**Johns Hopkins University, Washington - Master of Science in Security Informatics**

Founded in 2001, the Johns Hopkins University Information Security Institute (ISI) is home to world-class interdisciplinary experts who are dedicated to developing technologies to protect the world’s vast on-line systems and infrastructure. The institute’s comprehensive approach is strengthened through its partnerships with academia, industry, and government. ISI researchers are breaking new ground in areas including networking, wireless communications, systems evaluation, medical privacy, and electronic voting, as well as in foundational science and applied technologies. As thought leaders in the cybersecurity technical community, they are influencing national policy and setting the pace or information security education.

The full-time Master of Science in Security Informatics (MSSI) degree program covers the most current topics in information security. In addition, ISI offers unparalleled dual degree and joint programs in Computer Science, Applied Mathematics, and Health Informatics. Because of its close relationship and collaborations with Johns Hopkins’ renowned schools of medicine and public health, MSSI is the nation’s first information security program with a focus on healthcare information security.

Research is central to the MSSI program of study. Students work with government intelligence agencies, industry, and non-profit institutions, participate in paid on-campus research projects, and complete summer internships across the country.

MSSI boasts more than 600 alumni working around the world for private firms large and small, as well as for U.S. government agencies, including the National Security Agency, the Department of Homeland Security, the Department of Defense, and the Department of Energy.

Technology & Research Track requires 5 technology courses (at least 4 core technology courses and 1 cryptography course), 3 policy/health/management core courses (at least 1 Policy courses and 1 Management course), and 2 additional courses.

Policy & Management Track requires 3 technology courses (at least 2 core courses and 1 cryptography course), 5 core/foundational policy/health/management courses (1 course from each category), and 2 additional courses.

Every student must complete a team-based Capstone project.

Additional Information: isi.jhu.edu

**Core Technology Courses**

EN.601.640: Web Security  
EN.601.641: Blockchains and Cryptocurrencies  
EN.601.642: Modern Cryptography  
EN.601.643: Security and Privacy in Computing  
EN.601.742: Advanced Topics in Cryptography  
EN.601.743: Advanced Topics in Computer Security  
EN.601.745: Advanced Topics in Applied Cryptography  
EN.650.601: Introduction to Information Security  
EN.650.621: Critical Infrastructure Protection  
EN.650.624: Network Security (EN.650.624/EN.601.644)  
EN.650.631: Ethical Hacking  
EN.650.645: Practical Cryptographic Systems (EN.650.645/EN.601.645)
EN.650.654: Computer Intrusion Detection
EN.650.656: Computer Forensics
EN.650.658: Introduction to Cryptography
EN.650.660: Software Vulnerability Analysis
EN.650.663: Cloud Computing Security
EN.650.671: Cryptography and Coding (EN.650.671/EN.553.371)
EN.650.672: Security Analytics
EN.650.673: Mobile and Wireless Security
EN.650.724: Advanced Network Security (EN.650.724/EN.601.744)
EN.650.757: Advanced Computer Forensics

**Elective Technology Courses**
EN.601.631: Theory of Computation
EN.601.633: Introduction to Algorithms
EN.650.840: Information Security Independent Study

**Core Policy Courses**
EN.650.614: Rights in Digital Age
EN.650.640: Moral and Legal Foundations of Privacy
EN.650.681: Global Cybersecurity Trends and Practices

**Core Management Courses**
EN.650.653: Financial Issues in Managing a Secure Operation
EN.650.655: Implementing Effective Information & Security Programs
EN.650.683: Cybersecurity Risk Management

Johns Hopkins University is a member of the Middle States Commission on Higher Education.
Core Capabilities
Access Control and Identity Verification
Cybersecurity
Forensics and Attribution
Intelligence and Information Sharing
Situational Assessment

Core Competencies
Abide by Professional Ethics
Leadership
Scientific Literacy
Systems Literacy
Technological Literacy

Internship is optional

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