

# INFORMATION DESIGN AND STRATEGY

SPS Certificate website: <https://sps.northwestern.edu/program-search/certificates.php>

## Content Strategy, Advanced Graduate Certificate

Professional writers today must adapt content to multiple platforms and channels, but how do they do this while retaining the essential messages. The Content Strategy (<https://catalogs.northwestern.edu/sps/certificates/graduate/information-design-strategy/content-strategy-advance-graduate-certificate/>) certificate will enable students to improve the impact of their writing and make full use of the expressive possibilities of digital media.

## Data Science and Analytics, Advanced Graduate Certificate

The Data Science and Analytics (<https://catalogs.northwestern.edu/sps/certificates/graduate/information-design-strategy/data-science-analytics-advance-graduate-certificate/>) certificate will give designers the tools they need to communicate complex data accurately and effectively. The courses in this certificate will enable students to work with data analysts within their organizations to translate data into images and stories that executives and customers can understand.

## Learning Design, Advanced Graduate Certificate

Effective educators design new information in ways that people can engage with, understand, and use. The Learning Design (<https://catalogs.northwestern.edu/sps/certificates/graduate/information-design-strategy/learning-design-advance-graduate-certificate/>) certificate will help prepare educators, corporate training professionals, online learning designers, librarians, and museum professionals create meaningful and pedagogically sound digital learning experiences.

## Content Strategy, Graduate Certificate

Communicators today must adapt content to multiple platforms and channels, but how do they do this while retaining the essential messages. The Content Strategy (<https://catalogs.northwestern.edu/sps/certificates/graduate/information-design-strategy/content-strategy-graduate-certificate/>) graduate certificate will enable students to improve the impact of their communication individually and collaboratively, while taking into account organizational goals - and make full use of the expressive possibilities of digital media in creating memorable and engaging content

## Communication with Data, Graduate Certificate

The Communication with Data (<https://catalogs.northwestern.edu/sps/certificates/graduate/information-design-strategy/communication-data-graduate-certificate/>) graduate certificate will give designers the tools they need to communicate complex data accurately and effectively. The courses in this specialization will enable students to work with data

analysts within their organizations to translate data into images and stories that executives and customers can understand.

## Learning Design, Graduate Certificate

Effective educators design new information in ways that people can engage with, understand, and use. The Learning Design (<https://catalogs.northwestern.edu/sps/certificates/graduate/information-design-strategy/learning-design-graduate-certificate/>) graduate certificate will help prepare professionals, such as educators, corporate training professionals, online learning designers, librarians, and museum professionals, to create meaningful and pedagogically-sound learning experiences.

## Certificates Offered

- Communication with Data, Graduate Certificate (<https://catalogs.northwestern.edu/sps/certificates/graduate/information-design-strategy/communication-data-graduate-certificate/>)
- Content Strategy, Advanced Graduate Certificate (<https://catalogs.northwestern.edu/sps/certificates/graduate/information-design-strategy/content-strategy-advance-graduate-certificate/>)
- Content Strategy, Graduate Certificate (<https://catalogs.northwestern.edu/sps/certificates/graduate/information-design-strategy/content-strategy-graduate-certificate/>)
- Data Science and Analytics, Advanced Graduate Certificate (<https://catalogs.northwestern.edu/sps/certificates/graduate/information-design-strategy/data-science-analytics-advance-graduate-certificate/>)
- Learning Design, Advanced Graduate Certificate (<https://catalogs.northwestern.edu/sps/certificates/graduate/information-design-strategy/learning-design-advance-graduate-certificate/>)
- Learning Design, Graduate Certificate (<https://catalogs.northwestern.edu/sps/certificates/graduate/information-design-strategy/learning-design-graduate-certificate/>)

## 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)

The course will evaluate personal communication strengths and weaknesses, how to determine audience, how to communicate effectively with different communication styles and in digital formats. Students will learn how to communicate their fundamental ideas productively – from developing to writing to delivering specifications, reports, and presentations. The course will examine collaboration, rhetoric, and storytelling in a professional context to assist in meeting our course goals.

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

Students will learn how to conduct quantitative and qualitative research of user behavior to inform the design, development, and ongoing maintenance of digital assets. The course will give students hands-on experience with the key tools of usability testing, including prototyping, interviewing, site surveys, and site analytics.

**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 Management Principles (1 Unit)**

Students will explore the principles of data management and data extraction. Database design, modeling, and implementation concepts will be reviewed and discussed. Students will learn how the different forms of data such as structured data in SQL databases, and unstructured data in NoSQL database systems are stored and accessed. Students will also learn how to query a database and extract useful information to support the decision making process for information design and strategy. The course has hands-on modules that provide the students with SQL and NoSQL programming skills in order to extract and process data from a database engine and present the information in forms suitable for end-users.

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

Students will explore how to effectively design, organize, retrieve, and use information. Our goal will be to create structures that support the organization's content strategy and facilitate user understanding and navigation. Topics will include semantic analysis, content hierarchy, metadata, and search engine optimization. Students will also learn how to analyze, design, and implement service oriented architecture (SOA) solutions.

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

Digital media rely on imagery and layout to communicate important and complex messages to users. In this course, students will learn how cognitive science, cartography, human-computer interactions, design, and typography affect the ways that we perceive and interpret visual messages. Students will also learn techniques for identifying good visual design.

**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 that influence 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 the ideas, principles, and techniques used in educational media or systems, focusing on both the theoretical and practical aspects of design. The design process will be guided by various frameworks and informed by current research on the study of learning environments. Students will learn how to assess interactive learning models and solutions. They will also learn how various technologies can affect the behavioral, cognitive, and social dimensions of learning.

**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)**

This course will help professional writers effectively implement a social media strategy. It provides a detailed overview of each of the major social networking websites and how consumers and businesses use them. Students will also learn how to effectively identify, select, and share the best and most relevant online content for their audience.

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

This course will examine the different ways in which we observe and use persuasion in our communication. We will explore how we use communication strategically to facilitate persuasion. 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. We will explore various mediums and modes of persuasion through a variety of assignments. The course will culminate in an overall assessment of how persuasion impacts us, as individuals and as a society, in a project that reflects influence in the workplace.

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

This course will introduce students to the appropriate uses of analytics and its limitations and define how to approach the various stakeholders within an organization with analytic information. Included will be a review of the ethical, regulatory, and compliance issues related to a given business problem and/or solution. Time will be spent interpreting performance-based organizational issues while concurrently identifying solutions for these same performance-based organizational issues. In addition, time will be spent identifying best practices to plan for engaging, implementing, and sustaining organizational change.

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

Students learn to apply statistical techniques to the processing and interpretation of data from various industries and disciplines. This course introduces statistical models as they are used in predictive analytics. It addresses issues of statistical model specification and model selection, as well as best practices in developing models for management.

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

This course entails learning by doing—working with data and text, utilizing models of text and data, working within an open-source programming environment, and building interactive visualizations for the web. It reviews the psychology of human perception and cognition and best practices in visualization and web design. Assignments involve reviewing and developing interactive visualizations of text, time series, networks, and maps. This is a project-based course with individual and team assignments.

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

This course will explore fundamental leadership behaviors coupled with business strategies that enable people to excel in their field, in order to help student-professionals apply these behaviors to careers in IDS. The course will examine leadership styles, the role of vision, integrity and ethics, as well as how to lead organizational change and solve problems, using effective teamwork and organizational strategies.

**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.