Computer Science, Bachelor of Science Degree

Cyber Security, Master of Science Degree - Internship Track



Stephen F. Austin State University

| | Fall Semester CSCI 1302 | | | | Spring Semester | | |
|--------|----------------------------|--|--------|--|-----------------|---------------------------------|----|
| Year 1 | CSCI 1302 | Computer Science Principles | | | CSCI 2302 | Computer Programming Principles | 3 |
| | MATH 2211 | Precalculus A & Lab (MATH 2011) | | | CSCI 2311 | Event Driven Programming | 3 |
| | MATH 2212 | Precalculus B & Lab (MATH 2012) | 2 3 | | MATH 2313 | Calculus I & Lab (MATH 2113) | 4 |
| | ENGL 1301 | Rhetoric & Composition | | | ENGL 1302 | Research & Argument | 3 |
| | HIST 1301 | U.S. History I | 3 | | HIST 1302 | U.S. History II | 3 |
| | Core | Language, Philosophy, & Culture ^(1.D) | 3 | | | | |
| | Total Hours | | | | | Total Hours | 16 |

| | Fall Semester | | Spring Semester | | | | | | | | | |
|--------|---------------|--------------------------------------|-----------------|--|-----------|----------------------------------|----|--|--|--|--|--|
| Year 2 | CSCI 3302 | Data Structures | | | CSCI 1462 | Introduction to Data Analytics | 4 | | | | | |
| | Elective | Advanced CSCI (5) (3331 Recommended) | 3 | | CSCI 3321 | Client Server Web Programming | 3 | | | | | |
| | MATH 2314 | Calculus II & Lab (MATH 2114) | 4 | | MATH 3325 | Computational Linear Algebra (2) | 3 | | | | | |
| | Core | Life & Physical Sciences (1.C) | 4 | | Core | Life & Physical Sciences (1.C) | 4 | | | | | |
| | | | | | | | | | | | | |
| | | Total Hours | 14 | | | Total Hours | 14 | | | | | |

| | Fall Semester | <u>er</u> | | | Spring Semester | | | <u>Summer</u> | | | |
|-------------------------------|--|---|---|-----------|--------------------|-------------------------------------|------|---------------------|-----------------------------------|-----------|--|
| | CSCI 2314 | Computer Organization & Architecture | 3 | | CSCI 3341 | Principles of Operating Sytems | 3 | Core | Social & Behavioral Science (1.H) | 3 | |
| CSCI 3333 Discrete Structures | | 3 | | CSCI 3342 | Algorithm Analysis | 3 | Core | Creative Arts (1.E) | 3 | | |
| ear | GOVT 2305 | 05 Federal Government 3 | | | Elective | General Elective (3362 Recommended) | 3 | | | \square | |
| 7 | SPCH 1315 Public Speaking ^(1.A) | | 3 | | GOVT 2306 | Texas Government | 3 | | | | |
| | ENGL 2311 | Technical and Scientific Writing ^(1.1) | 3 | | Elective | General Elective | 3 | | | | |
| Total Hours | | 15 | | | Total Hours | 15 | | Total Hours | 6 | | |

| | Fall Semester | <u>r</u> | | | Spring Semester | | | | | | |
|--------|-------------------------------|---|-----------|-----------|-----------------|----------------------------|----|----------|------------------------------|---|--|
| Year 4 | CSCI 3323 | Software Engineering | 3 | | CSCI 4260/4270 | Senior Design 1 & 2 | 4 | Elective | Graduate STAT ⁽⁶⁾ | 3 | |
| | CSCI 4341 | Formal Languages | 3 | | CSCI 4335 | Computer Networking | 3 | Elective | Graduate STAT ⁽⁶⁾ | 3 | |
| | CSCI 4342 | CSCI 4342 Organization of Programming Languages 3 | | CSCI 4347 | Cyber Security | 3 | | | | | |
| | Elective | General Elective | 3 CSCI 41 | | CSCI 4111 | Ethics in Computer Science | | | | | |
| | CSCI 5362 Penetration Testing | | 3 | | Elective | General Elective | 1 | | | | |
| | | | | | CSCI 5348 | Digital Forensics | 3 | | | | |
| | Total Hours | | 15 | | | Total Hours | 15 | | Total Hours | 6 | |

| | Fall Semester | | | | Spring Semester | | |
|-------------|---------------|---|----|-----|-----------------|------------------------------|----|
| | CSCI 5312 | Web Security | 3 | | CSCI 5185 | Internship in Cyber Security | 3 |
| Ir 5 | CSCI 5322 | Defensive Coding and Security Graduate CSCI ⁽⁷⁾ | | - [| CSCI 5345 | Reverse Engineering | 3 |
| Year | Elective | | | ſ | Elective | Graduate CSCI (7) | 3 |
| | Elective | Graduate CSCI (7) | 3 | ſ | Elective | Graduate CSCI (7) | 3 |
| Total Hours | | | 12 | | | Total Hours | 12 |
| | | | | | Program Hours | 120 + 36 = 156 | |

Note: Students will be required to repeat pre-requisite courses when the grade is below a C. A minimum of 42 semester hours of work must be completed at SFA, of which at least 36 hours must be advanced. A maximum of 66 academic hours plus 4 hours of kinesiology activity from junior/community colleges may apply towards a bachelor's degree. Contact your SFA advisor for alternative courses to the core courses listed.

(1.A) Alternative Options Include: SPCH 1318, 2333

(1.C) Options Include: ASTR 1303/1103; BIOL 1307/1107, 2301/2101; CHEM 1311/1111, 1312/1112; GEOL 1303/1103, 1304/1104; PHYS 1301/1101 or 2325/2125, 1302/1102 or 2326/2126, 1310/1110

(1.D) Options Include: ENGL 2309, 2322, 2323, 2327, 2328, 2332, 2333, 2335, 2341; HIST 2311, 2312, 2321, 2322; PHIL 1301, 1304, 2306

(1.E) Options Include: ARTS 1301, 1303, 1304; DANC 2303; MUMH 1307; MUSI 1306; DRAM 1310, 2366

(1.H) Options Include: ANTH 2351; ECON 2301, 2302; FORS 2351; GEOG 1303; MCOM 1307; PSYC 2301; SOCI 1301

(1.I) Alternative Options Include: BUSI 2304; FREN 1311, 1312; GERM 1311, 1312; INCM 1301-1305; PORT 1311, 1312; SGNL 1301, 1302; SPAN 1311, 1312

(2) Alternative Options Include: MATH 3315, 3320, 3330, 3340, 3345, 3360, 3365, 3370, 4320

(5) A maximum of 3 advanced hours may be used from internship courses CSIT 3185 and CSCI 3185.

(6) Elective graduate level (5000+) course in statistics.

(7) Options include: CSCI 5313, 5320, 5324, 5347, 5360, 5363, 5365, 5175, 5185 (maximum of 3 hours)

Revised: MAB 01/24/24