SECURITY AND RISK ANALYSIS, B.S. (INFORMATION SCIENCES AND TECHNOLOGY)

Begin Campus: Any Penn State Campus
End Campus: University Park

Degree Requirements
For the Bachelor of Science degree in Security and Risk Analysis, a minimum of 120 credits is required:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
<td>45</td>
</tr>
<tr>
<td>Electives</td>
<td>5-13</td>
</tr>
<tr>
<td>Requirements for the Major</td>
<td>77-85</td>
</tr>
</tbody>
</table>

15 of the 45 credits for General Education are included in the Requirements for the Major. This includes: 6 credits of GQ courses; 6 credits of GS courses; and 3 credits of GWS courses.

General Education
Connecting career and curiosity, the General Education curriculum provides the opportunity for students to acquire transferable skills necessary to be successful in the future and to thrive while living in interconnected contexts. General Education aids students in developing intellectual curiosity, a strengthened ability to think, and a deeper sense of aesthetic appreciation. These are requirements for all baccalaureate students and are often partially incorporated into the requirements of a program. For additional information, see the General Education Requirements (https://bulletins.psu.edu/undergraduate/general-education/baccalaureate-degree-general-education-program/) section of the Bulletin and consult your academic adviser.

The keystone symbol appears next to the title of any course that is designated as a General Education course. Program requirements may also satisfy General Education requirements and vary for each program.

Foundations (grade of C or better is required.)
- Quantification (GQ): 6 credits
- Writing and Speaking (GWS): 9 credits

Knowledge Domains
- Arts (GA): 6 credits
- Health and Wellness (GHW): 3 credits
- Humanities (GH): 6 credits
- Social and Behavioral Sciences (GS): 6 credits
- Natural Sciences (GN): 9 credits

Integrative Studies (may also complete a Knowledge Domain requirement)
- Inter-Domain or Approved Linked Courses: 6 credits

University Degree Requirements
First Year Engagement
All students enrolled in a college or the Division of Undergraduate Studies at University Park, and the World Campus are required to take 1 to 3 credits of the First-Year Seminar, as specified by their college First-Year Engagement Plan.

Other Penn State colleges and campuses may require the First-Year Seminar; colleges and campuses that do not require a First-Year Seminar provide students with a first-year engagement experience.

First-year baccalaureate students entering Penn State should consult their academic adviser for these requirements.

Cultures Requirement
6 credits are required and may satisfy other requirements
- United States Cultures: 3 credits
- International Cultures: 3 credits

Writing Across the Curriculum
3 credits required from the college of graduation and likely prescribed as part of major requirements.

Total Minimum Credits
A minimum of 120 degree credits must be earned for a baccalaureate degree. The requirements for some programs may exceed 120 credits. Students should consult with their college or department adviser for information on specific credit requirements.

Quality of Work
Candidates must complete the degree requirements for their major and earn at least a 2.00 grade-point average for all courses completed within their degree program.

Limitations on Source and Time for Credit Acquisition
The college dean or campus chancellor and program faculty may require up to 24 credits of course work in the major to be taken at the location or in the college or program where the degree is earned. Credit used toward degree programs may need to be earned from a particular source or within time constraints (see Senate Policy 83-80 (http://senate.psu.edu/policies-and-rules-for-undergraduate-students/82-00-and-83-00-degree-requirements/#83-80)). For more information, check the Suggested Academic Plan for your intended program.

Requirements for the Major
To graduate, a student enrolled in the major must earn a grade of C or better in each course designated by the major as a C-required course, as specified by Senate Policy 82-44 (http://senate.psu.edu/policies-and-rules-for-undergraduate-students/82-00-and-83-00-degree-requirements/#82-44).

Common Requirements for the Major (All Options)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST 110</td>
<td>Information, People and Technology</td>
<td>3</td>
</tr>
<tr>
<td>IST 210</td>
<td>Organization of Data</td>
<td>3</td>
</tr>
<tr>
<td>IST 432</td>
<td>Legal and Regulatory Environment of Information Science and Technology</td>
<td>3</td>
</tr>
<tr>
<td>IST 495</td>
<td>Internship</td>
<td>1</td>
</tr>
<tr>
<td>SRA 111</td>
<td>Introduction to Security and Risk Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>
SRA 211  Threat of Terrorism and Crime  3
SRA 221  Overview of Information Security  3
SRA 231  Decision Theory and Analysis  3
STAT 200  Elementary Statistics  4

Additional Courses
ENGL 202C  Effective Writing: Technical Writing  3
or ENGL 202D  Effective Writing: Business Writing

PSYCH 100  Introductory Psychology  3
or SOC 5  Social Problems
Select one of the following:
AGBM 101  Economic Principles of Agribusiness Decision Making
ECON 102  Introductory Microeconomic Analysis and Policy
ECON 104  Introductory Macroeconomic Analysis and Policy
Select one of the following:
MATH 22  College Algebra II and Analytic Geometry
MATH 26  Plane Trigonometry
MATH 40  Algebra, Trigonometry, and Analytic Geometry
MATH 41  Trigonometry and Analytic Geometry
MATH 110  Techniques of Calculus I
MATH 140  Calculus With Analytic Geometry I
Select one of the following:
GEOG 128  Geography of International Affairs
PLSC 1  American Politics: Principles, Processes and Powers
PLSC 14  International Relations

Additional Courses: Require a grade of C or better
SRA 365  Statistics for Security and Risk Analysis  3
or STAT 460  Intermediate Applied Statistics
Select one of the following:
IST 140  Introduction to Application Development
CMPSC 101  Introduction to Programming
CMPSC 121  Introduction to Programming Techniques

Requirements for the Option
Select an option  30-36

Requirements for the Option
Intelligence Analysis and Modeling Option (36 credits)
Available at the following campuses: University Park

Code  Title  Credits
Prescribed Courses
IST 452  Legal and Regulatory Environment of Privacy and Security  3
SRA 268  Visual Analytics  3
SRA 311W  Risk Analysis in a Security Context  3
SRA 421  The Intelligence Environment  3
SRA 433  Deception and Counterdeception  3
SRA 440W  Security and Risk Analysis Capstone Course  3
SRA 468  Spatial Analysis of Risks  3

Additional Courses: Require a grade of C or better
IST 440W  Information Sciences and Technology Integration and Problem Solving  3
or SRA 440W  Security and Risk Analysis Capstone Course

Supporting Courses and Related Areas
Select 15 credits from College-approved list (at least 3 credits must be at the 400-level)

Information and Cyber Security Option (30 credits)
Available at the following campuses: Altoona, Berks, Harrisburg, University Park, World Campus

Code  Title  Credits
Prescribed Courses
IST 220  Networking and Telecommunications  3
IST 451  Network Security  3
IST 454  Computer and Cyber Forensics  3
IST 456  Information Security Management  3
SRA 311  Risk Analysis in a Security Context  3

Additional Courses: Require a grade of C or better
IST 440W  Information Sciences and Technology Integration and Problem Solving  3
or SRA 440W  Security and Risk Analysis Capstone Course

Supporting Courses and Related Areas
Select 12 credits from College-approved list (at least 3 credits must be at the 400-level)  12