**Sample Plan to Graduation for a BS in Computer Science**

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|  | **Fall Semester** | **Spring Semester** |
| **Freshman Year** | CS 110 – 4 cr  Math 140 – 4 cr  First Year Seminar – 4 cr  English 101 – 3 cr | CS 210 – 4 cr  CS 240 – 3 cr  Math 141 – 4 cr  English 102 – 3 cr |
| (15 credits) | (14 credits) |
| **Sophomore Year** | Math 260 – 3 cr  CS 220 – 3 cr  CS 285L – 3 cr  General Education – 3 cr  Elective – 3 cr | CS 310 – 3 cr  CS 341 – 3 cr  General Education – 3 cr  General Education– 3 cr  Intermediate Seminar – 3 cr |
| (15 credits) | (16 credits) |
| **Junior Year †** | CS 420 – 3 cr  CS 444 – 3 cr  CS 446 – 3 cr  Physics 113 & 181 – 6 cr | CS 451 – 3 cr  CS 449 – 3 cr  Physics 114 & 182 – 6 cr  Math 345 – 3 cr |
| (15 credits) | (15 credits) |
| **Senior Year** | CS Elective – 3 cr  CS Elective – 3 cr  General Education – 3 cr  General Education – 3 cr  Elective – 3 cr | CS 410 – 3 cr  General Education – 3 cr  General Education – 3 cr  Elective – 3 cr  Elective – 3 cr |
| (15 credits) | (15 credits) |

† - The Writing Proficiency Requirement (WPR) is recommended to be completed at 60-75 credits. Please consult the WPR website:

[www.umb.edu/academics/vpass/undergraduate\_studies/writing\_proficiency](http://www.umb.edu/academics/vpass/undergraduate_studies/writing_proficiency)

**Residency requirement:** A minimum of four CS/Math courses at the 300 or 400 level must be taken at UMass Boston.

This course guide provides the detailed names of courses listed by number on the four-year plans. It is not a comprehensive list of courses for your major, or a substitute for an advising appointment! Consult with your faculty advisor when choosing courses, and check your degree audit regularly.

CS 110 – Introduction to Computing

CS 210 – Intermediate Computing with Data Structures

CS 220 – Applied Discrete Mathematics

CS 240 – Programming in C

CS 285L – Research Topics in Computer Issues: Ethics and Societal Impact

CS 310 – Advanced Data Structures and Algorithms

CS 341 – Computer Architecture and Organization

CS 410 – An Introduction to Software Engineering

CS 420 – An Introduction to the Theory of Computation

CS 444 – An Introduction to Operating Systems

CS 450 – The Structure of Higher Level Languages

CS 451 – Compilers I

Math 140 – Calculus I

Math 141 – Calculus II

Math 260 – Linear Algebra I

Math 345 – Probability and Statistics

Physics 113 & 181 - Fundamentals of Physics Lecture & Laboratory

Physics 114 & 182 – Fundamentals of Physics II Lecture & Laboratory

Computer Science pass/fail rule: no major requirements may be taken pass/fail