



Academic Year 2025-2026

**Master of Science in Public Policy and
Management-Data Analytics Track (MSPPM-DA)
Student Handbook Addendum**

Degree Programs Covered by This Handbook:
MSPPM-DA: Data Analytics Track

Updated Feb 3, 2026

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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-Data Analytics Track (MSPPM-DA) 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-DA Program Outcomes and Competencies

The Heinz College educates students for 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.

At the completion of the Master of Science in Public Policy and Management program, students will be able to:

- Apply leadership, management, and ethical principles or skills to analyze and address challenges or identify opportunities in public governance that support the public interest
- Use analytical, quantitative, and qualitative tools to understand, assess, and address public policy problems in applied, real-world settings
- To analyze and synthesize information, think critically, solve problems, and make evidence-based decisions
- Apply a public service perspective to problem-solving in government, for-profit, and non-profit sectors

- To communicate and interact productively with a diverse and changing workforce and citizenry

3. Department Personnel

The staff listed below are directly associated with the MSPPM-DA 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.

| | | |
|----------------------|---|--|
| Jackie Speedy | Associate Dean of Programs | jnameth@andrew.cmu.edu |
| Christopher Goranson | Senior Director, School of Public Policy & Management | goranson@cmu.edu |
| Lauren Scott | Program Director for MSPPM Program | laurenc@andrew.cmu.edu |
| Erin Kucic | Academic Program Manager | ekucic@andrew.cmu.edu |
| Angeline Sandor | Academic Advisor for MSPPM-DA | asandor@andrew.cmu.edu |
| Annie Julian | Director of Student Experience & Engagement | ajulian@cmu.edu |
| Diane Taylor | Director of Partnerships, Career Advisor for MSPPM-DA and D.C. Tracks | detaylor@andrew.cmu.edu |

4. Curriculum Requirements

You will complete the MSPPM-DA two-year program in four consecutive semesters, excluding the summer semester. The MSPPM curriculum is structured with a set of common core courses and free electives. To successfully complete the MSPPM program, you must complete the following:

- 192 units of course credit
 - You can count 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),
- Internship between the first and second year (required for the MSPPM-DA program),
- All other standards for graduation, including meeting minimum grade point averages.

If you began your MSPPM program **prior to Fall 2025**, you must reference your [specific handbook](#) for curriculum requirements. Your handbook corresponds with the semester in which you matriculate (e.g.: Fall 2023 or Fall 2024).

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

4.1. F25 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 | Accelerated 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 | Optimization and Decision Modeling for Analytics | 12 |
| 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 |
| 90-718 or 94-718 | Strategic Presentation Skills (Fall only) or Communication in XR | 6 |
| 95-719 | Accounting and Finance Analytics (Fall only) | 6 |
| 94-867 | From Data to Action (Fall only) | 6 |
| | Electives (more if exempt from core courses) | 54 |
| | Systems Synthesis Project/Capstone (Final Semester) | 12 |
| | Total Units | 192 |

4.2. 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. Number of Units per Semester

5.1. Normal Courseload Expectation for MSPPM-DA Students

Students typically take between 48 – 54 units per semester. To make normal academic progress for the MSPPM-DA program, students must take 48 units per semester (for a total of 192 units).

5.2. Unit Increase Policy

First semester MSPPM-DA students will have a maximum of 48 units. Starting with their second semester, this will be raised to 54 units for all students who are in good academic standing. Students who are placed on warning or probation may have their unit increase reversed and an advising hold placed until they have met with their Academic Advisor.

Students who feel prepared to take on additional academic challenges beyond the standard course load may request a unit increase. They can do so by submitting a [General Petition Form](#), available on the Heinz College Current Student Website, to their Academic Advisor.

5.2.1. Requirements

Students demonstrating strong academic performance with a **3.5 Cumulative Quality Point Average (CQPA)** or higher may request for advisor approval to increase to 60 units. Any increase requests above 60 units will require additional approvals and are not guaranteed. Please contact your Academic Advisor.

Students who need to retake a course may be approved for a unit increase in order to make up the course and stay on track for graduation, regardless of their cumulative QPA.

5.2.2. Unit Increase Timeline

First-semester students may request a unit increase only if they apply for and are selected to participate in 90-700 Heinz Journal, which is worth 3 units.

All MSPPM-DA students in good standing will be increased to 54 units for their second and subsequent semester automatically.

Unit increases to 60 units for a student's second semester will only be processed after their first mini grades are posted and the students have achieved the 3.5 cumulative QPA requirement.

For future semesters, students who are at or above a cumulative QPA of 3.5 can have their unit increase to 60 units approved after their mini grades are posted and the increase will go into effect the week after registration.

6. 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 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 (12 units).

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.

6.1. Registration for Systems Synthesis/Project Coursework

The Program Director or equivalent will reach out to students to gather input regarding domain interests and skill preferences. This input will guide the selection and assignments of systems synthesis projects. Students will be placed in groups and registered by Heinz Academic Services. Students do not register for Systems Synthesis on their own.

6.2. 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.

7. 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.

8. Concentration Areas

As an MSPPM student, you are encouraged—but not required—to declare a concentration. Developing depth in a particular field or application area can be a valuable asset, both in securing your first job and thriving in it. Concentrations offer a way to focus your academic experience around a specific domain, helping you build expertise and stand out in the job market.

To be eligible to declare a concentration, students must complete a **minimum of 36 units** from courses listed under a single concentration area. These units must be earned through approved coursework that aligns with the academic and professional focus of the chosen concentration.

Heinz College offers a diverse set of concentration areas that reflect emerging trends, interdisciplinary challenges, and evolving career pathways in public policy, technology, and management. Current concentration areas include:

- AI Management
- Energy and Environmental Policy
- Health Policy
- International Policy
- Nonprofit and Public Management
- Public Interest Technology
- Social Policy
- Technology Governance, Cybersecurity, and Privacy Policy
- Urban & Regional Economic Development
- U.S. Politics and Policy Making

Students can also design and develop their own concentrations with the assistance of their advisor or program director. Please note that not all courses listed under each concentration are offered every academic year. Course availability and semester offerings may vary, and new courses may be added. Students should consult with their Academic Advisor to identify courses

that best align with their academic and career goals, and refer to current course schedules for the most up-to-date information.

To declare a concentration, students must submit the [Concentration Declaration Form](#) available on the Heinz College website. This form can be submitted at any time after the decision to pursue a concentration—there is no need to wait until all coursework is completed. If a course substitution becomes necessary during the program, Academic Services can assist with updating your concentration record.

Upon completion of the concentration requirements and graduation, Heinz College will issue a certificate of concentration to eligible students. If a student has questions regarding this process, please contact the program's [Academic Advisor](#) or [Heinz Academic Services](#).

1.1. AI Management Concentration

Artificial intelligence is transforming how organizations deliver services, make decisions, and address societal challenges. This concentration prepares students to understand, design, and govern AI systems that are effective, ethical, and aligned with the public interest.

Students in this concentration gain both conceptual and applied skills to manage the lifecycle of AI solutions—from development and deployment to oversight and accountability. Courses emphasize the technical foundations of AI and machine learning alongside critical considerations of ethics, governance, and responsible innovation. Graduates will be ready to lead AI strategy in government, nonprofits, and industry, shaping systems that drive impact while safeguarding equity and trust.

Graduates of this concentration are equipped to bridge the gap between technology and policy, guiding the responsible integration of AI into decision-making processes that shape the future of society.

If you have questions about this concentration, contact [Anand Rao](#).

| Concentration Courses: | | | |
|-------------------------------|--|--------------|----------|
| 90-746 | AI Engineering & Policy for Climate Mitigation & Resilience | Fall | 12 units |
| 94-703 | Demystifying AI | Spring | 6 units |
| 94-879 | Fundamentals of Operationalizing AI | Fall, Spring | 6 units |
| 94-885 | Responsible AI: Principles, Policies, Practices | Fall, Spring | 6 units |
| 95-891 | Introduction to AI | Fall, Spring | 12 units |
| 90-769 | Critical AI Studies for Public Policy | Fall | 6 units |
| 94-717 | Systems Thinking & Discrete Event Simulation | Spring | 6 units |
| 94-812 | Applications of NL(X) and LLM | Spring | 6 units |
| 94-815 | Agent-Based Modeling and Digital Twins | 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 |
| 94-830 | AI, Ethics and Humanity | Spring | 6 units |
| 94-844 | Generative AI Lab | Fall, Spring | 6 units |
| 94-881 | Managing Analytics Projects | 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 |
| 94-805 | Operationalizing AI Systems | Spring | 7 units |
| 94-825 | AI Foundations | Fall, Spring | 3 units |
| 94-894 | AI & Emerging Economies | Fall | 12 units |
| 95-711 | Learning Gen AI in Software Dev | Fall | 3 units |
| 17-737 | Artificial Intelligence Methods for Social Good | Spring | 6 units |

1.2. Energy and Environmental Policy Concentration

This concentration blends policy expertise with technical insight through a unique partnership between Heinz College and the Engineering College's [Energy Science, Technology and Policy \(EST&P\)](#) master's degree program. Addressing the climate crisis and managing the transition to sustainable energy systems are among the most urgent policy challenges of our time. This concentration equips students with the analytical, technical, and managerial skills needed to craft effective responses to environmental risks and energy demands.

Students in this concentration examine climate change, energy markets, and resilience planning from a policy and governance perspective, with an emphasis on evidence-based decision making and cross-sector solutions. They gain practical tools to design, implement, and evaluate policies that promote sustainability, resilience, and innovation.

Graduates of this concentration are equipped to lead across government, nonprofit, and private sectors, advancing policies that balance economic growth with environmental stewardship and resilience.

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

| Concentration Courses: | | | |
|-------------------------------|--|--------|----------|
| 90-789 | Resilient & Sustainable Communities | Spring | 12 units |
| 90-798 | Systems Analysis: Environmental Policy | Fall | 12 units |
| 90-808 | US Energy and Climate Policy | Fall | 6 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 |
| 12-749 | Climate Change Adaptation | Spring | 6 units |
| 45-863 | Risk Analytics | Fall | 6 units |

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|--------|--|--------------|----------|
| 45-928 | Energy Finance | Spring | 6 units |
| 12-645 | Smart Cities: Growth and Intelligent Transportation Systems | Fall | 6 units |
| 12-707 | Special Topics: AI Engineering and Policy for Climate Mitigation and Resilience | Fall, Spring | 12 units |
| 19-649 | Special Topics: Decarbonizing Industry: Law, Policy, and Business Strategy | Spring | 3 units |
| 19-666 | Energy Policy and Economics | Spring | 6 units |
| 19-711 | Science and Innovation Leadership for the 21st Century: Firms, Nations, and Tech | Spring | 12 units |
| 19-716 | AI Governance: Identifying & Mitigating Risks in Design & Dev of AI Solutions | Spring | 6 units |
| 19-721 | Special Topics: Seminar on Transportation, Engineering and Economics | Spring | 6 units |

1.3. Health Policy Concentration

Health systems are central to the well-being of individuals and communities, yet they face ongoing challenges in cost, access, quality, and equity. The Health Policy concentration prepares students to analyze, design, and lead policies that strengthen health systems at local, national, and global levels.

Students in this concentration explore the structure of health care systems, the economic and political forces that shape them, and innovative approaches to improving outcomes. They learn to apply rigorous analytical methods and policy frameworks to issues such as insurance design, financing, public health infrastructure, and the integration of new technologies in care delivery.

Graduates of this concentration are prepared for careers in government, health organizations, nonprofits, and international agencies, where they will contribute to building healthier, more equitable, and more sustainable systems of care.

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

| Concentration Courses: | | | |
|-------------------------------|----------------------|--------|----------|
| 90-836 | Health Systems | Fall | 6 units |
| 90-861 | Health Policy | Spring | 6 units |
| 94-705 | Health Economics | Fall | 12 units |
| 90-839 | Global Health Policy | Spring | 6 units |
| 90-832 | Health Law | Spring | 6 units |

| | | | |
|--------|--|--------|----------|
| 90-834 | Health Care Geographical Information Systems | Spring | 12 units |
| 90-779 | Health Policy and Decision Making | Fall | 12 units |
| 94-706 | Health Care Information Systems | Spring | 12 units |

1.4. International Policy Concentration

Globalization, shifting geopolitical dynamics, and economic development challenges continue to reshape the international landscape. The International Policy concentration provides students with the analytical frameworks and conceptual tools needed to understand and engage with the most pressing global policy debates.

Students explore the drivers of globalization and their impacts on trade, investment, and development, while also examining the political, strategic, and social dimensions of international affairs. Courses emphasize comparative and cross-national perspectives, preparing graduates to navigate complex international systems and design policies that foster stability, equity, and sustainable growth.

Graduates of this concentration are prepared for careers in international organizations, government agencies, nonprofits, and the private sector, where they will address global challenges in economic development, security, diplomacy, and governance.

If you have questions about this concentration, contact [Lee Branstetter](#).

| Concentration Courses: | | | |
|-------------------------------|--|--------------|----------|
| 90-805 | Issues in Global Urbanization | Spring | 12 units |
| 90-860 | Policy in a Global Economy 1: International Trade and Trade Policy | Spring | 6 units |
| 94-800 | Negotiation | Fall, Spring | 6 units |
| 90-703 | Gender Politics Policies US World | Fall | 6 units |
| 90-752 | Rise of the Asian Economies | Fall | 12 units |
| 90-810 | Social Movements and Social Change | Fall | 6 units |
| 94-859 | International Crisis Negotiation Exercise | Spring | 3 units |
| 90-702 | Poverty Reduction & Soc Pol in Dev Ctry | Fall | 6 units |
| 90-862 | Policy in a Global Economy 2: International Macroeconomics and Finance | Spring | 6 units |
| 94-831 | Negotiation: International Focus | Spring | 12 units |
| 94-869 | Conflict Resolution | Spring | 6 units |
| 94-894 | AI & Emerging Economies | Fall | 12 units |

| | | | |
|--------|---|--------|----------|
| 19-711 | Science and Innovation Leadership for the 21st Century: Firms, Nations, and Tech | Spring | 12 units |
| 84-605 | The Future of Warfare | Fall | 12 units |
| 84-612 | Terrorism in Sub-Saharan Africa | Spring | 6 units |
| 84-628 | Military Strategy and Doctrine | Fall | 12 units |
| 84-629 | Asian Strategies | Fall | 6 units |
| 84-662 | Diplomacy and Statecraft | Fall | 12 units |
| 84-667 | The Politics of Antisemitism | Fall | 12 units |
| 84-669 | Decision Science for International Relations | Fall | 12 units |
| 84-671 | International Governance of Artificial Intelligence | Fall | 12 units |
| 84-674 | An Introduction to Technology and War | Fall | 12 units |
| 84-675 | Geopolitics of Innovation | Fall | 12 units |
| 84-680 | US Grand Strategy | Fall | 12 units |
| 84-720 | Advanced International Security | Fall | 12 units |

1.5. Nonprofit and Public Management Concentration

Mission-driven organizations play a critical role in addressing societal challenges, delivering public services, and fostering innovation. This concentration prepares students to lead effectively in the public and nonprofit sectors by building expertise in financial decision-making, ethical leadership, and strategic management.

Students learn to design impactful programs, engage stakeholders, and navigate complex policy environments. The curriculum emphasizes evidence-based decision making, cross-sector collaboration, and values-driven leadership.

Graduates of this concentration are equipped to lead nonprofit organizations, public agencies, and philanthropic institutions, driving mission-focused initiatives that strengthen communities and promote the public good.

If you have questions about this concentration, contact [Brett Crawford](#).

| Concentration Courses: | | | |
|-------------------------------|--|--------------|----------|
| 90-736 | Public Finance | Fall | 12 units |
| 94-814 | Evidence-Based Management | Fall | 6 units |
| 90-744 | Nonprofit Statements & Analysis | Spring | 6 units |
| 90-749 | Cost Benefit Analysis: A Capital Budgeting | Spring | 6 units |
| 94-801 | Acting for Leadership and Communication | Fall, Spring | 6 units |
| 94-803 | Consulting Lab | Spring | 6 units |
| 94-808 | Management Consulting | Fall, Spring | 12 units |

| | | | |
|--------|--|--------------|---------|
| 94-811 | Strategy Development | Fall, Spring | 6 units |
| 94-813 | Project Management | Fall, Spring | 6 units |
| 94-854 | Developing as a Leader | Fall, Spring | 6 units |
| 94-883 | Applied Ethical Analysis | Spring | 6 units |
| 90-747 | Cost Benefit Analysis | Fall | 6 units |
| 91-729 | Business Analytics for Managers | Spring | 6 units |
| 93-826 | External Rel: Fundraising & Indiv Giving | Spring | 6 units |
| 93-827 | External Relations: Sponsorships & Insti | Spring | 6 units |
| 94-708 | Applied Strategic Marketing | Fall, Spring | 6 units |
| 94-719 | Budgetary Planning and Analysis | Fall | 6 units |
| 94-822 | Organizational Change | Spring | 6 units |
| 94-824 | Creating Results-Oriented Programs | Fall | 6 units |
| 94-833 | Decision Analysis and Multi-Criteria Decision Making | Fall | 6 units |
| 94-838 | Advanced Project Cost Mgmt with Power BI | Fall, Spring | 6 units |

1.6. Public Interest Technology Concentration

As technology rapidly transforms society, questions of ethics, governance, and equity are increasingly urgent. This concentration prepares students to ensure that technological innovation advances the public good.

This concentration emphasizes technology expertise defined broadly—encompassing the capabilities to create, apply, study, and use new technologies, together with an understanding of the ethical, legal, policy, and societal dimensions of technological change. Students develop the ability to evaluate emerging technologies, anticipate risks, and design policies and strategies that align innovation with democratic values and social justice.

Graduates of this concentration are equipped to work across sectors—government, nonprofits, advocacy, and industry—bridging the gap between technology and the public interest while advancing solutions that are innovative, ethical, and equitable.

If you have questions about this concentration, please contact [Christopher Goranson](#).

| Concentration Courses: | | | |
|-------------------------------|--|--------------|----------|
| 90-708 | Introduction to the Theory and Practice of Policy Analysis | Fall | 12 units |
| 90-769 | Critical AI Studies for Public Policy | Fall | 6 units |
| 90-783 | Policy Innovation Lab: Public Interest Technology | Fall, Spring | 6 units |
| 94-806 | Privacy in the Digital Age | Spring, Fall | 6 units |

| | | | |
|--------|--|--------------|----------|
| 90-829 | Design Thinking for Public Policy | Fall | 6 units |
| 90-856 | Policy Topics: Tech Policy & Management | Spring | 6 units |
| 94-703 | Demystifying AI | Spring | 6 units |
| 94-866 | Design Strategy | Fall, Spring | 6 units |
| 94-870 | Telling Stories with Data | Fall, Spring | 6 units |
| 94-989 | Machine Learning for Public Policy Lab | Fall | 6 units |
| 94-805 | Operationalizing AI Systems | Spring | 7 units |
| 94-816 | Generative AI: Applications, Implications, and Governance | Fall, Spring | 6 units |
| 94-855 | Innovation Management in Practice | Spring | 6 units |
| 94-860 | Regulation of Internet Edge Platforms | Fall | 6 units |
| 94-864 | Technology, Humanity, and Social Justice: Criminal Justice | Spring | 3 units |
| 94-879 | Fundamentals of Operationalizing AI | Fall, Spring | 6 units |
| 94-885 | Responsible AI - Principles, Policies, and Practices | Fall, Spring | 6 units |
| 94-894 | AI & Emerging Economies | Fall | 12 units |
| 95-818 | Privacy, Policy, Law & Technology | Fall | 12 units |
| 95-891 | Introduction to Artificial Intelligence | Fall, Spring | 12 units |
| 17-737 | Artificial Intelligence Methods for Social Good | Spring | 6 units |

1.7. Social Policy Concentration

Public policy has the power to shape opportunity, reduce inequality, and improve lives. This concentration provides students with a deep understanding of how policies can be designed and implemented to improve outcomes in areas such as poverty alleviation, health care, education, gender equity, and economic opportunity.

Students in this concentration examine the drivers of poverty and inequality both in the U.S. and globally, explore the role of social movements in advancing change, and apply insights from behavioral economics to craft policies that are both effective and equitable. Courses emphasize comparative analysis, critical thinking, and evidence-based strategies for addressing complex social challenges.

Graduates of this concentration are prepared to lead efforts in government, nonprofits, advocacy organizations, and international agencies to design and advance policies that expand opportunity, promote equity, and foster social change.

If you have questions about this concentration, contact [Silvia Borzutzky](#).

| Concentration Courses: | | | |
|-------------------------------|---|--------------|----------|
| 90-702 | Poverty Reduction & Social Policy in Developing Countries | Fall | 6 units |
| 90-817 | Education Finance and Policy | Spring | 12 units |
| 90-703 | Gender Politics Policies US World | Fall | 6 units |
| 90-704 | Poverty, Inequality and Social Policies | Fall | 6 units |
| 90-779 | Health Policy and Decision Making | Fall | 12 units |
| 90-810 | Social Movements | Fall | 6 units |
| 90-817 | Education Finance and Policy | Spring | 12 units |
| 90-839 | Global Health Policy | Spring | 3 units |
| 90-861 | Health Policy | Spring | 6 units |
| 90-871 | Policy Topics: Gender & Policy Workshop | Fall | 3 units |
| 90-880 | Behavioral Economics | Fall | 12 units |
| 90-882 | Behavioral Economics & Public Policy | Spring | 12 units |
| 90-891 | Behavioral Economics & Field Experiments | Spring | 12 units |
| 90-892 | Behavioral Economics and Poverty Development | Spring | 12 units |
| 94-837 | Leading with Equity and Inclusion | Fall, Spring | 6 units |
| 94-853 | Technology, Humanity and Social Justice - Governance | Fall, Spring | 3 units |
| 94-871 | Moving Towards Education Justice in Pittsburgh Public Schools | Spring | 3 units |
| 94-875 | Technology, Humanity, & Soc Justice - Environment | Spring | 3 units |

1.8. Technology Governance, Cybersecurity, and Privacy Policy

The rapid evolution of digital technologies is reshaping how governments, businesses, and society operate—bringing enormous opportunities alongside complex risks. The Technology, Privacy, and Security Policy concentration equips students with the expertise to navigate these challenges and craft forward-looking policy solutions.

Students in this concentration explore the intersection of technology, governance, and public interest, developing skills to address pressing issues such as cybersecurity threats, data privacy, emerging innovations, and the regulation of wireless and digital systems. Courses emphasize both technical understanding and policy analysis, preparing graduates to bridge the gap between technologists and policymakers.

Graduates of this concentration are prepared for impactful careers in government, industry, consulting, and the nonprofit sector, where they will drive the development and assessment of policies that foster security, innovation, and public trust in the digital age.

If you have questions about this concentration, [Randy Trzeciak](#) .

| Concentration Courses: | | | |
|-------------------------------|--|-------------------|----------|
| 95-752 | Introduction to Information Security Management | Fall | 12 units |
| 95-743 | Cybersecurity Policy and Governance I | Fall, Spring | 6 units |
| 95-744 | Cybersecurity Policy and Governance II | Fall, Spring | 6 units |
| 94-806 | Privacy in the Digital Age | Fall, Spring | 6 units |
| 94-816 | Generative AI: Applications, Implications, and Governance | Fall, Spring | 6 units |
| 94-860 | Regulation of Internet Edge Platforms | Fall | 6 units |
| 94-864 | Technology, Humanity, and Social Justice: Criminal Justice | Spring | 3 units |
| 95-723 | Managing Disruptive Technologies | Fall, Spring | 6 units |
| 95-747 | Security Data Analytics | Fall | 6 units |
| 95-748 | Software and Security | Fall, Spring | 6 units |
| 95-749 | Cryptography | Spring, Summer | 6 units |
| 95-755 | Information Security Risk Management | Spring | 6 units |
| 95-758 | Network and Internet Security | Fall, Spring | 12 units |
| 95-759 | Malicious Code Analysis | Spring, Summer | 6 units |
| 95-810 | Blockchain Fundamentals | Fall, Summer | 6 units |
| 95-818 | Privacy, Policy, Law & Technology | Fall | 12 units |
| 95-824 | Policies of Wireless Systems | Fall | 12 units |
| 95-844 | Introduction to Cyber Intelligence | Fall, Spring | 6 units |
| 95-878 | Engineering Privacy in Software | Spring | 12 units |
| 95-889 | Applied Threat Analysis | Spring | 6 units |
| 14-829 | Mobile and IoT Security | Fall | 12 units |
| 14-819 | Introduction to Software Reverse Engineering | Spring | 12 units |

1.9. Urban and Regional Economic Development

Cities and regions drive innovation and opportunity, yet they also face complex challenges in housing, transportation, sustainability, and equity. This concentration equips students to design and implement strategies that promote inclusive and sustainable growth at the local, regional, and state levels.

Students in this concentration build expertise in urban policy, planning, housing, and smart city design, while gaining the analytical and management tools needed to support thriving

economies and resilient communities. Courses integrate practical policy analysis with forward-looking approaches to urbanization and mobility.

Graduates of this concentration are prepared to lead in government, planning agencies, nonprofits, and consulting, advancing policies and strategies that strengthen communities, expand opportunity, and promote sustainable urban and regional development.

If you have questions about this concentration, please contact [Jackie Speedy](#).

| Concentration Courses: | | | |
|-------------------------------|--|--------|----------|
| 90-734 | Urban Policy | Spring | 6 units |
| 90-743 | Urban and Regional Economic Development | Spring | 12 units |
| 90-748 | Real Estate Development | Fall | 6 units |
| 90-784 | Affordable Housing and Finance | Spring | 6 units |
| 90-805 | Issues in Global Urbanization | Spring | VAR |
| 90-807 | Planning by Design: Campuses, Waterfronts, Districts, and Cities | Spring | 12 units |
| 90-829 | Design Thinking for Public Policy | Fall | 6 units |
| 90-843 | Developing Financial Tools for Sustainable Economic | Spring | 3 units |
| 94-845 | Smart Cities: Growth and Intelligent Transportation | Fall | 6 units |
| 94-893 | Intro to Transportation Systems Analysis | Fall | 6 units |
| 12-645 | Smart Cities: Growth and Intelligent Transportation Systems | Fall | 6 units |
| 19-682 | The Strategy and Management of Technological Innovation | Spring | 12 units |
| 48-742 | Planning and Public Policy for the Future of Urbanism | Fall | VAR |

1.10. U.S. Politics and Policy Making

Public policy in the United States is inseparable from politics. This concentration equips students with the knowledge to analyze how political institutions, actors, and strategies shape policy outcomes, while developing the practical skills to navigate the policy ecosystem.

Students examine presidential powers, congressional dynamics, federal budgeting, and the broader policymaking process, gaining both critical insight and applied experience. Courses combine theoretical analysis with hands-on engagement, preparing graduates to lead in legislative affairs, political strategy, and public administration.

If you have questions about this concentration, please contact [Karl Maschino](#).

| Concentration Courses: | | | |
|------------------------|--|--------------|----------|
| 90-754 | Elective Politics and Policy-Making | Spring | 6 units |
| 90-736 | Public Finance | Fall | 12 units |
| 90-749 | Cost Benefit Analysis: A Capital Budgeting Approach | Spring | 6 units |
| 90-758 | Analysis of US Presidential Powers | Spring | 6 units |
| 90-894 | Federal Budget Policy | Spring, Fall | 6 units |
| 90-897 | Working the Policy Ecosystem | Spring | 6 units |
| 84-652 | Representation and Voting Rights | Spring | 12 units |
| 84-655 | Democracy's Data: Analytics and Insights into American Elections | Fall | 12 units |
| 84-680 | US Grand Strategy | Fall | 12 units |
| 84-693 | The US Congress: Legislative Progress or Paralysis? | Fall | 12 units |

9. 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.

9.1. 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.

9.2. International Student (F-1/J-1) Internship 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.