

# ENGINEERING TECHNOLOGY - UNMANNED AERIAL SYSTEMS TECHNOLOGY, ASSOCIATE OF APPLIED SCIENCE

NMC Code 542

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.

NMC has created a unique training center that specializes in Unmanned Aerial System (UAS) operations. More commonly called drones, unmanned aircraft represent a sector of aviation that is experiencing exponential growth. NMC is here to provide college students, enthusiasts, and professionals the training they need to begin operating in the UAS industry. The Federal Aviation Administration (FAA) has selected NMC's UAS training program for the Unmanned Aircraft Systems-Collegiate Training Program, or the UAS-CTI.

Areas of Emphasis:

- Earn an FAA Commercial Drone Pilot certification
- Hands-on flight training from entry level to advanced commercial-grade aircraft systems
- Learn about the aircraft systems and different camera/sensor technology
- Train for a variety of UAS of specializations, such as aerial photography, agriculture, inspections and land survey
- Learning how to be marketable to the UAS industry

Within this degree students will have the opportunity to earn the following: Part 107 Remote Pilot Certification, CSWA Certified Solidworks Associate, ISPS Connector and Conductor, and PCEP- Certified Entry-Level Python Programmer.

## 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
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	
Math Competency <sup>1</sup>		4
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
MFG 104	Fluid Power	3
RAM 155	Microcontroller Programming	3
RAM 205	Microcontroller Systems	3
<b>Unmanned Aerial Systems (UAS) Technology</b>		
UAS 107	Remote Pilot Ground	3
UAS 141	Remote Pilot Flight	3
UAS 211	Commercial Drone Operations	3
UAS 241	Advanced Drone Operations	3
WSI 300	Remote Sensing and Sensors	3
Select one of the following:		3
UAS 220	UAS Projects and Maintenance	
EET 260	System Engineering in Practice	
Select one of the following Electives:		3-5
EET 204	Electrical Studies II	
EET 290	Engineering Tech Internship	
SVR 110	Fundamentals of Surveying	
UAS 255	UAS Safety Management	
UAS 260	Aerosonde UAS Ground Training	
UAS 261	Aerosonde UAS Flight Training	
<b>Total Credits</b>		<b>60-63</b>

<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.

## Course Sequence Guide

Course	Title	Credits
<b>Year 1</b>		
<b>Fall</b>		
ENG 111	English Composition	4
EET 102	Intro to Engineering Tech	2
EET 103	Electrical Studies I	3
RAM 155	Microcontroller Programming	3
UAS 141	Remote Pilot Flight	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

UAS 107	Remote Pilot Ground	3
<b>Credits</b>		<b>13-14</b>
<b>Summer</b>		
UAS 211	Commercial Drone Operations	3
GEO 115	Introduction to GIS	3
<b>Credits</b>		<b>6</b>
<b>Year 2</b>		
<b>Fall</b>		
MTH 121	College Algebra	4
MFG 104	Fluid Power	3
UAS 241	Advanced Drone Operations	3
WSI 300	Remote Sensing and Sensors (Fall only)	3
<b>Credits</b>		<b>13</b>
<b>Spring</b>		
PHL 105	Critical Thinking	3
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	
Select one of the following:		3
EET 260	System Engineering in Practice (Spring only)	
UAS 220	UAS Projects and Maintenance	
Approved Technical Elective		3-5
<b>Credits</b>		<b>13-15</b>
<b>Total Credits</b>		<b>60-63</b>

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