



# STUDENT SUCCESS CENTER

COLLEGE OF SCIENCE AND MATHEMATICS  
www.umb.edu/ssc

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## Sample Four-Year Plan for a BS in Computer Engineering

	Fall Semester	Spring Semester
Freshman Year	Engineering 104 – 3 cr English 101 – 3 cr Math 140 – 4 cr CS 110 – 4 cr  (14 credits)	First Year Seminar – 4 cr English 102 – 3 cr Math 141 – 4 cr Physics 113 & 181 – 6 cr  (17 credits)
Sophomore Year	Engineering 211 – 3 cr * Engineering 231 & 271 – 4 cr Math 242 – 4 cr Physics 114 & 182 – 6 cr  (17 credits)	* Engineering 232 & 272 – 4 cr * Engineering 241 – 4 cr CS 210L – 4 cr Intermediate Seminar – 3 cr  (15 credits)
Junior Year †	Engineering 321 – 3 cr Engineering 341 – 3 cr Engineering 365 – 4 cr Math 260 – 3 cr CS 240 – 3 cr  (16 credits)	Engineering 322 – 3 cr Engineering 346 – 3 cr CS 310 – 3 cr CS 220 – 3 cr General Education – 3 cr General Education – 3 cr  (18 credits)
Senior Year	Engineering 491 – 3 cr Engineering 446 – 3 cr Thematic Elective – 3 cr Thematic Elective – 3 cr General Education – 3 cr  (15 credits)	Engineering 492 – 3 cr ECE or Thematic Elective – 3 cr ECE or Thematic Elective – 3 cr General Education – 3 cr General Education – 3 cr  (15 credits)

\* - Class may be offered only once a year.

† - 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)

- This document is a suggested plan for the major. Students must meet with their faculty advisor each semester and refer to their degree audit to ensure adequate progress toward their degree.
- Students are strongly advised to select general education courses which fulfill multiple requirements.

## Computer Engineering BS Course Number Guide

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 Structure

CS 220 – Applied Discrete Mathematics

CS 240 – Programming in C

CS 310 – Advanced Data Structures and Algorithms

Engineering 187S & 188S – Engineering Science Gateway Seminar

Engineering 104 – Introduction to Engineering

Engineering 211 – Engineering Math

Engineering 231 & 271 – Circuit Analysis I Lecture & Laboratory

Engineering 232 & 272 – Circuit Analysis II Lecture & Laboratory

Engineering 241 – Digital Systems with Laboratory

Engineering 321 – Signals and Systems

Engineering 322 – Probability and Random Process

Engineering 341 – Advanced Digital Design

Engineering 346 – Microcontrollers

Engineering 365 – Electronics I with Lab

Engineering 446 – Computer Architecture Design

Engineering 491 & 492 – Senior Design Project I & II

Math 140 – Calculus I

Math 141 – Calculus II

Math 242 – Multivariable and Vector Calculus

Math 260 – Linear Algebra

Physics 113 & 181 – Fundamentals of Physics I Lecture & Laboratory

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

### **Additional resources:**

[www.umb.edu/academics/vpass/undergraduate\\_studies/general\\_education\\_requirements](http://www.umb.edu/academics/vpass/undergraduate_studies/general_education_requirements)

[www.umb.edu/academics/course\\_catalog/search](http://www.umb.edu/academics/course_catalog/search)

[www.umb.edu/academics/csm/student\\_success\\_center/degree\\_planning/math\\_placement](http://www.umb.edu/academics/csm/student_success_center/degree_planning/math_placement)