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# Online Master of Science in Business Analytics

*Nearly 2.5 quintillion bytes of data are produced every day.<sup>1</sup>*  
**What will you do with it?**

Data science and analytics (DSA) is an evolving and expanding field that has seen a nearly 46% growth in hiring since 2019. This increase has heightened the demand for diverse skill sets across a variety of industries, including in roles such as:<sup>2</sup>

- Data scientist
- Chief analytics officer
- Data management analyst
- IT project manager
- Financial analyst
- Marketing manager
- Business intelligence analyst

**View Application Requirements**

<sup>1</sup> Retrieved on January 4, 2019, from [domo.com/learn/infographic/data-never-sleeps-5](https://domo.com/learn/infographic/data-never-sleeps-5)

<sup>2</sup> Retrieved on July 15, 2021 from [linkedin.com/pulse/linkedin-jobs-rise-15-opportunities-demand-hiring-now-andrew-seaman/](https://linkedin.com/pulse/linkedin-jobs-rise-15-opportunities-demand-hiring-now-andrew-seaman/)



# Build Success With High-Demand Data Skills

While data science and analytics job titles vary widely, most pull from a single suite of related skills and competencies. Your specific skill mix can indicate where you might find success, whether in advanced data analytics, analytic management, functional analytics or data-driven decision-making.

Regardless of the job title you desire, consider what skills you may need to grow and sharpen to advance your data and analytics career.

## Which Skills Are in High Demand?

**Data science jobs are expected to grow much faster than average through 2033,<sup>3</sup> with a high value placed on proficiency in:**

- Programming languages, with Python, SQL, and R topping the list<sup>4</sup>
- Machine learning
- Probability and statistics
- Data management
- Econometrics
- Statistical visualization<sup>5</sup>

Refine your own [data and analytics skills](#) with the [Online Master of Science in Business Analytics \(MSBA\)](#) from William & Mary.

3 Retrieved on March 15, 2025 from [bls.gov/ooh/math/data-scientists.htm](https://bls.gov/ooh/math/data-scientists.htm)

4 Retrieved on July 15, 2021 from [towardsdatascience.com/the-most-in-demand-skills-for-data-scientists-in-2021-4b2a808f4005/](https://towardsdatascience.com/the-most-in-demand-skills-for-data-scientists-in-2021-4b2a808f4005/)

5 Retrieved on March 13, 2021 from [coursera.org/articles/in-demand-data-analyst-skills-to-get-hired](https://coursera.org/articles/in-demand-data-analyst-skills-to-get-hired)

## Ready to move forward with an MSBA?

Download an  
Application Checklist



The Next Move for Women  
in Business Analytics

**AUDREY LOW, MSBA '19**

[Read More](#)

## Best Jobs in America!

Data scientist ranked #9 in 2025, with operations research analyst, market research analyst and statistician all making the list.<sup>6</sup>

6 Retrieved on March 15, 2025 from [money.usnews.com/careers/best-jobs/rankings/the-100-best-jobs](https://money.usnews.com/careers/best-jobs/rankings/the-100-best-jobs)



# Program Highlights

- 32 credits
- 8 core courses
- 2 prerequisites courses\*
- 1 pre-program course
- Finish in as few as 16 months\*\*
- 100% online



[View Admissions FAQs](#)

\*At the discretion of the institution, students with documented expertise in mathematics, statistics, computer science, business and economics, and other quantitative subjects can waive the four prerequisite courses. Speak with an admissions outreach advisor at 844-234-4075 to learn more.

\*\*Students who are required to complete the prerequisite courses can graduate in as few as 18 months.



## The Secret to Data Storytelling

"What do you do when you're drowning in more information than the human brain can process?"

[Read our blog to find out.](#)



## A Foundation for Sustained Success

To ensure all students possess the same baseline skills in math, statistics and programming, our [Online MSBA program](#) begins with two prerequisite courses and one pre-program course:

- Probability and Statistics with R
- Business Modeling with Python
- Excel Boot Camp

With your technical foundation set, it's time to challenge your creative and analytical capabilities, and to start transforming mere facts and figures into strategic insights.

[Download an Application Checklist](#)





# Built for Your Competitive Advantage

The Online MSBA has been crafted with an uncommon degree of care around the central program theme of [business intelligence and analytics](#). This theme represents a two-pronged approach to a professional education in analytics, one that encompasses both the technical mastery of contemporary programming languages and digital tools and the business communication and strategy acumen required to lead in a data-driven role.

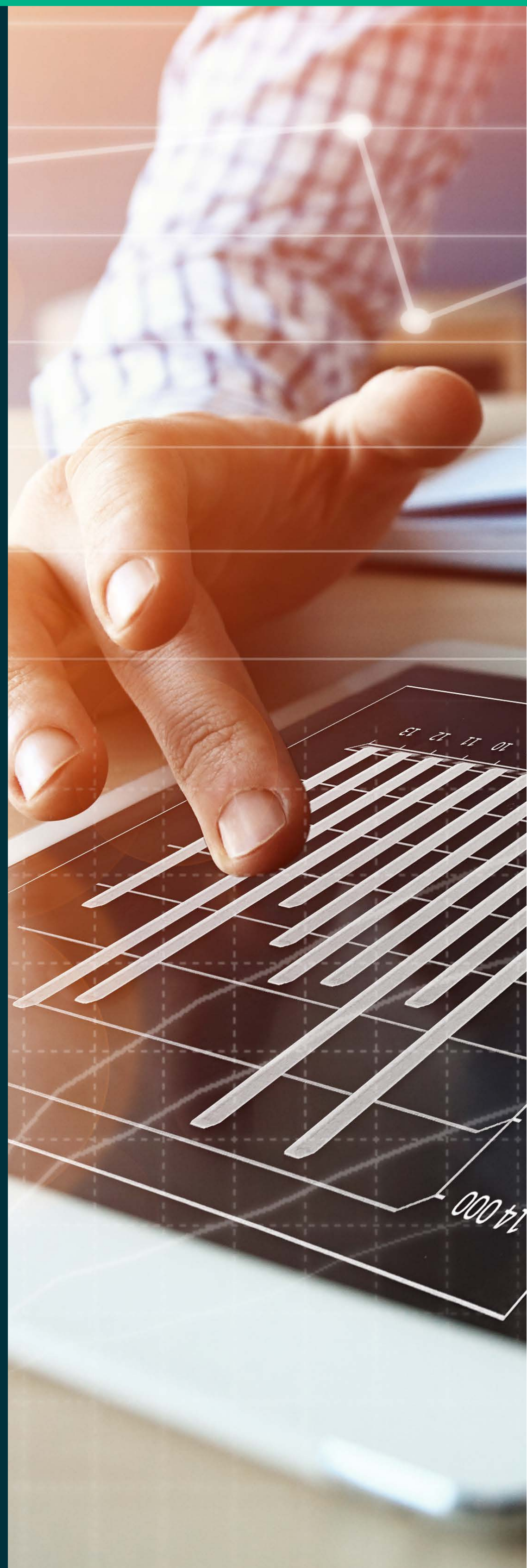
## Technological Solutions to Complex Problems:

Throughout the Online MSBA program, you will receive hands-on experience working with powerful computing technologies used to tackle contemporary businesses most difficult analytical problems. Programming languages taught throughout the Online MSBA program include R, Python and SQL, and coursework covers best practices for database management, machine learning utilizing the Hadoop environment and Amazon Web Services, and more.

## The Art of Persuasion, Backed by Data:

The Online MSBA has been built with the knowledge that even the most compelling conclusions reached through data analysis will fall flat if communicated poorly. Beginning with the introductory course "Competing Through Business Analytics," the Online MSBA teaches students to use an array of data visualization tools and verbal and written communication strategies to make an impact on decision makers and stakeholders in any business setting.

**The result?** A robust, multifaceted skill set that can make you the data science and analytics professional that modern business demands.

[View Our Curriculum](#)



# The 4 Pillars of Our Curriculum

Our rigorous [32-credit curriculum](#) is designed to give students a competitive advantage in high-growth, high-impact roles across multiple contemporary fields. To help set you up for sustained success as a data science professional, the Online MSBA curriculum centers around [four core pillars](#):

## Business Acumen:

Aspects of business analytics relating to marketing, finance, economics, operations, supply chain and human resources management, and more

## Computing Technologies:

Data management, data analytics tools (Excel, data mining, business intelligence, etc.), programming and more

## Math Modeling:

Aspects of data analysis, including probability distributions, descriptive and inferential statistics, optimization, and experimental design

## Communicating With Impact:

Communicate data insights clearly, coherently and compellingly to audiences less familiar with such technical materials

[View Our Courses](#)[Download an Application Checklist](#)

## What Our Students Say

“The Online MSBA program pushed me to technical and academic achievements far beyond those I would have ever thought myself capable of reaching. Getting exposure to using artificial neural networks for image classification was huge. Moreover, computer vision is a perfect example of a skill that most MSBA programs don’t cover, and a way in which William & Mary stands out at the absolute top of the pack.”



—TED HALLUM, MSBA '20

Senior Defense Machine Learning Engineer, Octo Consulting Group Founder,  
Veterans in Data Science & Machine Learning



# It's Time to Reimagine Business Education

## An MSBA Accessible Anytime, Anywhere

Within the [Canvas Student mobile app](#), you can:

- View grades and course content
- Submit assignments
- Keep track of coursework with a to-do list and calendar
- Send and receive messages
- Post to discussions
- Watch videos
- Take quizzes
- Receive push notifications for new grades and course updates and much more!

Discover the W&M Online Experience

“

In Competing Through Business Analytics, we developed essential skills—the ability to visualize data and to use it to persuade clients—that would serve us in class, our eventual jobs and, more pertinently, our job interviews.



**AUDREY LOW, MSBA '19**



5 Ways Big Data is Creating Smarter Cities

[Read Our Blog to Learn More](#)





# Support for Your Student Journey

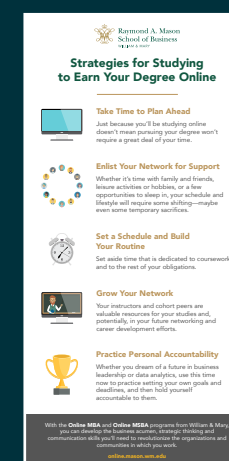
W&M supports [Online MSBA students](#) with a network of individuals and resources that are dedicated to your success in the program, including faculty, peers and cutting-edge technology. As part of this network, your dedicated [student success coordinator](#) will contact you prior to your first day of class and will serve as a source of one-on-one support throughout the duration of your program.

In addition, you'll have access to 24/7 technology support, academic advising, [career services](#), and other student support services offered by William & Mary and the Raymond A. Mason School of Business.



## Strategies for Studying to Earn Your Degree Online

[Read Our Blog](#)



# Shape the Future of Modern Business With Us

William & Mary is the Alma Mater of the Nation. With a 300-year history of distinguished alumni that have included four U.S. presidents as well as national diplomats, members of Congress and business pioneers, we have helped shape generations of leaders.

Now, we invite you to join [our revolutionary Raymond A. Mason School of Business](#) and explore with us how innovation, integrity and hard work, coupled with the power of emerging technologies, can empower you to reshape the future of business and transform the world at large.

Welcome to the [Raymond A. Mason School of Business](#).

Discover the History of W&M

## Why Choose William & Mary?

#5

Best Business  
Professors<sup>7</sup>

#1

Best Business  
School for Learning<sup>8</sup>

#20

Best Online Master's  
in Business Programs  
for Veterans (non-MBA)<sup>9</sup>

#24

Best Online Master's  
in Business Programs  
(non-MBA)<sup>9</sup>

## Who Chooses the Online MSBA?

Our [Online MSBA cohorts](#) represent varied sociocultural, geographic and professional contexts. While some students come from highly technical professional backgrounds, others come from financial, educational and government fields.

### Our Cohorts at a Glance\*

#### Demographics

11

undergraduate institutions  
represented

34%

U.S. minority

66%

ages 26-45

61%

VA resident

#### Work and Educational Background

3.2

average GPA  
(on a 4.0 scale)

8.5

years of work  
experience on average

5%

W&M alumni

45%

from the technology,  
financial services and  
educational services sectors

\* Data derived from surveys of 2018-2021 entrants to the Online MSBA program

<sup>7</sup> Retrieved on February 28, 2025, from [princetonreview.com/business-school-rankings?rankings=best-professors](https://princetonreview.com/business-school-rankings?rankings=best-professors)

<sup>8</sup> Retrieved on February 28, 2025, from [bloomberg.com/business-schools/william-and-mary-mason/](https://bloomberg.com/business-schools/william-and-mary-mason/)

<sup>9</sup> Retrieved on February 28, 2025, from [usnews.com/education/online-education/college-of-william-and-mary-231624/rankings](https://usnews.com/education/online-education/college-of-william-and-mary-231624/rankings)



# Admissions Requirements

To qualify for [admission to the Online MSBA program](#), applicants must have:

- ☐ A bachelor's degree from a regionally accredited university
- ☐ Two years of professional work experience or [proof of business acumen](#)

Qualified applicants must complete and submit the following:

- ☐ [Online application](#), including:
  - Official academic transcripts from all institutions where you have received a conferred bachelor or graduate degree. These must be sent directly from your institution
  - Two letters of reference: Please select individuals who can provide specific and relevant information about your intellectual and quantitative abilities, performance and motivation; do not include an immediate family member
  - One 300-word personal statement
- ☐ Application fee of \$100 (nonrefundable; a fee waiver may be available)
- ☐ A bachelor's degree from a regionally accredited university with a GPA of 3.0 or higher (on a 4.0 scale)
- ☐ Proof of English language proficiency (for non-U.S. citizens)
- ☐ Personal admission interview: Qualified applicants who have submitted and completed their application will be invited to schedule a personal admission interview. Interviews can be conducted on campus, via video conference or by telephone

[View Admissions FAQs](#)

[Download an Application Checklist](#)

## Become the Backbone to 21st Century Business Decisions

With the W&M Online Master of Science in Business Analytics, you can build and refine the data science and analytics skills needed to capitalize on today's greatest business opportunities. To learn more, [visit us online](#) or contact an admissions outreach advisor at 844-234-4075.

[Apply Today](#)

[online.mason.wm.edu/msba](https://online.mason.wm.edu/msba)  
[masononline@wm.edu](mailto:masononline@wm.edu)

**William & Mary**

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