NUCLEAR ENGINEERING TECHNOLOGY

Applied Science and Engineering Technology Division 2019-2020

The associate of applied science degree with specialization in nuclear engineering technology will enable prospective students to seek employment as nuclear engineering technicians in various sectors of the nuclear power industry. This specialization utilizes a learning approach that emphasizes both theory and hands-on skills necessary to function effectively in the technical environment of the nuclear industry. The program stresses effective oral and written communication as well as related mathematics, science and technical skills.

In addition to completion of this program, graduates will eventually need to pass appropriate background checks to be employable in the nuclear industry. Please check with the Admissions Office for details.

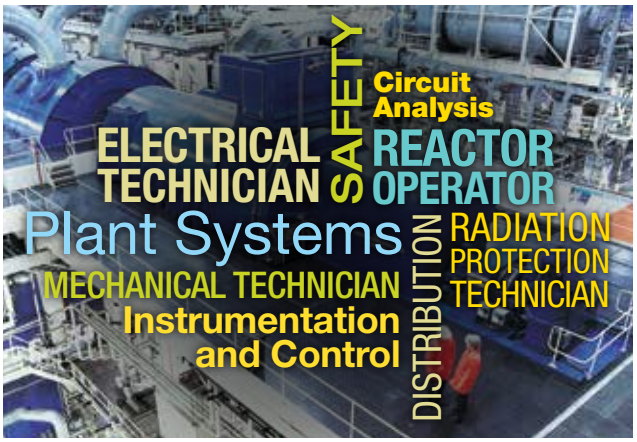
It is strongly recommended that students follow the prescribed course sequence, as some courses are only offered once in an academic year.

Career Opportunities

The program is based on the Nuclear Uniform Curriculum Program (NUCP), a uniform standard administered by the Nuclear Energy Institute. Students who complete the program with an 80 percent score (B or better) in core classes will qualify for the NUCP Certificate, which is recognized industry wide.

Graduates of this program will be prepared for entry-level employment in the following areas:

- Electrical technician
- Instrumentation and control (I&C) technician
- Mechanical technician



Graduates with additional training experiences will be prepared for employment in the following areas:

- Non-licensed operator
- Radiation protection technician
- Senior reactor operator

Note: The following codes identify courses that satisfy MCCC's General Education Requirements:

(C1) GE Natural Sciences Competency
(C2) GE Mathematics Competency
(C3) GE Writing Competency
(C4) GE Computer Literacy Competency
(C5) GE Human Experience Competency
(C6) GE Social Systems Competency

	Required General Education Courses	**Credits 20-21**
C1	PHY 151 (General Physics I)	4
C2	MATH 164 (Precalculus) or competency (MATH 151 Intermediate Algebra or qualifying score on accepted placement must be met prior to entry in the program)	4
C3	Writing Competency	3
C4	CIS 130 (Introduction to Computer Information Systems) or MDTC 160 (Mechanical Drafting CAD I)	3 or 4
C5	Expressions of the Human Experience Competency	3
C6	Social Systems Competency	3

See the General Education Requirements on the MCCC website for a list of courses that satisfy the General Education Learning Competencies.

	Credits
Required Core Courses	**48**
1st Semester	
PHY 151 (General Physics I)	C1
MATH 164* (Precalculus)	C2
METC 100 (Introduction to Engineering & Technology)	3
NUET 100 (Nuclear Industry Fundamentals)	2
Computer Literacy Competency	C4
2nd Semester	
ENGL 151 (English Composition I)	C3
NUET 120 (Radiation Protection)	3
NUET 220 (Power Plant Components)	3
ELEC 125 (Fundamentals of Electricity)	3
MATL 121 (Nuclear Plant Materials)	3
Spring/Summer Semester	
NUET 205 (Nuclear Plant Experience)	2
Expressions of the Human Experience Competency	C5
3rd Semester	
CHEM 151 (Chemistry I)	4
MATH 160 (Math Applications in Engineering Technology)	2
ELEC 133 (Circuit Analysis)	4
METC 234 (Thermodynamics and Fluid Sciences)	4
NUET 130 (Plant Systems I)	3
4th Semester	
ELEC 141 (Industrial Automation and Process Control)	3
NUET 230 (Plant Systems II)	3
NUET 240 (Reactor Theory, Safety and Design)	3
Social Systems Competency	C6
ELEC 211 (Medium Voltage Power Distribution System)	3
Total Degree Requirements	**68-69 credits**
Total Degree Cost	**85-87 minimum billable contact hours**

** MATH 157 (College Algebra) and MATH 159 (Trigonometry and Analytical Geometry) may substitute for MATH 164 (Precalculus).*

Main Campus
1555 South Raisinville Road
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Whitman Center
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Temperance, Michigan 48182
734-847-0559

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