their second year in Washington, DC.
- All other standards for graduation, including meeting minimum grade point averages.

If you began your MSPPM program **prior to Fall 2024**, you must reference your [specific handbook](#) for curriculum requirements. Your handbook would be the one created the semester you entered your program (for example, Fall 2022 or Fall 2023).

You must take common core courses in the sequence shown below unless you obtain permission in advance from your Academic Advisor.

4.1.   F24 Start MSPPM 2 (Two-Year) Track Core Requirements

Fall Core Courses		
No.	**Course Title**	**Units**
90-710 or 90-709	Applied Economic Analysis or Intermediate Economic Analysis	12
90-707 or 90-711 or 90-777	Statistical Reasoning or Statistical Reasoning with R or Intermediate Statistics (6 units)	12
94-701 or 90-717	Business Writing or Writing for Public Policy	6
90-718 or 94-718	Strategic Presentation Skills or Communication in XR	6
94-700	Organizational Design & Implementation	6
	Electives/Advanced Courses	6
	Semester Units	**48**
Spring Core Courses		
90-713 or 90-714	Policy & Politics: An International Perspective or Policy & Politics in American Political Institutions	12
90-723	Financial Statements and Analysis for Companies	6
90-728	Introduction to Database Management	6
90-722 and 90-760	Management Science I: Optimization and Management Science II: Decision and Risk Modeling	6 6

		Electives/Advanced Courses	12
		Semester Units	**48**
94-900	**Summer Internship (Required)**		0
Fall or Spring Courses			
9X-XXX	Policy Domains*		12
9X-XXX	Policy Methods*		12
9X-XXX	Management*		6
	Systems Synthesis/Capstone (Fall or Spring semester of second year)		12
	Electives (more if exempt from core courses)		54
		Total Units	**192**
*Select from a pre-approved list of courses that follow			

4.2. F24 Start MSPPM 3 (Three-Semester) Track Core Requirements

Fall Core Courses		
No.	**Course Title**	**Units**
90-710 or 90-709	Applied Economic Analysis or Intermediate Economic Analysis	12
90-707 or 90-711 or 90-777	Statistical Reasoning or Statistical Reasoning with R or Intermediate Statistics (6 units)	12
94-701 or 90-717	Business Writing or Writing for Public Policy	6
90-718 or 94-718	Strategic Presentation Skills or Communication in XR	6
94-700	Organizational Design & Implementation	6
	Electives/Advanced Courses	12
	Semester Units	**54**
Spring Core Courses		
90-713 or 90-714	Policy & Politics: An International Perspective or Policy & Politics in American Political Institutions	12

90-723	Financial Statements and Analysis for Companies	6
90-728	Introduction to Database Management	6
90-722 and 90-760	Management Science I: Optimization and Management Science II: Decision and Risk Modeling	6 6
	Electives/Advanced Courses	18
	Semester Units	**54**
Fall Semester		
9X-XXX	Policy Domains*	12
9X-XXX	Policy Methods*	12
9X-XXX	Management*	6
	Systems Synthesis/Capstone	12
	Electives/Advanced Courses	12
	Semester Units	**54**
	Total Units	**162**
*Select from a pre-approved list of courses that follow		

4.3. F24 Start MSPPM-DC Track Core Requirements

MSPPM-DC students have the same core and bin requirements as MSPPM 2 students; however, bin requirements are incorporated in the second year required coursework, and there are additional requirements to meet. It is important to follow the curriculum sequence.

MSPPM-DC students also have the same required summer internship; however, they also must complete a Heinz Policy Fellowship during the second year while in Washington, D.C.

MSPPM-DC students also have additional course options during their second year in Washington, D.C. For the most up to date list of courses, use the Schedule of Classes to search for specific courses at the Washington, D.C. campus.

Teaching Location

Washington, District of Columbia

4.3.1. MSPPM-DC First Year Requirement

MS-DC students need to successfully complete 108 units during their first year in Pittsburgh and maintain a QPA of 3.0 or higher in order to proceed to the second year in Washington. Students that fail a required core class or fall below the minimum QPA requirement will be advised to transfer into the Pittsburgh MSPPM two year program to focus on the successful completion of coursework. We incorporate this requirement since we only offer a limited amount of advanced coursework in DC, and core classes are only offered in person in Pittsburgh.

Students who fail a class or fall behind in classes while in DC may not be able to make up the work without returning to Pittsburgh to attend class or delaying graduation.

4.3.2. MSPPM-DC Typical Sequence

Fall	Pittsburgh (54 Units Total)	Units
90-710 90-709	Applied Economic Analysis or Intermediate Economic Analysis	12
90-707 or 90-711 or 90-777	Statistical Reasoning or Statistical Reasoning with R or Intermediate Statistics (6 units)	12
94-701 or 90-717	Business Writing or Writing for Public Policy	6
90-723	Financial Statements and Analysis	6
94-700	Organizational Design & Implementation	6
	Fall Electives (minimum)	12
	Total semester units	**54**
	Spring Pittsburgh (54 Units Total)	
90-713 or 90-714	Policy and Politics an International Perspective or Policy & Politics in American Institutions	12
90-718 or 94-718	Strategic Presentation Skills or Communication in XR	6
90-722	Management Science I: Optimization (mini 3)	6
90-760	Management Science II: Decision and Risk Modeling (mini 4)	6

90-728	Introduction to Database Management	6	
	Spring Electives (minimum)	18	
	Total semester units	**54**	
	TOTAL FIRST YEAR	**108**	
94-900	**Summer Internship** **(Required, but waivers can be requested or internship combined with the Heinz Policy Fellowship)**	0	
	Washington DC (84 Units total - both semesters)		
FALL			
90-888	DC Fellowship Practicum	6	
90-829	Design Thinking for Public Policy	6	
90-894	Policy Topics I: Federal Budget Policy	6	
90-823	Program Evaluation	12	
90-855	Leadership/Management Seminar: How Washington Works	6	
90-884	Systems: Project Planning	3	
90-899	Fellowship (in DC, M-Thurs, 30 hours per week, Sept – May)	1	
	Electives - Fall	8	
	Total semester units	**48**	
SPRING			
90-824	Cost Benefit Analysis	6	
90-739	Systems Synthesis I (fall Planning and spring Systems Synthesis)	12	
90-889	Fellowship (in DC, M-Thurs, 30 hours per week, Sept – May)	1	
	Electives: Spring	17	
	Total semester units	**36**	
	TOTAL SECOND YEAR	**84**	
	Total Units	**192**	

4.4. F24 Start MSPPM 2 and MSPPM 3 Bin Course Requirements

The coursework beyond the core can be characterized as structured choice. Students are required to take each of the following bins: policy domains courses (12 units), policy

methods courses (12 units), and a management course (6 units). Bin requirements for DC students are incorporated into the second year required classes in DC so DC students do not need to track bin requirements.

4.4.1.   F24 Start Policy Domain Courses (12 Units Required)

Policy Domains courses are designed to provide you with an opportunity to explore the substantive aspects of policy making within the context of several policy areas. The complete list of pre-approved courses is listed below.

No.	Title	Units
90-702	Poverty Reduction and Social Policies in Developing Countries	6
90-703	Gender, Politics, and Policies: US and Across the World	6
90-704	Racial and Gender Impact on US Social Policies	12
90-734	Urban Policy	6
90-743	Urban and Regional Economic Development	12
90-748	Real Estate Development	6
90-750	Civic Engagement as a Community Process	6
90-752	Rise of the Asian Economies	12
90-754	Elective Politics and Policy-Making	6
90-769	Critical AI Studies for Public Policy	6
90-784	Affordable Housing Policy and Finance	6
90-789	Resilient & Sustainable Communities	12
90-798	Systems Analysis: Environmental Policy	12
90-805	Issues in Global Urbanization	3,6
90-808	US Energy and Climate Policy	6
90-810	Racial and Environmental Social Justice Movements	6
90-817	Education Finance and Policy	12
90-840	The Media & American Politics	6
90-843	Development Financial Tools for Sustainable Economic Development	3
90-860	Policy in a Global Economy	12
90-861	Health Policy	6
90-865	Policy and Leadership in Public Education	6

90-882	Behavioral Economics in Public Policy	12
94-705	Health Economics	12
94-806	Privacy in the Digital Age	6
94-845	Smart Cities: Growth and Intelligent Transportation Systems	6
95-743	Cybersecurity Policy and Governance I	6
95-744	Cybersecurity Policy and Governance II	6

4.4.2. F24 Start Policy Methods Courses (12 Units Required)

Policy Methods courses deepen your understanding of both the tools and methods for analysis. Many of these courses count toward your concentration area. The complete list of pre-approved courses is listed below.

No.	Title	Units
90-712	Quantitative Analysis of Income Inequality	12
90-730	Policy Analysis in Practice	12
90-745	Methods of Policy Analysis: Future of Work	6,12
90-747	Cost Benefit Analysis	6
90-749	Cost Benefit Analysis: A Capital Budgeting Approach	6
90-753	Advanced Geographic Information Systems	6
90-762	Macroeconomics	12
90-770	Econometrics for Policy	12
90-783	Policy Innovation Lab	6
90-822	Critical Analysis of Policy Research	12
90-823	Program Evaluation	12
90-834	Health Care Geographical Information Systems	12
90-872	Using R for Policy Data Analysis	6
90-894	Policy Topics I: Federal Budget Policy	6
94-802	Geographic Information Systems	12
94-827	SAS for Public Policy	6
94-833	Decision Analysis and Multicriteria Decision Making	6
94-834	Applied Econometrics I	6
94-835	Applied Econometrics II	6

4.4.3. F24 Start Management Courses (6 Units Required)

Additional Management courses are designed to equip you to lead and manage organizations in the public interest. The complete list of pre-approved courses is listed below.

No.	Title	Units
90-736	Public Finance	12
94-719	Budgetary Planning and Analysis	6
94-800	Negotiation	6
94-801	Acting for Leadership and Communication	6
94-811	Strategy Development	6
94-813	Project Management	6
94-814	Evidence-Based Management	6
94-822	Organizational Change	6
94-837	Leading with Equity & Inclusion	6
94-838	Advanced Project Cost Mgmt with Power BI	6
94-854	Developing as a Leader	6
94-865	Data Analytics for Decision Making	6
94-869	Conflict Resolution	6
94-883	Applied Ethical Analysis	6

4.5. F24 Start MSPPM-DA (Data Analytics) Track Core Requirements

Fall 1 Core Courses		Units
90-710 or 90-709	Applied Economic Analysis or Intermediate Economic Analysis	12
90-777	Intermediate Statistics (mini-1)	6
94-701 or 90-717	Business Writing or Writing for Public Policy	6
90-819 or 95-888	Intermediate Programming with Python (mini-1) or Data Focused Python (mini-1)	6
90-800	Exploratory Data Analysis and Visualization in Python (mini-2)	6
90-838	Database Management for Policy Analytics	12

		semester units	48
Spring 1 Core Courses			
90-713 or 90-714	Policy & Politics: An International Perspective or Policy & Politics in American Political Institutions		12
90-755 and 90-775	Optimization (mini-3) and Decision and Risk Modeling (mini-4)		6
94-834	Applied Econometrics I (mini-3)		6
94-835	Applied Econometrics II (mini-4)		6
90-803	Machine Learning Foundations with Python		12
		semester units	48
94-900	**Summer Internship (Required)**		0
Fall and Spring 2 Courses			
94-700	Organizational Design & Implementation (Fall only)		6
94-867	Decision Analytics for Business and Policy (Fall only)		12
90-718 or 94-718	Strategic Presentation Skills (Fall only) or Communication in XR		6
95-719	Accounting and Finance Analytics (Fall only)		6
	Electives (more if exempt from core courses)		54
	Systems Synthesis Project/Capstone (Fall or Spring semester of second year)		12
		Total Units	**192**

4.6.   Non-Heinz Graduate Courses Counting Towards Your Degree

To fulfill the elective requirements for graduation, you may take relevant graduate-level courses outside of the Heinz College. You can take a maximum of 36 units of graduate-level, degree-relevant courses outside of the Heinz College to count towards your 192 (two year) or 162 (three semester) unit minimum.

If you wish to count a course(s) outside of Heinz towards your degree, you must have Academic Advisor approval, and you must submit a General Petition form prior to the start of the course.

5.   Systems Synthesis/Project Coursework

Students must take a minimum of 12 units of a Systems Synthesis or project course. Systems Synthesis courses are taken either the first or second semester of the second year of the program. To fulfill this requirement, you can elect to take one of of the following:

- one semester of 90-739, System Synthesis or 94-739 Capstone Project
- one semester of 94-891 Lean Innovation Lab (18 units)
- one semester of 90-719, Physical Technical Systems
- other project courses offered by the Heinz College on an occasional basis.
- DC Track students will complete systems in DC and will register for 3 units Systems Planning in the Fall and 12 units of Systems Synthesis in the spring.

Physical Technical Systems projects are run jointly with the Department of Engineering and Public Policy and with the Department of Social and Decision Sciences.

Most project courses are organized around significant public interest or management problems, the solution to which requires a mix of technological, economic, social, and political skills. Most project courses are sponsored by a public or not-for-profit agency or have a project advisory committee of people from a range of agencies interested in the project's outcome. As opposed to the traditional classroom setting, project courses are organized as an exercise in group problem solving. Students are divided into teams guided by faculty.

5.1.   Registration for Systems Synthesis/Project Coursework

The Program Director or equivalent will reach out to students by the end of the semester prior to the project (ie, summer before fall semester or fall semester before spring semester) in regards to project preferences. Students will be placed in groups and registered by Heinz Academic Services. Students do not register for Systems Synthesis on their own.

5.2.   Development of Systems Synthesis Projects

Typically, proposals are generated by faculty and by organizations external to the School of Public Policy and Management. In recent years, some successful proposals have come from students with an interest in a particular problem. The MSPPM Program Director, Associate Dean, and other faculty designated by the Dean are available to assist students who are interested in developing their own proposals. If you are interested in organizing a project,

you must submit a proposal to the MSPPM Program Director including as many of the following items as possible:

- a brief description of the system to be studied,
- the system client,
- the kinds of alternative improvements to be considered,
- the types of data that would be used in such an analysis and how you intend to gather that data,
- the analytical approaches you anticipate you will use in the study,
- the feasibility of completing the project in one semester, and
- the name(s) of proposed faculty advisors.

It is certainly not necessary to have all the aspects of a project listed above in place to submit a proposal. If you need assistance with any aspect of developing a project, contact the MSPPM Program Director. The most critical factors are a well-defined project idea, data availability for analysis, significant interest from students, the feasibility of completing the project, and the ability of the Associate Dean to assign a faculty member to supervise the project. The latter depends a great deal on the needs for individual faculty to teach other courses in the curriculum.

6. Independent Studies for Student Research

As explained in the [Heinz College Handbook](), Independent Study courses allow for one-on-one interaction between a professor and a student. To receive approval for an independent study course, you must submit an [Independent Study Contract]() to the faculty advisor and your Academic Advisor accompanied by a memorandum which describes the plan for this independent study course and includes the number of units to be earned, the deliverables of the independent study (i.e., a paper or series of papers, etc.), and grading criteria.

Students in the MSPPM program are required to submit 25-30 pages for a 12-unit independent study and 12-15 pages for a 6-unit independent study.

7. Concentration Areas

As an MSPPM student, you are recommended—but not required—to declare a concentration. Depth in some field or application area is useful both for getting a first job and excelling at it. Some MSPPM students design their own concentrations with prior approval from the Program

Director. In addition, while not a concentration, we offer a Pre-PhD option for the occasional student who wishes to pursue a PhD after completing the MSPPM.

It is important to note that not all the courses listed are offered in every academic year. It is also possible that the semester in which a course is offered may change from year to year and additional courses may be offered. You should consult with the faculty leader for courses that best match your academic and career interests. In addition, consult current course schedules for updated information.

Students opting to pursue a concentration, must submit the Concentration Declaration Form on the Heinz College website. This form can be submitted when you decide to declare the concentration; there is no need to wait until the coursework has been completed to do so. If a concentration course is substituted during the program, Academic Services can make these changes.

Heinz College will issue certificates to students who complete concentrations after degree completion. If a student has questions regarding this process, please contact the program's Academic Advisor or Heinz Academic Services.

Students in the Data Analytics pathway cannot declare an additional concentration. The Washington, D.C. program is designed for students completing the Policy Analysis concentration; other concentrations could be completed but it would require early planning with your advisor to design, identify and complete the classes required.

7.1.   AI Management

AI is intertwined with everyday life. In entertainment, health care and cybersecurity, in Silicon Valley and on Capitol Hill, changemakers are using AI to address the problems that have stymied our efforts to solve them. To maximize the impact AI can have while minimizing its risk of harm, the world needs leaders who understand the entire AI life cycle and steer the technology toward the greater good.

If you have questions about this concentration, contact Alexandra Lutz.

7.1.1. Curriculum for the AI Management Concentration

To obtain the concentration in AI Management, students are required to take 36 units from the courses listed below, including 18 units of foundational courses.

Foundation Courses:			
94-703 OR 95-891	Demystifying AI OR Introduction to AI (please review technical prerequisites)	Fall, Spring	6 units
94-885	Responsible AI: Principles, Policies, Practices	Fall, Spring	6 units
94-879	Fundamentals of Operationalizing AI	Fall, Spring	6 units
Additional Concentration Courses (Please be sure to review technical prerequisites when selecting elective courses)			
90-769	Critical AI Studies for Public Policy	Fall	6 units
93-830	Disruptive Technologies in Arts Enterprises	Fall, Spring	6 units
94-717	Systems Thinking & Discrete Event Simulation	Spring	6 units
94-812	Applications of NL(X) and LLM	Fall, Spring	6 units
94-815	Agent-Based Modeling and Digital Twins	Fall, Spring	6 units
94-816	Generative AI: Applications, Implications, and Governance	Fall, Spring	6 units
94-829	Advanced AI and Business Strategy	Fall, Spring	6 units
94-844	Generative AI Lab	Fall, Spring	6 units
94-881	Managing Analytics Projects	Fall, Spring	6 units
94-889	Machine Learning for Public Policy Lab	Fall	12 units
95-767	Cybersecurity for Artificial Intelligence & Machine Learning	Fall	6 units
95-828	Machine Learning for Problem Solving	Spring	12 units
95-851	Making Products Count: Data Science for Product Managers	Fall, Spring	6 units

7.2. Cybersecurity & Management

Cyber threats to public, private, and non-profit sectors continue to increase with the potential to cause wide- spread disruption to the health and safety of citizens, economic growth and stability, and national security.

People, processes, technologies, and policies are key ingredients in building a usable and durable approach to addressing the cyber challenge. Cyber security policy is the cornerstone of developing productive public-private partnerships, necessary for sharing vital threat information, coordinating responses to threats, and fortifying defenses. The Cyber Security Policy and Management concentration provides students with a

fundamental understanding of the cyber challenge and explores the ways in which policy enhances the effectiveness of traditional approaches to managing cyber threat. There is significant unmet demand for cyber security policy analysts and managers in all sectors of employment.

If you have questions about this concentration, [Randy Trzeciak](). Further information on public policy and management careers in the cyber security profession is available from the [National Initiative for Cybersecurity Careers and Studies]().

7.2.1. Curriculum for the Cybersecurity & Management Concentration

There are three foundational courses. Additional concentration courses allow students to further enhance their technical understanding of cyber security (for example, 95-748 Software and Security or 95-758 Network and Internet Security) or to develop specific expertise in critical policy areas such as privacy (94-806 Privacy in the Digital Age). While computer programming is not a prerequisite for this concentration, some cyber-security concentration courses such as 95- 748 Software and Security may involve exposure to minor coding or script development concepts. Prior programming experience is not necessary to enroll in these courses but if you are interested in building knowledge, skills, and abilities with a programming language consider taking 90-812 Introduction to Programming with Python.

To obtain the concentration in Cyber Security Policy and Management, students are required to take at least 48 units of coursework, including 24 units of foundational courses, as follows.

Foundation Courses:			
95-752	Introduction to Information Security Management	Fall	12 units
95-743	Cybersecurity Policy and Governance II	Spring	6 units
95-744	Cybersecurity Policy and Governance I	Fall, Spring	6 units
Additional Concentration Courses (Heinz):			
94-806	Privacy in the Digital Age	Fall	6 units
95-723	Managing Disruptive Technologies	Fall, Spring	6 units
95-747	Security Data Analytics	Fall, Spring	6 units
95-748	Software and Security	Fall, Spring	6 units
95-749	Cryptography	Spring	6 units
95-755	Information Security Risk Management I	Fall, Spring	6 units

95-757	Information Security Policy & Management	Spring	6 units
95-758	Network and Internet Security	Fall, Spring	12 units
95-759	Malicious Code Analysis	Spring	6 units
95-810	Blockchain Fundamentals	Fall	6 units
95-818	Privacy Policy, Technology, and Law	Fall	12 units
95-824	Policies of Wireless Systems	Fall	12 units
95-844	Introduction to Cyber Intelligence	Fall	6 units
95-878	Engineering Privacy in Software	Spring	12 units
95-889	Applied Threat Analysis	Spring	6 units
Additional Concentration Courses (Information Networking Institute):			
14-761	Applied Information Assurance	Fall, Spring	12 units
14-823	Network Forensics	Fall	12 units
14-829	Mobile and IoT Security	Fall	12 units
14-735	Secure Coding	Fall	12 units
14-819	Introduction to Software Reverse Engineering	Spring	12 units
14-822	Host Based Forensics	Spring	12 units

7.3. Energy Systems & Public Policy

This Master of Science in Public Policy and Management (MSPPM) concentration is for students who have a science or engineering background and who seek a career in energy policy and management. The program is designed to prepare graduates for leadership positions in one of the many energy-related job markets where public policy and management skills are valued. These include opportunities in government, non-profits, consulting firms, traditional utility companies and energy suppliers, and alternative and renewable energy companies. Unique to this concentration are in-depth public policy and management knowledge, decision frameworks, and data analytic skill-bases with sufficient science and engineering background to effectively guide design, adoption, implementation, and management of innovative energy policies.

This concentration is a partnership between the School of Public Policy and Management at the Heinz College and the Engineering College's Energy Science, Technology and Policy (EST&P) master's degree program. The students in this energy policy and management concentration will benefit from the research and experiential opportunities made possible by the University's Wilton E. Scott Institute for Energy Innovation and its mission of,

"...developing and demonstrating the technologies, systems and policies needed to make the transition to a
sustainable energy future...[including] an understanding of the intersection of energy and public policy...."

If you have questions about this concentration, contact Karen Clay.

7.3.1.   Curriculum for the Energy Systems and Public Policy Concentration

Foundation courses for the concentration, listed below, are the energy core courses of the EST&P program and cover energy supply, demand, storage, utilization, policy, sustainability, and the environment. Additional concentration coursework, selected by the student in consultation with his/her academic advisor, can be drawn from a list of Heinz College courses, Tepper School of Business courses, and courses in the Engineering College's six departments (Chemical Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Engineering and Public Policy, Materials Science and Engineering, and Mechanical Engineering).

To obtain the concentration, students are required to take at least 48 units of coursework, including 24 units of foundational courses, as follows.

Foundation Courses (to be taken by all students in the concentration):			
39-610	Energy Conversion and Supply	Fall	6 units
39-613	Energy Transport and Storage	Fall	6 units
39-611	Energy Demand and Utilization	Spring	6 units
39-612	Energy Policy & Economics	Spring	6 units
Additional Concentration Courses (Heinz College):			
90-749	Cost Benefit Analysis	Spring	6 units
90-808	US Energy and Climate Policy	Fall	6 units
90-789	Resilient & Sustainable Communities	Spring	12 units
90-730	Policy Analysis in Practice	Fall	12 units
90-754	Elective Politics and Policymaking	Spring	6 units
90-798	Systems Analysis: Environmental Policy	Fall	12 units
94-854	Developing as a Leader	Fall, Spring	6 units

Additional Concentration Courses (Tepper School) *:			
45-928	Energy Finance	Spring	6 units
45-863	Risk Analytics	Fall	6 units
45-960	Sustainable Operations	Spring	6 units

*Note that Heinz College students in the Energy Systems and Public Policy concentration do not have priority for registering in Tepper School courses.

7.4.   Environmental Policy

The Environmental Policy Concentration provides students interested in environmental policy and planning with concepts, knowledge, and tools in the environmental area.

If you have questions about this concentration, contact [Karen Clay](#).

7.4.1.   Curriculum for the Environmental Policy Concentration

Foundation courses in the concentration provide a broad survey of the area; which covers the economics of regulation; and or, which address primary drivers of pollution. Population growth, urbanization, and energy use are primary drivers of environmental pollution, so policy makers need a grounding in these areas. Global warming occupies center stage and sustainability is critical. Of course, there is a technical side to the environmental area, so students benefit by taking at least one course with engineers.

Students interested in the Environmental Policy Concentration are required to complete at least 48 units of coursework from the lists below.

Foundation Course:			
90-798	Systems Analysis: Environmental Policy	Fall	12 units

Additional Concentration Courses:			
90-730	Policy Analysis in Practice	Fall	12 units
90-749	Cost Benefit Analysis	Spring	6 units
90-754	Elective Politics and Policymaking	Spring	6 units
90-765	Cities, Technology, and the Environment	Spring	6 units
90-789	Resilient & Sustainable Communities	Spring	12 units
90-808	US Energy and Climate Policy	Fall	6 units

94-854	Developing as a Leader	Fall, Spring	6 units
12-712	Sustainable Engineering Principles (Civil and Environmental Engineering, has limited calculus)	Fall	12 units
39-610	Energy Conversion and Supply	Fall	6 units
39-611	Energy Demand and Utilization	Spring	6 units
39-612	Energy Policy and Economics	Spring	6 units
39-613	Energy Transport and Storage	Fall	6 units

7.5. Health Policy

The health policy concentration enhances students' education by teaching them how to think strategically about the economic, political, and financial environment in which healthcare is delivered and equipping them with the technical and analytic tools needed to develop and analyze health policy.

If you have questions about this concentration, contact [Professor Laura Synnott](#).

7.5.1. Curriculum for the Health Policy Concentration

To provide students with fundamental knowledge in areas unique to healthcare, students are required to take at least 48 units of coursework from the following foundation and additional concentration course lists.

While students can take any combination of foundation and additional concentration courses, it is recommended that students, particularly those without prior health care industry experience, prioritize the foundation courses.

Foundation Courses:			
90-836	Health Systems	Fall	6 units
90-861	Health Policy	Spring	6 units
94-705	Health Economics	Fall	12 units

Additional Concentration Courses:			
90-730	Policy Analysis in Practice	Fall	12 units
90-823	Program Evaluation	Fall, Spring	12 units
90-832	Health Law	Spring	6 units
90-834	Health Care Geographical Information Systems	Spring	12 units
94-706	Health Care Information Systems	Spring	12 units

7.6. International Trade & Development

The International Trade and Development Concentration provides students interested in international economics, economic development, and international relations with the analytical frameworks and conceptual tools they need to understand the current public policy debates in this area. This concentration allows students to learn about the main drivers of the globalization process, the impact that globalization has had on trade, investment, and development, as well as major policy changes occurring in the international economic, political, and strategic environment.

Courses in this concentration will analyze:
- The main analytic methods and approaches used in international relations.
- The foundational economic models used to understand the contemporary global trading system, international financial markets, and the operation of multinational enterprises.
- The analytical tools and frameworks needed to understand the rise of Asia as a major center of the global economy.
- Human rights, conflict and development problems affecting selected Latin American, African, and Asian countries.
- Comparative approach to poverty, social policy, and inequality
- Trade relations with a special focus on Asia and the U.S.
- Economics of development
- Social Movements and their socioeconomic impact

These courses and tools are essential for students who wish to become effective policy makers, analysts, and managers in international organizations, and in the public and private sectors both in the U.S. and in other countries.

The International Trade and Development Concentration is jointly led by Professors [Lee Branstetter](#) and [Silvia Borzutzky](#). Interested students are encouraged to approach either faculty member with questions about the concentration, its courses, courses outside of Heinz College, or further resources for international study and research at Carnegie Mellon.

7.6.1. Curriculum for the International Trade & Development Concentration

The International Trade and Development concentration provides students with a menu of courses offered by the Heinz College that explore the phenomena of

globalization, international development, international policy, and trade issues in depth and from multiple perspectives. All students are strongly encouraged to take the core course, 90-713 Policy and Politics an International Perspective, and the concentration foundation course, 90-860 Policy in a Global Economy. These courses provide students with the frameworks essential to understand economic globalization and the political issues that shape its evolution on the other.

Interested students are also given the option of enrolling in international courses outside the Heinz College. Students interested in such courses should seek the advice and consent of the concentration director prior to enrollment. This faculty member can help guide students to outside courses that meet the Heinz College's standards of quality and rigor.

To obtain the concentration, students are required to take at least 48 units of coursework.

Foundation Course:			
90-860	Policy in a Global Economy	Fall	12 units

Additional Concentration Courses:			
90-703	Gender, Politics and Policies in the US and Across the World	Fall	6 units
90-704	Poverty, Inequality, and Social Policies: An International Comparison /Racial and Gender Impact on US Social Policies	Fall	6 units
90-745	Methods of Policy Analysis: The Future of Work	Spring	6, 12 units
90-752	Rise of the Asian Economies	Fall	12 units
90-763	Human Rights, Conflicts, and Development	Fall	6 units
90-810	Social Movements / Racial and Environmental Social Justice Movements	Fall	6 units
90-822	Critical Analysis of Policy Research	Fall	12 units
94-859	International Crisis Negotiation Exercise	Spring	3 units

7.7. Leading Across Difference Concentration

Equip aspiring leaders with the essential skills and knowledge required to lead and manage diverse teams in an increasingly interconnected world. By participating in this concentration, you will gain valuable insights into cultural dynamics, interpersonal relationships, and inclusive leadership practices, propelling your career forward in any sector.

Learning outcomes:
- Cultivate cultural intelligence and responsiveness.
- Deepen negotiation and resolution across difference
- Hone your leadership capabilities in managing diverse teams
- Gain a competitive edge in the global job market

If you have questions about this concentration, contact [Professor Dareen Basma](#).

7.7.1. Curriculum for the Leading Across Difference Concentration

Students in this concentration are required to complete all the coursework from the following list of courses.

Foundation Courses:			
94-854	Developing as a Leader	Fall, Spring	6 units
91-869	Conflict Resolution	Fall, Spring	6 units
94-900	Negotiation	Fall, Spring	6 units
94-879	Leading Across Differences	Spring	6 units

7.8. Management

This concentration is designed to ensure that students achieve a thorough understanding of management, planning, managerial decision-making, and organizational analysis and development within organizations that pursue the public interest.

If you have questions about this concentration, contact [Professor David Krackhardt](#).

7.8.1. Curriculum for the Management Concentration

Students in the Management Concentration are required to complete at least 48 units of coursework from the following list of foundation and additional courses.

While students can take any combination of foundation and additional concentration courses, it is recommended that students prioritize the foundation courses.

Foundation Courses:			
94-814	Evidence-Based Management	Fall	6 units
94-854	Developing as a Leader	Fall, Spring	6 units
	Negotiation	Fall, Spring	6 units
Additional Concentration Courses:			
91-809	Organizational Change	Spring	6 units
94-800	Negotiation	Fall, Spring	6 units
94-801	Acting for Management	Fall, Spring	6 units
94-803	Consulting Lab	Fall, Spring	6 units
94-808	Management Consulting	Fall, Spring	12 units
90-825	Innovation Management in Practice	Fall	6 units
94-811	Strategy Development	Fall, Spring	6 units
94-813	Project Management	Fall, Spring	6 units
94-881	Managing Analytic Projects	Fall, Spring	6 units
94-883	Applied Ethical Analysis	Fall, Spring	6 units
19-694	Leadership and Innovation Management	Fall	6 units

7.9. Policy Analysis

The Policy Analysis Concentration prepares students to understand and solve policy problems of importance to the public and not-for-profit sectors.

If you have questions about this concentration, contact [Professor Amelia Haviland](#).

MSPPM-DC students are automatically required to complete this concentration during their program of study.

7.9.1. Curriculum for the Policy Analysis Concentration

A policy analyst is a generalist who works on a series of high-level projects. The projects and fields vary over time, but the underlying analytical framework, methods, and tools apply universally. Thus, the Policy Analysis concentration includes several analytical courses and a variety of substantive policy area courses.

Students in the Policy Analysis concentration are required to complete at least 48 units of coursework from the following list of foundation and additional courses. While students can take any combination of foundation and additional concentration courses, it is recommended that students prioritize the foundation courses.

Foundation Courses:			
90-730	Policy Analysis in Practice	Fall	12 units
90-749	Cost Benefit Analysis (DC students should take in DC)	Spring	6 units
90-770	Econometrics for Policy**	Spring	12 units
90-823	Program Evaluation* (DC Students should take in DC)	Fall, Spring	12 units
94-834 &	Applied Econometrics I*	Fall, Spring	6 units
94-835	Applied Econometrics II*	Spring	6 units

*You only need to take one of these two alternate foundation courses, but it is worthwhile to take both.

**Serves as a substitute for Econometrics I & II

Additional Concentration Courses:			
90-704	Poverty, Inequality and Social Policies: An International Comparison	Fall	12 units
90-712	Quantitative Analysis of Income Inequality	Spring	6 units
90-734	Urban Policy	Spring	6 units
90-798	Systems Analysis: Environmental Policy	Fall	12 units
90-822	Critical Analysis of Policy Research	Fall, Spring	12 units
90-860	Policy in a Global Economy	Fall	12 units
90-861	Health Policy	Spring	6 units
94-859	International Crisis Negotiation Exercise	Spring	3 units
94-866	Design Thinking	Fall	6 units

7.10.   Public & Non-Profit Finance

The courses in the Public and Non-Profit Finance concentration are designed to give students a background in the theory and practice of not-for-profit finance, either in the public (government) or not-for-profit sector.

If you have questions about this concentration, contact Alexandra Lutz.

7.10.1. Curriculum for the Public & Non-Profit Finance Concentration

Students in the Public and Non-Profit Finance concentration are required to complete at least 48 units of coursework from the following list of foundation and additional courses. While students can take any combination of foundation and additional concentration courses, it is recommended that students prioritize the foundation courses.

Foundation Courses:			
90-736	Public Finance	Fall	12 units
90-749	Cost Benefit Analysis	Spring	6 units

Additional Concentration Courses:			
90-731	Public Budgeting and Finance	Spring	6 units
90-744	Nonprofit Statements & Analysis	Spring	6 units
90-762	Macroeconomics	Fall	12 units
90-770	Econometrics for Policy*	Spring	12 units
90-817	Education Finance and Policy	Spring	12 units
90-823	Program Evaluation	Fall, Spring	12 units
94-834	Applied Econometrics I	Fall/Spring	6 units
94-835	Applied Econometrics II	Spring	6 units
	*90-770 is a substitute for 94-834 & 94-835		

7.11. Smart Communities

Advanced information and communication system technologies joined with powerful data analytic tools have become central to the management and making of public policy for cities and urban regions. The Heinz College's Smart Communities concentration of the Master Science in Public Policy and Management program integrates technology, social science, and management skills in the key areas driving the future of cities and urban regions in the United States and around the world.

Cities and communities are facing challenges and opportunities in infrastructure, transportation, sustainability, and workforce development. Cities are seeking ways to increase government efficiency and transparency, pursue equity, and increase quality of life in the face of limited governmental resources. Advancements in computing, information communication technologies, and information systems are increasingly playing

a role in generating smart city solutions. Autonomous vehicles, sensors, and the internet of things are disrupting business as usual.

Cities around the world are growing and evolving into connected and technologically enabled societies. The use of technology can facilitate work with impact. However, technology alone cannot solve these problems. Students pursuing this concentration will gain multidisciplinary skills in policy, analytics, information systems, privacy, ethics, and civil infrastructure to tackle complex problems.

This concentration offers courses from across Carnegie Mellon University, such as the internationally prominent Engineering College, School of Computer Science, and the Dietrich College of Humanities and Social Sciences. It also draws on major multidisciplinary research centers at Heinz College including Traffic21, Metro21, and national US Department of Transportation Research Centers in both mobility and safety, as well as Carnegie Mellon's Software Engineering Institute, the country's largest government-funded center in software engineering and cybersecurity.

If you have questions about this concentration, contact Professor Sean Qian.

7.11.1.   Curriculum for the Smart Communities Concentration

To obtain the concentration, students are required to take at least 48 units of coursework, including at least 30 units of foundational courses, as follows.

Foundation Courses:			
90-789	Resilient and Sustainable Communities	Spring	12
90-805	Issues in Global Urbanization (SoA)	Spring	6
94-845	Smart Cities: Growth and Intelligent Transportation Systems	Fall	6
94-893	Intro to Transportation Systems Analysis	Fall	6
95-818	Privacy, Policy, Technology, and Law (SCS)	Fall	12

Additional Concentration Courses: Select 18 units from the courses listed below.			
12-706	Civil Systems Investment Planning and Pricing (CEE)	Fall	12
12-749	Climate Change Adaptation (CEE)	Spring	6
12-750	Infrastructure Management (CEE)	Spring	12
39-611	Energy Demand and Utilization (CIT)	Spring	6
39-612	Energy Policy and Economics (CIT)	Spring	6

90-734	Urban Policy	Spring	6
90-765	Cities, Technology, and the Environment	Spring	6
90-769	Critical AI Studies for Public Policy	Fall	6
90-783	Policy Innovation Lab: Public Interest Technology	Fall, Spring	6
90-812	Python Programming I	Fall, Spring	6
94-802	Geographic Information Systems	Fall, Spring	12
94-866	Design Thinking	Fall	6
95-733	Internet of Things (prerequisite, computer programming language such as Java, Python, or JavaScript)	Fall, Spring	6
95-744	Cybersecurity Policy and Governance I	Fall, Spring	12
95-824	Policies of Wireless Systems (EPP)	Fall	12

7.12. Urban & Regional Economic Development

The Urban and Regional Economic Development Policy Concentration provides students interested in the policy and practice of economic development in the United States with concepts, knowledge, and tools needed for economic development at the local, regional, or state level. The concentration is relevant for work in foundation, state, or federal level programs intended to support economic development at the local or regional level.

Students completing this concentration will be able to demonstrate an understanding of what economic development is, the forces that lead state and local governments to pursue economic development programs and strategies, as well as demonstrate understanding of some of the types of strategies pursued. Students will also have an ability to apply one or more policy analysis or management frameworks to an economic development problem, opportunity, or decision.

If you have questions about this concentration, contact Alexandra Lutz.

7.12.1. Curriculum for the Urban & Regional Economic Development Concentration

Foundation courses in the concentration are 90-743 Urban and Regional Economic Development, which provides a broad survey of the area. Additional concentration courses include background/policy courses in urban settings, as well as courses related to entrepreneurship and business development, community development, real estate, and strategy. The curriculum emphasizes development in the U.S.

context. Students interested in international development may want to consider the International Trade and Development concentration.

Students in this concentration are required to complete at least 48 units of coursework from the following list of foundation and additional courses. While students can take any combination of foundation and additional concentration courses, it is recommended that students prioritize the foundation courses.

Foundation Courses:			
90-743	Urban & Regional Economic Development	Spring	12 units
90-748	Real Estate Development	Fall	6 units
Additional Concentration Courses:			
94-800	Negotiation	Fall, Spring	6 units
90-734	Urban Policy	Spring	6 units
90-750	Civic Engagement as a Community Process	Spring	6 units
90-765	Cities, Technology, & the Environment	Spring	6 units
90-789	Resilient and Sustainable Communities	Spring	12 units
90-805	Issues in Global Urbanization	Spring	3,6 units
90-843	Developing Financial Tools for Sustainable Economic Development	Spring	3 units
94-802	Geographic Information Systems or 90-834 Health Care Geographic Information Systems	Fall, Spring	12 units
94-845	Smart Cities: Growth and Intelligent Transportation Systems	Fall	6 units
90-784	Affordable Housing and Finance	Spring	6 units
48-725	Graduate Real Estate Development	Fall	9,12 units

7.13. Pre-PhD Option

The Pre-PhD option provides students with a solid background and the foundation skills needed to prepare them for pursuing a PhD degree.

7.13.1. Curriculum for Pre-PhD

The Pre-PhD courses provide analytical and quantitative tools and methods through coursework in applied mathematics, statistics, econometrics, and microeconomics.

Students with limited math backgrounds may choose to take additional courses from Carnegie Mellon's undergraduate math program. Please note that some undergraduate courses will not be counted towards your Heinz degree but may be useful in strengthening your quantitative skills. These courses will need to be taken above and beyond the requirements for your Heinz degree.

Note that all MSPPM students must take the Systems Synthesis project course and there is no thesis alternative for this requirement. Highly recommended is to take an independent study to complete a research paper under the guidance of a faculty member with the result of a working paper and possibly submitted for publication. Having been mentored by a faculty member and involved in research provide tremendous advantages when applying to PhD programs.

Number	Course Name	Semester	Units
90-770	Econometrics for Policy	Spring	12
90-823	Program Evaluation	Fall/Spring	12
94-834	Applied Econometrics I	Fall/Spring	6
94-835	Applied Econometrics II	Spring	6
90-907	Econometric Theory and Methods	Spring	12
90-908	PhD Microeconomics	Fall	12
21-111*	Calculus I	Fall/Spring	10
21-112*	Calculus II	Fall/Spring	10
21-120*	Differential and Integral Calculus	Fall/Spring	10
21-122 *	Integration and Approximation	Fall/ Spring	10
21-240**	Matrix Algebra with Applications	Fall/Spring	10
21-256**	Multivariate Analysis	Fall/ Spring	9
21-228**	Discrete Mathematics	Fall/Spring	9
21-484**	Graph Theory	Spring	9
21-341**	Linear Algebra	Fall/Spring	9
21-355**	Principles of Real Analysis I	Fall/Spring	9
*Courses will NOT count towards Heinz degree. ** See Heinz College-Wide Handbook for policies pertaining to undergraduate coursework. Courses taken outside require program director approval			

8. Summer Internship and MS-DC Fellowship

MSPPM students (except for MS3 and MS-MBA students) are required to spend the summer following their first year in the program gaining professional experience in management and analysis by working in a public agency, non-profit organization, or private firm. Your internship duties must have significant educational value.

Your internship will train you in ways significantly different from classroom instruction. By working in a professional environment, you will solidify the knowledge gained in your Heinz College coursework, refine career interests, and establish personal networks that might lead to later career opportunities. You also can earn income, though Heinz College does accept unpaid internships.

Students are responsible for securing a suitable internship. The [Mary Beth and Miles Reidy Career Center](#) aids in this search through counseling, workshops on resume preparation and interview skills, and listings of potential internships. Students are strongly encouraged to make appointments with their Career Services advisor to discuss their search and are encouraged to come to workshops that cover the essential skills for finding the right internship.

International students are required to consult with the [Office of International Education](#) for eligibility for work authorization before starting or seeking an internship/co-op or consulting opportunity. International students will benefit from proactively reviewing OIE guidance regarding off-campus [work authorization](#). Off-campus work authorization processing times can take several weeks or months, and international students will benefit from starting the off-campus work authorization process as early as possible.

8.1. Internship Requirements

- Students must attend an internship information session in the spring semester hosted by Career Services to learn more about specific internship requirements and support given by Career Services
- The internship duration is a minimum of 300 hours and is to be completed in the summer between your first and second year only
- Students may only report one internship unless otherwise approved by Career Services
- Internship must be reported no later than the last business day of June
- Students must complete the Heinz Internship Extension Course administered by Career Services via Canvas. Students will be automatically enrolled and there will be

associated modules with assignments in which completion of these modules is a requirement to pass the Internship Course

- The Canvas Course includes the step to report the internship. The internship will be verified with the students' supervisors and then approved. Students must notify their Career Advisor of any significant changes in their internships, such as length, location, hours of work, etc.
- Once the internship has been approved, students will be registered for the zero-unit internship course. Students will not receive academic credit for the internship, but it will be reflected on their transcript as a course with P/NP grade. If a student plans to exempt the internship, they will need to complete the [Petition for Course Exemption](#).
- Once the student has started their internship, they will receive a survey to complete verifying their supervisor's contact information as well as skills evaluation.
- At the end of your internship your Career Services Advisor will request that your supervisor complete an evaluation form about your internship performance. You are also required to complete an evaluation survey about how your internship fulfilled the educational goals of the program.

If you do not successfully complete an eligible internship along with the supervisor verification and survey, you will not fulfill your internship requirement necessary for graduation.

8.2. Heinz Policy Fellowship for D.C. Track Students

All MS-DC students are required to secure and complete a two-semester Heinz Policy Fellowship during their second year in Washington DC working for a public agency, non-profit organization, or private firm. Students will work a four-day work week (Mon-Thurs approximately 30-32 hours per week depending on how your employer counts hours.) Your Heinz Policy Fellowship duties must have significant educational value.

The Policy Fellowship is only available to D.C. Track students who are in their second year and in Washington, D.C.

8.2.1. Securing a Heinz Policy Fellowship

Students are responsible for securing a suitable Heinz Policy Fellowship. Students should work closely with the MS-DC Program Director and their Heinz Career Services advisor on their Heinz Policy Fellowship search. The Career Services Office also provides general assistance in Pittsburgh through counseling, workshops on

resume preparation and interview skills, and listings of employment opportunities. You can make an appointment at any time to meet with the Career Services staff to discuss your situation and you are encouraged to come to workshops that cover the essential skills for finding the right position.

8.2.2. Heinz Policy Fellowship Standards

The faculty expects all students to satisfactorily complete a Heinz Policy Fellowship as an integral part of the degree program. Minimally, this requires the equivalent of 28 weeks of employment (approximately 30-32 hours per week) in a technical, managerial, or administrative position with a satisfactory evaluation by your supervisor.

Before beginning the internship, students must complete the online Internship Reporting Form that can be found on the [Heinz Career Services website](#). The Heinz Policy Fellowship will be verified with the students' supervisors and then approved. You will not be permitted to graduate if you accept or begin work at a Heinz Policy Fellowship which does not meet Heinz School standards.

During the course of the Heinz Policy Fellowship, the MS-DC Program Director will contact your supervisor periodically to discuss your progress. The Director may also get in touch with you to discuss the fellowship and any problems that arise. You must notify the MS-DC Program Director of any significant changes in your fellowship, such as length, location, hours of work, etc.

At the end of the Heinz Policy Fellowship, the DC Office will request that your supervisor complete an evaluation form about your performance. The office also will ask you for a self-evaluation of how your Heinz Policy Fellowship fulfilled the educational goals of the program and a short description of the employing organization, including a list of contact names, tasks and responsibilities you cultivated while in their employ. Based on the supervisor's evaluation, the periodic contacts with the supervisor and you, and your self-evaluation, the Director will advise the Masters Committee if you have satisfactorily completed the Heinz Policy Fellowship requirement. If you do not successfully complete an eligible Heinz Policy Fellowship you will have to complete one before you can graduate.

The Career Services Office encourages you to notify them of job opportunities within your Heinz Policy Fellowship organization which might be available for future Heinz

School graduates or interns. The Office will maintain these descriptions for reference by both first and second year students.

8.2.3.   Start Date for Heinz Policy Fellowship

Students are required to have an approved Heinz Policy Fellowship by the start of their second academic year (first day of classes for the fall semester in DC.). An approved Heinz Policy Fellowship is one that has a job description and has been reported and approved via the Career Services online reporting form. Students without a formal Heinz Policy Fellowship in place by the start of their second year will not be allowed to attend classes in DC, and will be transferred to the two year program in Pittsburgh and complete their degree there.

Given that many positions in Washington require security clearances, students may not be able to start on time. In the event that this occurs, students should immediately inform the MS-DC Program Director of their expected start date which should begin no later than November 1st of the fall semester. Students unable to start their Heinz Policy Fellowships, or find and commence an alternative position, by November 1st will be allowed to complete their first semester in DC but will then be required to return to Pittsburgh to complete their last semester there. While waiting for security clearances, students will be required to find a suitable volunteer or work study position – in the Heinz College Washington DC office or other DC organization -- until the start of their approved Heinz Policy Fellowship.

8.3.   International Student (F-1/J-1) Internship and Fellowship Considerations

- **F-1 Status Students:** You must apply for Curricular Practical Training (CPT) employment authorization for your summer internship if your degree program requires you to complete a summer internship. CPT authorization is required regardless of the internship being paid or unpaid. CPT is only available to F-1 students who have not graduated and who have been enrolled on a full-time basis for one full academic year (i.e., fall and spring.) Exception: graduate students in programs that require an internship in their first year will be eligible for CPT next summer if they are able to arrive in the US for in person instruction at the start of the spring semester. Processing CPT may take up to 2 weeks and you cannot begin employment until you receive authorization. Guidelines, forms, and instructions can be found at Curricular Practical Training (CPT) - Office of International Education - Office of Enrollment Management - Carnegie Mellon University.

- **J-1 Status Students:** You will need to apply for and obtain [Academic Training](#) before beginning your internship or fellowship. If your program sponsor on your DS-2019 is Carnegie Mellon University, follow the [steps](#) to obtain your Academic Training. If your program sponsor is another entity (such as Fulbright) you must contact Fulbright to learn the steps to receive your Academic Training.
- The summer internship for three-semester MSPPM students is optional; however, students are encouraged to seek internship opportunities. 3 semester international students in F-1 status do not qualify for CPT if they decide to do an internship and must apply for pre-completion OPT if they want to participate in one.