## Combined BSCS-MS/CyB

<table>
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<tr>
<th>UGrad. Hours</th>
<th>Grad. Hours</th>
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### I. Wright State Core

**Communications:**
- ENG 1100 (3)
- EGR 3350 (3) – Technical Communication for Engineers and Scientists

**Mathematics:**
- MTH 2300 (4)

**Global Traditions:** 6 hours

**Arts/Humanities:** 3 hours

**Social Science:** 6 hours

**Natural Science:** Select two of the following laboratory science courses:
- CHM 1210/1210L(5), 1220/1220L(5)
- BIO 1120(4), 1150(4)
- PHY 2400/2400L(5), 2410/2410L(5)
- EES 2510(4), 2520(4)

**Additional Core Courses**
- MTH 2310 Calculus II (4)

Additional courses in MTH, STT, CHM, BIO, PHY, or EES appropriate for computer science or engineering majors

### II. Computer Science and Engineering Courses

**II. Computer Science and Engineering Courses**

#### A. Required Computer Science Courses
- CS 1180 Computer Science I (4)
- CS 1181 Computer Science II (4)
- CS 3100 Data Structures and Algorithms (3)
- CS 3180 Comparative Languages (3)
- CS 4000 Social Implications of Computing (3)

Select one of the following:
1. CS 2210 Logic for Computer Scientists (3)
2. CS 3200 Theoretical Foundations of Computing (3)

#### B. Required Computer Engineering Courses
- CEG 2350 OS Concepts and Usage (4)
- CEG 3310 Computer Organization (4)
- CEG 4110 Introduction to Software Engineering (3)
- CEG 4350 OS Internals and Design (3)
- CEG 4980/4981 Team Projects I & 2 (6)

#### C. CS/CEG Electives
- 3 hours must be at the 4000 level
- 9 hours must be taken at the 6000 level or higher including at least 3 hours at the 7000 level or higher

#### 58
### III. Mathematics and Science Courses

#### A. Required Mathematics/Statistics Courses
- MTH 2530 Elementary Linear Algebra (3)
- MTH 2570 Discrete Math for Computing (3)
- STT 3600 or ISE 2211 Statistics (3)

#### B. Science and Mathematics Electives
Additional courses in MTH, STT, CHM, BIO, PHY, or EES appropriate for computer science or engineering majors.

The total number of math and science credits must be 30 or more, including MTH 2300, MTH 2310, and the two lab science courses from the Wright State Core.

### IV. General Electives
Electives may be from any area of study approved by the Department of Computer Science and Engineering

### V. MS-CyB Requirements
- Minimum 30 CS/CEG graduate credit hours
- Nine hours of CyB core coursework consisting of:
  - CEG 6400 Computer Networks & Security
  - CEG 6420 Host Computer Security
  - CEG 6750 Information Security
- Fifteen additional credit hours of formal CS/CEG coursework from the following courses:
  - MTH 6290 Cryptography and Data Security
  - EE 7400 Information Theory
  - CEG 6422 Secure Computing Practices
  - CEG 6424 Security Attacks and Defenses
  - CEG 7420 Host Computer Security II
  - CEG 7450 Advanced Computer Networks
  - CEG 7470 Advanced Wireless Networks
  - CEG 6450 Sensor Networks and Systems
  - CEG 6410 Mobile Computing
  - CEG 7370 Distributed Computing
  - CEG 7380 Cloud Computing
  - CEG 7850 Privacy Aware Computing
  - CEG 7560 Visualization and Image Processing for Cyber Security
  - CS 7600 Trust Networks
  - EE 7550 Trust in Integrated Circuit Design
- Six credit hour security project or thesis
A student will be removed from the combined BS-MS program and returned to the BS program for any of the following reasons:

1. The student’s overall GPA falls below 2.8 or the student’s CE/CS GPA falls below 3.0 any time prior to the end of the 4th year.
2. The student does not complete all graduation requirements within 6 years.
3. The student accumulates 7 or more graduate hours of C, D, F, X, and U grades in CE/CS courses and the student’s CE/CS graduate level GPA falls below 3.0.