MS in Business Analytics

Admission Requirements

Applicants are considered on an individual basis. In addition to the Graduate College minimum requirements, applicants must meet the following program requirements:

- **Baccalaureate Field** Individuals from all baccalaureate fields are encouraged to apply. The exact course requirements will be determined based on an individual's baccalaureate field and work experience. All applicants must have had the following background coursework: mathematics through the level of calculus covering integration and differentiation, and statistics through regression analysis.
- **Grade Point Average** At least 3.00/4.00 for the final 60 semester hours (90 quarter hours) of undergraduate studies. Applicants with a master's degree must have maintained a GPA of at least 3.00/4.00 in that program.
- **Tests Required** GMAT or GRE taken within five years of entry into the program.
  - UIC and UIUC students or alumni (graduated within five years of applying) with a cumulative GPA of 3.00/4.00 and a GPA of 3.00/4.00 in selected IDS-related courses will be waived from the GMAT or GRE requirement.
- **Minimum English Competency Test Score**
  - **TOEFL iBT** 80, with subscores of Reading 19, Listening 17, Speaking 20, and Writing 21, **OR**,
  - **IELTS Academic** 6.5, with 6.0 in each of the four subscores, **OR**,
  - **PTE-Academic** 54, with subscores of Reading 51, Listening 47, Speaking 53, and Writing 56.
- **Letters of Recommendation** Two required.
- **Personal Statement** Required.

Degree Requirements

In addition to the Graduate College minimum requirements, students must meet the following program requirements:

- **Minimum Semester Hours Required** 32.
- **Coursework** No more than two 400-level courses may be used to count toward degree requirements.
- Students entering the program with sufficient background in any of the required core courses may, with the approval of the director of graduate studies, take an advanced analytics elective in its place.

Code	Title	Hours
Prerequisite Courses		
Technical Prerequisites		
Knowledge of business statistics at the level of IDS 371 or IDS 570 or equivalent.		
Knowledge of a programming language, like C, C++, Java or Python at the level of IDS 400/IDS 401 or the equivalent.		
Knowledge of relational databases and querying using SQL at the level of IDS 410 or the equivalent.		
Business Prerequisites		

Two introductory courses in any two functional areas of business. Each course may be waived based on equivalent prior coursework or appropriate work experience in the functional area.

Code	Title
IDS 532	Introduction to Operations Management
ACTG 500	Introduction to Financial Accounting
FIN 500	Introduction to Corporate Finance
MKTG 500	Introduction to Marketing

Prerequisite courses do not count toward the mininum degree requirement of 32 hours.

Code	Title	Hours
Required Courses		
IDS 521	Advanced Database Management	
IDS 560	Analytics Strategy and Practice	
IDS 572	Data Mining for Business	
IDS 575	Machine Learning and Statistical Methods for Business Analytics	
Electives		

Select 16 hours of electives from the following list, with at least 8 hours of analytics electives. Students may choose all 16 hours from analytics electives, or choose up to 8 hours of business analytics electives. Electives must be approved by the director of graduate studies. Based on the student's background and interests, other analytics-related courses may be taken with the advice and approval of the director of graduate studies.

Code	Title
Analytics Electives	
IDS 435	Optimization for Analytics
IDS 561	Analytics for Big Data
IDS 564	Social Media and Network Analysis
IDS 566	Advanced Text Analytics for Business
IDS 567	Business Data Visualization
IDS 576	Deep Learning and Modern Applications
IDS 594	Special Topics in Information and Decision Sciences
Business Electives	

Analytics-related business electives approved by the director of graduate studies, such as the following:

Code	Title
ACTG 516	Financial Statement Analysis
FIN 510	Investments
FIN 516	Theory and Structure of Options and Futures Markets
IDS 523	Audit and Control of Information Systems
IDS 552	Supply Chain Management
IDS 573	Risk Management
MKTG 561	Consumer Behavior
IDS 540	Marketing Analytics

- **Comprehensive Examination** None.
- **Thesis, Project, or Coursework Only Options** Coursework only.
- The required capstone course (IDS 560) ties together the technical material in the core courses and electives with discussion and cases to address issues related to analytics strategy for organizations

and effective analytics practice. This course further integrates this material with project work that involves either detailed study of analytics strategy and practice in organizations, or development of analytics related solutions for specific problems. Such projects, organized as part of the capstone course, can be driven by specific client needs, or framed around problems as currently encountered in practice.