

**COMPUTER SCIENCE- CYBERSECURITY FALL 2021-2022**

| <u>CORE REQUIREMENTS</u>  | DESCRIPTION   | CREDIT HOURS | FALL | OFFERED JTERM | SPRING                | TAKE             | PREREQ  | FOUNDATIONAL CORE                 | Notes |
|---|---|--------------|------|---------------|-----------------------|------------------|---|-----------------------------------|-------|
| COS103  | Computer Science and Engineering: All New Majors Orientaiton (Course fee for Retreat) | 1            | F    |               |                       | FR/<br>New Major |   | Computation requirement           |       |
| COS 109   | Computer and Network Operations   | 3            |      |               | S                     | FR               |   |                                   |       |
| COS120  | Introduction to Computational Problem Solving   | 4            | F    |               | S                     | Fall-FR          |   | Computation requirement           |       |
| COS121  | Foundations of Computer Science   | 4            | F    |               | S                     | Spring-FR        | SYS 120 or COS 130 or SYS 120   |                                   |       |
| COS143  | Interactive Webpage Design  | 3            | F    | J-TERM        |                       | Jterm-FR         |   |                                   |       |
| COS232  | Computer and Network Security I   | 3            | F    |               |                       | SO               | COS 121   |                                   |       |
| COS243  | Multi-tier Web Application Development  | 3            | F    |               | S                     | SO/JR            |   |                                   |       |
| COS265  | Data Structures and Algorithms  | 4            | F    |               |                       | SO               | COS 121   |                                   |       |
| COS284  | Introduction to Computer Systems  | 3            |      |               | S                     | SO               | COS 121 and MAT 215   |                                   |       |
| COS311 or COS321H   | Ethics in Computer Science  | 3            |      |               | S                     | JR               |   | (COS321H) Computation requirement |       |
| COS323  | Computer and Network Security II  | 3            |      |               | ODD                   | JR               | COS 232   |                                   |       |
| COS331  | Data Communications   | 3            |      |               | S                     | SO               | COS 121   |                                   |       |
| COS343  | Database Systems  | 3            | F    |               |                       | SR               | COS 121   |                                   |       |
| COS393  | Practicum (summer credit hour costs apply)  | 3            |      | Summer        |                       | JR               |   |                                   |       |
| COS411  | Digital Forensics   | 3            | EVEN |               |                       | JR/SR            | COS 331   |                                   |       |
| COS421  | Operating Systems   | 3            |      |               | ODD                   | JR/SR            | COS 265 and COS 284   |                                   |       |
| COS432  | Software Reverse Engineering and Analysis   | 3            | ODD  |               |                       | JR/SR            | COS 284   |                                   |       |
| COS492  | Senior Project-SP   | 3            |      | J-TERM        |                       | SR               | SENIOR STATUS   |                                   |       |
| COS493  | Computer Science Senior Capstone  | 1            | F    |               |                       | SR               | SENIOR STATUS   |                                   |       |
| MAT151  | Calculus I  | 4            | F    |               |                       | FR               | MAT 145 and MAT 146 may be taken as a two-semester substitute for MAT 151 | mathematics requirement           |       |
| MAT210  | Introductory Statistics   | 4            | F    |               | S                     | FR               |   | mathematics requirement           |       |
| MAT215  | Discrete Mathematics for CS   | 3            | F    |               |                       | SO               | COS 120 or COS 130 or SYS 120; and MAT 146 or MAT 151                     |                                   |       |
| POS350  | International Security  | 3            | ODD  |               |                       | JR               |   |                                   |       |
| <b>70 HOURS</b>   |   |              |      |               |                       |                  |   |                                   |       |
| <b>Select TWO of the Following:</b>                             |   |              |      |               |                       |                  |   |                                   |       |
| COS280  | Introduction to Artificial Intelligence   | 3            |      |               | currently not offered |                  | COS 121   |                                   |       |
| COS320  | Algorithm Design  | 3            |      |               | EVEN                  | JR/SR            | COS 265 and MAT 215   |                                   |       |
| COS381  | Computer Architecture   | 3            | ODD  |               |                       | JR/SR            | COS 284   |                                   |       |
| COS382  | Language Structures   | 3            |      |               | ODD                   | JR/SR            | COS 265   |                                   |       |
| COS435  | Theory of Computation   | 3            | EVEN |               |                       | JR/SR            | COS 265   |                                   |       |
| COS436  | Parallel and Distributed Computing  | 3            | EVEN |               |                       | JR/SR            | COS 265 and COS 284   |                                   |       |
| <b>6 HOURS</b>  |   |              |      |               |                       |                  |   |                                   |       |
| <b>ELECTIVES</b> <b>Select electives to meet 77 total hours</b> |   |              |      |               |                       |                  |   |                                   |       |
| COS230  | Missions Technology-CC  | 3            |      |               | TBD                   |                  |   |                                   |       |
| COS280  | Introduction to Artificial Intelligence   | 3            |      |               | Currently not offered |                  | COS 121   |                                   |       |
| COS3__  | Any 300-level COS course*   | 1 - 4        |      |               |                       |                  |   |                                   |       |
| COS4__  | Any 400-level COS course*   | 1 - 4        |      |               |                       |                  |   |                                   |       |
| NAS480  | Seminar   | 1            | F    |               |                       |                  |   |                                   |       |

**Attendance at 21 Computer Science and Engineering sanctioned events is required**

**BS 77 Hours TOTAL**

**Courses may not be used to fulfill more than one of: Core Requirements, Systems or Electives.**

**Degree Requirements**

128 minimum hours and 42 minimum upper-division hours (3XX/4XX course numbers).  
 Fifty percent of the minimum hours must be completed at Taylor- 64 hours.  
 Fifty percent of the major/minor hours must be completed at Taylor.  
 22 of the last 30 hours earned must be completed at Taylor.  
 Cumulative GPA of 2.0; major GPA of 2.3 (higher GPA may be required in certain curricula). (See current catalog for policy).  
 All foundational cour, major, minor, and proficiency requirements must be completed (including Senior Comprehensive Exam/Paper/Project).  
 Two years of one foreign language is required for the BA degree.

Candidates for 2 degrees must complete a minimum of 158 semester hours and meet all requirements for 2 different majors.