

# Cybersecurity B.S.Cy.S.

120 credits, 2023/2024 Catalog

## First Year

### Fall Semester

- 3 \* **CGS 1540 Intro to Databases for IT**
- 4 **MAC 1147 Pre-Calculus Alg & Trig**
- R EGN 3000 Foundations of Engineering
- 3 ENC 1101 Composition I
- 3 EGN 3000L Foundations of Eng Lab (TGEC)
- 13 *Total Credits*

### Spring Semester

- 3 COP 2512 Programming Fundamentals for IT
- 3 **MAD 2104 Discrete Math**
- 3 **PHY 2020 Conceptual Physics**
- 3 ENC 1102 Composition II
- 3 St. Gen. Ed. Core Humanities
- 15 *Total Credits*

## Second Year

### Fall Semester

- 3 COP 2513 Object-Oriented Programming for IT
- 3 CGS 3303 IT Concepts
- 3 ECO 2013 Economic Principles  
(Required St. Gen. Ed. Core Social Science)
- 3 **STA 2023 Introductory Statistics I**
- ↓ [Apply for Progression to Upper Division](#)
- 12 *Total Credits*

### Spring Semester

- 3 CIS 3213 Found. Of Cyber Security
- 3 COP 3515 Advanced Program Design
- 3 PSY 2012 Intro to Psychological Science  
(Required St. Gen. Ed. Core Social Science)
- 3 General Ed. Natural Science Elective
- 12 *Total Credits*

### Summer

- 3 Gen. Ed. Human & Cultural Diversity
- 3 Gen. Ed. Information & Data Literacy
- 3 \*\* General Elective
- 9 *Total Credits*

## Third Year

### Fall Semester

- 3 COP 4538 Data Structures and Algorithms for IT
- 3 CEN 3722 Human Computer Interfaces
- 3 CIS 3363 IT Systems Security
- 3 ISM 4323 Info Security & IT Risk Mgmt.
- 3 CIS 4622 Hands-on Cybersecurity
- 15 *Total Credits*

### Spring Semester

- 3 CGS 3853 Web Systems for IT
- 3 CIS 4219 Human Aspects of Cybersecurity
- 3 CNT 4104 Computer Info Networks for IT
- 1 CNT 4104L Computer Info Networks Lab
- 3 ENC 3246 Comm. for Engineers
- 3 Approved Cybersecurity Elective
- 16 *Total Credits*

### Summer

- Recommended
- Internship/Co-op**
- Company/employer name and position (see advisor for credit options – CIS 4947)

## Fourth Year

### Fall Semester

- 3 COP 4703 Advance Database Systems
- 3 CNT 4403 Network Security & Firewalls
- 3 CIS 4200 Penetration Testing for IT
- 3 Approved Cybersecurity Elective
- 3 \*\* General Elective
- ↓ [Apply for Graduation](#)
- 15 *Total Credits*

### Spring Semester

- 4 CIS 4935 Senior Project in IT (TGEH)
- 3 LIS 4414 Information Policy & Ethics (TGEE)
- 3 Approved Cybersecurity Elective
- 3 \*\* General Elective
- 13 *Total Credits*

**Note:** Courses in bold must be completed with minimum grade of C, not C-. See overleaf for progression requirements.

R - Required course      \* - Requires a minimum grade of a "B," B- is insufficient.

\*\* Students must meet the Civic Literacy requirement with credit for AMH 2020/POS 2041 and passing the Civic Literacy test.

TGEC = Gen Ed Creative Thinking, TGEE = Gen Ed Ethical Reasoning & Civic Engagement, TGEH = Gen Ed High Impact Practice Capstone

## Cybersecurity Requirements for Progression to the Upper Division

- Completion of the following courses with a minimum grade of C and a cumulative **3.5 grade average\*** (based on best attempt) for the following courses:

- \_\_\_ **MAD 2104 Discrete Mathematics**
- \_\_\_ **STA 2023 Introductory Statistics**
- \_\_\_ **PHY 2020 Conceptual Physics**
- \_\_\_ **MAC 1147 Pre-Calculus with Algebra and Trigonometry**

\* Minimum grade average for progression to the upper division for fall 2023 is 3.50. This GPA is subject to change in future years; check the department website.

- **Completion of CGS 1540 Intro to Databases for IT with a grade of B or higher (best attempt), B- is insufficient**
- Need a USF GPA and an Overall GPA of 2.0 or better

## Continuation and Graduation Requirements

Reference Catalog: [https://catalog.usf.edu/preview\\_program.php?catoid=19&poid=8764](https://catalog.usf.edu/preview_program.php?catoid=19&poid=8764)

- Unless otherwise stated, the minimum acceptable grade in all Cybersecurity major required math, science, and engineering courses is a C or higher (C- is insufficient).
- The minimum acceptable grade in state mandated common prerequisite courses is a C or higher (C- is insufficient). Course list: MAC 1147, MAD 2104, COP 2512, PHY 2020, COP 2513, ECO 2013, STA 2023, and PSY 2012.
- The minimum acceptable grade in specialization courses is a C-, except as stated in the progression to the upper division and continuation requirements.
- Students must have and maintain a minimum 2.0 Semester GPA, 2.0 Math and Science GPA, 2.0 Engineering GPA, 2.0 Specialization GPA, 2.0 USF GPA, and 2.0 Overall GPA.
- All required math, science, engineering, and specialization courses must be successfully completed in no more than **two** registered attempts. Grades of W, IF, U, and R are considered attempts.

## Course Equivalencies

Courses at USF	Courses at a Florida State Institution
STA 2023 Intro Statistics	STA X023 or STA X122
MAC 1147 Pre-Calculus Algebra and Trig	MAX X147 or (MAC X140 and MAC X114)
PHY 2020 Conceptual Physics	PHY 1000-2999 Any 3 credit Physics course
CGS 1540 Intro to Databases	CGS X540, X540C, X545 or COP X710 (min 3 credits)
COP 2512 Programming Fundamentals	COP X512, X210, X270, X006, X272C, X500, X220, X360, X800 (Intro to Prog with C, C++, Java, or equivalent)
COP 2513 Object-Oriented Programming	COP X513, X551C, X224, X250