

**University of Maryland  
Computer Science Department  
Cyber Security Concentration  
Undergraduate  
Curriculum Checklist**

**1. Core Computer Science Requirements**

- \* CMSC 131 (4) Object-Oriented Programming I
- \* CMSC 132 (4) Object-Oriented Programming II
- \* CMSC 216 (4) Introduction to Computer Systems
- \* CMSC 250 (4) Discrete Structures
- \* CMSC 330 (3) Organization of Programming Language
- \* CMSC 351 (3) Data Structures and Algorithms

**2. Students must take 7 courses from the 400-level series**

Area 1: Systems

- \*<sup>1</sup> CMSC 411 (3) Computer Systems Architecture
- \* CMSC 412 (4) Operating Systems
- \* CMSC 414 (3) Computer and Network Security
- \* CMSC 417 (3) Computer Networks

Area 2: Information Processing

- \*<sup>2</sup> CMSC 420 (3) Data Structures

Area 3: Software Engineering and Programming Languages

- \*<sup>1</sup> CMSC 430 (3) Introduction to Compilers
- \* CMSC 433 (3) Programming Language Technologies and Paradigms

Area 4: Theory

- \*<sup>2</sup> CMSC 451 (3) Design and Analysis of Computer Algorithms
- \* CMSC 456 (3) Cryptology

Notes 1,2: Students may take either CMSC411 or CMSC430 and CMSC420 or CMSC451.