Master of Professional Studies in
Data Analytics
Leo J. Meehan School of Business

Never has data been so important in our lives and to the success of virtually every industry. Data helps organizations make decisions and improves the quality of life for people around the world. Those who possess the skills and knowledge necessary to analyze data and extract actionable information from complex data sets are highly desired by organizations everywhere.

Stonehill's Master of Professional Studies (MPS) Program in Data Analytics provides students with the in-demand skills and knowledge necessary to analyze data and extract actionable information from complex data sets. Students not only earn a master's degree in one year, but also up to three SAS credentials, including a Tier 3 Academic Specialization.

FOUR REASONS TO CHOOSE STONEHIL

1. Earn a master's degree and up to three SAS credentials in a 12-month accelerated program
2. Connect with working professionals in a variety of industries and from a wide geographic region
3. Benefit from a blend of weekend on-campus residencies (about 3 a semester) and online coursework
4. All books, on-campus meals and testing fees are included — no hidden costs

PROGRAM OUTCOMES

- Earn up to three SAS credentials
- Identify a business problem or opportunity and how data analytics can be applied to solve the problem and/or increase business value
- Acquire, access, assay and prepare data for analysis
- Conduct data analysis with regard for security, privacy and ethics
- Interpret and communicate analysis results to stakeholders without bias

CAREER BENEFITS

- MPS degree emphasizes skills today's employers want
- Incorporates hands-on research and client engagements
- Executive (low-residency) format built accommodate the many demands on your time

Data Analytics

PROGRAM SCHEDULE

Our executive (low-residency) format is built to accommodate the many demands on your time. It combines online with in-person instruction that brings students together on campus about one weekend a month.

It's an approach that gives students the flexibility to study remotely without sacrificing the tremendous value of being able to network and collaborate with classmates who are charting similar paths.

- Extended three-day meeting at the start of each semester
- Periodic on-campus residency: 1 Friday class, 2 Saturday classes

Program Courses*	
FALL	Data Analytics: Tools & Concepts Database & Data Warehouse Concepts Statistics for Data Analytics
SPRING	Visualization and Digital Storytelling Python for Data Analysts Structured Data Analytics Using SAS
SUMMER	Security, Privacy and Ethics in Data Analytics Emerging Topics in Data Analytics Major Field Project/Capstone

SAMPLE COURSES

DATA ANALYTICS: TOOLS AND CONCEPTS

Introduces the key concepts of data analytics and data science as applied to solving data-centered business problems in many industries. Emphasizes principles and methods covering the process from envisioning the problem to applying data science techniques to deploying the results to improve a business and help make decisions. Topics include an introduction to data-analytic thinking; application of data science solutions to business problems; very high-level data mining techniques, an intro to the SAS software suite, and achieving and sustaining competitive advantage with data science. Students will read and analyze data analytics case studies in various industries.

STATISTICS FOR DATA ANALYTICS

An intermediate statistics course focusing on techniques used in data analytics. Introduces key statistical methods for applying data analytics. Introduces statistical thinking - starting with an question and using data and software tools to form a reasonable conclusion. Covers statistical analysis of both categorical and quantitative data. Most analysis will be performed using SAS software. Topics include statistical distributions, probability density functions, model accuracy analysis, bootstrapping, and sampling techniques.

VISUALIZATION AND DIGITAL STORYTELLING

A hands-on course emphasizing the importance of data visualization in understanding data. This course will utilize visualization software to prepare student to create reports and dashboards. Students will learn exploratory and explanatory data analysis and learn how to ask the right questions about what is needed in a visualization. Students will assess how data and design work together and learn which visualization to use in various situations and how to balance the goals of their stakeholders with the needs of their end-users and be able to structure and organize a digital story for maximum impact.

PYTHON FOR DATA ANALYSTS

A hands-on data analytics course for structured data using the Python programming language. Covers the skills that are required to explore and prepare data before analysis, create several types of predictive models (such as regression and neural networks) and perform data clustering. It also covers skills that are required for model assessment and implementation. Upon completion, students will have a set of practical data analytics skills and will know how to apply these skills in a variety of business environments and with many types of structured data.

SECURITY, PRIVACY, AND ETHICS IN DATA ANALYTICS

A survey and case study course emphasizing the importance of data privacy, and security. We need to share data in organizations, but the more we share it, the more it becomes necessary to protect it. By the end of the course, students will understand the legal, social, and ethical ramifications of data security and privacy as well as the concepts behind data guardianship and custodianship and data permissions. Special attention will be given to industry-specific data privacy laws (HIPAA, FERPA, PCI DSS, etc.).

Course descriptions taken from the Hill Book course catalog. Stonehill reserves the right to change or adjust course offerings. Additional course information can be found at **stonehill.edu/dataanalytics.*