

**Highland Community College Suggested Program of Study
Pre-Engineering (Associate in Science)**

The Pre-Engineering program is designed to enable students to complete the first two years of bachelor's degree requirements; check specific transfer school requirements and HCC Transfer Guides. The beginning course in mathematics in the curriculum is Calculus w/Analytical Geometry I. This assumes that the entering student will have completed College Algebra and Plane Trigonometry in high school*. College Algebra and Trigonometry may not be counted toward a degree in any of the Kansas engineering schools. The student lacking high school background will necessarily have to allow more time in fulfilling requirements in engineering.

Course Number	Course Name	Credit Hour
<u>Basic Skills</u>		
COL 103	College Success and Orientation	1
ENG 101	College English I	3
ENG 102	College English II	3
SP 106	Public Speaking	3
	PE Elective	1
	Computer Literacy Elective	1
<u>Humanities</u>		
	Humanities Elective	3
	Humanities Elective	3
<u>Social & Behavioral Science</u>		
BUS 203	Macroeconomics	3
	Social Science Elective	3
<u>Mathematics & Science</u>		
MAT 106	Calculus w/Analytic Geometry I	5
MAT 110	Calculus w/Analytic Geometry II	5
MAT 201	Calculus w/Analytic Geometry III	3
PS 111	College Chemistry I	5
PS 112	College Chemistry II	5
PS 215	College Physics I	5
PS 216	College Physics II	5
<u>Electives</u>		
MAT 202	Differential Equations	3

* MAT 104 College Algebra and MAT 105 Plane Trigonometry must be taken prior to starting this program.

Otherwise, this program cannot be completed in two years.

Potential Employment Applications of Degree

Engineers apply the theories and principles of science and mathematics to the solution of practical technical problems. Often their work is the link between a scientific discovery and its application.