# Cybersecurity B.S.Cy.S.

120 credits, 2021/2022 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)

**Total Credits:** 15

### 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

**Total Credits:** 15

### 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

**Total Credits:** 12

### 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

**Total Credits:** 12

### Summer
- **3** Gen. Ed. Human & Cultural Diversity
- **3** Gen. Ed. Information & Data Literacy
- **3** ** General Elective

**Total Credits:** 9

### 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 Mgmnt.
- **3** CIS 4622 Hands-on Cybersecurity

**Total Credits:** 15

### 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

**Total Credits:** 16

### 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

**Total Credits:** 15

### Spring Semester
- **4** CIS 4935 Senior Project in IT (TGEH)
- **3** LIS 4414 Information Policy & Ethics (TGEE)
- **3** Approved Cybersecurity Elective
- **3** ** General Elective

**Total Credits:** 13

### 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

This semester plan is provided as a guide; the catalog is the definitive source of requirements.
Cybersecurity Requirements for Progression to the Upper Division

- Completion of the following courses with a minimum grade of C and a cumulative 3.2 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 2021 is 3.20. 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/content.php?catoid=13&navoid=1488](https://catalog.usf.edu/content.php?catoid=13&navoid=1488)

- 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 prerequisite courses is a C or higher (C- is insufficient).
- 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

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