

Energy Utility Technology

Program **A5310**
CIP 150303

Associate in Applied Science Degree

The Energy Utility Technology program enables participants to acquire the skills and knowledge necessary for immediate entry into energy utility careers or transfer to an advanced degree program of study in a related field. The program combines courses in general education and energy utility technologies, partially conducted at approved energy utility facilities.

General education elements include academic background in mathematics, communications, basic circuit analysis, physics, and general educational electives. Energy utility technology courses focus on energy delivery system knowledge and skills for electrical construction and maintenance; gas installations, maintenance, and appliance service; and power generation including plant operations and maintenance.

This program's blend of a strong academic foundation, energy utility technology electives, and cooperative work experiences provides successful graduates with sufficient knowledge to begin a career as entry-level technicians in the electric and gas utility industry, with companies in related fields, or to continue formal education.

Successful graduates of the program will be able to:

- communicate effectively in English both orally and in written form;
- demonstrate mastery of basic algebra and mathematics;
- demonstrate an understanding of the fundamentals of AC and DC electricity;
- demonstrate an understanding of the fundamentals of gas combustion;
- apply computer skills to access information from the Internet;
- work as a team with fellow workers;
- demonstrate "one on one" communication skills in an interview;
- demonstrate mastery of job skills learned through co-op experiences in two of the following areas: appliance service and repair – gas; substation mechanic – electric; apprentice engineering – electric; relay technician; meter technician; division mechanic – electric; utility mechanic – gas; apprentice plant operator.

Admission to the program requires a high school diploma or its equivalent with prerequisite proficiency requirements for mathematics and English composition. Students with insufficient background may take appropriate preparatory courses at the college.

Curriculum

Code	Course (lecture/lab hours)	Credits
ENG 101	English Composition I (3/0)	3
IST 101	Computer Concepts with Applications (2/2)	3
	OR	
IST 102	Computer Concepts with Programming (2/2)	3
MAT 115	Algebra and Trigonometry I (3/0)	3
UTI 101	Introduction to the Energy Utility Industry (2/2)	3
— —	General Education elective (3/0) ¹	3
ENG 102	English Composition II (3/0)	3
EET 130	Fundamentals of Electronics (2/2)	3
UTI 102	Fundamentals of Gas Combustion (2/2)	3
UTI 111	Alternative Energy Sources (3/0)	4
— —	General Education elective (3/0) ²	3
CMN 112	Public Speaking (3/0)	3
CMN 122	Organizational Communication (3/0)	3
UTI 103	Fundamentals of Power Alternating Current (3/0)	3
UTI 281	Energy Utility Cooperative Education I	4
— —	General Education elective (3/0) ²	3
HPE 110	Concepts of Health and Fitness (1/2)†	2
UTI 282	Energy Utility Cooperative Education II	4
UTI —	Energy Utility elective ³	4-6
UTI —	Energy Utility elective ³	4-7
		61-66

NOTE: Electives should be selected in consultation with an academic advisor in order to assure maximum transfer of credits.

¹ Select course from either Social Science or Humanities general education categories.

² Select course from the following general education categories: Social Science, Humanities, Historical Perspective, Diversity and Global Perspective.

³ Select from UTI 104, 105, 106, 107, 108, 109, or 110.

†HPE 111 is an acceptable alternative.

NOTE: Students must complete ENG 101 and MAT 115 to be eligible for UTI 101. Students must earn a minimum grade of B in UTI 101 and a minimum grade of C in all other UTI courses to graduate.

NOTE: All program listings are subject to periodic updates. Please consult your program advisor, academic division, or www.mccc.edu/programs_degree

