# Bachelor of Science, Major in Cybersecurity

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<td>Bachelor of Science, Major in Cybersecurity</td>
<td>Core Curriculum</td>
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<tr>
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<td>Component Area I (Communications)</td>
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<td>Component Area II (Mathematics) 1, 2</td>
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<td>Component Area III (Life and Physical Science)</td>
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<tr>
<td></td>
<td>MATH 1420 Calculus I 1, 2</td>
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<td>MATH 1430 Calculus II</td>
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<td>MATH 2395 Discrete Mathematics</td>
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<td>COSC 1436 Programming Fundamentals I</td>
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<td>COSC 1437 Programming Fundamentals II</td>
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<td>COSC 2329 Comp Organiz &amp; Machine Lang</td>
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<td>COSC 3312 Numerical Methods</td>
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<td>COSC 3318 Data Base Management Systems</td>
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<td>COSC 3319 Data Structures and Algorithms</td>
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<td>COSC 3321 Digital System Design</td>
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<td>COSC 4314 Data Mining</td>
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<td>COSC 4319 Software Engineering</td>
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<td>COSC 4349 Professionalism and Ethics</td>
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<td>DFSC 1316 DF and IA Fundamentals I</td>
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<td>DFSC 4317 Information Security</td>
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<td>DFSC 4318 Malware</td>
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<td>DFSC 4338 Cyber Warfare</td>
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<td>COSC 4318 Advanced Language Concepts</td>
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<td>Electives: General</td>
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<td>General Electives</td>
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</table>
Bachelor of Science, Major in Cybersecurity

Minor: Not Required

Total Hours 120

1. MATH 1420 satisfies the requirement for Component Area II (Mathematics) and 1 semester credit hour for Component Area IX (Component Area Option) as well as the major.
2. Students who are not eligible for enrollment in MATH 1420 will have additional mathematics requirements.
3. A minor is not required for this degree program; however, a student has the option to add a minor, but to do so additional semester credits hours will be needed above the degree program's stated total semester credit hours.
4. All minors can be paired with this degree program.

Notes

Students must earn a 2.0 minimum overall GPA in all coursework.

Students must meet a 2.0 minimum overall major GPA in all major coursework.

Students must earn a 2.0 minimum SHSU GPA in all coursework.

Students must meet a 2.0 minimum SHSU major GPA in all major coursework.

First Year

<table>
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<tr>
<th>Component Area I (<a href="http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareai">http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareai</a>)</th>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
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<tr>
<td>Component Area III (<a href="http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiii">http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiii</a>)</td>
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<td>Component Area VI (<a href="http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavi">http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavi</a>)</td>
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Second Year

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<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Component Area V (<a href="http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavi">http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavi</a>)</td>
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<td>3 Component Area VIII (<a href="http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaviii">http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaviii</a>)</td>
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<td>Component Area VII (<a href="http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavii">http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavii</a>)</td>
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<td>3 Component Area IX (<a href="http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaxi">http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaxi</a>)</td>
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Third Year

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<td>COSC 3312</td>
<td>3 DFSC 2316</td>
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<td>DFSC 1316</td>
<td>3 DFSC 3316</td>
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</table>

1. Students must earn a 2.0 minimum overall GPA in all coursework.

2. Students must meet a 2.0 minimum overall major GPA in all major coursework.

3. Students must earn a 2.0 minimum SHSU GPA in all coursework.

4. Students must meet a 2.0 minimum SHSU major GPA in all major coursework.
Bachelor of Science, Major in Cybersecurity

Electives: General 3

<table>
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<tr>
<th>Fourth Year</th>
<th>Fall</th>
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<tr>
<td>Major: Prescribed Advanced Elective(^3)</td>
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<td>DFSC 4317</td>
<td>3 COSC 4319</td>
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<td>COSC 4314</td>
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<td>COSC 3321</td>
<td>3 DFSC 4318</td>
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<td>Total Hours: 120</td>
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\(^1\) MATH 1420 satisfies the requirement for Component Area II (Mathematics) and 1 semester credit hour for Component Area IX (Component Area Option) as well as the major.

\(^2\) Students who are not eligible for enrollment in MATH 1420 will have additional mathematics requirements.

\(^3\) Select one of the Prescribed Electives from the below course listing.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>COSC 3327</td>
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<td>COSC 3331</td>
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<td>Advanced Language Concepts</td>
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<td>Network Theory</td>
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<td>Computer Graphics</td>
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<td>COSC 4337</td>
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<td>COSC 4340</td>
<td>Spc Tpcs in Computer Sci</td>
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<tr>
<td>DFSC 4319</td>
<td>Principles of Data Quality</td>
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The Texas Higher Education Coordinating Board (THECB) marketable skills initiative is part of the state's 60x30TX plan and was designed to help students articulate their skills to employers. Marketable skills are those skills valued by employers and/or graduate programs that can be applied in a variety of work or education settings and may include interpersonal, cognitive, and applied skill areas.

The BS in Cybersecurity is designed to provide graduates with the following marketable skills:

- Solve complex technology-related problems.
- Apply theoretical principles to the software engineering process.
- Technical communication.
- System and network defense.