

BACHELOR OF SCIENCE, MAJOR IN COMPUTER SOFTWARE ENGINEERING TECHNOLOGY

| Code | Title | Hours |
|--|---|-------|
| Bachelor of Science, Major in Computer Software Engineering Technology | | |
| Core Curriculum (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum) | | |
| | Component Area I (Communication) | 6 |
| | Component Area II (Mathematics) | 3 |
| | Component Area III (Life and Physical Science) | 8 |
| | Component Area IV (Language, Philosophy, and Culture) | 3 |
| | Component Area V (Creative Arts) | 3 |
| | Component Area VI (U.S. History) | 6 |
| | Component Area VII (Political Science/Government) | 6 |
| | Component Area VIII (Social and Behavioral Sciences) | 3 |
| | Component Area IX (Component Area Option) | 4 |
| Degree Specific Requirements | | |
| MATH 1420 | Calculus I ^{1 3} | 4 |
| MATH 1430 | Calculus II | 4 |
| MATH 2395 | Discrete Mathematics | 3 |
| MATH 3379 | Statistical Mthods in Practice | 3 |
| 3 ADV MATH hours | | 3 |
| Major | | |
| COSC 1436 | Programming Fundamentals I | 4 |
| COSC 1437 | Programming Fundamentals II | 4 |
| COSC 2327 | Intro to Computer Networks | 3 |
| COSC 2329 | Comp Organiz & Machine Lang | 3 |
| COSC 3312 | Numerical Methods | 3 |
| COSC 3318 | Data Base Management Systems | 3 |
| COSC 3319 | Data Structures and Algorithms | 3 |
| COSC 3321 | Digital System Design | 3 |
| COSC 3327 | Computer Architecture | 3 |
| COSC 4314 | Data Mining | 3 |
| COSC 4318 | Advanced Language Concepts | 3 |
| COSC 4319 | Software Engineering | 3 |
| COSC 4320 | System Modeling and Simulation | 3 |
| COSC 4332 | Computer Graphics | 3 |
| COSC 4340 | Spc Tpcs in Computer Sci | 3 |
| COSC 4349 | Professionalism and Ethics | 3 |
| Electives | | |
| COSC or DFSC Electives (3 hours must be advanced) ² | | 6 |
| Advanced General Electives ² | | 9 |
| Total Hours | | 120 |

¹ **MATH 1420** satisfies the Core Curriculum requirement for Component Area II (Mathematics) and one semester credit hour of Component Area IX (Component Area Option).

² Electives should be used to meet the 42 advanced hour requirement.

³ Students who are not eligible to take MATH 1420 may have additional mathematics requirements.

First Year

| Fall | Hours Spring | Hours |
|--|--|--------------|
| Component Area III (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiii) | 4 Component Area III (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiii) | 4 |
| COSC 1436 | 4 COSC 1437 | 4 |
| ENGL 1301 ¹ | 3 ENGL 1302 ¹ | 3 |
| MATH 1420 ^{2, 3} | 4 MATH 1430 | 4 |
| | 15 | 15 |

Second Year

| Fall | Hours Spring | Hours |
|--|--|--------------|
| Component Area IV (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiv) | 3 Component Area V (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav) | 3 |
| Component Area VIII (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaviii) | 3 COSC 3312 | 3 |
| COSC 2329 | 3 COSC 3318 | 3 |
| HIST 1301 ⁴ | 3 HIST 1302 ⁴ | 3 |
| POLS 2305 ⁵ | 3 POLS 2306 ⁵ | 3 |
| | 15 | 15 |

Third Year

| Fall | Hours Spring | Hours |
|--|-----------------------|--------------|
| Component Area IX (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaix) | 3 COSC 3327 | 3 |
| COSC 2327 | 3 COSC 4314 | 3 |
| COSC 3319 | 3 COSC 4318 | 3 |
| COSC 3321 | 3 Elective (Advanced) | 3 |
| MATH 2395 | 3 MATH 3379 | 3 |
| | 15 | 15 |

Fourth Year

| Fall | Hours Spring | Hours |
|---------------------|-------------------------------|--------------|
| COSC 4319 | 3 COSC 4340 | 3 |
| COSC 4320 | 3 COSC 4349 | 3 |
| COSC 4332 | 3 COSC/DFSC Advanced Elective | 3 |
| Elective (Advanced) | 3 COSC/DFSC Elective | 3 |
| MATH (Advanced) | 3 Elective (Advanced) | 3 |
| | 15 | 15 |

Total Hours: 120

- ¹ Satisfies Core Curriculum requirement for Component Area I (Communications).
- ² Satisfies Core Curriculum requirement for Component Area II (Mathematics) and one semester credit hour of the Core Curriculum requirement for Component Area IX (Component Area Option).
- ³ Students who are not eligible to take MATH 1420 may have additional mathematics requirements.
- ⁴ Satisfies Core Curriculum requirement for Component Area VI (U.S. History).
- ⁵ Satisfies Core Curriculum requirement for Component Area VII (Political Science/Government).