Associate in Science

Liberal Arts & Sciences: Pre-Engineering Science Concentration (EB47) 2015-2016 Catalog

The goal of this program is to prepare engineering science majors to transfer to a baccalaureate degree program. Students have the opportunity to meet their first- and second-year program requirements by completing engineering science, mathematics, science, computer science, humanities, and social science courses. Students are advised to review the requirements of the transfer institution prior to course selection.

Outcomes:

- Understand the basic principles of the physical sciences.
- Perform a scientific experiment and interpret the results.
- Demonstrate an understanding of the major concepts of differential and integral calculus.
- Have the ability to write and document a computer program.
- Complete the general education courses in satisfaction of the associate degree requirements.

Note: Students planning to enter this program should have a strong background in high school algebra, geometry, trigonometry and functions, and in physics and chemistry. Their total high school record should indicate an ability to succeed in the Engineering Program. One year of foreign language is recommended.

Suggested Sequence of Courses:
Prerequisite or parallel courses may be required. Please check individual course descriptions for details.

Freshman Year

ENG* E101	Composition	3
[2] MAT* E254	Calculus I	4
[2] PHY* E221	Calculus-Based Physics I	4
CHE* E121	General Chemistry I	4
ENG* E102	Literature & Composition	3
[2] MAT* E256	Calculus II	4
[2] PHY* E222	Calculus-Based Physics II	4
[1] Programming	CSC Directed Elective	3
CHE* E122	General Chemistry II	4

Sophomore Year

Fine Arts	Elective	3
MAT* E268	Calculus III: Multivariable	4
Social Science	Elective	3
Humanities	Elective	3
MAT* E285	Differential Equations	3
Behavioral Science	Elective	3
Humanities	Elective	3
Open (2 courses)	Electives	6

Total Credits: 61

[1] This course is offered in the SUMMER SESSION ONLY at HCC. It may also be taken at another Community College.

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Note: A minimum of 15 credits must be taken in 200-level courses.

Note: For degree completion the student must complete the Computer Literacy Requirement.