## Computer Science, Bachelor of Science Degree

## Cyber Security, Master of Science Degree - Internship Track



## Stephen F. Austin State University

|        | Fall Semester<br>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<br>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 <sup>(1.D)</sup> | 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 <sup>(1.A)</sup> |   | 3 |           | GOVT 2306          | Texas Government                    | 3    |                     |                                   |           |  |
|                               | ENGL 2311                                  | Technical and Scientific Writing <sup>(1.1)</sup> | 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 <sup>(6)</sup> | 3 |  |
|        | CSCI 4341                     | Formal Languages                                  | 3         |           | CSCI 4335       | Computer Networking        | 3  | Elective | Graduate STAT <sup>(6)</sup> | 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<br>Graduate CSCI <sup>(7)</sup> |    | - [ | 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