CRAFTING YOUR INFORMATION SCIENCE MASTER'S PROGRAM

Cornell Bowers CIS
Information Science

Building Your Information Science Master's Program

Among the many characteristics that set the Master of Professional Studies (MPS) in Information Science at Cornell Bowers CIS apart from other available programs, perhaps none is more notable than its unique curriculum flexibility.

With no core courses, students can craft their studies however they would like, building an individual program of study that will help them meet their professional goals. While there is a list of pre-approved MPS courses, you are not limited to these options. Students can explore additional courses across the university to create a truly customized experience.

The program also offers four optional focus areas that can help guide course selection and lead to specialization in a particular area:

- **Data Science (DS):** Learn to analyze large datasets using advanced data mining techniques and programming skills. You'll explore how to identify relevant questions, process and analyze data from multiple sources, and communicate insights effectively to drive decision-making.

- **Interactive Technologies (IT):** Gain the technical expertise to design and build innovative systems, from hardware to software, in areas like health, education, and business. This focus equips you with the tools to create functional, interactive solutions.

- **User Experience (UX):** Develop human-centered design skills to create impactful technology products. Learn to conduct user research, design interfaces, and build interactive products that prioritize usability and positive societal impact.

- **Networks, Crowds, and Markets (NCM):** Study interconnected systems, human behavior, and online social systems. This focus combines economics, sociology, computer science, mathematics, ethics, and law to analyze decision-making, policy issues, and the design of networked systems.

One alumnus of the MPS class of ’18 speaks to the flexibility and value of the program, noting how the program allows him to delve into personal interests, bringing about the opportunity to integrate them into project and client work:

> “I saw the InfoSci MPS program as the natural, professional step in solidifying my undergrad studies in HCI as well as gaining hands-on training in implementing real-world design solutions. The opportunities for project work help me to explore rapidly growing facets of HCI design and allow me to share my personal interests with clients and classmates.
>
> **- Terry Vallery, MPS’ 18**

The following resource will help you navigate the MPS in Information Science program at Cornell Bowers CIS, providing a comprehensive breakdown of course options and credit requirements for:

- **Graduate-level Information Science courses**
- **MPS Project**
- **Professional Career Development**
- **Electives**

Information Science Courses

As part of the MPS degree, you must complete at least 18 credits of information science courses. These courses are divided into two categories:

- **Human and Social Systems (HSS)**
- **Information Systems (IS)**

You may choose one or more of the program's focus areas—Data Science, Interactive Technologies, User Experience, or Networks, Crowds, and Markets—to guide your course selection. This is optional and intended to help you align your studies with your career goals.

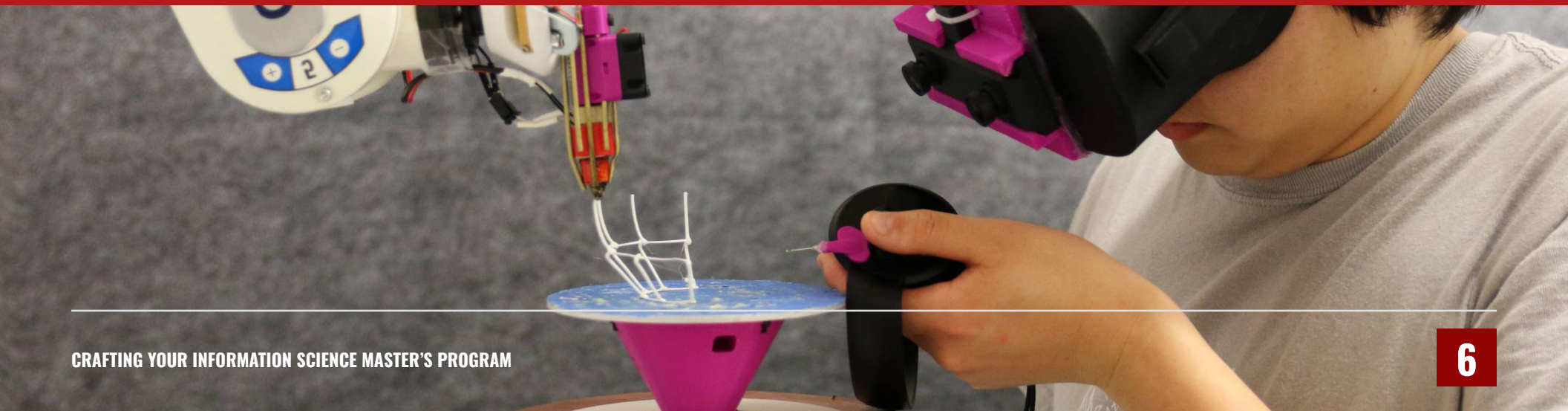
A small number of Information Science courses may fulfill either the IS or HSS category, depending on your choice, but no single course can be double-counted in both categories.

Human and Social Systems (HSS)

Complete a minimum of **9 credits** of courses that focus on the human and social aspects of computer systems and digital technology.

Information Systems (IS)

Complete a minimum of **9 credits** of courses that focus on the human and social aspects of computer systems and digital technology.



Course Selections

Please note that the below course offerings are subject to change each semester.

Course	Category	Credits		Semester Offered	Focus Area?			
Select 18 credits minimum 9 credits of HSS 9 credits of IS	IS & HSS	3	4	Fall & Spring	DS	IT	UX	NCM
DEA 6510 **Human Factors and Inclusive Design**	HSS	3	4	Fall	DS	IT	UX	NCM
DEA 5210 **Interaction Design Studio**	HSS	3	4	Spring	DS	IT	UX	NCM
INFO 5125 **Project Management**	HSS	3	4	Fall & Spring	DS	IT	UX	NCM
HADM 5890 **The Law of the Internet and E-Commerce**	HSS	3	4	Fall	DS	IT	UX	NCM
INFO 5145 **Privacy and Security in the Data Economy**	HSS	3	4	Fall	DS	IT	UX	NCM
INFO 5240 **Designing Technology for Social Impact**	HSS	3	4	Fall	DS	IT	UX	NCM
INFO 5250 **Surveillance and Privacy**	HSS	3	4	Fall	DS	IT	UX	NCM
INFO 5260 **Computing on Earth**	HSS	3	4	Spring	DS	IT	UX	NCM
INFO 5301 **Ethics in New Media**	HSS	3	4	Fall	DS	IT	UX	NCM

Course	Category	Credits		Semester Offered	Focus Area?			
Select 18 credits minimum 9 credits of HSS 9 credits of ISS	IS & HSS	3	4	Fall & Spring	DS	IT	UX	NCM
INFO 5355 **Human-Computer Interaction Design**	HSS	3	4	Fall	DS	IT	UX	NCM
INFO 5400 **Qualitative User Research & Design Methods**	HSS	3	4	Spring	DS	IT	UX	NCM
INFO 5450 **Computer-Mediated Communication**	HSS	3	4	Spring	DS	IT	UX	NCM
INFO 5505 **Computing and Global Development**	HSS	3	4	Fall & Spring	DS	IT	UX	NCM
INFO 6940 - Special Topics **Human-Centered Design and Engaged Media**	HSS	3	4	Fall	DS	IT	UX	NCM
INFO 6940 - Special Topics **Human-AI Interaction Design Research**	HSS	3	4	Fall	DS	IT	UX	NCM
INFO 5940 - Special Topics **Building Inclusive Comp Orgs**	HSS	3	4	Spring	DS	IT	UX	NCM
INFO 5940 - Special Topics **Technology and Social Change Practicum**	HSS	3	4	Spring	DS	IT	UX	NCM
INFO 5940 - Special Topics **U.S Copyright Law**	HSS	3	4	Fall & Spring	DS	IT	UX	NCM
INFO 5940 Special Topics **Law, Policy, and Politics of AI**	HSS	3	4	Spring	DS	IT	UX	NCM
INFO 5940 Special Topics **Producing Culture About, With, and Through Tech/Art Technology**	HSS	3	4	Spring	DS	IT	UX	NCM
INFO 6310 **Behavior and Information Technology**	HSS	3	4	Fall	DS	IT	UX	NCM

Course	Category	Credits		Semester Offered	Focus Area?			
Select 18 credits minimum 9 credits of HSS 9 credits of ISS	IS & HSS	3	4	Fall & Spring	DS	IT	UX	NCM
INFO 6500 **Language and Technology**	HSS	3	4	Fall	DS	IT	UX	NCM
INFO 6520 **Human-Computer Interaction Studio**	HSS	3	4	Fall & Spring	DS	IT	UX	NCM
INFO 6600 **Technology for Underserved Communities**	HSS	3	4	Spring	DS	IT	UX	NCM
INFO 6940 - Special Topics **Red Tape: The Media of Bureaucracy**	HSS	3	4	Spring	DS	IT	UX	NCM
INFO 6940 - Special Topics **Rural Computing and Rural Infrastructure**	HSS	3	4	Spring	DS	IT	UX	NCM
INFO 5431 - Special Topics **Teams and Technology**	HSS	3	4	Fall	DS	IT	UX	NCM
INFO 6940 **History of AI in Economic and Political Context**	HSS	3	4	Spring	DS	IT	UX	NCM
CS 5320 **Introduction to Database Systems**	IS	3	4	Fall	DS	IT	UX	NCM
CS 5412 **Cloud Computing**	IS	3	4	Spring	DS	IT	UX	NCM
CS 5430 **System Security**	IS	3	4	Spring	DS	IT	UX	NCM
CS 5700 **Foundations of Artificial Intelligence**	IS	3	4	Fall & Spring	DS	IT	UX	NCM
CS 5740 **Natural Language Processing**	IS	3	4	Fall & Spring	DS	IT	UX	NCM

Course	Category	Credits		Semester Offered	Focus Area?			
Select 18 credits minimum 9 credits of HSS 9 credits of ISS	IS & HSS	3	4	Fall & Spring	DS	IT	UX	NCM
CS 5756 **Robot Learning**	IS	3	4	Spring	DS	IT	UX	NCM
CS 5758 **Autonomous Mobile Robots**	IS	3	4	Spring	DS	IT	UX	NCM
CS 5780 **Introduction to Machine Learning**	IS	3	4	Fall & Spring	DS	IT	UX	NCM
CS 6745 **Human-Robot Interaction, Algorithms and Experiments**	IS	3	4	Fall	DS	IT	UX	NCM
INFO 5001 **Computing for Information Science**	IS	3	4	Fall	DS	IT	UX	NCM
INFO 5100 **Visual Data Analytics for the Web**	IS	3	4	Fall & Spring	DS	IT	UX	NCM
INFO 5306 **Crowdsourcing and Human Computation**	IS	3	4	Spring	DS	IT	UX	NCM
INFO 5311 **Interactive Information Visualization**	IS	3	4	Spring	DS	IT	UX	NCM
INFO 5312 **Data Communications**	IS	3	4	Spring	DS	IT	UX	NCM
INFO 5390 **Practical Principles for Designing Fair Algorithms**	IS	3	4	Spring	DS	IT	UX	NCM
INFO 5940 - Special Topics **Building AI-Powered Applications (Lec 009)**	IS	3	4	Fall	DS	IT	UX	NCM
INFO 5940 **Applied Machine Learning: Methods and Applications**	IS	3	4	Fall	DS	IT	UX	NCM

Course	Category	Credits		Semester Offered	Focus Area?			
Select 18 credits minimum 9 credits of HSS 9 credits of ISS	IS	3	4	Fall & Spring	DS	IT	UX	NCM
INFO 5940 **AI Chatbots, RAG, AI Agents**	IS	3	4	Spring	DS	IT	UX	NCM
INFO 5556 **Business Intelligence Systems**	IS	3	4	Fall	DS	IT	UX	NCM
INFO 6300/ CS 6740 **Advanced Language Technologies**	IS	3	4	Spring	DS	IT	UX	NCM
INFO 6350 **Text Mining History and Literature**	IS	3	4	Fall	DS	IT	UX	NCM
INFO 6350 **Text Mining History and Literature**	IS	3	4	Fall	DS	IT	UX	NCM
INFO 6940 **How LLMs Work, Their Potential and Limitations**	IS	3	4	Fall	DS	IT	UX	NCM
STSCI 5065 **Big Data Management and Analysis**	IS	3	4	Spring	DS	IT	UX	NCM
STSCI 5740 **Data Mining and Machine Learning**	IS	3	4	Fall	DS	IT	UX	NCM
DEA 6040 **Future Body Craft: Fabricating On-Skin Interfaces**	IS & HSS	3	4	Fall	DS	IT	UX	NCM
INFO 5101 **Introduction to Learning Analytics**	IS & HSS	3	4	Fall & Spring	DS	IT	UX	NCM
INFO 5152 **Advanced Topics in Computer Game Design**	IS & HSS	3	4	Spring	DS	IT	UX	NCM
INFO 5321 **Introduction to Rapid Prototyping and Physical Computing**	IS & HSS	3	4	Fall & Spring	DS	IT	UX	NCM

Course	Category	Credits		Semester Offered	Focus Area?			
Select 18 credits minimum 9 credits of HSS 9 credits of ISS	IS & HSS	3	4	Fall & Spring	DS	IT	UX	NCM
INFO 5371 Studying Social Inequality Using DS	IS & HSS	3	4	Spring	DS	IT	UX	NCM
INFO 5440 App Design and Prototyping	IS & HSS	3	4	Fall	DS	IT	UX	NCM
INFO 6120 Ubiquitous Computing	IS & HSS	3	4	Spring	DS	IT	UX	NCM
INFO 6220 Networks II: Market Design	IS & HSS	3	4	Spring	DS	IT	UX	NCM
INFO 6240 Re-Designing Robots	IS & HSS	3	4	Spring	DS	IT	UX	NCM

MPS Project Courses

To fulfill the MPS Project requirement, you must complete 1 project (3 credits) by enrolling in the MPS Project course (INFO 5900) in the Fall or Spring semester. You also have the option to complete two projects, taking one in the Fall and another in the Spring.

Alternatively, the MPS project can be completed through the Digital Technology Immersion course (NBA 6480), offered only in the Spring by the Johnson Business School. Please note that seats for this course are limited.

> "That hands-on focus was not unique to the MPS project course. It was a feature of other courses too. Almost every single class had a class project...I took very few exams. The program's emphasis on the application of what we were learning — not just the memory recall of concepts — was super useful for me and the way that I learn.
>
> - Kendall Hoffman, MPS '23

Course Selection

Course	Credits	Semester Offered
Select 3 credits minimum		**Fall/Spring**
INFO 5900 MPS Project	3	Fall & Spring
NBA 6480 Digital Technology Immersion (DTI) Project	4	Spring

Professional Career Development Courses

All students must complete Professional Career Development (INFO 5905), a 0.5 credit course offered in the Fall and Spring semesters. This course is graded on a satisfactory/unsatisfactory (S/U) basis. Whether you finish the course with an S or U, your GPA will **not** be affected, though passing the course will earn you credit, and failing will not.

If you have already secured a job offer or have a job awaiting you upon graduation, the Professional Career Development requirement may be waived.

Course Selection

Course	Credits	Semester Offered
INFO 5905 Professional Career Development	0.5	Fall & Spring

Elective Courses

To fulfill the 30 credit requirement for the MPS in Information Science, any remaining credits beyond the required courses may be taken as electives. These courses are designed to complement and extend your degree, preparing you for a professional career.

All Information Science (INFO), Computer Science (CS), and Statistical Science (STSCI) courses at a 5000-level or higher that are not categorized as Information Systems or Human and Social Systems (IS/HSS) are automatically pre-approved as electives.

Additionally, INFO 7900, Independent Research, is a pre-approved elective. To enroll, students must first communicate with and obtain approval from the faculty member they wish to conduct research with.

If you want to take an elective that is not pre-approved, you must **contact Gilly Leshed**, MPS program director, for approval. Include the following information in your email:

- Course ID
- Course title
- Course description
- Justification on why you want to take the course and how it is relevant to your MPS degree

You can select from the following pre-approved electives, with variation to which semester they are available and offered:

Course Selection

Course	Category	Credits	Semester Offered
Select additional credits below to fulfill the 30-credit requirement. 3 to 6 credits of NBA courses (DTI electives) are recommended for those participating in the DTI project	IS Elective		Fall/Spring
AEM 5110 Design and Innovation	E	3	Fall & Spring
AEM 5220 Digital Business Strategy	E	3	Fall
BTRY 6910 Advanced Population Genetics	E	3	Spring
BTRY 7950 Statistical Consulting	E	2	Fall & Spring
CEE 5900 Project Management	E	4	Fall & Spring
DEA 5520 Virtual Experience of Designed Environments	E	3	Spring
ENMGT 5930 Data Analytics	E	4	Fall

Course	Category	Credits	Semester Offered
Select <u>additional credits</u> below to fulfill the 30-credit requirement. 3 to 6 credits of NBA courses (DTI electives) are recommended for those participating in the DTI project	IS Elective		Fall/Spring
ENMGT 6020 Managing a Culture of Innovation	E	3	Fall & Spring
HADM 6470 Consumer Behavior	E	3	Fall
ILRST 6100 Statistical Methods I	E	4	Fall
NBA 5060 Financial Statement Analysis		1.5	Fall & Spring
NBA 5070 Entrepreneurship for Scientists and Engineers		3	Fall & Spring
NBA 5110 Financial Modeling		1.5	Fall & Spring
NBA 5150 Leadership Theory and Practice	E	3	Fall & Spring
NBA 5180 Intro to Design and Innovation	E	1.5	Fall & Spring
NBA 5330 Management Cases		1.5	Fall & Spring

Course	Category	Credits	Semester Offered
Select additional credits below to fulfill the 30-credit requirement. 3 to 6 credits of NBA courses (DTI electives) are recommended for those participating in the DTI project	IS Elective		Fall & Spring
NBA 5380 The Business Idea Factory		1.5	Fall & Spring
NBA 5410 Project Management		1.5	Fall & Spring
NBA 5640 The Business of Entrepreneurship		3	Fall & Spring
NBA 5690 Management Consulting Essentials		1.5	Fall & Spring
NBA 6070 Designing Data Products		1.5	Spring
NBA 6200 Marketing Research		3	Spring
NBA 6215 Introduction to Python in Business		1.5	Fall & Spring
NBA 6410 Supply Chain Strategy		1.5	Fall & Spring
NBA 6550 Business Data Analysis with SQL		1.5	Spring
NBA 6690 Building a Consumer Internet Business		1	Spring

Course	Category	Credits	Semester Offered
Select additional credits below to fulfill the 30-credit requirement. 3 to 6 credits of NBA courses (DTI electives) are recommended for those participating in the DTI project	IS Elective		Fall/Spring
NBA 6921 Artificial Intelligence for Marketing Strategy		3	Spring
NCC 5010 Data Analytics and Modeling		2.5	Spring
NCC 5080 Managing Operations	E	2.5	Spring
ORIE 5500 Engineering Probability and Statistics II	E	4	Fall & Spring
ORIE 5580 Simulation Modeling and Analysis	E	4	Fall
ORIE 5630 Operations Research Tools for Financial Engineering	E	3	Fall & Spring
SYSEN 5888 Deep Learning	E	4	Fall

One Master's in Information Science with Endless Opportunities: Cornell Bowers CIS

The MPS in Information Science at Cornell Ann S. Bowers College of Computing and Information Science stands out for its customizable and flexible curriculum. Designed to meet your unique career goals, the program allows you to tailor your coursework, choose focus areas, and create a learning experience that aligns with your personal and professional aspirations.

> "I can say without a doubt that this program and this major played an integral role in preparing me with the skills I need to pursue a position I'm absolutely thrilled about.
>
> **– Lola Legrand, MPS '18**

Why Choose the MPS in Information Science?

- Hands-on learning experiences provide practical skills for the workplace.
- The MPS project offers real-world applications of your expertise.
- The comprehensive and well-rounded curriculum is customizable to your needs.
- Courses can be tailored to your unique skill set and career goals.
- You'll benefit from a supportive student community that fosters collaboration and growth.

Ready to take the next step?

Explore our admissions page for application instructions, or request more information to learn how the MPS in Information Science can help you innovate, accomplish, and achieve in the information science field.

→ Start Your Application → Learn More