



Left: A view of the supercomputer systems in the CUNY High Performance Computing Center, currently located in CSI's Building 1M. Students majoring in Information Systems and Informatics may apply for an HPCC account.

The Information Systems and Informatics (ISI) Program, offered as an interdisciplinary collaboration between the Computer Science Department and the School of Business, provides students with core business and technical competencies to traverse the boundary between management and computer information technology. Students learn to design, develop and implement state-of-the-art information systems to support managerial decision making, statistical modeling, and advanced analytics.

Career Opportunities

The program prepares students for careers as business and systems analysts, designers and developers; data administrators; information systems consultants; and managers in information technology. The curriculum is based upon the guidelines provided by several professional associations including AACSB (Association to Advance Collegiate Schools of Business), ABET (Accreditation Board for Engineering and Technology), and ACM (American Computing Machinery).

Build Valuable Professional Skills

ISI graduates possess highly marketable business, computer science, information systems, quantitative analysis, and professional skills. This program provides students with a detailed understanding of the theory and practice of information systems through courses in business, information management and computer science. These courses build students' technical expertise in the field and transferable professional skills. ISI graduates possess the following competencies:

Business Knowledge: An understanding of the structure, challenges, and opportunities in information technology driven business environments

Computer Science Knowledge: An understanding of the concepts and methods of software design and programming as well as an understanding of data communications paradigms that are incorporated into information systems.

Information Systems Knowledge: Knowledge of the concepts and methods needed to develop and manage the information and technology assets of organizations as well as the skills to plan, design, implement, and manage technology solutions that align with business needs and decision making requirements in organizations.

Quantitative Analysis: An understanding of major sources of data and the methods of data organization and management, as well as conceptual and statistical analysis to derive actionable insights.

Professionalism: An ability to think critically and creatively, communicate effectively orally and in writing, act in an ethical manner, and work effectively in a pluralistic group setting.

Academic Requirements

The Information Systems and Informatics Program offers a rigorous curriculum that will challenge students to learn and excel in courses that incorporate content from a variety of disciplines. ISI students will take courses in Computer Science, Business, Information Systems and Informatics, Accounting, Economics, and Management that will build a solid foundation of understanding for basic software development, information management, and organizational theory. Higher-level courses in Computer Science and Information Systems and Informatics will hone students' competencies in these fields.

Pre-Major Courses

To complete the ISI degree within four years, students should follow this enrollment plan in conjunction with general education requirements:

During year one, students should enroll in Management 110: Organizational Theory and Management and Accounting 114: Introduction to Accounting I.

In year two, students should take Business 160: Business Law I, CSC 126: Introduction to Computer Science, BUS 215: Information Management, and one Calculus-based Math course (MTH 221/229/230/231/232) during the Fall semester.

| Information Systems 2015 Median Salaries | |
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| Occupation | Median Salary |
| Information Systems Manager | \$78,039 |
| Computer Systems Analyst | \$66,049 |
| Data Administrator | \$48,593 |

Source: Payscale

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This sequence will allow students to complete the courses necessary to enroll in ISI courses. During the Spring semester, students may enroll in ISI 300: Information Structure for Business and ISI 205: Data Communication & IT Infrastructure.

Students will complete the pre-major requirements during the Fall semester of year three by enrolling in ECO 111 Introduction to Microeconomics and ECO 230/MGT230 Introduction To Economic And Managerial Statistics.

Major Courses

Upon completion of pre-major requirements and core courses, students will select one of two options to tailor their academic work to their professional goals. To earn an ISI degree, students must complete a Capstone Project in Information Systems. Students will develop a significant ISI project including planning, analysis, design and implementation. They will also investigate a real-life application, analyze business requirements, design systems architecture and deliver a working system.

ISI students will also begin taking core courses during the first semester of year three: CSC 315: Introduction to Database and CSC 226: Web Applications. Having completed the interdisciplinary component of the ISI major during third year Spring semester, courses focus on the ISI discipline and students should enroll in ISI 352: Systems Analysis & Design as well as an ISI elective such as ISI 315: Information Security and Risk Management or CSC 424: Advanced Database Systems.

During the fourth and final year of the ISI Program at CSI, students will enroll in ISI 490: Capstone and complete four ISI electives. Students must choose three courses in one option area and one course in the other option area to complete the elective requirement.

Option 1

- ISI 315 Information Security & Risk Management
- ISI 334 Business Intelligence And Analytics
- ISI 364 Enterprise Computing Strategies
- ISI 374 IS Project Management

Option 2

- CSC421 Internet Data Communications and Security
- CSC424 Database Management Systems
- CSC438 Mobile Application Development

A **minimum GPA of 2.50** is required for admission to, continuation in, and graduation from the Information Systems and Informatics Program. (There is no minimum GPA requirement for students enrolling in individual courses.)

Faculty Profiles

Soon Ae Chun, Professor and Co-coordinator of CSI's Information Systems and Informatics Program, is a doctoral faculty member at the CUNY Graduate Center. Dr. Chun received her Ph.D. in Information Technology from Rutgers University. Her research interests include Security and Privacy, Semantic Web, Data Integration, and Data Analytics. She received an NSF award in the Scholars for Security Program and leads the Information Security Research Lab. She is the recipient of the 2014 CSI Dolphin Award for Outstanding Scholarly Achievement. She is the current President of the Digital Government Society.

Zhanyang Zhang, Associate Professor and Co-Coordinator of CSI's ISI Program, earned his Ph.D. in Computer Science from the CUNY Graduate Center and his M.S. in Computer Science right here at the College of Staten Island! Dr. Zhang's research interests include wireless ad hoc networks, sensor networks, mobile computing and databases, and underwater sensor networks. He received a 2-year CSI/CUNY Provost Research Scholarship Award to conduct research on underwater sensor networks and published several articles on his findings in journals such as *Journal of Science and Technology*.

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| Informatics Research |
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| <p>Informatics research merges information and communication technologies with the government, health, business, disaster management, security and privacy industries. Numerous research opportunities await students who study ISI:</p> <p>Digital Government</p> <ul style="list-style-type: none"> • Emergency Resource Discovery and Service Integration • Environmental Data Management • Secure Government Data Sharing <p>E-Health</p> <ul style="list-style-type: none"> • Electronic Health Records • Medical Informatics • Bodywear Sensors for Health Monitoring and Early Warnings <p>E-Commerce</p> <ul style="list-style-type: none"> • Corporate Social Responsibility • Privacy Policies in E-Commerce • E-Payment and Mobile Banking |

Information Systems and Informatics Program Co-Coordinators

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