PennState
College of Information
Sciences and Technology

College of Information Sciences and Technology
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Bachelor of Science in **Security and Risk Analysis**

The Security and Risk Analysis Bachelor of Science program prepares students for a career that focuses on protecting information, people, and other assets from threats by applying principles of risk management. From designing secure systems, measuring risk, and ensuring privacy for individual technology users, businesses, government agencies, and other organizations, they'll learn how to provide physical and digital protection from cybercriminals. By assessing risk, identifying threats, and analyzing intelligence, students will understand system design, system operation, and the legal and cultural issues surrounding privacy, intelligence, and security.

The most successful students in this major are:

Analytical • Articulate • Collaborative • Consistent • Detail-oriented • Forward-thinking • Inquisitive • Perceptive

Options within this major

Intelligence Analysis and Modeling

Calculate, evaluate, and predict risk to protect from threats. Students will learn how to collect intelligence data and apply it to make tactical and strategic decisions that solve complex problems. From mapping intelligence to determine the likelihood of terrorist attacks, to supporting decision-making during an emergency response, to protecting private information shared online, they'll be prepared to defend vital infrastructure against subversive attacks.

Information and Cyber Security*

Ensure information security and privacy to protect from threats. Students will learn how to think like an adversary to stop cybercriminals, prevent information warfare, and protect networks and other critical infrastructures from attack. Whether it's identifying weaknesses in current systems, assisting with emergency response, or conducting forensic analysis after an attack has occurred, they'll lead the way in online privacy, intelligence, and security.

*Starting in January 2018, newly admitted Penn State students who intend to complete a degree in Security and Risk Analysis at the University Park campus will no longer be able to choose the Information and Cyber Security option. Instead, interested students should consider the Cybersecurity Analytics and Operations program.

Bachelor of Science in
Security Risk and Analysis

All Security Risk and Analysis (SRA) options require 71 credits of prescribed coursework, with 38 of these credits earned through common required courses, 12 credits selected by the student from a defined list, and the remaining 21 credits selected by the student from different categories. Each option also requires the student to earn 21 additional credits through seven courses that will expand skills in their area of focus.

When selections are allowed, students should plan a coherent set of choices in consultation with his or her adviser.

ADDITIONAL PRESCRIBED COURSES:

In addition to the requirements above, students pursuing an degree in SRA must complete 12 credits in the following courses to distinguish their focus of study:

Intelligence Analysis and Modeling
- **ECON 302 – Intermediate Macroeconomic Analysis**
- **SRA 421 – The Intelligence Environment**
- **SRA 433 – Deception and Counterdeception**
- **SRA 468 – Visual Analytics for Security Intelligence**

Information and Cyber Security
- **IST 220 – Networking and Telecommunications**
- **IST 451 – Network Security**
- **IST 454 – Computer and Cyber Forensics**
- **IST 456 – Information Security Management**

OTHER SELECTED COURSES:

Students in each SRA option must take nine additional credits, which can be selected from a list of available courses such as those described below:

- **PL SC 442 – American Foreign Policy**
  Explore the principles of American foreign policy and the processes of policy formation. Learn the roles of the President, Congress, the State Department, and other government agencies in shaping U.S. relations around the world.

- **PYSCH 445 – Forensic Psychology**
  Master the interplay between psychology and the law, legal processes, and social policy by tackling different social dilemmas. Learn about their impact on individuals and the court system.

- **SOC 012 – Criminology**
  Study the causes of criminal behavior and how it is distributed across society. Review the effectiveness of crime control policies, characteristics of criminals and victims, and the techniques used to study criminal behavior.

- **NAVSC 311 – Evolution of Warfare**
  Survey the development of military strategy, tactics, and weaponry throughout history. Learn about the principles and concepts of war through a critical analysis of past and current military challenges.

Our graduates are in high demand.

Graduates from the College of IST have technical expertise and business savvy, giving them the versatility employers want.

Their unique skills add value to every field as the need for professionals who can bring IT knowledge to businesses and organizations grows.

Pursue meaningful and diverse careers.

With two career fairs for students in our majors and more than 300 companies actively recruiting them, graduates are prepared for careers like:

- Application Security Specialist
- Business Intelligence Analyst
- Computer Forensics Specialist
- Counter-Terrorism Analyst
- Cyber Intelligence Analyst
- Information Protection Associate
- Intelligence Research Analyst
- Risk Assurance Associate
- Security Analyst

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