

# INFORMATION DESIGN AND STRATEGY

**Department website:** <https://www.sps.northwestern.edu/masters/information-design/>

As digital output increasingly becomes the backbone of most business strategy, there is an acute need for professionals with a better big-picture understanding of information management, design, and technology. The Northwestern University online Master of Science in Information Design and Strategy (IDS) program teaches students how to translate information and data into meaningful visual forms, narratives, and interfaces.

This interdisciplinary program prepares students to step into a cross-functional or leadership role by developing a deep and holistic understanding of today's sophisticated digital media. The program is particularly useful for people in creative fields who want a stronger grounding in business strategy to expand their career opportunities and make a larger impact on their organizations. The strong theoretical framework of the program and its focus on fundamental concepts makes the degree applicable to many diverse fields and types of organizations — business, the arts, government, healthcare, and education, to name a few — regardless of changes in technology. The IDS program aims to prepare students to take on leadership roles through a better understanding of business strategy and digital media. All classes in the IDS program are project-based, with a mix of individual and group projects. The experiential learning component of the program ensures that students are career-ready and well versed in tools commonly used in the field, with a strong foundation in theoretical concepts. The IDS program was developed in consultation with industry leaders in this emerging field. As a part-time and completely online degree, students anywhere in the world can access a program of this caliber while maintaining their personal and professional commitments.

The Master of Science in Information Design & Strategy requires the completion of 12 courses to obtain a degree. These requirements cover nine core courses, including a capstone or thesis, and three elective courses. A specialization may be declared as part of the application process. There are four specializations: **Content Strategy, Communication with Data, Learning Design** and **UX/UI** (<https://catalogs.northwestern.edu/sps/graduate/information-design-strategy/information-design-strategy-ms-ux-ui-specialization/>). In order to demonstrate ongoing knowledge and skillset growth throughout the IDS program and establish a demonstrable body of work, students, with approval from faculty, will choose one project from each course and their capstone project to place into their ePortfolio. Throughout their studies in the IDS program, students will assemble, curate, and publish assignments and projects representing their work across the core curriculum and selected courses. Current students can learn more about the ePortfolio program on the ePortfolio module on the IDS Canvas site. Current students should refer to curriculum requirements in place at the time of entry into the program.

## Degrees Offered

- Information Design and Strategy, MS (<https://catalogs.northwestern.edu/sps/graduate/information-design-strategy/information-design-strategy-ms/>)
- Information Design and Strategy, MS Communication with Data Specialization (<https://catalogs.northwestern.edu/sps/graduate/information-design-strategy/information-design-strategy-ms-data-science-analytics-specialization/>)
- Information Design and Strategy, MS Content Strategy Specialization (<https://catalogs.northwestern.edu/sps/graduate/information-design-strategy/information-design-strategy-ms-content-specialization/>)
- Information Design and Strategy, MS Learning Design Specialization (<https://catalogs.northwestern.edu/sps/graduate/information-design-strategy/information-design-strategy-ms-learning-specialization/>)
- Information Design and Strategy, MS UX/UI Specialization (<https://catalogs.northwestern.edu/sps/graduate/information-design-strategy/information-design-strategy-ms-ux-ui-specialization/>)

## Information Design and Strategy Courses

### MS\_IDS 401-DL Models and Theories of User-Centered Design (1 Unit)

The User-Centered Design course gives students hands-on experience with the latest design frameworks and methodologies that focus on the end user. Students will learn how a user focused design process can be used to solve the most challenging problems facing businesses and organizations today. Students will be introduced to the latest trends in design thinking, the importance of iterative design frameworks, researching user needs, prototyping, collaboration and critical feedback.

### MS\_IDS 403-DL Effective Communication (1 Unit)

We have work to do, both individually and collaboratively, to shift into more effective communication collectively. As technology expands, our ways of working have evolved in and through a pandemic. How we communicate matters more and more at work, in relationships, in the media, and through internal dialogue. This course is designed to examine how and why we communicate the way we do. The first half is an examination of our identities and how it impacts the information we give, receive, and perceive. The second half explores how we connect, present, share, and communicate across platforms, venues, cultures, and methods, including brand storytelling, group dynamics, political messaging, and micro-narratives.

### MS\_IDS 405-DL User Research (1 Unit)

The User Research course provides students with an overview of user research methodologies and approaches used in product/service design and usability testing. Students will have opportunities to apply appropriate research methods to solve a design problem, experience first-hand how to conduct user research, gain insights and prepare the findings for presentation to senior leaders and stakeholders.

### MS\_IDS 407-DL Information and Content Strategy (1 Unit)

This course will explore how to plan and consistently execute content that supports an organization's goals. Students will learn how to develop a content strategy, conduct a qualitative content audit, develop controlled vocabularies and lexicons, and choose the right medium (text, image, video, social interaction) for their message.

### MS\_IDS 409-DL Data Science, Management, and Business Strategy (1 Unit)

In this course, students will explore the foundational pillars for the Information Design and Strategy program. The course will coalesce techniques for using data to inform design & strategy within the business or professional setting. Through hands-on assignments and activities, students will gain best practices and walkway with a toolbox of knowledge to succeed in the real world.

### MS\_IDS 411-DL Information Design and Architecture (1 Unit)

Information architecture is essentially the application of classification and patterns to aid information retrieval. In the digital realm, the

information architect is responsible for the overall organization, manipulation, and structure of the data assets for a website, app, or digital product/service ecosystem. We have grown accustomed to web and mobile apps providing “information,” which is a value-added proposition. In the course, we will work first with raw data. One of the most essential things an information architect does is to choose what is grouped together and how it is arranged... each time we do this, we change the meaning. Data needs a careful hand to make it into something meaningful or valuable to an end user.

#### **MS\_IDS 413-DL Visual Communication (1 Unit)**

Contemporary society is inundated with visual messages. Aside from the pervasive images and icons used in advertising, visual information permeates every aspect of our lives (from politics, fashion, and architecture, to data, computers, and the domestic objects that require our daily use). While visual information in society has become more prominent in the digital age, many of the methods for communicating visually remain the same. Visual communication uses a set of universal principles to effectively communicate through the design and layout of images and data. This class will focus on the ways that we perceive visual messages, how we interpret them, how to create them for a variety of purposes, and how we can problem-solve visually.

#### **MS\_IDS 422-DL Introduction to Learning Theory (1 Unit)**

Effective instructional design begins with an understanding of the learning process. In this course, students will learn behaviorist, cognitive, constructivist, and social learning theories and their relationship to instructional practices and course design. Factors influencing learning, such as learning styles, motivation, and engagement, are also explored.

#### **MS\_IDS 423-DL Instructional Design (1 Unit)**

Students learn the foundational principles and elements of instructional systems, from analysis through evaluation. They will explore commonly-used instructional design models and learn how to apply them in an education or training environment. Students will practice incorporating sound instructional strategies into the design and development of prototypes in real-world instructional settings.

#### **MS\_IDS 425-DL Learning Environment Design (1 Unit)**

This course is an introduction to learning environment design for educational media and systems. The course will examine overarching ideas that are fundamental to learning environments and current research that informs the design and study of those environments. Students will examine technologies that can affect the behavioral, cognitive, and social dimensions of learning. Guided by research, online discussions, testing models, and technology solutions, students will learn the process of designing learning environments in a variety of settings.

#### **MS\_IDS 426-DL Educational Technology (1 Unit)**

This course is an overview of the field of educational technology: highlighting current issues and the use of technology to meet goals in educational settings, workplace needs, and/or professional development goals. Students will identify and synthesize research of an educational technology tool; students will showcase current and emerging educational technologies.

#### **MS\_IDS 432-DL Storytelling and Technical Writing (1 Unit)**

Students will experiment with a variety of writing techniques in order to communicate consistent messaging within a variety of mediums. Students will also explore hybrid writing and storytelling texts, as well as engage in discussions of weekly reading topics. Students will then produce experimental and informational design writing projects that give students insight into storytelling, as well as specific technical writing methods, for creating engrossing content in organizations.

#### **MS\_IDS 433-DL Social Media and Content Curation (1 Unit)**

You need to know how to build compelling content to reach, engage, and build relationships with a high-value audience. This course is designed to give you the knowledge, skills, and experience to build a 52-week multimedia content strategy for any market. During the program, you will work as a team with a real client desiring to develop or improve their content. You will use industry, social, and market analytics tools and proven content strategies to build a program tailored to your business goals. In addition, we will work with some of the most advanced AI systems, advanced CXM, and social analytics systems - to learn how to gain important audience insights, topics, and keywords to drive your content strategy.

#### **MS\_IDS 435-DL Persuasion and Strategic Communication (1 Unit)**

This course will examine how we observe and use persuasion in our communication with our families and friends, our workplace, and the general public. We will explore how we use communication strategically to persuade, both in thought and in action. We will look at the foundations and ethics of persuasion, including how we process persuasion, as well as how digital media affects the use of persuasion. In addition, we will explore various mediums and modes of persuasion through various written and creative projects. The course will culminate in an overall assessment of how persuasion impacts us, as individuals and as a society, in a project that reflects the theories we have discussed and influence in the workplace.

#### **MS\_IDS 452-DL Intro to Data Collection and Analytics (1 Unit)**

Data and analytics are the parts and tools for interpreting and solving performance-based business and organizational issues. Mastering these practices requires a well-rounded introduction. Understanding the appropriate uses of data, along with the limitations, begins with a review of the basics of statistics and analytics while applying these frameworks to unique and relevant real-world questions and problems. Students will practice approaching the various stakeholders within an organization with analytic information while navigating the ethical, regulatory, and compliance issues related to the use of data analytics.

#### **MS\_IDS 453-DL Introduction to Techniques of Predictive Analytics (1 Unit)**

This course is tailored to the needs of non-practitioners who interact with statisticians and data scientists. As an introduction to the field of predictive analytics, this course combines business strategy, information technology, and modeling methods. It discusses business problems and demonstrates how organizations are delivering solutions and competing leveraging data and analytics. Students will learn the role of analytics within an organization and how it interacts with other groups. The course will also present the basic statistical and machine learning techniques that are used by data scientists to analyze and model data. Students will learn the basics of each technique, emphasizing understanding what the technique is, what it is used for, and the pros and cons of the technique.

#### **MS\_IDS 455-DL Visualization of Data and Text (1 Unit)**

This course introduces data and text visualization using R and Tableau. By the end of the term, students will understand why some data visualizations are impactful, and others fall short. This is a hands-on course that puts theories into practice. Students will build multiple data visualization products and be required to defend their design choices by referencing elements of visual perception.

#### **MS\_IDS 462-DL Experience Design (1 Unit)**

Experience Design is a quickly-evolving field where skilled information designers can make a huge impact. By understanding the people and contexts involved, Experience Designers craft pathways to user-success that also achieve business goals. Students in this course will learn theories and methodologies for designing or improving digital and hybrid experiences. They will map complex experiences in visual and

narrative and formats and learn to evaluate and refine the individual interactions that comprise them. The course provides flexible, human-centered, techniques that are applicable to the design and evaluation of web, mobile, desktop, physical, and XR experiences across industries. (Required: MS\_IDS 401-DL and MS\_IDS 405-DL.)

#### **MS\_IDS 464-DL Interface Design (1 Unit)**

Digital interfaces can be found just about everywhere in our world today, and they play crucial roles across business, government, industry, and beyond. Interface Designers apply visual design, information design, information architecture, human psychology, and artistic flair to create digital interfaces that are safe, enjoyable and, most of all, effective. By understanding the places interfaces are used and the people who use them, designers make pivotal choices that impact the effectiveness of systems. This course explores tools and techniques for the design and evaluation of digital interfaces across industries. Students are exposed to a variety of design tools, though the course focuses more on theory and strategy than software-mastery. (Required: MS\_IDS 401-DL and MS\_IDS 405-DL.)

#### **MS\_IDS 466-DL Design Systems and Operations (1 Unit)**

Design-thinking isn't just effective for creating delightful products and services. Design teams themselves can be optimized for performance, quality, and scalability through the application of design systems and operations frameworks. The course explores case studies of how innovative organizations and design teams across industries have successfully scaled their operations while maintaining creativity, innovation, and output. Various design systems are explored and evaluated as students gain the strategic mindset necessary to lead design teams to success in a wide range of fluid and complex organizational settings. (Required: MS\_IDS 401-DL and MS\_IDS 405-DL.)

#### **MS\_IDS 481-DL Leadership and Business Strategy (1 Unit)**

This leadership class is focused on the unique work of IDS professionals and will examine leadership styles, using effective teamwork and organizational strategies, and how to lead organizational change. It will cover topics regarding leadership essentials, agility, and effectiveness to increase the leadership skills of all participants.

#### **MS\_IDS 498-DL Capstone Project (1 Unit)**

The capstone project course is the culmination of the IDS program and demonstrates to faculty a student's mastery of the curriculum and core competencies in the information design and strategy field. Working individually, students complete a comprehensive project chosen in conjunction with their instructors. Students are individually assessed and graded throughout the duration of class. Students should retain all course material from previous classes in the program, including textbooks, to successfully complete assignments. Students should have completed 10 of 12 courses in the program, with all core courses completed.

#### **MS\_IDS 499-DL Independent Study (1 Unit)**

An independent study is a customized course of study undertaken by a single student under the guidance of an instructor. Independent studies are comparable in their demands to other graduate-level courses. Please see the SPS Graduate Student Handbook and your academic advisor for more information about independent study registration.

#### **MS\_IDS 590-DL Thesis Research (1 Unit)**

This final project is meant to represent the culmination of students' experience in the program and must demonstrate mastery of the curriculum and ability to conduct sustained independent research and analysis. The project may be applied or may be a traditional scholarly paper; in both cases a write-up following the paper's program-specific guidelines is required. Students must submit a proposal and secure a

first reader in order to register; for further details students are advised to review the student handbook and contact their academic adviser.