

Associate of Applied Science Degree Engineering Technologies

Nuclear Engineering Technology (9416)

This program is based on the nuclear industry “Nonlicensed Operator” training requirements. Before being hired to work within the nuclear industry, students must be able to pass a background check, drug tests, and psychological screening. Lakeland is one of only a handful of colleges nationwide to offer a two-year degree program in Nuclear Engineering Technology that is TAC/ABET (Technology Accreditation Commission of the Accreditation Board of Engineering and Technology) accredited. 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. This degree is accredited by the Technology Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, phone 410.347.7700, 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.

First Semester:

CHEM 1100* Elementary Chemistry	4
OR	
CHEM 1500 General Chemistry I	
MATH 1101Technical Mathematics I	4
ENGL 1110** English Composition I(A)	3
OR	
ENGL 1111 English Composition I(B)	
MECT 1000Introduction to Technology	2
NUET 1000Nuclear Industry Fundamentals Concepts	4

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Second Semester:

ELEC 1100Electrical Circuits I	3
ENGL 1120English Composition II	3
MATH 1201Technical Mathematics II	4
NUET 1200Nuclear Plant Drawings	3
PHYS 1200Applied Physics II	3

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Third Semester:

ECON 1150 Basic Economics	3
OR	
ECON 2500 Principles of Macroeconomics	
OR	
ECON 2600 Principles of Microeconomics	
ELEC 1200Electrical Circuits II	3
NUET 2000Reactor Plant Materials	3
NUET 2100Radiation Detection and Protection	3
NUET 2300Thermo-Fluid Sciences	4
Choose course(s) from the Electives list	2

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Fourth Semester:

ELEC 2300Process Control with LabVIEW Applications	3
HUMX 1100Introduction to Humanities	3
NUET 2250Reactor Theory, Safety and Design	3
NUET 2350Power Plant Components	3
NUET 2400Capstone and Case Studies in Nuclear Engineering Technology	2
SPCH 1000 Effective Public Speaking	3
OR	
SPCH 1100 Effective Interpersonal Communications	

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Program Total: 68

**Chemistry course selection is based on prior chemistry experience.*

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

Electives: minimum 2 credits

BUSM 1330Business Ethics	2
BUSM 2380Training Skills and Techniques	3
CIMN 1110Manufacturing Processes I	3
CIMN 1420Computer Numerical Control Part Programming (CNC)	2
CPET 1100C Programming for Engineering Technology I	2
CPET 1200Visual Basic for Engineering Technology I	2
CPET 2100C Programming for Engineering Technology II	2
CPET 2200Visual Basic for Engineering Technology II	2
ELEC 1320Digital Systems Fundamentals	3
ELEC 2101Electronics I	3
ELEC 2700Electric Motors, Generators and Control	4
ELEC 2810Current Local and National Electrical Codes	3
ELEC 2821Programmable Controllers	4
ENGL 2201Introduction to Technical Writing	2
ENGL 2202Technical Research and Report Writing	3
ENGR 2800Engineering Co-Op Experience	1-3
ITCS 1830C++ Programming I	3
MATH 1550Statistics	4
MATH 1700Trigonometry	3
NUET 2050Nuclear Field Experience	2
PHYS 1100Applied Physics I	3
PHYS 2100Applied Physics III	2