

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. 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 advisor 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 a co-admission advisement and counseling program for pre-engineering majors. Students enrolling at Crowder can be simultaneously enrolled at MUS&T. A smoother transition between the two institutions and a greater level of career counseling can be provided for students by allowing them to enroll in career development and other specified MUS&T classes on Crowder's campus. Students are also allowed to participate in special pre-registration programs on the MUS&T campus.

Orientation		1 hour	
COLL	101		
Communications		6 hours	
ENGL	101* (3)		
ENGL	102* (3)	OR	ENGL 104* (3)
SPCH	101* (3)		
Humanities, Social and Behavioral Science †		12 hours	
Missouri Constitution (3 hours)		Additional (3 hours) or another humanities	
PLSC	103, 104*	ECON	201, 202
HIST	106	GEOG	101
Economics (3 hours):		HIST	101, 102, 106, 107
ECON	201, 202	PHIL	110, 121
Humanities (3 hours)		PLSC	103, 104*
ART	101	PSYC	101
ASL	101, 102*	SOC	101
ENGL	109, 120, 125		
HIST	101		
HUM	102, 103		
MUSC	101		
PHIL	101, 110, 121, 201, 202		
SPAN	101		
TA	205		
Mathematics		18 hours	
MATH	150 Calculus 1 Part I* (2)	MATH	202 Calculus III* (5)
MATH	160 Calculus I Part II* (3)	MATH	210 Differential Equations* (3)
MATH	201 Calculus II* (5)		
Science		18 hours	
PHYS	190 General Physics I* (5)	CHEM	111 General Chemistry I* (5)
PHYS	210 General Physics II* (5)		
PHYS	250 Statics* (3)		
Computer Science		4 hours	
COMP	111 Intro to Computer Science (4)		
Technical Electives		6 hours	
CHEM	112 General Chemistry II* (5)	ENER	242 Biodiesel Production (3)
ENER	150 Passive Solar Systems (3)	ENER	244 Bioethanol Fuel Production (3)
ENER	151 Passive Solar Lab (2)	ENER	246 Biogas Production (3)
ENER	156 Projects in Alternative Energy (3)	ENER	248 Biofuels System Technology (3)
ENER	250 Active Solar Systems* (3)	ENER	134 Wind Turbine Troubleshooting (3)
ENER	251 Active Solar Lab (2)	ENER	232 Wind Turbine Internship (3)
ENER	256 Projects in Alternative Energy (3)		

*Prerequisite requirement