

UNIVERSITY OF SOUTH CAROLINA

MASTER OF SCIENCE IN
**BUSINESS
ANALYTICS**



**Darla Moore
School of Business**

DATA-DRIVEN DECISION MAKING FOR SUCCESS

Data shapes every aspect of the business world. Professionals in all sectors need to know how to use data to improve and understand complex business, policy or economic questions and to facilitate informed decision making.

Making strategic decisions requires the ability to use data to analyze, frame and explore past performance and gain insights into future trends. In recent years, the demand for skilled professionals who can translate data into valuable business insights has increased dramatically. The exponential growth of data and industry's desire to use that data for better business outcomes has been widely cited as a reason for the increasing demand for analytical talent.

The Master of Science in Business Analytics (MSBA) at the University of South Carolina Darla Moore School of Business is a 30-credit hour program that provides students with the knowledge and competencies related to data acquisition, data crunching and the utilization of large streams of data for the identification, formulation, analysis and solution of statistical and mathematical models, as well as interpreting the results for use in data-driven decision making.

Business analytics skills are in high demand in every organizational sector including engineering, healthcare, science, sports, communication, finance, public relations, government, supply chains and operations.



WHERE CAN YOUR MSBA TAKE YOU?



Pathways for Analytics Professionals

MSBA graduates work in a wide variety of data-driven industries.

Some examples include:

- ▶ Business Analyst
- ▶ Data Analyst
- ▶ Financial Analyst
- ▶ Management Analyst
- ▶ Marketing Analyst
- ▶ Market Research Analyst
- ▶ Operations Analyst
- ▶ Operations Research Analyst

What Skills Make for a Successful Analytics Professional?

- ▶ A critical, inquisitive and analytical mindset
- ▶ Ability to understand and frame business problems and turn data into creative solutions
- ▶ Ability to translate and visualize data into insights
- ▶ Technical expertise in tools such as Excel, SQL, PowerBI, Tableau, R, Python and SAS for descriptive, predictive and prescriptive analytics
- ▶ Excellent oral and written communication skills to tell a story with data and present findings in a clear and concise manner

RUHI PITRE

'20 operations and supply chain, UofSC statistics

"Data is increasingly being used to make more informed business decisions in all fields. Equipping students with the tools to make sense of different data sets will make them better, more cross-functional business professionals in the future. Teaching and explaining R code has, in turn, made me a better coder. Additionally, while it's important to be able to analyze data, it's equally important to communicate that analysis effectively. Working in the Data Lab has been a great place to hone those communication skills."



KIRK RYAN FIEDLER

'21 chemical engineering

"As a Chemical Engineering B.S.E. candidate who is also seeking a minor in Data Science, I can appreciate the absolute necessity of being comfortable in managing, manipulating and interpreting big data. This program looks to not only offer these techniques, but presents them in a setting that these candidates will most likely encounter while working in their respective disciplines."

I, unfortunately like many others, had to learn these techniques independently of our disciplines, so the examples and problems we worked on were more general, and sometimes not as applicable to our specific arenas. This looks like a fantastic program that offers a more tailored data analytics learning experience to whatever field its candidates may be seeking."



NIKITA PANDEY

Vellore Institute of Technology ('16) B. Tech, electrical, electronics and communications engineering, IMBA candidate ('21)

"Coming from an engineering background and having worked for three years as a software engineer, I believe that business analytics skills are indispensable in today's world, irrespective of the industry or sector one wants to go in/work for, as we are moving more and more towards data driven decision making. I think that the MSBA program will be a great opportunity for students who wish to pursue a master's degree in business analytics right after their undergraduate education."



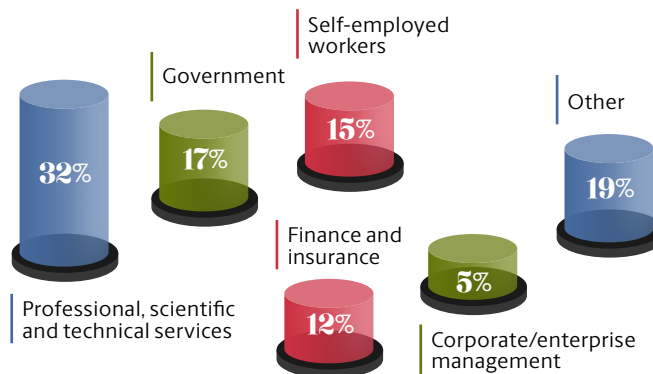
POWERFUL ROI

Employment Outlook

Companies in all industries need business analytics skilled professionals. The Bureau of Labor Statistics estimates the need for business analysts to **grow 14 percent from 2016 to 2026** as companies seek to improve efficiency and control costs with analytics.

According to the Bureau of Labor Statistics, management analysts (a common job title for business analytics roles) held approximately **876,300 jobs in 2019**. The median annual wage for management analysts was **\$85,260 in May 2019**. The lowest 10 percent earned less than \$49,700, and the highest 10 percent earned more than \$154,310.

The largest employers of management analysts included:



Corporate Endorsements



AUTUMNE E. SMITH

**Business Analytics Consultant,
BlueCross BlueShield of
South Carolina**

“Large employer customers use
aggregate health data as a strategic
asset, so it is imperative that our

employees have data literacy as a core

competency. Moreover, at BlueCross BlueShield of South
Carolina, we are leveraging data to do more than make business
decisions; we are also improving the health of our members.
Using predictive modeling and other data allows us to partner
with physicians to improve the quality and delivery of health care.
The Master of Science in Business Analytics program provides
students strong fundamentals and necessary training on data
analysis and interpretation, which enhances their skill set and
brings additional value to future employers.”

RICK WILLIAMS

**Director of Business
Intelligence and Analytics,
Michelin, North America**

“Michelin North America has identified
analytics (especially advanced analytics
around data science) as a key lever for our
future ambitions. As such, we will be in need of
talent trained in this area for years to come – in fact its difficult
right now to imagine a future without people skilled in this area.”





WHY CHOOSE UofSC?

FLEXIBLE, ONE-YEAR PROGRAM

You will start the program in August and graduate the following summer with the business analytics skills needed to analyze data and deliver deeper insights to better guide decision making. Most MSBA courses are held on campus, however, some coursework may be enhanced by partial or complete virtual delivery of materials and discussions. Remote options are also available for certain courses.

REAL-WORLD, DATA-DRIVEN LEARNING

Hands-on, experiential learning opportunities are a core part of the MSBA curriculum both in and outside the classroom. In addition to team-based projects, you'll have the opportunity to take part in capstone and consultancy projects, as well as data challenge events and case competitions. You'll also take part in an analytics practicum or an approved data-intensive internship.



TOP-RANKED FACULTY

Our faculty are industry experts and scholars who are thought leaders in their fields and will be invested in your success. They also have industry and consulting experience and many are affiliated with the Moore School's No. 1-ranked International Business program and No. 5-ranked supply chain program as ranked in the Gartner rankings for North America. You'll also have the opportunity to work with managers and executives at a wide variety of companies and organizations across industries.

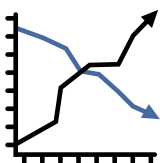
INCREASED EARNING POTENTIAL

The current and predicted shortage of college graduates who have business analytics skills has increased starting salaries for MSBA graduates. Undergraduate students who complete their MSBA often see a \$20,000 increase in their starting salaries on average according to the Bureau of Labor Statistics.

A GLOBAL NETWORK

You'll join a small, close-knit cohort of peers and faculty that will form the foundation of your professional network. Upon graduation, you'll become part of an international network of more than 50,000 Moore School alumni working in 96 countries on six continents.

A COMPETITIVE EDGE



The program is intentionally designed to be cross-functional so that graduates are equipped to understand and help solve a wide array of problems in business by using, managing, analyzing and interpreting data for business intelligence.

Given the interdisciplinary nature of the curriculum and the large and diverse number of electives, you can either take a generalist approach or you can delve more deeply into a specific discipline such as accounting, finance, human resources, economics, marketing, operations and supply chain or international business.

PROGRAM STRUCTURE:

5

**Required
Core Classes**

4

Electives

1

**Practicum
or Internship**

FIRST SEMESTER: FALL

- ▶ **MGSC 782:** Project Management
- ▶ **MGSC 790:** Data Resource Management
- ▶ **MGSC 711:** Quantitative Methods
- ▶ **ELECTIVE**
- ▶ **ELECTIVE**

SECOND SEMESTER: SPRING

- ▶ **ECON 736:** Applied Econometrics
- ▶ **MGSC 777:** Advanced Quantitative Methods in Business
- ▶ **ELECTIVE**
- ▶ **ELECTIVE**
- ▶ Practicum Project Course or Related Internship

THIRD SEMESTER: SUMMER (OPTIONAL)

- ▶ Some students may choose to extend their coursework into an additional summer semester to accommodate an internship or project.

LEARN MORE

- ▶ For a full list of recommended electives, visit sc.edu/moore/msba_electives.

REAL-WORLD LEARNING

Experiential learning activities are embedded in all MSBA classes. Analytics skills are applied in capstone projects, data-centric internships and on team projects or data challenges that leverage the use of consulting, teamwork and analytical skills applied to real business challenges.

As an MSBA student, you'll also complete an analytics practicum or an approved data-intensive internship. During the one-semester practicum, you'll join a student team to analyze a data-focused problem for an organization. Your team will gather and analyze data to develop strategies that yield high-return investment solutions to the sponsor's problem. At the end of the semester, you'll work together to develop an implementation plan and make a formal presentation to the leadership of the sponsoring organization.



JOB SUCCESS FROM DAY ONE

At the Moore School, you'll not only gain the skills you need to excel in today's fast-paced, data-driven environment, you'll also be trained in a wide range of job skills. MSBA students will be mentored through professional development workshops, career fairs, and career planning.



NETWORKING INSIDE THE MOORE SCHOOL

Center for Applied Business Analytics (CABA)

CABA is a rich resource for MSBA students. CABA supports the Moore School's business analytics curriculum, provides training on cutting-edge, analytics-based software and collaborates with the Moore School Data Lab on data challenges, hackathons and sponsored data projects. CABA also works with local and state business partners to bring in real-world data sets that can be used in teaching and research. The center's corporate advisory board includes members from more than 10 industries who provide curriculum advice and engagement opportunities for MSBA students.

INVESTING IN DATA

The Moore School Data Lab

Founded in 2019, the Moore School Data Lab assists inexperienced students with statistics courses and core business courses and provides a resource for upper level and graduate courses. The establishment of the Data Lab is a physical statement that emphasizes data as an area of excellence for the Moore School. In addition to mentoring less data-savvy students, Data Lab staff assist upper level undergraduates complete demanding data-intensive projects using R to analyze voluminous sets of real-world business data. Student learn to use popular tools such as SQL for database management and Power BI to visualize and report data. On average, the Data Lab serves more than 1,500 students per semester. Learn more at sc.edu/moore/datalab.



GET STARTED

APPLY ONLINE AT sc.edu/moore/msba



ADMISSION REQUIREMENTS



Undergraduate Degree
(all majors welcome)



Two letters of recommendation



Competitive GRE or GMAT score*



Online application, resume and personal goal statement



Official transcripts



TOEFL or IELTS test scores for international applicants

**The GMAT/GRE requirement may be waived for applicants with superior performance in their undergraduate studies and/or significant related previous work experience.*

- ▶ No work experience or business degree required.
- ▶ Preference will be given to STEM majors or applicants with strong quantitative backgrounds as well as students who have a minor in business. Applicants are also expected to have at least one semester of calculus or similar quantitative training.



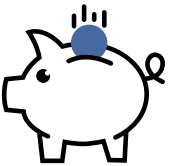
APPLICATION DEADLINES

Priority: Feb. 26*

Final: May 21**

**Seats are limited. Best consideration given to students who apply early.*

***Followed by rolling admission until the program is full.*



PROGRAM COST

\$33,000*

**Tuition and fees are subject to change at the discretion of a UofSC Board of Trustees mandate.*



MERIT-BASED FINANCIAL AWARDS

All applicants are considered for merit-based financial awards upon admission. Awards include:

- ▶ Individual fellowship awards (amounts vary)
- ▶ Graduate assistantships in the Moore School Data Lab



START YOUR BUSINESS ANALYTICS CAREER TODAY

Contact

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MSBA Program

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