Morgan State University   2022-2024 Undergraduate Catalog

Computer Science Curriculum Sequence

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Suggested Curriculum Sequence

This curriculum guide is a tool for planning. Matriculated students and advisors should consult Degree Works before and after registration for classes each semester to track academic progress.

First Year (Semester One): 15 Credits

- COSC 111 - Introduction to Computer Science I *4 credits* IM*
- ENGL 101 - Freshman Composition I *3 credits* EC
- MATH 241 - Calculus I *4 credits* MQ*
- XXXX - CT General Education Req. *3 credits* CT
- ORNS 106 - Freshman Orientation for Majors in the School of Computer, Mathematical and Natural Sciences *1 credits*

First Year (Semester Two): 15 Credits

- ENGL 102 - Freshman Composition II *3 credits* EC
- XXXX - HH General Education Req. *3 credits* HH
- XXXX - Phys. ED. Activity or FIN 101 or MIND 101 or DSVG 101 or FACS 102 *1 credit*
- COSC 112 - Introduction to Computer Science II *4 credits*
- MATH 242 - Calculus II *4 credits*

Second Year (Semester One): 16 Credits

- COSC 220 - Data Structures and Algorithms *4 credits*
- COSC 241 - Computer Systems and Digital Logic *3 credits*
- XXXX - AH General Education Req. *3 credits* AH
- XXXX - COSC Group A Elective *3 credits*[1]

Second Year (Semester Two): 16 Credits

- COSC 281 - Discrete Structure *3 credits*
- XXXX - COSC Group A Elective *3 credits*[1]
- XXXX - COSC Group A Elective *3 credits*[1]
- MATH 312 - Linear Algebra I *3 credits*
- XXXX - AH General Education Req. *3 credits* AH

Third Year (Semester One): 15 Credits

- COSC 349 - Computer Networks *3 credits*

- COSC 351 - Cybersecurity *3 credits*
- COSC 352 - Organization of Programming Languages *3 credits*
- XXXX - COSC Group B Elective *3 credits*[2]
- XXXX - BP General Education Req. *4 credits* (BP)

Third Year Semester Two): 16 Credits

- COSC 354 - Operating Systems *3 credits*
- MATH 331 - Applied Probability and Statistics *3 credits*
- XXXX - COSC Group B Elective[2]
- XXXX - CI General Education Req. *3 credits* CI
- XXXX - BP General Education Req. *3 credits* no lab req. BP

Fourth Year (Semester One): 15 Credits

- COSC 458 - Software Engineering *3 credits*
- COSC 459 - Database Design *3 credits*
- COSC 490 - Senior Project *3 credits*
- XXXX - COSC Group C Elective *3 credits*[3]
- XXXX - SB General Education Req. *3 credits* SB

Fourth Year (Semester Two): 12 Credits

- XXXX - COSC Group C Elective *3 credits*
- XXXX - COSC Group C Elective *3 credits*
- XXXX - COSC Group C Elective *3 credits*
- XXXX - COSC Group D Elective *3 credits*
- XXXX - SB General Education Req. *3 credits* SB

Total Credits: 120

* denotes a department required supporting or major course which may fulfill a general education requirement and must be completed with a grade of "C" or higher

Please see General Education Requirements Distribution Areas for courses that satisfy General Education Requirements where not specified by the department

1 Choose three (3) courses from the following Group A electives: COSC 238, COSC 239, COSC 243, COSC 251, CLCO 261

2 Choose two (2) courses from the following Group B electives: COSC 320, COSC 323, COSC 332, COSC 338 COSC 383, COSC 385, MATH 313, EEGR 317

3 Choose four (4) courses from the following Group C electives: COSC 470, COSC 472, COSC 460, COSC 480, COSC 491, COSC 498, COSC 499, CLCO 411, CLCO 471

4 Choose one (1) course from the following Group D electives: MGBU 326, INSS 391, INSS 494, EEGR 481, EEGR 483, XXXX - 300-400 level COSC course not previously taken

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