MARINE TECHNOLOGY, ASSOCIATE OF APPLIED SCIENCE

NMC Code 871

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.

Marine Technology provides a background in applied fundamentals including engineering technology, GIS, data processing, and underwater acoustics. Includes practical laboratory experiences in onshore, nearshore, and offshore areas of the Great Lakes.

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

Requirements

Major Requirements

Course	Title	Credits
General Education Requirements		
ENG 111	English Composition	4
ENG 220	Technical Writing	3
PHL 105	Critical Thinking	3
or PHL 203	Environmental Ethics	
Math Competency [1]		4
Select one of the following:		4
ENV 117	Meteorology & Climatology	
PHY 105	Physics of the World Around Us	
PHY 121	General Physics I	
GEO 115	Introduction to GIS	3
Technical Specialty Requirements		
DD 170	CADD/Computer Modeling	4
EET 103	Electrical Studies I	3
MFG 104	Fluid Power	3
RAM 155	Microcontroller Programming	3
WSI 106	Introduction to Water Quality	3
Marine Technology		
EET 204	Electrical Studies II	3
ENV 131	Oceanography	4
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
Approved Electives		6-8
Total Credits		**62-64**

[1] 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
CIT 110	Programming Logic and Design	3
CIT 115	Intro to Generative AI	3
CIT 135	Intro to Programming UsiPython	3
CIT 178	Relational Databases	3
CIT 190	JavaScript Programming	3
CIT 213	Networking Technologies	4
MFG 106	Fluid Power Certification	2
RAM 205	Microcontroller Systems	3
UAS 121	UAS Applications in Surveying	3
UAS 141	Remote Pilot Flight	3
WPT 120	GTAW (TIG) Welding I	3
WPT 130	SMAW (ARC) Welding I	3
WPT 140	GMAW (MIG) Welding I	3
WSI 110	OSHA HAZWOPER 40 hour	3
WSI 150	Introduction to Site Assessment and Remediation	3
WSI 230	Water Policy & Sustainability	3
WSI 250	Groundwater Monitoring and Aquifer Sampling	4
WSI 304	Marine Electronics	3
WSI 315	Advanced Marine Survey & Data	3

Course Sequence Guide

Course	Title	Credits
Year 1		
Fall		
DD 170	CADD/Computer Modeling	4
EET 103	Electrical Studies I	3
ENG 111	English Composition	4
RAM 155	Microcontroller Programming	3
WSI 106	Introduction to Water Quality	3
	Credits	**17**
Spring		
Select one of the following:		3-4
BUS 231	Professional Communications	
ENG 112	English Composition	
ENG 220	Technical Writing	
EET 204	Electrical Studies II	3
RAM 205	Microcontroller Systems	3
Select one of the following:		4
ENV 117	Meteorology & Climatology	
PHY 105	Physics of the World Around Us	

PHY 121	General Physics I	
	Credits	**13-14**
Summer		
WSI 200	GL Research Technologies	3
	Credits	**3**
Year 2		
Fall		
GEO 115	Introduction to GIS	3
MFG 104	Fluid Power	3
MTH 121	College Algebra	4
WSI 210	Underwater Acoustics and Sonar	3
WSI 240	ROV Systems and Operations	3
	Credits	**16**
Spring		
EET 260	System Engineering in Practice	3
ENV 131	Oceanography	4
PHL 105 or PHL 203	Critical Thinking or Environmental Ethics	3
WSI 215	Marine GIS & Data Processing	3
	Credits	**13**
	Total Credits	**62-63**