



ACADEMIC PATHWAY

BACHELOR OF SCIENCE IN CYBER SECURITY

What is Cyber Security?

Cyber security is a ticket to becoming a digital sentinel, a hero in the online world where battles against hackers and cyber threats are fought daily. Imagine being the one who stands guard, ensuring that our online secrets, from private chats to bank accounts and are kept safe from those lurking in the shadows of the internet. This isn't just any job; it's an adventure in the fast-paced digital landscape where each day brings new challenges and the chance to outsmart cyber villains.

Diving into cyber security, students will explore an exciting variety of specialties. They might become codebreakers, using cryptography to secure messages from prying eyes, or step into the shoes of a white-hat hacker, finding and fixing security holes before they can be exploited. Another possibility is the role of a cyber detective, piecing together digital clues to solve the mysteries of a cyber-attack. Each path a student chooses is a critical piece of the puzzle, combining to form a shield that protects our digital lives.

By enrolling in our Bachelor of Science in cyber security program, students are not just signing up for courses. They are embarking on a mission. Starting with the basics, students will build a strong foundation in how computers and networks operate, then quickly move on to mastering the skills of defending them against all sorts of digital threats. Our program is designed to be engaging and practical, preparing graduates for real-world action with hands-on projects and simulations. Students will become fluent in the language of cyber security, ready to take on roles that are crucial in today's tech-driven world. A student can turn their fascination with technology into a career that matters, playing a key role in shaping the future of safe, secure digital spaces.

Why study Cyber Security?

Embarking on a cyber security journey at TU isn't just about earning a degree; it's a launchpad into a dynamic career that puts graduates on the front lines of digital defense. What sets TU apart is our blend of a cutting-edge curriculum, hands-on experience with real-world challenges and direct paths to earning crucial certifications. Students will dive into simulations preparing them for actual cyber threats, learn from seasoned professionals with firsthand industry insights, and have the chance to join our elite Hacking Team—a group that has consistently proven its mettle by finishing in the top 10% nationwide. TU's program is designed not just to educate, but to immerse students in the action and innovation of cyber security, making them a sought-after professional in this critical and fast-evolving field.

graduates are well-prepared to excel in:

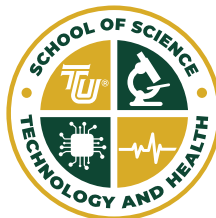
- Information Security Analyst
- Cyber Security Consultant
- Network and Computer Systems Administrator
- Digital Forensics Analyst
- Incident Responder

Given the rapid evolution of the cyber security field, which is relatively newer compared to traditional disciplines, an advanced degree might not be immediately necessary for entry-level positions. However, as the field continues to mature and grow in complexity, pursuing further specialization through graduate programs could become increasingly advantageous. Potential graduate programs for those looking to deepen their expertise include Master of Science degrees in cyber security, data science, artificial intelligence and software engineering.

These programs offer a chance to explore specific interests within technology more deeply. For those eyeing careers in academia or research, a graduate degree becomes essential, paving the way for teaching positions and groundbreaking research opportunities in the ever-expanding domain of cyber security.

What can I do with a Cyber Security degree?

With a cyber security degree, graduates enter a field brimming with opportunities, reflecting the increasing importance of digital security in our interconnected world. The Bureau of Labor and Statistics, keeping pace with this dynamic sector, highlights various careers that cyber security



How much will I earn with a Cyber Security degree?

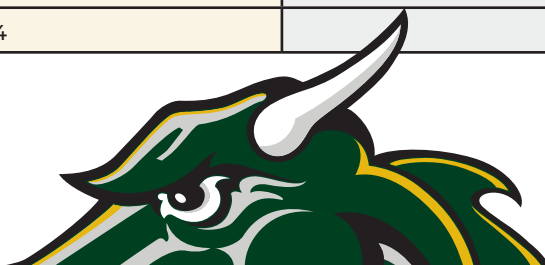
The Bureau of Labor and Statistics provides the following median pay data as of 2022 for in-demand careers in the cyber security field:

- Information Security Analysts: \$112,000
- Cyber Security Consultants: Approximately \$122,451
- Network and Computer Systems Administrators: \$90,520
- Database Administrators and Architects: \$112,120
- Computer Systems Analysts: \$102,240
- Web Developers and Digital Designers: \$80,730 for web developers and \$83,240 for digital interface designers
- Computer Network Architects: \$126,900

These figures reflect the growing demand for cyber security professionals and the lucrative opportunities available in this field. There are estimated to be 3.5 million unfilled cyber security positions in 2025.

What is your pathway to graduation?

CYBER SECURITY PATHWAY	
FRESHMAN SEMESTER 1	FRESHMAN SEMESTER 2
CDS152 - Intro to Cyber Security	CST155 - Intro to Operating Systems
DLT101 - Digital Literacy & Technology Readiness	COM130 - Introduction to Speech Communication
DEC100 - Engage	NAT130 - Foundations of Healthy Living
MAT181 - College Algebra	ENG142 - Rhetoric and Academic Writing
ENG141 - Introduction to Rhetoric and Academic Writing	MAT273 - Applied Statistics I
SOPHOMORE SEMESTER 1	SOPHOMORE SEMESTER 2
CST201 - Intro to Programming	CDS244 - Cyber Security
CST230 - Networking Fundamentals	POL225 - Intro to Intelligence Studies
POL151 - Intro to National Security	□ Open Elective 1
◇ Student Choice	CST330 - Network Infrastructures I
DEC200 - Explore	CST325 - Linux or Open Elective 2
JUNIOR SEMESTER 1	JUNIOR SEMESTER 2
DEC300 - Connect	CDS348 - Incident Management
CDS345 - Cyber Law & Ethics	CDS355 - Penetration Testing & Vulnerability Analysis
SCS300 - Research & Design	CST301 - Advanced Programming Concepts
CST280 - Database I	POL313 - American National Security Policy
Open Elective 3	CST325 - Linux or Open Elective 2
SENIOR SEMESTER 1	SENIOR SEMESTER 2
CDS424 - Applied Network Security	CDS445 - Cyber Warfare
CDS444 - Wireless Security	CDS491 - Senior Seminar
SCS470 - Internship 1	CST412 - IT Project Management
DEC400 - Impact	Open Elective 5
Open Elective 4	Open Elective 6



Notes:

*Recommend PHI215 - Ethics

Although students may also choose:

HIS201 - Introduction to Historical Events

ENG201 - Introduction to Literature

ART210 - Art Appreciation

CUL210 - Comparative Cultures

PHI110 - The Art of Reasoning

*Recommend MAT285 - Discreet Mathematics

Can I choose a minor?

MINOR OPTIONS			
NATIONAL SECURITY, INTELLIGENCE AND TERRORISM		DIGITAL FORENSICS	
COURSE NAME	CREDITS	COURSE NAME	CREDITS
ENF154 - Homeland Security Overview	3	CDS152 - Intro to Cyber Security	3
ENF212 - Concepts of Terrorism	3	CDS334 - Technology and Crime	3
ENF441 - Counterintelligence / Terrorism	3	CDS345 - Cyber Law and Ethics	3
POL151 - Intro to National Security	3	CDS348 Incident Management	3
POL225 - Intro to Intelligence Studies	3	CDS348 - Incident Management	3
		CDS351 - Survey of Computer Forensics	3
		CDS435 - Advanced Digital Forensics	3

Enhance your degree with a designation

The cyber security designations come through certifications. Below are courses within the cyber security program and certifications within the course (meaning students will have the opportunity to take the certification as a final exam within the course but, are not required to pass the certification. (This is for seated classes only. Online classes can attempt the certifications):

- **CDS152 – Intro to Cyber Security:** Security Blue Team -Blue Team Junior Analyst
- **CDS244 – Cybersecurity:** CompTIA Security+
- **CDS355 – Penetration Testing & Vulnerability Analysis:** CompTIA PenTest+
- **CDS491 – Senior Seminar in Cyber Defense:** TryHackMe SOC Analyst Level 1

Below are other certifications students are prepared for in course work and can attempt these certifications on their own:

- **CDS348 Incident Management:** CompTIA CySA+
- **CST330 Network Infrastructure I:** CompTIA Network+
- **CST412 IT Project Management:** Certified associate in project management (CAPM)

Stay on track!

YEAR 1

- Join the Technology Club which is a chapter of the Association of Computing Machinery (ACM) professional organization and attend club events.
- Join the Hacking Club and participate in tournaments to build and hone your skills.
- Meet with your faculty advisor and professional advisor each term for guidance.
- Go to class every day.
- Complete all assignments by their due date and request help early (tutoring and/or faculty guidance) if you are not understanding the assignment.
- Attend the meet-and-greet put on by the computer science faculty.
- Get involved in campus activities.
- Work on soft skills such as organizational skills, communication skills, time management skills etc.

YEAR 2

- Start to look for internship possibilities.
- Meet with your faculty advisor and professional advisor each term for guidance.
- Go to class every day.
- Complete all assignments by their due date and request help early (tutoring and/or faculty guidance) if you are not understanding the assignment.
- Get involved in campus activities.
- Work on soft skills such as organizational skills, communication skills, time management skills etc.

YEAR 3

- Obtain another outside professional certification not provided per required courses.
- Meet with your faculty advisor and professional advisor each term for guidance.
- Go to class every day.
- Complete all assignments by their due date, and request help early (tutoring and/or faculty guidance) if you are not understanding the assignment.
- Apply for internships six months prior to the term you desire to complete the internship.
- Get involved in campus activities.
- Work on soft skills such as organizational skills, communication skills, time management skills etc.

YEAR 4

- Fill out Graduation Application.
- Meet with your faculty advisor and professional advisor each term for guidance.
- Make an appointment with Career Services to get help creating/polishing your resume
- Go to class every day.
- Complete all assignments by their due date and request help early (tutoring and/or faculty guidance) if you are not understanding the assignment.
- Get involved in campus activities.
- Work on your soft skills such as organizational skills, communication skills, time management skills etc.
- Start applying for positions in the field as you approach graduation and watch for emails from the computer science faculty on local job position opportunities connections in your professional network.
- Apply for graduation through the Registrar's Office at TU.



TIFFIN UNIVERSITY

155 Miami Street,
Tiffin, Ohio 44883
800.968.6446
TIFFIN.EDU