INFORMATION SCIENCE MAJOR

Program Directors: Pamela Duffy (College Park), Galina Madjaroff Reitz (Shady Grove)

The field of information science, particularly in the iSchool, is a field concerned with the intersections of information, people, and technology. Information science is an interdisciplinary field, drawing from other areas of study such as computer science, management, social science, education, and the humanities, but with a focus on individual and institutional users of information and their information needs. In our program students gain the knowledge and the skills for creating information systems, resources, and services that help address society's pressing needs in a variety of contexts and in a variety of private and public sector positions, ranging from financial services to healthcare; from information technology to consulting; and from education to cultural institutions.

Restriction: Students are not permitted to double-major or double-degree with the Bachelor of Arts in Technology and Information Design.

Admission to the Major

Students who are accepted to the university and list Information Science (InfoSci) as their preferred major will start directly in our program. Students currently in the university who are interested in declaring Information Science must complete our Change of Major process. For more information please visit the InfoSci website (https://ischool.umd.edu/academics/bachelors-programs/bachelor-of-science-in-information-science-college-park/) or email InfoSci@umd.edu.

Program Objectives

InfoSci students gain the knowledge and the skills for creating information systems, resources, and services that help address society's greatest needs. Through coursework, internships, extracurricular projects, and networking, InfoSci students build careers that will place them in leadership roles in information management, information technology, user-centered design, and data analytics.

Program Learning Outcomes

At the completion of this program, students will be able to:

1. Articulate, discuss and critically analyze information design and management: the interrelationships among information consumers or creators, information content, and the conduits through which information flows.
2. Apply basic principles to the design, development and management of information to meet the needs of diverse users.
3. Assess the impact of existing or emerging technologies on information practices and the flow of information.
4. Employ state-of-the-art tools and techniques to create, manage, and analyze information.
5. Articulate, discuss and critically analyze critical issues including the security, privacy, authenticity, and integrity of information.
6. Explain and discuss how information technologies, processes, and practices are situated in, and may reflect, reenact and reinforce broader social and organizational structures, and the ethics, diversity, equity, and inclusion issues engendered by those structures.
7. Critically evaluate information technologies, processes, and practices to identify biases they involve, and design technologies and processes that minimize those biases.

REQUIREMENTS

Students must earn a "C-" or better in all major requirements and an overall average of 2.0.

Course	Title	Credits
Benchmark Courses		
MATH115	Precalculus	3
PSYC100	Introduction to Psychology	3
STAT100	Elementary Statistics and Probability	3
INST126	Introduction to Programming for Information Science [1]	3
Major Core Requirements		
INST201	Introduction to Information Science	3
INST311	Information Organization	3
INST314	Statistics for Information Science	3
INST326	Object-Oriented Programming for Information Science	3
INST327	Database Design and Modeling	3
INST335	Organizations, Management and Teamwork	3
INST346	Technologies, Infrastructure and Architecture	3
INST352	Information User Needs and Assessment	3
INST362	User-Centered Design	3
INST490	Integrated Capstone for Information Science	3
Major Elective Requirements		
Select ONE of the following options:		15
1. Complete at least 15 credits of INST-coded major electives [2]		
2. InfoSci Cognate Area: Data Science, Cybersecurity and Privacy, Digital Curation, and Health Information (See below for more information)		
Total Credits		**57**

[1] Other courses exist which fulfill this requirement. Please check with your advisor to make sure that a particular course fulfills this requirement before registering.

[2] Check Testudo for currently available INST elective courses.

Data Science Cognate Area

The original cognate area in the InfoSci program allows students develop understanding and skills for managing, manipulating, and mobilizing data to develop insight, create value, and achieve organizational goals in a wide range of sectors. The two career streams students aim for after completing this cognate area are data analysts - focusing on analyzing and reporting data - and data stewards - focusing on extracting, manipulating, and preparing data for quicker and more efficient analysis.

Cybersecurity and Privacy Cognate Area

This cognate area is based on the perspective that a comprehensive and effective understanding of issues surrounding cybersecurity should encompass both technological and human aspects. This cognate area helps students equip themselves with human-centered cybersecurity skills and perspectives, and prepare to launch careers in

the cybersecurity field with particular emphasis on management, policy, and governance-related functions.

Digital Curation Cognate Area

This cognate area prepares students for jobs where they collect, digitize, appraise, curate, and disseminate information assets effectively and efficiently. Information is at the heart of our society's ability to learn, conduct business, recreate, and manage complex scientific, technological, industrial, and information infrastructures. Students focusing in this cognate area will play critical roles in preserving a vast and varied body of information for posterity.

Health Information Cognate Area

This cognate area teaches students about the ways data informs the decisions made by health professionals, patients, and policy makers. Students focusing in this cognate area will learn about designing patient-centered technologies, health informatics for patients and consumers, and health data analytics.

GRADUATION PLANS

Click here (https://ischool.umd.edu/academics/student-services/undergraduate-college-park/four-year-plans/) for roadmaps for graduation plans in the College of Information.

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