

OPERATIONS MANAGEMENT & BUSINESS ANALYTICS MAJOR

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The Operations Management & Business Analytics major will provide students with the knowledge and skills necessary to successfully apply quantitative and statistically based modeling techniques to data and advantageously use the information in the data to drive decision making and improve performance in an era with massive amounts of data. Students with these skills are in high demand and career opportunities exist in the public and private sectors in a variety of industries including energy, finance, insurance, health care, logistics and marketing.

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 Management	3
BMGT430	Data Modeling in Business	3
BMGT431	Data Analytics	3
BMGT434	Analytics Consulting: Cases and Projects	3
or BMGT435	Business Process Simulation	
Select one of the following:		3
BMGT434	Analytics Consulting: Cases and Projects ¹	
BMGT435	Business Process Simulation ¹	
BMGT372	Introduction to Logistics and Supply Chain Management	
BMGT403	Systems Analysis and Design	
BMGT404	Essential Data Skills for Business Analytics	
BMGT485	Project Management	
BMGT487	Six Sigma Innovation	
BMGT490	QUEST Capstone Professional Practicum (BMGT490H-The Total Quality Practicum) ²	
Upper Level ECON Requirements		
Select one of the following:		3
ECON305	Intermediate Macroeconomic Theory and Policy	
ECON306	Intermediate Microeconomic Theory & Policy	
ECON330	Money and Banking	
ECON340	International Economics	
Total Credits		21

¹ If not selected in the above requirement

² Open only to QUEST students

Note: Students who have completed either ECON325 Intermediate Macroeconomic Analysis or ECON326 Intermediate Microeconomic Analysis can substitute these courses for ECON305 or ECON306, respectively. BMGT341 Financial Markets is an approved substitute for ECON330.

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.

Four Year Plan

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

Additional information on developing a four-year academic plan can be found on the following pages:

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