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

|  |  |  |
| --- | --- | --- |
|  | **Fall Semester** | **Spring Semester** |
| **Freshman Year** | CS 110 – 4 crMath 140 – 4 crFirst Year Seminar – 4 crEnglish 101 – 3 cr | CS 210 – 4 crCS 240 – 3 crMath 141 – 4 crEnglish 102 – 3 cr |
| (15 credits) | (14 credits) |
| **Sophomore Year** | Math 260 – 3 crCS 220 – 3 crCS 285L – 3 crGeneral Education – 3 crElective – 3 cr | CS 310 – 3 crCS 341 – 3 crGeneral Education – 3 crGeneral Education– 3 crIntermediate Seminar – 3 cr |
| (15 credits) | (16 credits) |
| **Junior Year †** | CS 420 – 3 crCS 444 – 3 crCS 446 – 3 crPhysics 113 & 181 – 6 cr | CS 451 – 3 crCS 449 – 3 crPhysics 114 & 182 – 6 crMath 345 – 3 cr |
| (15 credits) | (15 credits) |
| **Senior Year** | CS Elective – 3 crCS Elective – 3 crGeneral Education – 3 crGeneral Education – 3 crElective – 3 cr | CS 410 – 3 crGeneral Education – 3 crGeneral Education – 3 crElective – 3 crElective – 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