



Bachelor of Science Degree in Security and Risk Analysis Information and Cyber Security Option (ICS) SP08

Prescribed Courses: (12 credits)

1. ***IST 220 NETWORKING AND TELECOMMUNICATIONS** (3) Introduction to digital network topologies; transmission media, signal modulation, digital packet switching and routing, systems integration, communications management, and security. **Prerequisite: IST 110_**
2. ***IST 451 NETWORK SECURITY** (3) Fundamental issues and concepts of network security, network security technologies and protocols, and emerging technologies in network security. **Prerequisite: IST 220**
3. ***IST 454 COMPUTER AND CYBER FORENSICS** (3) Fundamental issues and concepts of computer forensics; aspects of computer and cyber crime; methods to uncover, protect, exploit, and document digital evidence; tools, techniques, and procedures to perform computer and cyber crime investigation. **Prerequisite: IST 220**
4. ***IST 456 SECURITY AND RISK MANAGEMENT** (3) Contemporary security issues; security management processes, architecture and models; risk analysis and management; security planning, analysis, and safeguards; security policy development and administration; contingency planning, incidence handling and response; and security standards and certification processes. **Prerequisite: IST 220**

Support of Option: (9 credits)

1. ***CRIMJ433 COMPUTER SECURITY (Not offered at UP)** (3) Introduction to computer security for Administration of Justice majors, designed to create an educated user of computer security services. **Effective Sp08 Prerequisite: IST 110 or both MIS 103 and MIS 204.**
2. ***IST 210 ORGANIZATION OF DATA** (4) Introduction to concept of databases including the storage, manipulation, evaluation, and display of data and related issues. **Prerequisite: IST 110.**
3. ***IST 301 INFORMATION AND ORGANIZATIONS** (3) Overview of organizational structures and functions. Includes information processing and analytic perspectives of organizations. **Prerequisite: IST 210, IST 220.**
4. ***IST 302 IT PROJECT MANAGEMENT** (3) Exploration and application of the basic concepts, methodologies, and tools of project management in the field of information sciences and technology. **Prerequisite: IST 210, IST 220.**
5. ***IST 402 EMERGING ISSUES AND TECHNOLOGIES** (3 per semester, maximum of 9) Introduction to emerging issues, technology forecasting and analysis; overview of emerging issues and leading technologies in IST and how they impact information systems, users, the IT labor force, and society. **Prerequisite: IST 210 IST 220.**
6. ***IST 442 (IL) INFORMATION TECHNOLOGY IN AN INTERNATIONAL CONTEXT** (3) International concepts to improve strategies for the design, dissemination, and use of information technology. **Prerequisite: IST 110_**
7. ***IST 452 LEGAL AND REGULATORY ENVIRONMENT OF PRIVACY AND SECURITY** (3) Exploration of legal, regulatory, public policy, and ethical issues related to security and privacy for information technology professionals in public institutions, private enterprise, and IT services. **Prerequisite: IST 301 or SRA 231, or equivalent.**
8. **MGMT 100 SURVEY OF MANAGEMENT** (3) Introduction to organizational factors relevant to management processes, including leadership, motivation, job design, technology, organizational design and environments, systems, and change. May not be used to satisfy Smeal College baccalaureate degree requirements. *Not available to students who have taken BA 304 or MGMT 301.*

***Prerequisite coursework required**
Not offered at UP