INFORMATION SYSTEMS MAJOR

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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:		
BMGT400	Data Visualization and Web Analytics (Data Visualization and Web Analytics)	
BMGT401	Big Data and AI using Cloud Computing (Big Data and AI using Cloud Computing)	
BMGT404	Essential Data Skills for Business Analytics [3]	
BMGT406	Developing Applications for the Web and Social Media	
BMGT408	Emerging Topics in Information Systems [4]	
BMGT485	Project Management [5]	
List B:		
BMGT326	Accounting Systems	
BMGT430	Data Modeling in Business	
BMGT461	Entrepreneurship	
BMGT476	Technology Applications in Supply Chain Management	
BMGT484	Digital Marketing	
Total Credits		**18**

[1] CMSC132 Object-Oriented Programming II or INST326 Object-Oriented Programming for Information Science is an approved substitute.
[2] CMSC424 Database Design or INST327 Database Design and Modeling is an approved substitute.
[3] CMSC320 Introduction to Data Science is an approved substitute.
[4] Repeatable if content differs.
[5] INST453 Project Management for Information Science is an approved substitute.

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