



# 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

**Entrance to major requirements:**

Students must choose their major by the end of their second year. To enter this major, students must have earned between 40-70 Penn State credits and at least a 3.00 cumulative GPA at the time of applying to the major. Please check with your Penn State adviser for the most current information.

## A National Center of Excellence

The College of IST is designated as a National Center of Academic Excellence in Information Assurance and Cyber-Defense Education by the National Security Agency and the Department of Homeland Security. SRA graduates can earn a Certificate of Recognition and Certificate of Achievement from these agencies by completing certain academic requirements within the major.



The value of each certificate is that it shows the student graduated from an institution and program whose faculty, resources, curricula, and commitment were evaluated and found to be of high quality. Both certificates also confirm that certain courses in the program have been examined and determined to meet or exceed the quality and content as defined by National Security Agency and the Department of Homeland Security for cybersecurity professionals. These certificates are attractive credentials to employers, particularly government agencies where many SRA graduates go on to work.

# Bachelor of Science in Security Risk and Analysis

Students pursuing a degree in Security Risk and Analysis will take courses that build core competencies in four knowledge areas: the role of data in various security domains and organizational contexts; the role of data analytics, methods, and tools; the legal, ethical, and professional issues within which analytics of security and risk are conducted; and the role of technology in security and risk.

## SELECTED REQUIRED COURSES:

Students in the Security and Risk Analysis degree program will lay the foundation for their careers by taking a variety of required courses, such as those described below:

- **SRA 221 – Overview of Information Security**  
Gain an understanding of the overview of information security. Learn the principles of information security, how to plan and manage security, and the social and legal issues of information security.
- **SRA 231 – Decision Theory and Analysis**  
Learn decision theory and analysis with a focus on the applying them to the security and risk field. Debate various theories and decision-support methods in order to gain a clear understanding of the strengths and weaknesses of each.
- **SRA 311 – Risk Analysis in a Security Context**  
Assess and mitigate security vulnerabilities for people, organizations, industry sectors, and the nation. Apply a variety of analytic techniques to answer foundational risk management questions.

## OTHER SELECTED COURSES:

Students in each SRA degree program can enhance their education by choosing nine additional credits from a list of available courses such as those described below:

- **PSYCH 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, Security and Risk Analysis 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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