

ASSOCIATE OF SCIENCE DEGREE

Pre-Engineering – Alternative Energy Option

The Associate in Science (A.S.) Pre-Engineering degree is a cooperative program between Crowder College and the School of Engineering at the Missouri University of Science & Technology. In addition, similar cooperative programs have been developed with the University of Missouri - Columbia and the University of Arkansas. Although not specifically designed for transfer to other engineering schools, the A.S. program does incorporate the essential course work for the first two years of study in any engineering field at other universities. Some of the course requirements vary with the engineering departments cooperating in this program. Those requirements are marked with a (†). In such cases, students will need to consult with the adviser as to the appropriate class for a particular engineering major.

Crowder College and the School of Engineering at Missouri University of Science & Technology have instituted an advisement and counseling program for pre-engineering majors. Students enrolling at Crowder can be simultaneously enrolled at S&T's Transfer Assistance Program. This allows for a smoother transition between the two institutions. Students are also allowed to participate in special pre-registration programs on the S&T campus.

Crowder College offers two degree programs in pre-engineering. The A.S. Pre-Engineering degree is designed for those students who plan to enter into traditional engineering fields such as Mechanical, Electrical, Civil, etc. The A.S. Pre-Engineering Alternative Energy Option degree is designed for those students who wish to pursue a career in alternative energies.

Program of Study

Orientation		1 hour
COLL 101		
Communications		6 hours
ENGL 101*		
ENGL 102*	OR	ENGL 104* (3)
SPCH 101*		
Humanities, Social and Behavioral Science †		12 hours
Missouri Constitution (3 hours)		Economics (3 hours):
PLSC 103*, 104*		ECON 201*, 202*
HIST 106*		
Humanities (3 hours)		Additional humanities (3 hours)
ART 101		ECON 201*, 202*
ASL 101, 102*		GEOG 101*
ENGL 109, 120, 125		HIST 101*, 102*, 106*, 107*
HIST 101*		PHIL 110*, 121
MUSC 101		PLSC 103*, 104*
PHIL 101*, 110*, 121, 201*, 202*		PSYC 101
SPAN 101		SOC 101
SWK 219		
TA 205		
Mathematics		18 hours
MATH 150*		MATH 202*
MATH 160*		MATH 210*
MATH 201*		
Science		18 hours
PHYS 190*		CHEM 111
PHYS 210*		
PHYS 250*		
Computer Science		4 hours
COMP 111*		
Technical Electives		6 hours
CHEM 112*		ENER 242
ENER 150*		ENER 244
ENER 151*		ENER 246
ENER 156		ENER 248
ENER 250*		ENER 134*
ENER 251*		ENER 232*
ENER 256		

Suggested Plan of Study

FIRST YEAR		
Fall Semester		Hours
CHEM 111	General Chemistry I	5
COLL 101	College Orientation	1
COMP 111	Introduction to Programming	4
ENGL 101	English Composition I	3
MATH 150	Calculus I, Part 1	2
	Total	15
Spring Semester		Hours
ECON 201 – OR – ECON 202		3
MATH 160	Calculus I, Part 2	3
PHYS 190	General Physics I	5
Approved Communications Course		3
Approved Humanities Course		3
	Total	17
SECOND YEAR		
Fall Semester		Hours
HIST 106	US History – OR – PLSC 103	3
MATH 201	Calculus II	5
PHYS 210	General Physics II	5
Approved Soc & Behavioral Science Course		3
	Total	16
Spring Semester		Hours
MATH 202	Calculus III	5
MATH 210	Differential Equations	3
PHYS 250	Statics	3
Approved Technical Electives		6
	Total	17
TOTAL HOURS REQUIRED		65

*Prerequisite requirement

This Suggested Plan of Study is based on course offerings at the Neosho Campus and online. Adjustments in scheduling may need to be made based on other campus course offerings. This is just one possible plan. The length of time to complete the program may vary for each student. In addition, based on placement results, individuals may need to take additional courses for academic remediation.