Engineering A.S. (EGRS)

This pre-professional program has its foundation in mathematics and the physical and natural sciences. Upon completion of the program, the student has the option of pursuing a bachelor's degree in aeronautical, chemical, civil, electrical, industrial, mechanical, or nuclear engineering at a four-year college or university.

Upon successful completion of this program, graduates will be able to:

- demonstrate an understanding of concepts, physical laws, and basic principles and apply them in the solution of problems in engineering mechanics, engineering physics, and college-level chemistry.
- analyze a problem in a simple and logical manner.
- develop experimental techniques in making measurements in the laboratory, analyzing and interpreting experimental results, and determining errors in measurements and results.
- demonstrate mathematical skills to the level of a completed course sequence in calculus and analytic geometry.
- solve elementary engineering problems on the computer using an object-oriented programming language.
- perform basic drafting techniques and understand industrial-type drawings.
- communicate effectively, particularly in written laboratory reports.
- have a general education base for the social sciences and humanities.

Transfer information for this program is on file in the Transfer and University Center. For more information, contact an academic advisor or counselor.

First Semester

		Credits
CHE 111	General Chemistry I	4
EGR 102	Engineering Orientation	1
ENG 105	Research and Composition	3
MAT 191	Calculus and Analytic Geometry I	4
Elective	Humanities	3
		15

Second Semester

CHE 112	General Chemistry II	4
EGR 101	Engineering Graphics	4
MAT 196	Calculus and Analytic Geometry II	4
PHY 210	General Physics I	4
		16

Third Semester

EGR 213	Statics	3
MAT 201	Calculus and Analytic Geometry III	4
PHY 215	General Physics II	4
Elective	Social Science	3
		14

Fourth Semester

CIS 155	Introduction to Computer Science–Structured Programming–C++	3.5
EGR 214	Dynamics	3
ENG 106	Introduction to Literature	3
Elective	General Education	3-4
Elective	Social Science/Humanities	3
		16.5
	Credit Total	**60.5**

Prior Learning Assessment: Previous job training, certificates and work experience that may qualify for college credit *(see academic advisor)*.

Gateway Courses: Based on placement testing in reading, writing and math, these prerequisite courses may have to be taken before placement in College English or Mathematics beginning the first semester and concurrently.

RSS 099	Basic Skills Reading	3
RSS 100	Critical Reading	3
ENG 099	Basic Skills Writing	3
ENG 100	Fundamentals of Writing	3
MAT 090	Mathematical Literacy	6
ESL 251	English for Academic Purpose *(Required for ESL students only.)*	6

Please note, taking gateway courses will increase your time for completion.