INFORMATION SCIENCE (PHD)

Graduate School

Program Website (https://infosci.cornell.edu/)

CIP: 11.0103 | **HEGIS:** 0702.00 | **NYSED:** 28766

Graduate Field

Information Science (https://catalog.cornell.edu/graduate-school/information-science/)

Program Description

Information Science is an interdisciplinary program within the Faculty of Computing and Information Science. It brings together faculty, researchers and students who share an interest in studying digital information.

Information Science examines information systems in their social, cultural, economic, historical, legal, and political contexts. Computer science is an important part of the program, but the emphasis is on systems and their use, rather than on the technologies that underlie them.

Information Systems draws from Computer Science and Operations Research; Human Computer Interaction from Communication, Psychology, and Cognitive Studies; Social Studies of Computing from Science & Technology Studies, Law, and Economics, with many others.

The Ph.D. program has been approved by the Education Department in the State of New York.

The Information Science program is home to several large research groups, including the Human-Computer Interaction group, digital libraries research, and the ePrint arXiv.

Concentrations

- Cognition
- Human computer interaction
- Information science
- Information systems
- Social aspects of information

Program Information

- Instruction Mode: In Person
- Location: Ithaca, NY
- Minimum Credits for Degree: 84

Program Requirements

- Enrollment in GRAD Research Course to maintain full-time status every semester
- 12 credits of core coursework
- Minimum Semesters for Degree: 6

Graduate School Milestones

- Responsible Conduct of Research Training: Required
- Open Researcher and Contributor ID (ORCID): Required
- Student Progress Reviews (SPR) begin: First Year
- Examination for admission to candidacy (A Exam): Spring of third year
- Defense of Dissertation (B Exam): Summer of sixth year

Field Specific Milestones

- Two semesters of teaching assistantship required

Course Requirements

- Additional course requirements may be set by the student's Special Committee. Program specific requirements that apply to all students are included below.

Before A Exam

- 4 core courses chosen from 4 of 5 Information Science Core Areas

Design Core Area

- INFO 6520 Human Computer Interaction Graduate Studio
- DEA 6040
- INFO 6135 Developing Research Agendas in HCI Engineering
- INFO 6420 Re-Designing Robots
- INFO 6940 Special Topics in Information Science (Topic: Human-AI Interaction Design Research)
- CS 6755 Mobile Human Robot Interaction Design
- 6000+ level course approved by Design Core Area faculty

Behavioral Core Area

- INFO 6310 Behavior and Information Technology
- INFO 6240
- INFO 6450 Computer-Mediated Communication
- INFO 6490 Social Behavior and Technology (Topic: Social Behavior and Technology)
- 6000+ level course approved by Behavioral Core Area faculty

Ethics, Law, and Policy Core Area

- INFO 6210 Information, Technology, and Society
- INFO 6620 Social Research Design and Method
- INFO 6940 Special Topics in Information Science (Topic: From Turing to ChatGPT)
- INFO 6940 Special Topics in Information Science (Topic: Privacy and Security in the Data Economy)
- INFO 6940 Special Topics in Information Science (Topic: Red Tape: The Media and Technology of Bureaucracy)
- INFO 6940 Special Topics in Information Science (Topic: Rural Computing and Rural Infrastructure)
- LAW 7710 Research Seminar: Content Moderation and Platform Regulation
- SOC 6310 Qualitative Research Methods for Studying Science, Technology, and Medicine
- 6000+ level course approved by Ethics, Law, and Policy Core Area faculty

Networks, Communities and Markets Core Area

- INFO 6260
- COMM 6750 Research Methods for Social Networks and Social Media
- HD 6610 Text and Networks in Social Science Research
- INFO 6850 The Structure of Information Networks

- SOC 6110 Social Network: Theory and Applications
- 6000+ level course approved by Networks, Communities, and Markets Core Area faculty

Computational Methods Core Area

- INFO 6010 Computational Methods for Information Science Research
- CS 6384 Applied Bayesian Analysis for Computational Research
- ORIE 6217 Applied Bayesian Analysis for Computational Research
- CS 6784 Advanced Topics in Machine Learning
- ECON 7245 Topics in Econometrics and Machine Learning
- INFO 6300
- INFO 6350 Text Mining History and Literature
- INFO 6742 Natural Language Processing and Social Interaction
- CS 6742 Natural Language Processing and Social Interaction
- 6000+ level course approved by Computational Methods Core Area faculty

University Graduation Requirements
Requirements for All Students

In order to receive a Cornell degree, a student must satisfy academic and non-academic requirements.

Academic Requirements

A student's college determines degree requirements such as residency, number of credits, distribution of credits, and grade averages. It is the student's responsibility to be aware of the specific major, degree, distribution, college, and graduation requirements for completing their chosen program of study. See the individual requirements listed by each college or school or contact the college registrar's office (https://registrar.cornell.edu/service-resources/college-registrar-directory/) for more information.

Non-academic Requirements

Conduct Matters. Students must satisfy any outstanding sanctions, penalties or remedies imposed or agreed to under the Student Code of Conduct (Code) or Policy 6.4. Where a formal complaint under the Code or Policy 6.4 is pending, the University will withhold awarding a degree otherwise earned until the adjudication process set forth in those procedures is complete, including the satisfaction of any sanctions, penalties or remedies imposed.

Financial Obligations. Outstanding financial obligations will not impact the awarding of a degree otherwise earned or a student's ability to access their official transcript. However, the University may withhold issuing a diploma until any outstanding financial obligations owing to the University are satisfied.

Learning Outcomes

- Make an original and substantial contribution to the discipline
  -Think originally and independently to develop concepts and methodologies.
  -Identify new research opportunities within one's field.
- Demonstrate advanced research skills
  -Synthesize existing knowledge, identifying and accessing appropriate resources and other sources of relevant information and critically analyzing and evaluating one's own findings and those of others.
  -Master application of existing research methodologies, techniques, and technical skills.
  -Communicate in a style appropriate to the discipline.
- Demonstrate commitment to advancing the values of scholarship
  -Keep abreast of current advances within one's field and related areas.
  -Show commitment to personal professional development through — engagement in professional societies, publication, and other knowledge transfer modes.
  -Show a commitment to creating an environment that supports learning through teaching, collaborative inquiry, mentoring, or demonstration.
- Demonstrate professional skills
  -Adhere to ethical standards in the discipline.
  -Listen, give, and receive feedback effectively.