

INFORMATION SCIENCE MAJOR AT SHADY GROVE

Notice of Addendum: The Major description for this program was updated effective Spring 2024 and has been published on ADDENDA TO THIS CATALOG (<https://academiccatalog.umd.edu/undergraduate/addenda/#information-science-major-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/>
<http://shadygrove.umd.edu/academics/degree-programs/bs-information-science-bsis/>

Faculty Program Director: Galina Reitz, Ph.D.

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Academic Advisor: Jacob Davidson

The University of Maryland, College of Information Studies, also known as the UMD iSchool (<https://ischool.umd.edu/>), is driven by the pursuit of big ideas and new 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 of Washington, D.C., the iSchool 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.

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 information studies courses taken from the College of Information Studies.

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 Studies 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, (https://ischool.umd.edu/sites/default/files/page_files/prerequisite_list_2017_03_13.docx.pdf) 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 (<https://www.google.com/maps/dir//universities+at+shady+grove/data=!4m6!4m5!1m1!4e2!1m2!1m1!1s0x89b632b6a8fe197f:0x292768fb6722042/?sa=X&ved=2ahUKEwikzayx-8juAhUUFVkfFHQXCBMIQ9RcwDnoECBYQBQ>)), room 4109. Your Academic Advisor will help you make informed decisions and feel confident about your plans, which will assist you 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!

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 iSchool'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 iSchool center or lab and contact the Campus Career Services office for assistance in obtaining off-campus positions or experiences.

Internships

Internships are not required but are strongly encouraged by the program. An internship is a real-world application of concepts and theories that students learn in the classroom. It involves students providing meaningful work in a career field that is directly related to their major and/or area of career interest. An internship is an excellent opportunity for a student to gain professional experience in the information science field, as well as build/expand their professional network. The program does not provide internship placements. However, students have access to six career/networking events throughout each academic year (at College Park and Shady Grove campuses), giving them an opportunity to meet potential employers from the field.

Students should also consult the College Park Career Center (<http://www.careercenter.umd.edu>) and the Shady Grove Career and Internship Services Center (<https://shadygrove.umd.edu/student-services/CISC/>) for additional internship opportunities.

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/>).

UMD BSIS at Shady Grove students are also eligible for the scholarship programs and opportunities offered by the Center for Student Engagement and Financial Resources (<https://shadygrove.umd.edu/student-services/csef/>) at the Universities at Shady Grove campus.

Awards and Recognition

Dean's Award for an Outstanding iSchool Project

The Dean's Award for an Outstanding iSchool Project will be presented to an iSchool student or a group of students (which includes at least one iSchool student) for an outstanding design or development project completed for an iSchool 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 iSchool student or a group of students (which includes at least one iSchool student) for an outstanding paper on a topic in the library and information science that has been written for an iSchool 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 that has been written for an iSchool course and which focuses on any aspect(s) of Health Informatics. The iSchool 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 iSchool 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 iSchool, 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.

The college operates six research centers all located at the main College Park campus: the Center for Advanced Study of Communities and Information (CASCI), the Computational Linguistics and Information Processing Lab (CLIP), the Digital Curation Innovation Center (DCIC), the Human-Computer Interaction Lab (HCIL), the Information Policy and Access Center (IPAC), and the Trace Research and Development Center.

iSchool 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 iSchool is home to a number of research centers and labs:

The Center for the Advanced Study of Communities and Information (CASCI)

Hornbake Bldg, South Wing, College Park
Phone: 301-405-2033
<http://casci.umd.edu>

Co-Directors: Dr. Jessica Vitak, Dr. Susan Winter

The Center for the Advanced Study of Communities and Information (CASCI) is a multidisciplinary research network, based at the University of Maryland. CASCI exists to facilitate research and education that advances our understanding of the technology, information, and organization approaches needed to realize the potential of 21st-century communities to support learning, facilitate innovation, transform science and scholarship, promote economic development, and enhance individual and civic well-being.

Computational Linguistics and Information Processing (CLIP)

Phone: 301-405-6722
<http://wiki.umiacs.umd.edu/clip/index.php/>

Director: Dr. Jordan Boyd-Graber

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).

Digital Curation Innovation Center (DCIC)

4110 Hornbake Bldg, South Wing, College Park
Phone: 301-405-2033
dcic.ischool@umd.edu
<http://dcic.umd.edu>

Director: Dr. Richard Marciano
Assistant Director: Noah Dibert
Digitization Lab Director: Dr. Ken Heger
ARC Lab Director: Dr. Ricky Punzalan

The Digital Curation Innovation Center (DCIC) was founded to lead research and education in digital curation and foster interdisciplinary partnerships using Big Records and archival analytics through public/industry/government partnerships. DCIC sponsors interdisciplinary projects that explore the integration of archival research data, user-contributed data, and technology to generate new forms of analysis and historical research.

The Human-Computer Interaction Lab (HCIL)

2117 Hornbake Bldg, South Wing, College Park
 Phone: 301-405-2769
 hcil-info@cs.umd.edu
 http://hcil.umd.edu

Director: Dr. Niklas Elmqvist

Associate Director: Dr. Jessica Vitak

Associate Director of Research: Dr. Catherine Plaisant

Assistant Director of Technology: Dr. Evan Golub

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 iSchool and UMIACS, and has multiple labs, faculty, and students associated with it.

The Information Policy and Access Center (IPAC)

4121 Hornbake Bldg, South Wing, College Park
 Phone: 301-405-9445
 http://ipac.umd.edu

Co-Directors: Dr. John Bertot, Dr. Paul Jaeger, Dr. Mega Subramaniam

The Information Policy & Access Center (iPAC) is a response to the pressing need for research on the processes, practices, policies, and social issues that govern access to information in our increasingly digital information society. We at iPAC are committed to studying what policies and/or technologies lead to equitable and inclusive information access, a digitally-ready population, an informed and engaged public, access to Internet-enabled resources and technologies, or preservation of the cultural record, among key examples.

Trace Research and Development Center

Room 2117 Hornbake Bldg, South Wing, College Park
 Phone: 301-405-2043
 trace-info@umd.edu
 http://trace.umd.edu

Director: Dr. Gregg Vanderheiden

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 the 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.

Careers in Information Science

Many new and emerging job positions are becoming available in the Information Science field. It is expected that the demand for individuals who can fill those positions will continue to grow. iSchool graduates will be prepared to compete for these positions in all types of organizations – including government institutions, non-profits, educational and cultural institutions, and the private sector.

The InfoSci degree will prepare you to compete for a variety of positions and job functions. Listed are some of the types of positions that might be of interest to an InfoSci grad.

Interested in working with data to find novel information that can help guide strategic decision making or help others analyze data? Below are some examples of positions you could have with links to information about salary, position description, and popular employers:

- Data Analyst (https://www.payscale.com/research/US/Job=Data_Analyst/Salary/)
- Data Scientist (https://www.payscale.com/research/US/Job=Data_Scientist%2c_IT/Salary/)
- Data Steward (https://www.payscale.com/research/US/Job=Data_Steward/Salary/)
- Database Administrator ([https://www.payscale.com/research/US/Job=Database_Administrator_\(DBA\)/Salary/](https://www.payscale.com/research/US/Job=Database_Administrator_(DBA)/Salary/))

Want to work with individuals and teams to understand their information needs and their expectations for tools and applications they will use to work with information? You might be interested in a position like:

- User Experience Designer (https://www.payscale.com/research/US/Job=User_Experience_Designer/Salary/)
- User Interface Designer (https://www.payscale.com/research/US/Job=User_Experience_Designer/Salary/)

If you are looking for a job where you work to gather, organize, disseminate information to members of an organization to address their information needs, you should look for positions like:

- Content Management Specialist (https://www.payscale.com/research/US/Job=Web_Content_Manager/Salary/)

Want to design, develop and/or deploy an information system, manage individuals and teams who do such work? You might like to work as one of the following:

- Systems Architect (https://www.payscale.com/research/US/Job=Systems_Architect/Salary/)
- Data Architect (https://www.payscale.com/research/US/Job=Data_Architect/Salary/)
- Project Manager ([https://www.payscale.com/research/US/Job=Project_Manager%2c_Information_Technology_\(IT\)/Salary/](https://www.payscale.com/research/US/Job=Project_Manager%2c_Information_Technology_(IT)/Salary/))