



PROGRAM DESCRIPTION: The Associates in Science degree in Pre-engineering is a program at GCCC that offers students the mathematics courses needed for their first two years of an engineering degree at most four-year institutions as well as some of the science classes. The goals of all the courses are not just to prepare students for future classes, but to develop an understanding and appreciation of how mathematics is used and applied in real-world situations. With small class sizes, our professors can help each student achieve their goals. The semester-by-semester plans described below are general guidelines. Students should work closely with their academic advisors to develop a plan that best meets their own individual needs and goals.

PROGRAM OUTCOMES AND CURRICULUM MAP.

Minimum Credit Hours Required to Graduate = 60

Semester 1		16-17 hours
Course No.	Course Title	Credit
*ENGL-101	English I.....	3
*MATH-122	Calculus and Analytic Geometry I.....	5
*CHEM-109	College Chemistry I.....	5
*	Student Success Requirement.....	1
*	Personal Wellness Requirement	2

Semester 2		14-16 hours
Course No.	Course Title	Credit
*ENGL-102	English II	3
**MATH-123	Calculus and Analytic Geometry II	5
***	Program Elective Course (select from list below).....	3-5
*PSYC-101/SOCI-102	General Psychology or Introduction to Sociology	3

Semester 3		16 hours
Course No.	Course Title	Credit
*COMM-101	Public Speaking	3
**MATH-205	Calculus and Analytic Geometry III.....	5
**PHYS-207	Engineering Physics I.....	5
*	Humanities & Fine Arts Requirement	3

Semester 4		14 hours
Course No.	Course Title	Credit
**PHYS-208	Engineering Physics II.....	5
	Open Elective Course.....	3
*	Social Science Requirement	3
*	Humanities & Fine Arts Requirement	3

***** PROGRAM ELECTIVE COURSES**

Course No.	Course Title	Credit
BIOL-105	General Biology.....	4
BIOL-114	Biology I.....	4
CHEM-110	College Chemistry II	5
CSCI-102	Introduction to Programming	3
CSCI-107	Advanced Programming.....	3
ECON-111	Principles of Economics: MACRO	3
ECON-112	Principles of Economics: MICRO.....	3
MATH-110	Fundamentals of Statistics.....	3
MATH-116	Discrete Mathematics	3
MATH-206	Differential Equations.....	3
PHYS-205	General Physics I.....	5
PHYS-206	General Physics II.....	5

* CORE CURRICULUM REQUIREMENT
Communications, Mathematics & Natural Sciences, Social Sciences, Humanities & Fine Arts, Personal Wellness, Student Success

**** REQUIRED PROGRAM COURSE**

*** PROGRAM ELECTIVE COURSE
Other courses are subject for approval with submission of Graduation Substitution form.