



Energy Distribution

General description: This program prepares the student for a career in the power generation and transmission industry. As a student pursues this program, he or she will coordinate apprenticeship training in the areas of lineman, natural gas operator, polyphase meter, power engineering, and substation operator with additional college-level requirements for an Associate in Applied Science degree. This is a restricted entry program that is intended for Ameren Illinois employees. For further information, contact Marvin Morey at 217.424.6414.

Engineering Technology

General description: The Engineering Technology program is an integrated, cross-disciplinary degree program that prepares the student for a career as an engineering technician in a manufacturing or industrial environment. Due to the high level of integration in this program, the student may choose from several career paths (concentrations/specialties), including Biofuels Technician, BioProcess Operator, CNC Technology, Electrical Systems, Facilities Maintenance, Fluid Power Systems, Instrumentation Systems, Machine Repair, Manufacturing Engineering Technology, Mechanical Systems, and Wind Energy Systems. While each concentration contains a unique set of courses overall, each contains the same general education and technical core courses. Students interested in several specialties will earn only one Engineering Technology degree but may earn multiple certificates.

The classrooms and laboratories are equipped with modern and commonly used industrial components, tools, machines, and systems. While attention is given to classroom theory, hands-on skills required for success in this rapidly growing field are especially emphasized. Upon successful completion of this program, the student will be ready to install, maintain, troubleshoot, and repair modern industrial systems. Major employers are automated industrial plants, processing plants, contractors, field service centers, technical sales, and training centers.

These are career and technical education programs. Some courses may not transfer to four-year institutions.

Engineering Technology – Biofuels Technician

General description: Biofuels curriculum is designed to provide individuals with an educational foundation, including those vital technical skills, to obtain employment in the biofuels industry or to assist an individual with understanding biofuels manufacture components. Course work includes general education, alternative energy resource management, biochemistry, industrial safety and an array of course work specific to changing sectors of the biofuels industry. Graduates of the curriculum should qualify for numerous positions within the Biofuels industry and related industries in food bioprocessing. See also Agribusiness and Horticulture.

Sample of job titles with this degree: Plant Technician, Process Coordinator, Process Manager, Lab Technician, Sales Technician, Plant Manager, Fuel Purchase, Small Business Owner.

Suggested Full-Time Course Sequence:

<u>Fall Semester</u>	<u>Credit Hours</u>
COMM 120 (or COMM 101)	3
ENGT 100	3
ENGT 101	4
ENGT 103	3
MATH 113	4

<u>Spring Semester</u>	
ENGT 102 (or DRAFT 101)	3
ENGT 105	3
ENGT 107	3
ENGT 111	4
ENGT 120	3
ENGT 125	2

<u>Fall Semester</u>	
ENGT 160	3
ENGT 210	4
ENGT 220 (or ENGT 212)	3
ENGT 225	4
ENGT 270	3

<u>Spring Semester</u>	
BIOL 210	4
ENGL 110 (or ENGL 101)	3
ENGT 231	2
ENGT 271	2
PHYS 101 (or PHYS 115)	4

Additional Program Information:



Students who begin in Spring may not finish in a two-year time frame.

Engineering Technology – Biofuels Technician Specialty Courses		Credit Hours	ENGT Biofuels AAS 3000	BioFuels Technician Cert. 300N	BioFuels Control Systems Technician Cert. 300L
BIOL 210	Environmental Biology	4	X		
COMM 120	Business & Professional Speaking (or COMM 101)	3	X		
ENGL 110	Professional & Technical Writing (or ENGL 101)	3	X		
ENGT 100	Manufacturing Processes	3	X	X	
ENGT 101	Motor Control Fundamentals	4	X	X	X
ENGT 102	Blueprint Reading (or DRAFT 101)	3	X	X	X
ENGT 103	Fluid Power Fundamentals	3	X	X	
ENGT 105	Occupational Safety	3	X	X	X
ENGT 107	BioFuel Manufacturing Fundamentals	3	X	X	X
ENGT 111	Motor Control Applications	4	X	X	X
ENGT 120	Process Control Fundamentals	3	X	X	X
ENGT 125	BioProcess Operation Fundamentals	2	X	X	
ENGT 160	Metrology and Quality Control	3	X	X	
ENGT 210	PLC Fundamentals	4	X	X	X
ENGT 220	Process Control Applications (or ENGT 212)	3	X	X	X
ENGT 225	BioProcess Operation Applications	4	X	X	
ENGT 231	Piping Fundamentals	2	X	X	
ENGT 270	BioFuel Manufacturing Applications	3	X	X	
ENGT 271	BioFuel Manufacturing Techniques	3	X	X	
MATH 113	Introduction to Applied Statistics	4	X		
PHYS 101	Introduction to Physics (or PHYS 115)	4	X		
Total Hours			68	50	27