

CYBERSECURITY ANALYTICS AND OPERATIONS, B.S. (ABINGTON)

Seven Penn State campuses are scheduled for closure after Spring 2027: DuBois, Fayette, New Kensington, Mont Alto, Shenango, Wilkes-Barre, and York. New students are not being admitted at these campuses.

Begin Campus: Any Penn State Campus

End Campus: Abington

Suggested Academic Plan

The suggested academic plan(s) listed on this page are the plan(s) that are in effect during the 2026-27 academic year. To access previous years' suggested academic plans, please visit the archive (<https://bulletins.psu.edu/undergraduate/archive/>) to view the appropriate Undergraduate Bulletin edition.

Cybersecurity Analytics and Operations, B.S. at Abington Campus

The course series listed below provides **only one** of the many possible ways to move through this curriculum. The University may make changes in policies, procedures, educational offerings, and requirements at any time. This plan should be used in conjunction with your degree audit (accessible in LionPATH as either an **Academic Requirements** or **What If** report). Please consult with a Penn State academic adviser on a regular basis to develop and refine an academic plan that is appropriate for you.

First Year

Fall	Credits Spring	Credits Summer	Credits
CYBER 100 or 100S ^{*#}	3 IST 210 ^{*#}	3 IST 495 [*]	0-1
IST 140 [*]	3 IST 220 ^{*#}	3	
CAS 100 [‡]	3 SRA 111 ^{*†}	3	
MATH 110 ^{*††}	4 ENGL 15 or 30H [‡]	3	
General Education Course (GA/GH)	3 General Education Course (GS)	3	
16		15	0-1

Second Year

Fall	Credits Spring	Credits Summer	Credits
CYBER 262 [*]	3 IST 230 [*]	3 IST 495 [*]	0-1
IST 242 ^{*#}	3 IST 261 [*]	3	
STAT 200 or SCM 200 ^{*†#†}	4 SRA 211 [*]	3	
Application Focus Selection 1	3 SRA 221 or CYBER 221 [*]	3	
General Education Course (GN)	3 General Education Course (GN)	3	
16		15	0-1

Third Year	Credits Spring	Credits Summer	Credits
Fall			
CYBER 362 [*]	3 CYBER 342W [*]	3 IST 495 [*]	0-1
SRA 231 [*]	3 CYBER 366 [*]	3	
SRA 365 [*]	3 SRA 311 [*]	3	
ENGL 202C or 202D ^{*††}	3 Application Focus Selection 2	3	
General Education Course (GA/GH)	3 General Education Course (GA/GH)	3	
General Education Course (GHW)	1.5		
16.5		15	0-1

Fourth Year

Fall	Credits Spring	Credits
IST 432 [*]	3 CYBER 440 [*]	3
IST 456 or CYBER 456 [*]	3 IST 454 or CYBER 454 [*]	3
IST 451 or CYBER 451 [*]	3 Application Focus Selection 3	3
General Education Course (GN)	3 General Education Course (GA/GH)	3
General Education Course (GHW)	1.5 Elective	3
13.5		15

Total Credits 122-125

* Course requires a grade of C or better for the major

‡ Course requires a grade of C or better for General Education

Course is an Entrance to Major requirement

† Course satisfies General Education and degree requirement

University Requirements and General Education Notes:

US and IL are abbreviations used to designate courses that satisfy Cultural Diversity Requirements (United States and International Cultures).

W, M, X, and Y are the suffixes at the end of a course number used to designate courses that satisfy University Writing Across the Curriculum requirement.

General Education includes Foundations (GWS and GQ), Knowledge Domains (GHW, GN, GA, GH, GS) and Integrative Studies (Inter-domain) requirements. N or Q (Honors) is the suffix at the end of a course number used to help identify an Inter-domain course, but the inter-domain attribute is used to fill audit requirements. Foundations courses (GWS and GQ) require a grade of 'C' or better.

Application Focus Areas:

- Students pick one of the seven tracks below or create a custom 3-course application focus. Students must pick three (3) credits at the 400 level. All nine (9) credits must be in the same application

focus area. It is recommended that students use the application focus area list to select a course that meets a General Education requirement (GS/GHW) and serves as a prerequisite for more advanced coursework within the application focus. This course does not count as part of the 9 credits of application focus sequence.

- **Application Development**

- Select 9 credits from the following list of courses, at least 3 credits must be at the 400-level:
 - HCDD 264, HCDD 311 or IST 311, HCDD 331 or IST 331, HCDD 361 or IST 361, HCDD 411 or IST 411, HCDD 412 or IST 412, HCDD 413, IST 402

- **Economics**

- The Economics focus is for students who have an interest in pursuing cybersecurity careers in the financial services sector or government. Designed to help students understand today's financial and economic environments, this focus highlights the importance of translating the financial and economic impact of cybersecurity activities to effectively manage any program.
- Select 9 credits from the following list of courses, at least 3 credits must be at the 400-level:
 - BA 301 or FIN 301, BLAW 243, ECON 302, ECON 399, ECON 402, ECON 438, ECON 445, ECON 447, ECON 470, ECON 479, HPA 445, PLSC 412, PLSC 481

- **Enterprise Technology**

- Select 9 credits from the following list of courses, at least 3 credits must be at the 400-level:
 - BA 302, ETI 300W, ETI 301 or IST 301, ETI 302 or IST 302, ETI 420 or IST 420, ETI 421 or IST 421, ETI 423 or IST 423, ETI 435, ETI 461, ETI 463

- **Entrepreneurship and Business of Tech**

- New companies and ventures often develop new tools and technologies. Cybersecurity aspects are sometimes overlooked. Students pursuing this focus gain an understanding of new business ventures and can apply their cybersecurity knowledge, skills, and abilities to ensure that new offerings don't open up vulnerabilities that will be quickly exploited. Alternatively, cybersecurity students might find new business opportunities to offer cybersecurity services for hire as entrepreneurs, or as intrapreneurs in larger organizations.
- Select 9 credits from the following list of courses, at least 3 credits must be at the 400-level:
 - ENGR 310, IB 303, IST 425, IST 426, IST 431, IST 442, IST 445, MGMT 215

- **Geopolitics**

- Understanding the geopolitical landscape is key to understanding and modeling cyberthreats from nation-states and other threat actors. The Geopolitics focus is for students who have an interest in pursuing cybersecurity careers in government or related consulting sectors.
- Select 9 credits from the following list of courses, at least 3 credits must be at the 400-level:
 - AFR 440/PLSC 440, CAS 404, COMM 458, ETI 301 or IST 301, GEOG 260, GEOG 333, GEOG 363, IB 440, PLSC 291, PLSC 461, PLSC 467, PLSC 481, PLSC 491, SRA 421, SRA 433, SRA 450, SRA 471, SRA 480, Any ARMY, AIR, NAVSC ROTC

- **Health Care**

- Hospitals, pharmaceutical companies, and government agencies are just a few of the sectors that have strict

requirements around protecting health care data. The Health Care focus is for students who have an interest in pursuing cybersecurity careers in a health care environment. Understanding how information is managed in these environments will help students thrive in a health care-related career.

- Select 9 credits from the following list of courses, at least 3 credits must be at the 400-level:

- ECON 445, HPA 101, HPA 211, HPA 301W, HPA 311, HPA 332, HPA 440/BBH 440, HPA 445, HPA 450, HPA 470, IST 402, NURS 357, NURS 458

- **Law and Policy**

- Cybersecurity careers in law enforcement require knowledge of laws and policies focused on the handling of evidence related to digital forensics and monitoring. Individuals in the private sector and government agencies must also understand and adhere to these topics as they involve cybersecurity. The Law and Policy focus is for students who want to understand law and policy as they relate to digital data.
- Select 9 credits from the following list of courses, at least 3 credits must be at the 400-level:
 - COMM 404, CRIM 406/CRIMJ 406/SOC 406, CRIM 430, CRIM 451/CRIMJ 451, CRIM 467/CRIMJ 467/SOC 467, CRIM 469, CRIMJ 304, CRIMJ 430, CRIMJ 435, HLS 401/PADM 401, IST 452, PLSC 438, PLSC 439/CRIMJ 439, PLSC 440, PLSC 442, PLSC 460/STS 460, PLSC 467, PLSC 471, PLSC 487

- **Custom Application Focus**

- There is an option for a student to create a custom 3-course application focus sequence. It must be a coherent sequence of courses that provides context for the student in terms of cybersecurity content. It must contain three (3) credits of 400-level coursework. The focus area courses must be selected in consultation with a teaching CYBER faculty member and an academic adviser.