*Please note* This flowchart is not a contract. For your contract information please see the catalog.

**Cybersecurity 2022-2023**

**Major Code:** 396527

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**FRESHMAN**

**Fall**
- CS 111 Intro to Programming 3
- Math 112 Calculus 4

**Winter**
- Phscs 121 3
- Hist 100 or two of Econ 110, Hist 210, Phscs 110

**SOPHOMORE**

**Fall**
- IT&C 291R .5 (F/W)
- IT&C 210A Web-based IT 2 (F/W)

**Winter**
- CS 235 Foundations of CS 1 3
- STAT 201 3

**JUNIOR**

**Fall**
- IT&C 291R .5 (F/W)
- IT&C 252 Computer Architecture 3 (W)

**Winter**
- IT&C 293 .5 (W)
- IT&C 347 Networks 3 (F)

**SENIOR**

**Fall**
- IT&C 447 Capstone 1 3 (F)
- IT&C 350 Database Principles and Applications 3 (W)

**Winter**
- IT&C 446 Capstone 2 3 (W)
- Cybersecurity Tech Elective 3
- IT&C 566 Digital Forensics 3 (F)

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**Total Credit Hours:** 120

- **G.E. Classes**
- **Major Classes**
- **Major and G.E. Classes**

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- **Required Prerequisite**
- **Concurrent Enrollment**
- **Instructor Permission**

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- **Note**
- Students must earn a grade of C or higher in IT&C 210B and IT&C 252 to enroll in IT&C 344 and IT&C 347
- Fulfills a CS minor with the addition of CS 240 (4) and two additional CS courses.
Cybersecurity Technical Electives

- IT&C 492R on a Cybersecurity topic
- IT&C 515R on a Cybersecurity topic
- IT&C 529 Advanced Networking
- IT&C 544 System Administration
- IT&C 548 Cyber-Physical Systems
- MATH 485 Mathematical Cryptography
- IS 565 Digital Forensics for Organizations

Other courses may be approved by petition. The course must meet certain requirements to be eligible for consideration as a Cybersecurity technical elective.

The course must:
- be a 300 or higher-level course,
- teach at least 70% new material from courses taught by the IT&C program,
- and have 70% of the content related to:
  - the tasks, knowledge, skills, or abilities defined in the current National Initiative for Cybersecurity Education (NICE) Cybersecurity Workforce Framework (800-181) or
  - the topics in the NSA/DHS Center for Academic Excellence in Education.

200 Hours of Work Experience

IT&C 447 includes the requirement of 200 hours of approved Cybersecurity work experience. Students majoring in Cybersecurity should have a paid experience that involves cybersecurity activities, which could include defensive activities (e.g., securing databases, networks, mobile apps, websites), digital forensics, or penetration testing activities. Job titles may be things like security analyst, security engineer, security consultant, etc. Job titles may also be more generic, such as system administrator, network engineer, or web developer, so long as you and your supervisor demonstrate that you have performed cybersecurity-related activities for at least 200 hours.

sot.byu.edu/it-c-work-experience

Common Equivalents

Substitutions do not happen automatically. Please see advisement office.

<table>
<thead>
<tr>
<th>IT&amp;C 101</th>
<th>IS 110, 201, &amp; 303 (all 3 courses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT&amp;C 124</td>
<td>ECEN 220</td>
</tr>
<tr>
<td>IT&amp;C 252</td>
<td>CS 224</td>
</tr>
<tr>
<td>STAT 201</td>
<td>STAT 121, with a grade of B- or higher. AP credit will not substitute.</td>
</tr>
</tbody>
</table>