

INFORMATION SCIENCE MAJOR AT SHADY GROVE

The Universities at Shady Grove

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<http://ischool.umd.edu/academics/bachelors-programs/bachelor-of-science-in-information-science-shady-grove/>

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The University of Maryland College of Information (INFO) is driven by the pursuit of big ideas and discoveries that empower people and inspire communities. From labs to libraries, we combine information science principles with cutting-edge technology to foster access to information, improve information interfaces, and expand how information is used in government, education, business, social media, and more.

Located just outside Washington, D.C., the INFO College provides unmatched research, internship, and career opportunities with government agencies, nonprofits, and businesses that shape information science and policy.

The Major

The field of information science, particularly in an iSchool, is a field concerned with the intersections of information, people and technology. It 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. Information Science 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. Undergraduate courses offered by this college may be found under the acronym: INST.

Starting in Fall 2018, UMD iSchool offers the Bachelor of Science in Information Science (BSIS) program at the Universities at Shady Grove (USG) (<https://www.shadygrove.umd.edu/>) campus, as well as the College Park campus.

Qualified transfer students are admitted to the BSIS at Shady Grove program as a cohort group. Students complete their degree over four consecutive semesters as full-time students, taking five 3-credit courses per semester, and graduate with a Bachelor of Science in Information Science degree. The BSIS program at Shady Grove is a cohort program with a pre-set class schedule to ensure admitted students are able to complete their degree in four consecutive semesters.

The BSIS at Shady Grove program offers outstanding nationally recognized faculty, uniquely qualified for excellent learning classrooms, academic support, valuable financial resources, career advising, and various student engagement and leadership opportunities.

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

Admission Requirements

Please note that admission into the BSIS at Shady Grove program is during the fall semesters only.

To be considered for admission to the BSIS program at Shady Grove, applicants must complete the following admission requirements:

1. Minimum 2.5 cumulative GPA (preferred, but may vary based on the overall application pool)
2. Have successfully (with a grade "C-" or better) completed the following BSIS benchmarks or their equivalents:
 - MATH 115 - Precalculus (or higher)
 - PSYC 100 - Intro to Psychology
 - STAT 100 - Elementary Statistics
 - INST 126 - Intro to Programming
3. Have completed 60 college-level credits:
 - Have completed a two-year Associate of Arts (A.A.) or Associate of Science (A.S.) degree in information science or other related fields
OR
 - Have completed all General Education requirements (<https://academiccatalog.umd.edu/undergraduate/general-education-requirements/#text>) with the Exception of Professional Writing

Program Learning Outcomes

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

1. Demonstrate an understanding of 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. Demonstrate an understanding of critical issues including the security, privacy, authenticity, and integrity of information.

REQUIREMENTS

With the aid of an academic advisor, the BSIS student devises a course plan to meet the graduation requirements: ten core courses, five major electives, professional writing, and four open electives, for a total of twenty courses (60 credits). At least 45 of the 60 credits must be courses taken from the College of Information.

The Bachelor of Science degree will be awarded to the student who successfully completes a program of 120 undergraduate hours, with a cumulative grade point average of 2.0 on a 4.0 scale for all courses taken for undergraduate credit since matriculation into the program. A student whose cumulative grade point average at any time in the program is lower than 2.0 is automatically placed on academic probation by the College until the problem leading to probationary status has been corrected. Students have one semester to raise their GPA over 2.0.

Upon completion of all degree requirements, students will earn a Bachelor of Science (B.S.) degree from the College of Information at the University of Maryland College Park.

Benchmark Courses

All BSIS at Shady Grove students need to have successfully completed (with a C- or better) all benchmark courses or their equivalents prior to taking program courses.

Course	Title	Credits
MATH115	Precalculus (or higher)	3
PSYC100	Introduction to Psychology	3
STAT100	Elementary Statistics and Probability	3
INST126	Introduction to Programming for Information Science ¹	3

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.

BSIS Curriculum

This program requires the completion of twenty 3-credit courses. Students are expected to follow all course prerequisites, course sequences, and major requirements.

Course	Title	Credits
INST Core Courses		
Select ten of the following:		30
INST301	Introduction to Information Science	
INST311	Information Organization	
INST314	Statistics for Information Science	
INST326	Object-Oriented Programming for Information Science	
INST327	Database Design and Modeling	
INST335	Organizations, Management and Teamwork	
INST346	Technologies, Infrastructure and Architecture	
INST352	Information User Needs and Assessment	
INST362	User-Centered Design	
INST490	Integrated Capstone for Information Science	
INST Elective Courses		
Complete at least 15 credits of INST-coded major electives		15
Complete 12 credits of open electives		12
Professional Writing		3
Total Credits		60

ADVISING

All current BSIS @ USG students are required to meet with an Academic Advisor prior to registration for each academic semester. Advising is available by appointment in the Biomedical Sciences and Engineering (BSE) Education Facility (the Universities at Shady Grove campus ([in meeting your program goals. Your advisor will assist in helping you understand your degree requirements and your options, but you make the decisions; you are in charge of your education!](https://www.google.com/maps/dir//universities+at+shady+grove/data=!4m6!4m5!1m1!4e2!1m2!1m1!1s0x89b632b6a8fe197f:0x292768fbf6722042/?sa=X&ved=2ahUKEwikzayx-8juAhUUFVkfHQXCBIQ9RcwDnoECBYQBQ)), room 4109. Your Academic Advisor will help you make informed decisions and feel confident about your plans, which will assist you</p>
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If you are a prospective student interested in our program and would like to schedule a pre-transfer advising appointment, please email us at usginfosci@umd.edu.

OPPORTUNITIES

Undergraduate Research Experiences

Opportunities for undergraduate research experience in the INFO College's research centers become available from time to time. Participation in an on- or off-campus internship, co-op, or other experiential learning opportunity is strongly encouraged. See the Information Science program staff for information on performing research in an INFO College center or lab and contact the Campus Career Services office for assistance in obtaining off-campus positions or experiences.

Internships

Students are strongly encouraged to complete at least one internship during their course of study. The INFO College hosts an internship and networking fair in fall and spring semesters to help students find internship sites. Students should also consult the Career Center (<http://www.careercenter.umd.edu>) for additional internship opportunities.

The INFO College also offers a summer internship course that allows students to partner critical reflection on professional development with an existing internship opportunity.

Scholarships and Financial Assistance

The Office of Student Financial Aid (OSFA) administers all types of federal, state, and institutional financial assistance programs and, in cooperation with other university offices, participates in the awarding of scholarships to deserving students. For information, visit their website (<https://financialaid.umd.edu/>).

Scholarships administered by the INFO College for undergraduate students include:

Turner family Optimal Solutions endowed scholarship

The College of Information invites applications for the annual award of the *Turner Family Optimal Solutions Endowed Scholarship* for one or more BSIS students. The Turner Family Optimal Solutions Endowed Scholarship is a merit-based financial award given to INFO College Information Science undergraduate students who are able to demonstrate an application of information science to economics, environmental studies, public policy, or other social science disciplines and provide a compelling case for how this financial assistance will aid them in obtaining their degree. Preference will be given to INFO College Information Science undergraduate students who are completing a dual major, minor, certificate, or coordinated study with the College of Behavioral and Social Sciences, but all students are encouraged to apply.

Undergraduate INFO Excellence Fund Award

The Undergraduate iSchool Excellence Fund Award is a merit-based scholarship given to current InfoSci students. Students interested in applying for this award must clearly state their post-baccalaureate educational and/or career goals and demonstrate how the INFO College Information Science undergraduate program is preparing them to achieve

those goals. Students should highlight how Information Science courses they have completed, and co-/extra-curricular engagement have provided them with the requisite knowledge and professional preparation to meaningfully engage in the field of information science.

Westin Scholar

The Westin Scholar is a merit-based scholarship funded by the International Association of Privacy Professionals (IAPP). It is given to an advanced InfoSci, SDSC, or InfoDesign student interested in a career in information privacy. Students interested in applying for this award must clearly state their post-baccalaureate educational and/or career goals and how those goals intersect with privacy issues. Students should highlight privacy-related courses they have completed, and co-/extra-curricular engagement in privacy topics or activities.

The award also includes 2 years of membership with the IAPP, 3 complimentary exams for IAPP certifications (CIPP, CIPM, CIPT), and unlimited access to online training for the recipient's selected IAPP certification programs.

Awards and Recognition

Dean's Award for an Outstanding INFO College Project

The Dean's Award for an Outstanding INFO College Project will be presented to an INFO College student or a group of students (which includes at least one INFO College student) for an outstanding design or development project completed for an INFO College course. Projects must be nominated by a faculty member(s) and must represent outstanding work that furthers understanding by offering new insights into development or design or displays excellence in applying existing state-of-the-art methods and knowledge.

Laurence B. Heilprin Award

The Laurence B. Heilprin Award will be presented to an INFO College student or a group of students (which includes at least one INFO College student) for an outstanding paper on a topic in library and information science which has been written for an INFO College course. Papers must be nominated by faculty and must represent outstanding work that furthers understanding by offering new insights, incorporating original research, and/or analyzing existing information in new ways.

Dr. Joan Giesecke Best Student Paper on Health Informatics Award

The Dr. Joan Giesecke Best Student Paper on Health Informatics Award will be presented to a graduate student or a group of graduate students for an outstanding paper which has been written for an INFO College course and which focuses on any aspect(s) of Health Informatics. The INFO College defines Health Informatics broadly, including any work that focuses on health information management; health information technologies; health data analytics; health-related information needs or behaviors; health librarianship, etc. Papers must be nominated by faculty and must represent outstanding work that furthers understanding by offering new insights on issues relating to Health Informatics, incorporating original research, and/or analyzing existing information in new ways.

Dean's Award for Outstanding Undergraduate Research Achievement

The Dean's Award for Outstanding Undergraduate Research Achievement will be presented to an undergraduate student or a group of undergraduate students for an outstanding research paper or project that

has been completed for an INFO College course. Projects/papers must be nominated by a faculty member(s) and must represent outstanding work that furthers understanding by offering new insights into development or design or displays excellence in applying existing state-of-the-art methods and knowledge.

Special Advantages and Facilities

At the INFO College, faculty and students are exploring how people access and use information. From developing smart city technology to creating new archival methods, we seek to improve the individual experience as well as to foster connected communities. At our research centers and labs, we enable discovery, creativity, problem-solving, and fun while tackling real-world challenges and developing impactful solutions.

INFO College faculty and doctoral students also participate in or have affiliations with the University of Maryland Institute for Advanced Computer Studies (UMIACS), and the Maryland Institute for Technology in the Humanities (MITH) as well as the Departments of Computer Science, English, and Sociology, the Robert H. Smith School of Business, and the College of Education.

Research Units

The INFO College is home to a number of research centers and labs:

Advanced Information Collaboratory (AIC)

<https://ai-collaboratory.net/>

The Advanced Information Collaboratory (AIC), founded in Feb. 2020 by UMD Professor Dr. Richard Marciano with 9 other collaborators, is an international research network that brings together over 70 students, researchers, and partners from around the globe to:

- EXPLORE the opportunities and challenges of "disruptive technologies" for archives and records management (digital curation, machine learning, AI, etc.).
- LEVERAGE the latest technologies to unlock the hidden information in massive stores of records.
- PURSUE multidisciplinary collaborations to share relevant knowledge across domains.
- TRAIN current and future generations of information professionals to think computationally and rapidly adapt new technologies to meet their increasingly large and complex workloads.
- PROMOTE ethical information access and use.

Artificial Intelligence Interdisciplinary Institute at Maryland (AIM)

<https://ischool.umd.edu/centers-and-labs/aim/>

INFO Faculty: Sheena Erete

The Artificial Intelligence Interdisciplinary Institute at Maryland (AIM) is a collaborative hub for AI, supporting faculty research, offering innovative and experiential learning opportunities, and focusing on responsible and ethical AI technology to advance the public good across industry, government and society. AIM brings together researchers from across disciplines and University of Maryland (UMD) units to conduct research that responsibly advances AI technology.

Computational Linguistics and Information Processing (CLIP)

<http://wiki.umiacs.umd.edu/clip/>

The Computational Linguistics and Information Processing Lab (CLIP) at Maryland creates and evaluates systems that allow computers to effectively and efficiently use human language – together with large-scale information networks – to perform tasks such as search, translation, summarization and ontological reasoning. It is a part of the broader language science initiative at Maryland and of the University of Maryland Institute for Advanced Computer Studies (UMIACS).

Center for Archival Futures (CAFe)

<http://cafe.ischool.umd.edu>

The Center for Archival Futures (CAFe) develops and disseminates human-centered approaches to creating the systems, processes, and institutions which enable the use of and care for digital objects and data over time. We take a holistic view of archives and digital curation as a research area, education domain, and growing profession that transcends disciplines and organizational contexts.

The Human-Computer Interaction Lab (HCIL)

<http://hcil.umd.edu>

The Human-Computer Interaction Lab (HCIL) transforms the experience people have with new technologies. From understanding user needs to developing and evaluating the technologies that support users' needs, the lab's faculty, staff, and students have been leading the way in HCI research and teaching for over 30 years. It is critical to understand how the needs and dreams of people can be reflected in future technologies. To this end, the HCIL develops advanced user interfaces and design methodology. The primary activities include collaborative research, publication and the sponsorship of seminars and brown bag talks, workshops and an annual symposium. The HCIL, though referred to as a lab, is actually a research center that is jointly administered by the INFO College and UMIACS, and has multiple labs, faculty, and students associated with it.

Immigration and International Information Research Alliance (i3r@UMD)

<https://ischool.umd.edu/centers-and-labs/i3rumd/>

The Immigration and International Information Research Alliance, or i3r@UMD, is a group of UMD College of Information faculty researchers, graduate students, and staff who investigate and advance immigrants' information access. Their goal is to:

1. Produce evidence-based tools to strengthen immigrants' trust in information.
2. Offer research support through various gatherings.
3. Promote information professionals' awareness of community members' lived experiences.

Maryland Initiative for Digital Accessibility (MIDA)

<https://ischool.umd.edu/centers-and-labs/mida/>

Over 20% of people are excluded from education, employment, and healthcare due to inaccessible digital technologies and content. Digital technologies (such as software apps, websites, digital documents, and operating systems) are often designed without considering the needs of people with disabilities.

The Maryland Initiative for Digital Accessibility (MIDA) combines the expertise and passion of researchers, designers, developers and educators from multiple disciplines at the University of Maryland with a united goal of making digital technologies accessible for all. MIDA aims to involve the disability community, private and public partners, and anyone interested in accessibility issues, in technology development

projects, public outreach programs and advocacy. We will collaborate with others to proactively build in accessibility when developing new technologies – known as the “born accessible” approach.

Organizational Teams & Technology Society (OTTRS)

<https://ischool.umd.edu/centers-and-labs/ottrs/>

The Organizational Teams and Technology Research Society (OTTRS) aims to advance research and collaboration on the study of teams as relevant to technology and information. Topics include, but are not limited to, teams and artificial intelligence, technology to support different types of teams, collaborative learning, ethics in teams and technology, leveraging technology to improve the study of teams, and more. While we have a human focus, we are inspired by computational potential and technological advances. We explicitly welcome multiple and interdisciplinary approaches.

Trace Research and Development Center

<http://trace.umd.edu>

The Trace Center's purpose is to apply engineering, computer science, disability studies, public policy, and information science to prevent the barriers to, and capitalize on the opportunities presented by, current and emerging information and communication technologies. Our vision is of a world that is accessible and usable by people of all ages and all abilities – each experiencing ICT in a way they can understand and use. Founded in 1971, Trace has been a pioneer known for high-impact research and development, including access features implemented in computer operating systems, leadership in development of Web Content Accessibility Guidelines and many other accessibility standards, and techniques used to increase the accessibility of self-service kiosks in post offices, train stations, and airports. Trace is currently a leader in the development and large-scale deployment of a Global Public Inclusive Infrastructure that combines cloud computing, web, and platform services to make online information and services available for people facing accessibility barriers.

Social Data Science Center (SoDa)

<http://socialdatascience.umd.edu>

The Social Data Science Center (SoDa) – a Center established by the College of Information and the Joint Program in Survey Methodology (JPSM) within the College of Behavioral and Social Sciences – is an inter-disciplinary academic and research center. SoDa plans to sponsor seminars, workshops and focused conferences designed to bring attention to the rapidly expanding universe of digitized data and new forms of behavioral data, as well as developments in data science that can benefit investigators in the social sciences.