

INFORMATION SYSTEMS MAJOR, BUSINESS SPECIALIZATION

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The Business Area of Concentration in the Information Systems (IS) program prepares students to be effective planners, users, and managers of information technologies and systems in the current environment of the technology-enabled business firm. The IS major focuses on the system design and implementation skills including database and web design, analytical skills for both strategic planning of IT and performance evaluation, and the managerial plus organizational knowledge required to manage information systems and applications based on business and customer requirements. The major's core emphasizes the concepts of systems analysis and design, and the strategic use of information systems. In addition to a broad grounding in the key functional areas of marketing, operations, accounting, and finance, this major develops in-depth knowledge of information systems design and implementation, evaluation and planning of information technology investments, and managing dynamic technology projects.

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. Utilize database management, queries and data warehousing solutions to support business intelligence and decision making.
12. Design an information system solution to problems of a real business enterprise.
13. Apply information system development methodologies to create, test, and document a functional information system for a real business enterprise.

Requirements

Course	Title	Credits
College Requirements (https://academiccatalog.umd.edu/undergraduate/colleges-schools/business/#collegerequirementstext)		
Major Requirements		
BMGT302	Essential Programming Skills for Business Analytics ¹	3
BMGT402	Database Systems ²	3
BMGT403	Systems Analysis and Design	3
BMGT407	Information Systems Projects	3
Select two courses from list 'A' or one course from 'A' and one course from list 'B':		6
List A:		
BMGT405	Data Communications and Networking	
BMGT406	Developing Applications for the Web and Social Media	
BMGT408	Emerging Topics in Information Systems ³	
BMGT476	Technology Applications in Supply Chain Management	
BMGT485	Project Management	
BMGT404	Essential Data Skills for Business Analytics	
List B:		
BMGT326	Accounting Systems	
BMGT332	Quantitative Models for Management Decisions	
BMGT385	Operations Management	
BMGT430	Data Modeling in Business	
BMGT461	Entrepreneurship	
BMGT484	Digital Marketing	
Upper Level Economics 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 CMSC132 Object-Oriented Programming II is approved substitute

² CMSC424 Database Design is approved substitute

³ repeatable if content differs

Note: Students who have completed either ECON325 or ECON326 can substitute these courses for ECON305 or ECON306 respectively.

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 \(http://4yearplans.umd.edu/\)](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