Cybersecurity
Bachelor of Science
2025-2026

General Areas of Service: Cybersecurity—also known as information technology security—protects computers, networks, infrastructure, and data from unauthorized access. While it often involves defending against hackers, the field also addresses password security, cloud vulnerabilities, software updates, multi-factor authentication, and system compatibility. In today's digital world, cybersecurity is more critical than ever. At Walla Walla University, cybersecurity electives are grouped into career-focused strands, including:

- Incident Response
- Management and Administration
- Engineering and Architecture
- Consulting
- Testing and Hacking

Professional Training: A bachelor's degree is typically required for positions as an information security analyst. While a master's degree is not always necessary, it can enhance job prospects and is often preferred for more advanced or specialized roles. In addition to formal education, employers generally seek candidates with relevant work experience—often gained through internships, cooperative education programs, or prior roles in IT or cybersecurity. Professional certifications, such as Certified Information Systems Security Professional (CISSP) or CompTIA Security+, are also highly valued and may be required by some employers.

Job Outlook: According to the U.S. Bureau of Labor Statistics, employment of information security analysts is projected to grow 33 percent from 2023 to 2033, which is much faster than the average for all occupations. This growth is driven by the increasing frequency and sophistication of cyberattacks, as well as the expanding use of digital platforms across industries. Approximately 17,300 job openings for information security analysts are expected each year over the decade, largely due to the need to replace workers who transfer to other occupations or retire.

Earnings: As of May 2023, the median annual wage for information security analysts was $120,360. The lowest 10 percent earned less than $69,210, while the highest 10 percent earned more than $182,370. The average (mean) annual wage was slightly higher at $124,740. Salaries can vary significantly depending on industry, location, and level of experience. For example, analysts working in accounting and payroll services or scientific research and development tend to earn above-average wages.

Note: <u>WWU cybersecurity students take the Certified Computer Forensics Examiner (CCFE) Exam during their senior year</u>

COMPUTER SCIENCE DEPARTMENT

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Websites
Walla Walla University
University Bulletin

Computer Science Department

Faculty
Chair
Benjamin Jackson

Advisors
Benjamin Jackson
Preston Carman

Professional Organizations
IEEE Cybersecurity

US Bureau of Labor Statistics:
Information Security Analysts

Suggested Degree Path

See the Undergraduate Bulletin for Details
The chart below details one suggested path a student may take to complete the pre-professional requirements for Dentistry.

Freshman Year

Fall Courses	Hours
Fund. Of Programming I (CPTR 141)	4
*Precalculus I (MATH 121)	4
General Studies: Foundation of Faith	4
General Studies: Social Science	4
Total	16

Winter Courses	Hours
Fund. Of Programming II (CPTR 142)	4
Introduction to Cybersecurity (CYBS 122)	4.5
*Precalculus II (MATH 122)	4
Intro to Analytical Writing (ENGL 121)	3
General Studies P.E. Activities	1
Total	16.5

Spring Courses	Hours
Arts and Practice of CS (CPTR 108)	3
Calculus I (MATH 171)	4
Intro to Research Writing (ENGL 122)	3
General Studies: Engaging Faith	2
General Studies: Engaging Science Data	4
Total	16

Sophomore Year

Fall Courses	Hours
Cybercrime and Governance (CYBS 224)	4.5
Research Writing (ENGL 223)	3
General Studies History	4
Elective	4
Total	15.5

Winter Courses	Hours
Career Navigation and Exploration in Cybersecurity (CYBS 296)	4.5
Data Analysis (MATH 215)	4
General Studies: Oral Communication	4
Elective	4
Total	16.5

Spring Courses	Hours
Data Structure and Algorithms (CPTR 242)	4
General Studies: Exploring SDA Life	4
Elective	4
Elective	4
Total	16

Junior Year

Fall Courses	Hours
Network and System Security (CYBS 326)	4.5
Computer Science Elective	4
General Studies: Natural Science	4
Elective	2
Total	14.5

Winter Courses	Hours
Info Systems & Business Intel. (CIS 301)	4
Cyber Forensics (CYBS 328)	4.5
Discrete Mathematics (MATH 250)	4
General Studies: Humanities (Ways of Knowing)	4
Total	16.5

Spring Courses	Hours
System Administration (CPTR 211)	3
General Studies: Exploring Scripture	4
General Studies P.E. Activities	1
Electives	8
Total	16

Senior Year

Fall Courses	Hours
Ethical Hacking (CYBS 387)	4.5
Future of Cybersecurity (CYBS 423)	4.5
General Studies: Engaging Art	4
Electives	3
Total	16

Winter Courses	Hours
Ethical Issues for Computing (CPTR 308)	4
Cybersecurity Capstone (CYBS 494)	4.5
Internship (CIS 490)	0
General Studies: Engaging History & Phil.	4
Electives	4
Total	16.5

Spring Courses	Hours
Principle of Project Management (MGMT 470)	4
General Studies: Engaging Faith	4
Elective	8
Total	16