



ENGINEERING (414)

Associate of Engineering Science

ABOUT OUR PROGRAM

This program is intended to provide the first two years of a four-year baccalaureate program. Students in this major will study mathematics and science with the intent of applying the principles of those fields to the design and construction of useful devices and structures. Specialty areas of engineering include mechanical, electrical, civil, chemical, and industrial.

NATURE OF WORK AND EMPLOYMENT

Engineers work in a wide variety of settings such as industries, research facilities, consulting firms, and governmental agencies.

SPECIAL CONSIDERATIONS

Those interested in engineering should have an aptitude for science, mathematics, problem solving, and versatility. Good verbal and written skills, and the ability to work on a team are also needed. **The guideline listed is recommended only. Students should check with a student advisor for specific university requirements in this major.** See the General Education requirements listed on page 59. Each student must meet with an advisor to ensure that the special requirements of the department and the institution to which they plan to transfer are fully met.

PROGRAM CONTACTS

Call Highland at 815-235-6121 for the following program contacts:

- Mr. Alan O'Keefe, Physics Faculty
- Mr. Thedford Jackson, Transfer Coordinator/Student Advisor

FIRST SEMESTER 15 Sem. Hours

* CHEM	123	General College Chemistry I	5
* ENGL	121	Rhetoric and Composition I	3
* MATH	168	Analytic Geometry and Calculus I	5
* PHYS	120	Introduction to Engineering	2

SECOND SEMESTER 18 Sem. Hours

* ENGL	122	Rhetoric and Composition II	3
* MATH	268	Analytic Geometry and Calculus II	5
* PHYS	143	General Physics I	4
		Humanities/Fine Arts Requirement	3
		Social/Behavioral Science Requirement	3

THIRD SEMESTER 16/17 Sem. Hours

* MATH	265	Differential Equations	3
* PHYS	144	General Physics II	4
		SPCH 191 Fundamentals of Speech	3
†		Social/Behavioral Science Requirement	3
		Engineering Specialty Electives	3/4

FOURTH SEMESTER 17/18 Sem. Hrs.

* MATH	269	Analytic Geometry and Calculus III	4
†		Humanities Requirement	3
†		Social/Behavioral Science Requirement	3
†		Fine Arts Requirement	3
		Engineering Specialty Electives	4/5

Total Hours = 66/68

- * Course has a prerequisite. See course descriptions.
- † Some transfer institutions prefer sequential courses. Check with a student advisor.

Engineering Specialty Electives

See your student advisor

	BIOL	110	Principles of Biology	4
*	CHEM	124	General College Chemistry II	5
*	CHEM	221	Organic Chemistry I	4
*	CHEM	222	Organic Chemistry II	4
*	DRAF	151	Engineering Graphics	4
**	PHYS	221	Mechanics I (Statics)	3
*	PHYS	222	Mechanics II (Dynamics)	3
*	PHYS	145	General Physics III	4
*	PHYS	246	Circuits Analysis	4
*	MATH	262	C Programming for Science Eng	4