

# ENGINEERING TECHNOLOGY - GENERAL, ASSOCIATE IN APPLIED SCIENCE DEGREE

NMC Code 556

Engineering technology education focuses primarily on the applied aspects of science and engineering aimed at preparing graduates for practice in that portion of the technological spectrum closest to product improvement, manufacturing, construction, and engineering operational functions.

The NMC Engineering Technology degree offers students a broad-based curriculum across all areas of technical education, preparing the graduates for emerging job markets and highly technical fields. The program is designed to allow students to choose courses of interest or specialize in one of the following specialty areas:

- Biomedical Technician,
- Computer Technology,
- Electronics Technology,
- Robotics & Automation Technology,
- Unmanned Aerial Systems (UAS) Technology,
- Marine (ROV) Technology.

## Requirements

### Major Requirements

Course	Title	Credits
<b>General Education Requirements</b>		
ENG 111	English Composition	4
Select one of the following:		3-4
ENG 112	English Composition	
ENG 220	Technical Writing	
BUS 231	Professional Communications	
PHL 105	Critical Thinking	3
Math Competency <sup>1</sup>		4
Select one of the following:		4
BIO 106	Human Biology	
ENV 117	Meteorology & Climatology	
PHY 105	Physics of the World Around Us	
PHY 121	General Physics I	
GEO 115	Introduction to GIS	3
<b>Technical Specialty Requirements</b>		
DD 170	CADD/Computer Modeling	4
EET 102	Intro to Engineering Tech	2
EET 103	Electrical Studies I	3
EET 260	System Engineering in Practice	3
MFG 104	Fluid Power	3
RAM 155	Microcontroller Programming	3
RAM 205	Microcontroller Systems	3
<b>General Technology</b>		

Select at least 18 credits from any of the specializations listed 18

**Total Credits** 60-61

<sup>1</sup> Placement into MTH 122 Trigonometry *or* higher, *or* completion of MTH 121 College Algebra

### Minimum Program Requirements 60

**Note:** Internship opportunities are available for additional credits.

### Approved Electives

Course	Title	Credits
AT 130	Engine Performance I	5
AT 220	Automotive Electrical II	5
AVF 141	Remote Pilot Flight	3
AVF 241	Advanced Drone Operations	3
CIT 110	Programming Logic and Design	3
CIT 178	Relational Databases	3
CIT 180	Web Development	3
CIT 190	JavaScript Programming	3
CIT 195	Application Development	3
CIT 213	Networking Technologies	4
CIT 228	Advanced Database Systems	3
CIT 255	Object-Oriented Programming	3
DD 101	Print Reading and Sketching	3
DD 110	Basic Metallurgy	3
DD 160	Tolerancing and GD&T	3
EET 161	Fundamentals of Light & Lasers	4
EET 180	Biomedical Equipment I	3
EET 204	Electrical Studies II	3
EET 212	Elements of Photonics	4
EET 221	Industrial Controls	3
EET 232	Programmable Logic Controllers	3
EET 233	PLC Applications I	3
EET 234	PLC Applications II	3
EET 260	System Engineering in Practice	3
EET 281	Biomedical Equipment II	3
WSI 200	GL Research Technologies	3
WSI 210	Underwater Acoustics and Sonar	3
WSI 215	Marine GIS & Data Processing	3
WSI 240	ROV Systems and Operations	3

### Course Sequence Guide

Course	Title	Credits
<b>Year 1</b>		
<b>Fall</b>		
ENG 111	English Composition	4
GEO 115	Introduction to GIS	3
EET 102	Intro to Engineering Tech	2
EET 103	Electrical Studies I	3
RAM 155	Microcontroller Programming	3
<b>Credits</b>		<b>15</b>
<b>Spring</b>		
Select one of the following:		3-4

ENG 112	English Composition	
ENG 220	Technical Writing	
BUS 231	Professional Communications	
RAM 205	Microcontroller Systems	3
DD 170	CADD/Computer Modeling	4
Approved Technical Elective		3
<b>Credits</b>		<b>13-14</b>
<b>Year 2</b>		
<b>Fall</b>		
MTH 121	College Algebra	4
Select one of the following:		4
BIO 106	Human Biology	
ENV 117	Meteorology & Climatology	
PHY 105	Physics of the World Around Us	
PHY 121	General Physics I	
MFG 104	Fluid Power	3
Approved Technical Elective		3
Approved Technical Elective		3
<b>Credits</b>		<b>17</b>
<b>Spring</b>		
PHL 105	Critical Thinking	3
EET 260	System Engineering in Practice	3
Approved Technical Elective		3
Approved Technical Elective		3
Approved Technical Elective		3
<b>Credits</b>		<b>15</b>
<b>Total Credits</b>		<b>60-61</b>

The responsibility for determining the transferability of this degree and courses to another institution is the sole responsibility of the student.