OPERATIONS MANAGEMENT & BUSINESS ANALYTICS MAJOR

Associate Dean: Joseph Bailey, Ph.D.
Assistant Dean: Brian Horick

The Operations Management & Business Analytics major equips students with the knowledge and skills to apply quantitative and statistically based modeling techniques to data. These methods are used to analyze information and drive decision-making, leading to improved performance across various sectors. In today's data-driven world, the ability to extract actionable insights from large datasets is highly valuable. The major offers specializations in areas such as data analytics and decision modeling. These specializations allow students to tailor their studies toward specific industries, including energy, finance, insurance, healthcare, logistics and marketing. Students with expertise in these areas are in high demand, with career opportunities in both the public and private sectors.

Admission to the Major

See "Admission Requirements (https://academiccatalog.umd.edu/undergraduate/colleges-schools/business/)" on the Robert H. Smith School of Business page.

Program Learning Outcomes

1. Apply elements of critical thinking.
2. Identify common situations in chosen career that could result in ethical dilemma.
3. Analyze ethical scenarios and apply frameworks to develop solutions.
4. Foster and sustain team environments that are inclusive of ideas from all contributing members.
5. Apply leadership skills to motivate and coordinate with other to achieve goals.
6. Write professional-grade business documents.
7. Develop and deliver effective oral presentations.
8. Identify and use appropriate quantitative tools and techniques.
9. Use software applications to analyze and solve problems.
10. Explain how functional areas interact and drive one another.
11. Select and justify the best solution option(s) for a given management problem.
12. Classify the sources of uncertainty within a process and apply operations management approaches to manage uncertainty so as to minimize waste and improve efficiency.
13. Describe and effectively use advanced data modeling techniques to predict and infer from real-world data sets.

REQUIREMENTS

Students interested in graduate work in Operations Management & Business Analytics are strongly advised to complete MATH141, MATH240 and MATH241 in addition to the lower level courses required of all Smith School students.

The course requirements for the junior-senior curriculum concentration in Operations Management & Business Analytics are as follows:

Course	Title	Credits
College Requirements (https://academiccatalog.umd.edu/undergraduate/colleges-schools/business/#collegerequirementstext)		
Major Requirements		
BMGT332	Quantitative Models for Management Decisions	3
BMGT385	Operations Analytics	3
BMGT430	Data Modeling in Business	3
BMGT431	Data Analytics	3
Select two courses from list 'A' or one course from 'A' and one course from list 'B':		6
List A		
BMGT434	Analytics Consulting: Cases and Projects (BMGT490 is only open to QUEST students)	
or BMGT490	QUEST Capstone Professional Practicum	
BMGT435	Business Process Simulation	
List B		
BMGT400	Data Visualization and Web Analytics	
BMGT401	Big Data and AI using Cloud Computing	
BMGT404	Essential Data Skills for Business Analytics	
BMGT485	Project Management	
Total Credits		**18**

In addition to the major requirements listed above, please consult the Summary of Bachelor of Science Degree Requirements (All Curricula) (https://academiccatalog.umd.edu/undergraduate/colleges-schools/business/#collegerequirementstext) on the College Requirements section or www.rhsmith.umd.edu (http://www.rhsmith.umd.edu) for a listing of additional Smith School degree requirements that apply to all Smith School majors.

GRADUATION PLANS

Click here (https://www.rhsmith.umd.edu/programs/undergraduate/academics/academic-majors/) for roadmaps for graduation plans in the Robert H. Smith School of Business.

Additional information on developing a graduation plan can be found on the following pages:

- http://4yearplans.umd.edu
- the Student Academic Success-Degree Completion Policy (https://academiccatalog.umd.edu/undergraduate/registration-academic-requirements-regulations/academic-advising/#success) section of this catalog