



Academic Year 2026-2027

Master of Information Systems Management (MISM)

Degree Programs Covered by This Handbook:

MISM
MISM-BIDA

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1. Introduction

This handbook provides specific information on the curriculum and program requirements for the Master of Information Systems (MISM) 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 Carnegie Mellon Student Handbook](#)

2. MISM Mission Statement

The mission of the Master of Information Systems Management (MISM) program is to prepare the next generation of technology managers to lead enterprises in innovative ways. Schooled in the interdisciplinary Carnegie Mellon tradition and trained as analytical problem solvers, our graduates will develop and deploy information systems to create value for their organizations and society.

Students in the MISM program should be able to:

- Manage and Lead: Utilize data-driven, evidence-based governance and decision making techniques to achieve goals and effectively engage with diverse stakeholders
- Leverage and Innovate Technology: Solve real-world problems by identifying and using new, current, and legacy information systems and technology resources
- Analyze, synthesize, think critically, solve problems, and make decisions
- Know Industry Context: Develop situational awareness within an ever-changing information systems ecosystem by collecting and analyzing complex data while applying technology solutions in a workforce environment
- Communicate and interact productively within a diverse and changing workforce.

We achieve this mission through:

- fine-tuning our curriculum to optimize our role of being a bridge between technology and management
- providing curricular and meta curricular opportunities to apply information systems / leadership skills in projects, clubs, discussions, and competitions

- engaging with organizations globally as an important element of education and research
- building and sustaining a culture that prizes entrepreneurship and innovation in information systems and its management and application.

3. Department Personnel

The staff listed below are directly associated with the MISM programs. 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.

Sara Moussawi	Senior Associate Dean of Academic Programs	smoussaw@andrew.cmu.edu
Sean Beggs	Director of the MISM Program, Interim Academic Advisor for MISM	sbeggs@cmu.edu
Goutam Balla	Academic Advisor, MISM-BIDA	gballa@andrew.cmu.edu
Annie Julian	Senior Associate Director of Student Experience	ajulian@cmu.edu
Brittany Foster	Academic Program Specialist	brittanf@andrew.cmu.edu
Paige Mooney	Assistant Director, Career Advisor for MISM-BIDA	paigem@andrew.cmu.edu
Tyler Ferraino	Assistant Director, Career Advisor for MISM	tferrain@andrew.cmu.edu

4. Master of Information Systems Management (MISM) Curriculum

It is the student's responsibility to know and understand the policies contained in this MISM Handbook Addendum, the [Heinz College Handbook](#), and the [CMU Graduate Student Handbook](#). All three combined cover CMU university policies and procedures along with specific Heinz College policies.

As a full-time graduate student, you will normally complete the MISM curriculum in three semesters. Note, MISM is not offered part-time. Students will complete 162 units in three semesters. In order to satisfy the MISM curriculum, you must complete the following:

- all required courses (unless you exempt them);
- one approved Analytic elective course; and
- all other standards for graduation, including meeting the minimum cumulative grade point average of 3.0, and meeting the minimum total number of units taken over three semesters.

4.1. Course Requirements for MISM

The following table lists all the required core courses MISM students must complete.

MISM (108 core + 54 elective = 162 total units)		
<i>Course Number</i>	<i>Course Title</i>	<i>Units</i>
94-700	Organizational Design & Implementation	6
95-702	Distributed Systems for ISM	12
95-703	Database Management	12
95-710	Economic Analysis	6
95-719	Accounting & Finance Analytics	6
94-739	Capstone Project	12
95-760	Decision Making Under Uncertainty	6
95-796	Statistics for IT Managers	6
95-843	ISM Professional Seminar	0
95-867	Tech Strategy & Governance	12
95-877	Communicating with Data	12
95-896	Python for Software Development	12
95-706	Object Oriented Analysis & Design	6
<u>OR</u>	<u>OR</u>	
95-874	Agile Methods	
<u>OR</u>	<u>OR</u>	
94-866	Design Strategy	

4.2. Analytic Elective Course

MISM students are required to take one approved Analytic elective course from the following list. Several courses offered by Heinz College and the MISM program will satisfy this requirement. In addition, the School of Computer Science, the Tepper School of Business, and other Carnegie Mellon departments offer graduate-level courses that *may* satisfy this requirement. Check with your Program Director before registering for a course from another academic department if you wish to count it as your Analytic elective course. Official approval from the Program Director is required for any course not listed below.

94-834	Applied Econometrics I	6 units
94-870	Telling Stories with Data	6 units
94-881	Managing Analytic Projects	6 units
94-823	Measuring Social	12 units
95-736	Advanced Relational Database Management	6 units
95-737	NoSQL Database Management	6 units

95-771	Data Structures & Algorithms	12 units
95-819	A/B Testing, Design and Analysis	6 units
95-820	Applications of NL(X) and LLM	6 units
95-835	Time Series Forecasting in Python	6 units
95-851	Making Products Count: Data Science for Product Managers	6 units
95-865	Unstructured Data Analytics	6 units
95-866	Advanced Business Analytics	6 units
95-881	Web Application Development	6 units
95-885	Data Science and Big Data	12 units

5. MISM Business Intelligence & Data Analytics (MISM-BIDA) Curriculum

It is the student's responsibility to know and understand the policies contained in this MISM Handbook Addendum, the [Heinz College Handbook](#), and the [CMU Graduate Student Handbook](#). All three combined cover CMU university policies and procedures along with specific Heinz College policies.

Students in MISM-BIDA acquire the skills to integrate cutting edge information and analytic technology practices with applied business methods. The program features a cohesive blend of data analytics, management, strategy, and IT courses. MISM-BIDA graduates are cross-trained in business process analysis and skilled in predictive modeling, GIS mapping, analytical reporting, segmentation analysis, and data visualization.

As a full-time graduate student, you will normally complete the MISM-BIDA curriculum in three semesters. Note, MISM-BIDA is not offered part-time. MISM-BIDA students will complete 162 units in three semesters. In order to satisfy the MISM-BIDA curriculum, you must complete the following:

- all required courses (unless you exempt them); and
- all other standards for graduation, including meeting the minimum cumulative grade point average of 3.0, and meeting the minimum total number of units taken over three semesters.

Students may transfer to the MISM (non-BIDA) program. The pre-matriculation transfer deadline is June 1. The post-matriculation transfer deadline is October 15. Contact the MISM [Program Director](#) for more information about the transfer process.

Note: Immigration changes may impact an F-1 or J-1 student's ability to change their academic program, even if allowed to by the program. Students on F-1 or J-1 documents should proactively consult with [OIE](#) when considering a program change.

5.1. Course Requirements for MISM-BIDA

The following table lists all the required core courses MISM-BIDA students must complete.

MISM-BIDA (126 core + 36 elective = 162 total units)		
<i>Course Number</i>	<i>Course Title</i>	<i>Units</i>
94-700	Organizational Design & Implementation	6
94-834	Applied Econometrics I	6
95-702	Distributed Systems for ISM	12
95-703	Database Management	12
95-710	Economic Analysis	6
95-719	Accounting & Finance Analytics	6
94-739	Capstone Project	12
95-722	Digital Transformation	6
95-760	Decision Making Under Uncertainty	6
95-796	Statistics for IT Managers	6
95-828	Machine Learning for Problem Solving	12
95-865	Unstructured Data Analytics	6
95-871	BIDA Professional Seminar	0
95-877	Communicating with Data	12
95-896	Python for Software Development	12
95-819 / 95-866	A/B Testing, Design, & Analysis <i>OR</i> Advanced Business Analytics	6

6. General Elective Courses

Please review the [Heinz College Course Catalog](#) for an exhaustive search of general electives offered by Heinz College and the MISM program.

To fulfill the elective requirements for graduation, you may take relevant graduate-level courses outside of Heinz College. **Up to 36 units** of courses outside of Heinz College may be counted towards your degree requirements.

Language (Spanish, French, etc.), Music (piano, violin, voice, etc.), and Physical Education (golf, dance, etc.) coursework does not count as general electives towards your degree requirements.

Students may count no more than 12 units of undergraduate coursework as general electives towards their degree requirements. Undergraduate units will count against the 36 unit cap (described above) of courses taken outside Heinz College. Students who wish to take an undergraduate elective class MUST submit a [general petition](#) to their Academic Advisor and receive approval for the course to count towards the degree prior to the start of the class. Generally, only upper division classes will be considered. If the student receives a grade of B or better, the units will count toward the degree, but the grade will not be factored into the student's Heinz College quality point average (QPA).

Please be aware that even with approval to count an undergraduate course for the degree, on the official CMU transcript undergraduate courses will not count towards the units earned or the QPA. If a course is cross-listed as both an undergraduate and graduate course, make sure to enroll in the graduate course to receive credit towards your degree requirements.

7. Concentrations

MISM and MISM-BIDA students who wish to complete a concentration are NOT required to take elective courses in addition to the courses required for a concentration. Thus, students will be able to complete both the degree and the concentration requirements without exceeding the minimum total units for their track. However, you should consult your Academic Advisor and plan your course selection very carefully to make this possible since the maximum units taken each semester should not exceed 54. Please note, declaring a concentration is NOT required. Students can complete their program requirements without declaring a concentration.

7.1. Concentration in AI Management

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.

7.1.1. AI Management Requirements

Students wishing to complete a concentration in AI Management while pursuing their degree must complete 36 units of the following coursework:

- Fundamentals of Operationalizing AI (94-879, 6 units)
- Responsible AI: Principles, Policies, Practices (94-885, 6 units)
- Demystifying AI (94-703, 6 units) **OR** Introduction to AI (95-891, 12 units)

and at least 12-18 units from following list:

- Generative AI: Applications, Implications and Governance (94-816, 6 units)
- Applications of NL(X) & LLM (94-812, 6 units)
- Generative AI Lab (94-844, 6 units)
- Disruptive Technologies in Arts Enterprises (93-830, 6 units)
- AI Security (95-767, 6 units)
- Managing Analytics Projects (94-881, 6 units)
- Machine Learning for Public Policy Lab (94-889, 12 units)
- Machine Learning for Problem Solving (95-828, 12 units)
- Agent-Based Modeling & Digital Twins (94-815, 6 units)
- Tech Strategy (94-888, 6 units)
- Making Products Count: Data Science for Product Managers (95-851, 6 units)
- Systems Thinking & Discrete Event Simulation (94-717, 6 units)
- Advanced AI & Business Strategy (94-829, 6 units)
- Design Strategy (94-866, 6 units)
- Critical AI Studies for Public Policy (90-769, 6 units)
- AI, Ethics and Humanity (94-830, 6 units)
- AI & Emerging Economies (94-894, 12 units)

7.2. Concentration in Health Informatics

The Health Informatics concentration prepares you to lead in one of the most vital and complex sectors of our time. You'll explore how information systems, policy and economics shape the delivery of care, as well as how technology can improve equity, access and outcomes for patients. This path equips you to analyze systems, influence policy and design solutions that make health care smarter, more equitable and more effective.

7.2.1. Health Informatics Requirements

Students wishing to complete a concentration in Health Informatics while pursuing their degree must complete 36 units of the following coursework:

- Health Systems (90-836, 6 units)
- Health Care Information Systems (94-706, 12 units)
- Health Policy (90-861, 6 units)
- Health Economics (94-705, 12 units)
- Applied Analytics in Health Care (94-709, 12 units)
- Consumer AI Systems in Health Care (94-820, 3 units)
- Technology, Humanity & Social Justice - Health (94-784, 3 units)
- Geospatial Health Analytics (90834, 12 units)

7.3. Concentration in Marketing & Social Media Analytics

This concentration prepares you to lead at the intersection of marketing, analytics and emerging media. You'll learn to measure what matters in social platforms, manage high-impact analytics initiatives and craft strategic campaigns that resonate across industries. From navigating disruption in entertainment to uncovering market opportunities with tech startups, you'll gain the tools to turn audience insight into action. Whether you're drawn to creative strategy, digital engagement or product positioning, this concentration equips you to influence how ideas spread and how brands grow.

7.3.1. Marketing & Social Media Analytics Requirements

Students wishing to complete a concentration in Marketing & Social Media Analytics while pursuing their degree must complete 36 units of the following coursework:

- Measuring Social (94-823, 12 units)
- Applied Strategic Marketing (94-708, 6 units)
- Analytic elective (see section 4.2, 6 units)
- Managing Analytics Projects (94-881, 6 units)
- Managing Disruption in Media & Entertainment (94-732, 6 units)
- Data Analytics with Tableau (94-819, 6 units)
- Marketing Analytics (45-936, 6 units)
- Marketing Communications for Consumer Brands (45-933, 6 units)

7.4. Concentration in Product Management

This concentration equips you to drive innovation from every angle: strategy, design, analytics and execution. You'll learn to uncover user needs, test hypotheses and translate data into compelling product narratives. Whether you're launching new ventures, scaling existing platforms or navigating stakeholder dynamics, you'll gain the skills to lead teams

and deliver products that matter. With a blend of technical fluency, entrepreneurial thinking and strategic insight, this path prepares you to thrive in roles that bridge vision and delivery.

7.4.1. Product Management Requirements

Students wishing to complete a concentration in Product Management while pursuing their degree must complete 36 units of the following coursework:

- Making Product Count: Data Science for Product Managers (95-851, 6 units)
- Product Management Essentials (17-619, 6 units)
- A/B Testing, Design & Analysis (95-819, 6 units)
- Design Strategy (94-866, 6 units)
- Launching New Products (49-722, 6 units)
- Telling Stories with Data (94-870, 6 units)
- Lean Innovation Lab (94-891, 12 units)
- Entrepreneurship: A New Venture (94-807, 6 units)
- Negotiation (94-800, 6 units)
- Strategy Development (94-811, 6 units)

7.5. Concentration in Tech Policy & Governance

The Tech Policy and Governance concentration prepares you to lead with integrity, insight and impact in a world where technology and humanity intersect. Our courses will prepare you to ensure that your organization handles its data with integrity, deploys AI safely and responsibly, and protects the privacy of its customers and stakeholders. You'll emerge with the knowledge necessary to help your company take advantage of emerging technology without exposing itself to the risks of unchecked implementation.

7.5.1. Tech Policy & Governance Requirements

Students wishing to complete a concentration in Tech Policy & Governance while pursuing their degree must complete 36 units of the following coursework:

- Leading with Equity & Inclusion (94-837, 6 units)
- Technology, Humanity & Social Justice - Education (94-783, 6 units)
- Management Consulting (94-408 or 94-808, 6 units)
- Evidence-Based Management (94-814, 6 units)
- Cybersecurity Policy & Governance (95-743, 12 units)
- Privacy in the Digital Age (94-806, 6 units)
- Policies of Wireless Systems (95-824, 12 units)
- Privacy, Policy, Law, & Technology (95-818, 12 units)
- AI, Ethics & Humanity (94-830, 6 units)
- AI Engineering for Policy & Climate Mitigation & Resilience (90-746, 12 units)

8. Number of Units per Semester

8.1. Normal Courseload Expectation for MISM and MISM-BIDA Students

Students typically take 54 units per semester. Completing 54 units per semester meets the degree requirement of 162 total units for MISM and MISM-BIDA.

8.2. Unit Increase Policy

Students who feel prepared to take on additional academic challenges beyond the standard 54 unit 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.

8.2.1. 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 CQPA.

8.2.2. 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.

Unit increases 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 CQPA requirement.

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

9. Internship Requirement

MISM and MISM-BIDA students are required to complete an internship after completing two semesters of the program. The completion of an internship is a graduation requirement.

Minimally, the internship requires 300 hours of full-time employment that has formal supervision, is professional in nature, includes work that is of importance to the organization, and has significant educational value.

- Students must attend an internship information session 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.

Before beginning the internship, students must complete the online [Career Services Internship Reporting Form](#) for approval.

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/F grade. 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. If you do not successfully complete an eligible internship, you will not fulfill your internship requirement necessary for graduation.

International (F-1) 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 (F-1) 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.

International (F-1) students must apply for Curricular Practical Training (CPT) employment authorization for the required 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.). If your degree program requires you to complete a summer internship, you can qualify for CPT. 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 the OIE's [CPT Website](#).

9.1.1. Securing an Internship

If you are required to complete an internship, you will be responsible for securing a suitable internship. Career Services will provide assistance through counseling, workshops on resume preparation and interview skills, and listings of potential internships. You can make an appointment to discuss your situation and you are encouraged to come to workshops that cover the essential skills for finding the right internship.

10. Capstone Project

The Capstone Project is organized around significant management problems, the solution of which requires a mix of technological, organizational, and social skills. As opposed to the traditional classroom setting, Capstone Project courses are organized as a group exercise in problem solving. Students are divided into teams guided by university department faculty. MISM (non-BIDA) students may substitute the 94-739 Capstone Project course by taking Lean Innovation Lab (94-891) or Corporate Startup Lab (45-996). Contact the MISM Program Director for more information.

11. Professional Seminar Course

Full-time Heinz College students in their first academic year will take a program specific Professional Seminar. This seminar is intended to equip the next generation of leaders in Public Policy and Information Systems with a comprehensive professional toolkit. By bridging academic rigor with strategic career development, this seminar empowers students to navigate the complex intersection of people, policy, and technology. Through active engagement and self-reflection, students will craft a unique professional narrative that prepares them to drive impact in the public, private, and non-profit sectors.

Students will receive impactful guidance from the academic advising and career advising teams, blended with sessions led by program directors, providing a holistic approach to student professional development.