

BACHELOR OF SCIENCE IN CYBERSECURITY

Description and Outcomes

This program will equip you to master the foundational goals of cybersecurity. You will apply current technical tools and methodologies to solve security problems. Upon completion, you will be able to evaluate security trends, recognize best practices, and understand IT security products and threats.

You will explore the depth and breadth of materials to enable you to pursue many of the critical certifications recognized by the information assurance community and for Department of Defense (DoD) personnel, as mandated by DoD Directive 8570.1.

The following educational objectives are approved by information technology faculty and the Advisory Board:

- Our graduates will be able to apply current industry-accepted practices and new and emerging practices when solving real-world information technology problems in the industry.
- Our graduates will be able to exhibit teamwork and effective communication skills.
- Our graduates will be able to ethically and appropriately apply knowledge of societal impacts of information technology in the course of career-related activities.

Accelerated Master of Science in Information Technology and Master of Science in Cybersecurity Management Options

If you are interested in earning both a bachelor's degree and a master's degree, consider the accelerated options for either the Master of Science in Information Technology or Master of Science in Cybersecurity Management. Refer to the Policies (p. 1) section for details.

Program Length

The Bachelor of Science in Cybersecurity program consists of a minimum of 180 quarter credit hours. The duration of the program depends on transfer credit. Any combination of prior learning credit will not exceed 75 percent of the credits required for the degree. You are responsible for providing the University with an official copy of all transcripts for prior college credit. Refer to the First-Term Responsibilities (<https://catalog.purdueglobal.edu/policy-information/admissions/first-term-responsibilities>) section for additional information. Upon successful completion of the program, you will be awarded a bachelor of science degree.

Program Outcomes

Discipline-Specific Outcomes

1. **Technology Skills:** Apply current technical tools and methodologies to secure systems.
2. **Client Specifications:** Analyze users' security issues.
3. **System Specifications:** Design secure information systems.
4. **Technology Analysis:** Evaluate information security trends, practices, and products.
5. **Security Analysis:** Measure and assess risk management practices and policies for an enterprise network.

6. **Design and Develop:** Maintain confidentiality, integrity, and availability of information systems.
7. **Professional Development:** Demonstrate an understanding of the importance of professional development in the field of cybersecurity.

General Education Literacies and Professional Competencies

In addition to the discipline-specific outcomes, general education literacies and professional competencies are integrated throughout your academic program. You can review the general education literacies and professional competencies associated with your academic program in the undergraduate School of General Education (<https://catalog.purdueglobal.edu/undergraduate/general-education>) section of this Catalog.

Program Availability

For program availability, please refer to the U.S. State and Other Approvals (<https://catalog.purdueglobal.edu/policy-information/university-information/accrreditation-approvals-memberships>) section and Program Availability Information (<https://www.purdueglobal.edu/catalog-program-availability-info.pdf>).

Policies

Progression Requirements

Students may be eligible to transfer into the Bachelor of Science in Information Technology program from the Bachelor of Science in Cybersecurity.

Accelerated Master of Science in Cybersecurity Management Option

If you are enrolled in the University's Bachelor of Science in Cybersecurity program and are interested in continuing on to pursue the University's Master of Science in Cybersecurity Management, you may matriculate into a shortened version of the graduate program.

Upon successful completion of the Bachelor of Science in Cybersecurity program, you may apply for entry to the University's Master of Science in Cybersecurity Management program. If accepted and you meet the requirements for the accelerated Master of Science in Cybersecurity Management option, you may have the following courses waived:

Code	Title	Credits
IT530	Computer Networks	4
IT537	Introduction to Cybersecurity	4
IT541	Computer and Network Security	4
IT542	Ethical Hacking and Network Defense	4
IT550	Computer Forensics and Investigations	4

In order to qualify for the accelerated Master of Science in Cybersecurity Management option, you must meet the following criteria:

1. Complete your undergraduate coursework in the information technology or cybersecurity program with a minimum cumulative GPA of 3.2.
2. Complete the following courses and obtain a grade of "B" or better in each course (waiver of graduate courses noted above varies based on completion of specific courses listed below):

Code	Title	Credits
IT234	Database Concepts	5

IT262	Certified Ethical Hacking I	5	IT375	Windows Enterprise Administration	6
IT278	Network Administration	5	IT395	Certified Ethical Hacking II	6
IT283	Networking with TCP/IP	5	IT401	Project Management II	6
IT286	Network Security Concepts	5	IT411	Digital Forensics	6
IT301	Project Management I	6	IT412	Information Systems Security	6
IT316	Computer Forensics	6	IT460	Systems Analysis and Design	6
IT350	Advanced Database Concepts	6	IT484	Cybersecurity Policies	6
IT375	Windows Enterprise Administration	6			
IT395	Certified Ethical Hacking II	6			
IT401	Project Management II	6			
IT411	Digital Forensics	6			
IT412	Information Systems Security	6			
IT460	Systems Analysis and Design	6			
IT484	Cybersecurity Policies	6			

Accelerated Master of Science in Information Technology Option

If you are enrolled in the University's Bachelor of Science in Information Technology program and are interested in continuing on to pursue the University's Master of Science in Information Technology, you may matriculate into a shortened version of the graduate program.

Upon successful completion of the Bachelor of Science in Information Technology program, you may apply for entry to the University's Master of Science in Information Technology program. If accepted and you meet the requirements for the accelerated Master of Science in Information Technology option, you may have the following courses waived:

Code	Title	Credits
IT510	System Analysis and Design	4
IT511	Information Systems Project Management	4
IT526	SQL Query Design	4
IT530	Computer Networks	4
IT541	Computer and Network Security	4
IT542	Ethical Hacking and Network Defense	4
IT550	Computer Forensics and Investigations	4

In order to qualify for the accelerated Master of Science in Information Technology option, you must meet the following criteria:

1. Complete your undergraduate coursework in the information technology or cybersecurity program with a minimum cumulative GPA of 3.2.
2. Complete the following courses and obtain a grade of "B" or better in each course (waiver of graduate courses noted above varies based on completion of specific courses listed below):

Code	Title	Credits
IT234	Database Concepts	5
IT262	Certified Ethical Hacking I	5
IT278	Network Administration	5
IT283	Networking with TCP/IP	5
IT286	Network Security Concepts	5
IT301	Project Management I	6
IT316	Computer Forensics	6
IT350	Advanced Database Concepts	6

Certification, State Board, and National Board Exams

Certain state certification and licensure boards have specific educational requirements for programs to lead to a license or nongovernmental certification that is a precondition for employment in a recognized occupation.

Unless otherwise specified, Purdue Global's programs are not designed to meet any specific state's licensure or certification requirements. If certain licensed occupations, vocations, or professions are not explicitly listed, Purdue Global has not made a determination with respect to the licensure or certification requirements of those occupations, vocations, or professions. Licensure-track programs may limit enrollment to students in certain states; please see Purdue Global's Program Availability Information (<https://www.purdueglobal.edu/catalog-program-availability-info.pdf>) to determine enrollment eligibility.

You are responsible for understanding the requirements of optional certification exams. Such requirements may change during the course of your program. You are not automatically certified in any way upon program completion. Although certain programs are designed to prepare you to take various optional certification exams, Purdue Global cannot guarantee you will be eligible to take these exams or become certified. Your eligibility may depend on your work experience, completion of education and/or degree requirements, not having a criminal record, meeting other certification requirements, or the program or the University itself having appropriate accreditation or licensure.

Degree Plan Program Requirements

Code	Title	Credits	
Core Requirements			
CM107	College Composition I	5	
CM220	College Composition II	5	
CM241	Foundations of Technical Communication	2	
CS204	Professionalism - Theory and Practice in the Global Workplace	3	
MM212	College Algebra	5	
MM250	Discrete Mathematics	5	
Arts and Humanities (select one of the following):			5
HU200	Arts and Humanities - Modern Creative Expressions		
HU245	Ethics		
HU250	Humanities and Culture		
Science (select one of the following):			5
SC200	Discovering Science - Current Issues in a Changing World		
SC235	General Biology I - Human Perspectives		
SC246	Fundamentals of Microbiology		

SC250	Fundamentals of Science	
Social Science (select one of the following):		5
SS211	The 1960s - Reshaping the American Dream	
SS236	People, Power, and Politics - An Introduction to American Government	
SS250	The Technological Revolution - A Social Scientific Approach	
Total Core Requirements		40
Major Requirements		
IT104	Introduction to Cybersecurity	5
IT262	Certified Ethical Hacking I	5
IT273	Networking Concepts	5
IT275	Linux System Administration	5
IT277	Certified Information Systems Security Professional I	5
IT279	Certified Information Systems Security Professional II	5
IT283	Networking with TCP/IP	5
IT286	Network Security Concepts	5
MT140	Introduction to Management	5
IT316	Computer Forensics	6
IT331	Technology Infrastructure	6
IT374	Linux Security	6
IT388	Routing and Switching I	6
IT390	Intrusion Detection and Incident Response	6
IT395	Certified Ethical Hacking II	6
IT400	Ethics in Cybersecurity	6
IT410	Certified Information Systems Security Professional III	6
IT411	Digital Forensics	6
IT412	Information Systems Security	6
IT484	Cybersecurity Policies	6
IT479	Bachelor's-Level Cybersecurity Internship	6
or IT497	Bachelor's Capstone in Cybersecurity	
Total Major Requirements		117
Open Elective Requirements		
100/200 Level	Open Elective	5
300/400 Level	Open Electives	18
Total Open Elective Requirements		23
TOTAL CREDITS		180