Organizations of nearly every type, including marketing, health care, finance and resource management, are recognizing the critical role of data in high-level decision making. Northwestern University’s Master of Science in Predictive Analytics program prepares graduates for these challenges and for the new opportunities that are emerging in the data science field.

Northwestern’s MS in Predictive Analytics is a convenient online program that brings together data management, statistical analysis and leadership to help students become effective data scientists and educated consumers of analytics.

Students gain exposure to enterprise-ready database programs such as Oracle and PostgreSQL, and top statistical modeling software including IBM, SPSS, SAS and R. Graduates can leverage this multilingual training when seeking careers and consulting engagements across a wide range of industries.

The curriculum ensures that students receive a thorough grounding in predictive analytics and emerge from the program as skilled data scientists. Instruction is focused on conceptual understanding and practical application, with concrete problem solving in specific industries. Additional instruction in communication and leadership provides the skills students need to articulate the value of data-driven decisions and communicate across disciplines as they lead new strategic initiatives.

The Predictive Analytics program enables students of diverse backgrounds to master the mathematical content. This thorough grounding in analytics is what separates the Predictive Analytics program from a traditional MBA program that may stress management theory over quantitative skill. In addition, Northwestern offers the only predictive analytics master’s program that allows students to complete all of their coursework online.

The program consists of 11 courses, and each course is 10 weeks in length. Coursework can be completed in as little as six quarters (1.5 years), but most students graduate within two to three years of study.

“Business savvy, information technology, and statistical modeling — put the three together and you have the Predictive Analytics program. Develop skills for today’s data-intensive world, enjoy the convenience and flexibility of online education, and benefit from the academic rigor and reputation of Northwestern University.”

Tom Miller, faculty program director
Core Courses (7 courses)

- PREDICT 401-DL Introduction to Statistical Analysis
- PREDICT 402-DL Introduction to Predictive Analytics & Data Collection
- CIS 317-DL Database Systems Design and Implementation
- CIS 435-DL Data Warehousing & Data Mining
- PREDICT 410-DL Predictive Modeling I
- PREDICT 411-DL Predictive Modeling II
- PREDICT 475-DL Project Management

Elective Courses (select 2)

- PREDICT 412-DL Advanced Modeling Techniques
- PREDICT 450-DL Marketing Analytics
- PREDICT 451-DL Risk Analytics
- PREDICT 452-DL Web Analytics
- PREDICT 453-DL Text Analytics

Other Required Courses (2 courses)

- LEADERS 481-DL Leadership
- PREDICT 498-DL Capstone Project or PREDICT 590 Thesis

Leadership Course

To gain exposure to theories and best practices in leadership, communication, innovation and change management, MSPA students join other SCS graduate students in a 10-week leadership class. With these skills complementing the core curriculum, graduates are better prepared to face the challenges of the modern workplace.

Capstone Project

MSPA students may pursue their capstone experience independently or as part of a team. As their final course, students take either the individual research project in an independent study format (PREDICT 590-DL) or the classroom capstone class in which students integrate the knowledge they have gained in the core curriculum in a project presented by the instructor (PREDICT 498-DL). In both cases students are guided by MSPA faculty in exploring the body of knowledge on predictive analytics while contributing research of practical value to the field. The capstone independent project and capstone class project count as one unit of credit.

Tuition and Fees

Tuition for the 2012–13 academic year is $2,889 per course. Online students also pay a technology fee of $115 per course.
Admission

Applicants must hold a bachelor’s degree from an accredited U.S. college or university or its foreign equivalent. A competitive undergraduate record that indicates strong academic ability is required, though applicants need not have extensive academic experience in public policy or related fields. Work or research experience in the public sector is desirable but not necessarily a requirement. The Graduate Record Examination (GRE) is not required, but strong scores bolster chances for admission. GRE scores and/or new, relevant course work at the undergraduate level are recommended for applicants whose previous academic performance was below a B average. Visiting scholars, who earn no University credit, complete a shorter application. Visit www.scs.northwestern.edu/grad/mspa for more information.

APPLICATION CHECKLIST

• Online application — access from www.scs.northwestern.edu/grad/mspa/admission.cfm
• $75 nonrefundable application fee
• One sealed copy of official transcripts from ALL previously attended colleges and universities. Official transcripts must arrive in our office in the original sealed envelope issued by the institution. Northwestern University School of Continuing Studies accepts electronic transcripts from U.S. institutions via secure electronic transcript providers. Consult with your institution to see if they are part of a secure e-delivery network. All electronic transcripts should be sent to scsadmissions@northwestern.edu. Please note transcripts are not accepted by fax or email. If you are currently enrolled, please submit an official transcript showing courses in-progress. Applicants with international transcripts must request an official course-by-course evaluation of transcripts from a NACES member such as WES or ECE. A course-by-course evaluation will translate courses, degrees and grades to U.S. equivalency.
• Two letters of recommendation focusing on academic and professional achievement and ability
• Statement of purpose (see below)
• Current resume or curriculum vitae
• Four copies of a writing sample

STATEMENT OF PURPOSE

Applicants must submit a 300-word statement of purpose explaining how the degree program will help them meet their academic and professional goals. Applicants who do not have a demonstrated quantitative methods background should explain how other academic and nonacademic experiences have equipped them to undertake graduate study in this program.

APPLICATION EVALUATION:

Your application will be evaluated by the MSPA Admissions Committee. The following considerations will guide the Admissions Committee in reviewing your application:

• The Statement of purpose demonstrates if a student’s academic and professional goals are appropriate for this degree. This statement will also aid the committee in determining if the prospective student possesses the necessary writing skills and intellectual maturity for succeeding in this program.
• The letters of recommendation serve to underscore the applicant’s commitment to graduate education and ability to succeed in graduate level work.
• The resume is used to provide evidence of a student’s continuing commitment to and/or understanding of the predictive analytics field. While we prefer candidates to possess three to five years of work and/or research experience in a related area, recent college graduates and career changers are also encouraged to apply. These applicants must demonstrate to the committee their commitment to the MSPA program by detailing previous internships, academic or volunteer work.

APPLICATION DEADLINES

Applications are accepted every quarter.

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