

# ENGINEERING

**LENGTH:** Four Semesters

**PURPOSE:** This program is designed for students who plan to transfer to a four-year institution to complete a baccalaureate degree in engineering. Requirements vary among institutions and among the different engineering fields. The following program is a composite of the requirements of the first two years of the baccalaureate degree at most four-year institutions. Students should have successfully completed a minimum of four units of high school mathematics, including trigonometry, and three units of science in biology, physics and chemistry.

**AREA I ..... WRITTEN COMPOSITION ..... 3 SH**  
 ENG 101..... English Composition I ..... 3  
 ENG 102..... English Composition II ..... 3

**AREA II ..... HUMANITIES AND FINE ARTS ..... 9 SH**  
 Fine Arts Elective..... ART 100, MUS 101, THR 120, or THR 126 ..... 3  
 SPH 107 ..... Fundamentals of Public Speaking ..... 3

**Choose one of the following courses: ..... 3**  
 ENG 271 or ENG 272 ..... World Literature I or World Literature II or  
 ENG 261 or ENG 262 ..... English Literature I or English Literature II or  
 ENG 251 or ENG 252 ..... American Literature I or American Literature II

**AREA III ..... NATURAL SCIENCES AND MATHEMATICS ..... 12 SH**  
 MTH 125 ..... Calculus I ..... 4  
 PHY 213 ..... General Physics with Calculus I ..... 4  
 PHY 214 ..... General Physics with Calculus II ..... 4

**AREA IV ..... HISTORY, SOCIAL, AND BEHAVIORAL SCIENCES ..... 9 SH**  
**Choose one of the following sequences: ..... 6**  
 HIS 101 & HIS 102 ..... Western Civilization I & Western Civilization II or  
 HIS 121 & HIS 122 ..... World History I & World History II or  
 HIS 201 & HIS 202 ..... U.S. History I & U.S. History II  
 Social Science Electives ..... ANT, ECO, GEO, POL, PSY, or SOC ..... 3

**AREA V ..... PRE-PROFESSIONAL, MAJOR, AND ELECTIVE COURSES ..... 25-28 SH**  
 ORI 101..... Orientation to College ..... 1  
 CHM 111..... College Chemistry I..... 4  
 MTH 126 & MTH 227 ..... Calculus II and Calculus III ..... 4  
 MTH 227 ..... Calculus III ..... 4  
 MTH 238 ..... Applied Differential Equations I ..... 3

**Choose from the following approved Engineering electives ..... 9-12**  
 BIO 103..... Principles of Biology I (CH, A) ..... 4  
 CHM 221..... Organic Chemistry I ..... 4  
 CHM 222..... Organic Chemistry II ..... 4  
 CHM 112..... College Chemistry II (CH) ..... 4  
 CIS 251..... "C++" Programming (E) ..... 3  
 \*MTH 237 ..... Linear Algebra (A, E, M) ..... 3  
 \*EGR 101 ..... Engineering Foundations(A, CH, CI, E, M)..... 3  
 \*EGR 125 ..... Computer Graphics for Engineers (A, M, CI) ..... 3  
 \*EGR 157 ..... Computer Methods for Engineers using MATLAB..... 3  
 \*EGR 220 ..... Statics (A, CI, M) ..... 3

A: Aerospace CH: Chemical CI: Civil E: Electrical M: Materials, Mechanical or Industrial

**Total Hours ..... 61-64 SH**

\* Taught only on the Bay Minette Campus; Students should consult their transfer institution or the STARS templates at [www.coastalalabama.edu](http://www.coastalalabama.edu). See an academic advisor for assistance.

ASSOCIATE IN SCIENCE