


**TWO-YEAR PROGRAM COMPLETION PLAN**
**Department of Physics & Earth Science**

--This program establishes a freshman and sophomore curriculum leading to a B.S. degree in an engineering discipline at the University of Massachusetts-Boston, University of Massachusetts-Lowell, or the Massachusetts Maritime Academy. A typical student accepted into this program will study for two years at Framingham State and complete the program at one of the universities, earning the degree from that institution.

**Recommended Schedule for Bachelor of Science: Major in Pre-Engineering (UPEN):**

Year One: Fall Semester	Year One: Spring Semester
MATH 219 Calculus I	CHEM 108 Principles of Chemistry and Quantitative Analysis
CHEM 107 Principles of Chemistry	CSCI 130 Computer Science I Using Java
EGNG 101 Introduction to Engineering	MATH 220 Calculus II
ENGL 110 Expository Writing	ECON 102 Principles of Microeconomics

Year Two: Fall Semester	Year Two: Spring Semester
Literature Course	CSCI 215 Computer Science II Using Java
MATH 221 Calculus III	PHYS 212 Principles of Physics II
PHYS 211 Principles of Physics I	Open Elective
Open Elective	Open Elective

--Students who do not place into the Calculus I course are required to take additional mathematics prior to taking Calculus I.

-- Suggested open electives include:

- BIOL 160 Introduction to Organismal Biology
- BIOL 161 Introduction to Cell and Molecular Biology
- CHEM 207 Organic Chemistry I
- CHEM 208 Organic Chemistry II
- ECON 101 Principles of Macroeconomics
- MATH 222 Differential Equations