

Nuclear Engineering Technology (9416)

Associate of Applied Science Degree

This program is based on the nuclear industry “Non-Licensed Operator” training requirements. Students must be “College Ready” (placement in MATH 1180 Technical Mathematics I and ENGL 1110 English Composition I (A) or ENGL 1111 English Composition I (B)) prior to registering for any NUET courses. A minimum GPA of 2.0 and a “C” grade or higher is required in all ELEC, MATH, CHEM, PHYS, NUET, and program-specific courses for graduation.

Graduates will be able to:










1. solve basic technical problems typical of what is encountered when working at a nuclear power plant;
2. perform tests and experiments, data analysis, and report findings including recommendations for improvement;
3. work and communicate effectively in diverse and multi-disciplinary teams;
4. be aware of modern professional, ethical, and societal issues as well as recognize the need for lifelong learning.




Students meeting specific academic standards are eligible to receive, upon graduation, a “Nuclear Uniform Curriculum” certificate issued by the Nuclear Energy Institute (NEI) and Lakeland. Before being hired to work within the nuclear industry, students must be able to pass a background check, drug tests, and psychological screening, typically administered by the utility.

Lakeland is one of only a handful of colleges nationwide to offer a two-year degree program in Nuclear Engineering Technology (9416) that is ETAC/ABET accredited. (ETAC/ABET – Engineering Technology Accreditation Commission of the Accreditation Board of Engineering and Technology 415 N. Charles St. Baltimore, MD 21201, phone: 410.347.7700, www.abet.org (http://www.abet.org).)

Students must meet specific admission requirements for this program. Interested students should contact the director of admissions or the Counseling Office for details about applying for admission to the program.


NOTE: Students planning to transfer to a four-year college are encouraged to take ENGL 1120 English Composition II

Course	Title	Credit Hours
First Semester		
ENGL 1110 or ENGL 1111	English Composition I (A) ¹ or English Composition I (B)	3
ENGR 1000	Introduction to Engineering Technology	2
FYEX 1000	First Year Experience	1
MATH 1180	Technical Mathematics I	4
NUET 1000	Nuclear Industry Fundamental Concepts 	3
NUET 1100	Radiation Detection and Protection 	3
	Credit Hours	16
Second Semester		
CHEM 1100 or CHEM 1500	Elementary Chemistry ² or General Chemistry I	4
ELEC 1120	Direct Current Circuit Analysis 	2
MATH 1280	Technical Mathematics II	4
NUET 1200	Plant Drawings 	3
NUET 1300	Power Plant Components 	3
PHYS 1100	Applied Physics Mechanics	3
	Credit Hours	19
Third Semester		
COMM 1000 or COMM 1100	Effective Public Speaking or Effective Interpersonal Communications	3
ELEC 1220	Alternating Current Circuit Analysis 	2
ELEC 1260	Direct Current and Alternating Current Laboratory 	1
NUET 2000	Reactor Plant Materials 	3
NUET 2250	Reactor Theory, Safety and Design 	3

PHYS 1200	Applied Physics Heat and Thermodynamics	3
	Credit Hours	15
Fourth Semester		
ECON 1150 or ECON 2500 or ECON 2600	Basic Economics or Principles of Macroeconomics or Principles of Microeconomics	3
ELEC 2300	Sensors, Actuators, and Control 	3
HUMX 1100	Introduction to Humanities	3
NUET 2300	Thermo-Fluid Sciences 	4
NUET 2400	Capstone and Case Studies in Nuclear Engineering Technology 	2
	Credit Hours	15
	Total Credit Hours	65

¹ English course selection is based on placement test results (ENGL 1111 English Composition I (B) is 4 credits, only 3 credits apply to the degree).

² Chemistry course selection is based on prior chemistry experience.

 This course is designated as a technical course in the program. Students must earn a "C" grade or higher in the course to fulfill the college's graduation requirements policy.