

I.T.C. Energy Systems Technology

(1 Year)

Program Prerequisites:

Students must be qualified for college-level coursework in English and Math (see an advisor for details).

Placement Test	Math
ACT	19
SAT	500
ALEKS	30

Description:

Fundamental electronics, electrical, and energy systems program.

Objective:

To prepare students as entry-level technicians and maintenance assistants to meet the needs of industry.

Major Requirements

Code	Title	Credits
Required Courses:		
ESET 1100	Engineering Technology Orientation	1
ESET 1100L	Introduction to an Industrial Environment Laboratory	1
Select a minimum of sixteen (16) credits from the following courses: ¹		16
ESET 1101	Electrical Circuits I	
ESET 1101L	Electrical Circuits I Laboratory	
ESET 1102	Electrical Circuits II	
ESET 1102L	Electrical Circuits II Laboratory	
ESET 1110	Introduction to Process Control	
ESET 1110L	Introduction to Process Control Laboratory	
ESET 1121	Basic Electricity and Electronics	
ESET 1121L	Basic Electricity and Electronics Laboratory	
ESET 1122	Electrical Systems and Motor Control Theory	
ESET 1122L	Electrical Systems and Motor Control Theory Laboratory	
ESET 1123	Mechanical Power Transmission I	
ESET 1123L	Mechanical Power Transmission Laboratory I	
ESET 1125	Introduction to Structural Welding	
ESET 1126	Introduction to Mechanical Drafting and Computer Aided Design	
ESET 1127	Mechanical Power Transmission II	
ESET 1127L	Mechanical Power Transmission Laboratory II	
ESET 1130	Initial Operator Training and Student Operations	

ESET 1151	Nuclear Industry Fundamental Concepts	
ESET 1151L	Nuclear Industry Fundamental Concepts Lab	
ESET 1152	Nuclear Careers and Information	
ESET 1153	Radiological Control Fundamentals	
Select a minimum of eight (8) credits from the following math courses:		8
ESET 1140	Applied Technical Intermediate Algebra	
MATH 1143	Precalculus I: Algebra	
MATH 1144	Precalculus II: Trigonometry	
MATH 1147	Precalculus	
MATH 1153	Statistical Reasoning	
MATH 1170	Calculus I	
MGT 2216	Business Statistics	
Choose a minimum of 4 credits of General Education Course Electives:		4
COMM 1101	Fundamentals of Oral Communication	
CHEM 1101	Introduction to Chemistry	
ENGL 1101	Writing and Rhetoric I	
PHYS 1101 & 1101L	Elements of Physics and Elements of Physics Laboratory	
Total Credits		30

¹ **Students continuing to the AAS are advised to take the following curriculum as part of the ITC:**

Electrical Engineering Technology --
ESET 1101, ESET 1101L, ESET 1102, ESET 1102L, ESET 1140
Instrumentation Engineering Technology --
ESET 1101, ESET 1101L, ESET 1102, ESET 1102L,
ESET 1110, ESET 1101L, ESET 1140
Mechanical Engineering Technology --
ESET 1121, ESET 1121L, ESET 1122, ESET 1122L, ESET 1123,
ESET 1123L, ESET 1125, ESET 1126, ESET 1127, ESET 1127L, ESET 1140
Nuclear Engineering Technology --
ESET 1121, ESET 1121L, ESET 1122, ESET 1122L,
ESET 1140, ESET 1151 and ESET 1151L, or ESET 1130,
ESET 1152, ESET 1153

Major Academic Plan (MAP)