

# WATER QUALITY & ENVIRONMENTAL TECHNOLOGY

PART OF THE  
Great Lakes Water Studies Institute



Northwestern  
Michigan College



ASSOCIATE IN APPLIED SCIENCE, WATER  
QUALITY AND ENVIRONMENTAL TECHNOLOGY

**Dig into a rewarding career  
focused on groundwater!**

On Lake Michigan in the heart of Traverse City, MI





# YOUR PATHWAY

## to a successful career.



Join NMC's Water Quality & Environmental Technology program and become a leader in cleaning up our most precious resource: water.

Gain the skills to restore and remediate contaminated groundwater and environmental sites across Michigan, the Great Lakes region, and beyond!



Associate in Applied Science, Water Quality and Environmental Technology



Within this degree students will have the opportunity to earn the following:

- OSHA HAZWOPER 40-hour Certificate
- FAA Part 107 Remote Pilot Certificate (Drones/UAS)
- Entry-level Python Programmer Certificate (CPEP)
- Solidworks Associate Certificate (CSWA)



Internships are required.

"This is NMC's first year of the program and I think it's a really important and it's a really very interesting course of study that NMC is offering. There is a critical need for work in this field and NMC is definitely doing a good thing by starting a program like this."

- Tadd Kaiser, NMC student, Water Quality & Environmental Technology

"The global market for environmental remediation technologies is expected to increase from **\$88.4 billion in 2023 to \$124.6 billion by the end of 2028**, with a compound annual growth rate (CAGR) of **7.1%** during the forecast period of 2023-2028."

—According to BCC Research



## Fulfilling Careers, Rewarding Future

This program prepares you for high-demand careers in environmental remediation, site assessment and water quality analysis.





Great Lakes campus  
on Lake Michigan

Gain hands-on experience in:



Site Assessment  
& Remediation



Groundwater Monitoring  
& Aquifer Sampling



UAS/Drone Surveying

### Industry-Driven Curriculum

Our curriculum is designed specifically to meet the needs of today's environmental workforce.

### Practical Experience Advantage

An internship is integrated into the program, providing valuable real-world experience and professional connections.



"As environmental professionals we rely on the quality of data collection for key decision making, We are excited to see a program that trains folks at the college level in field data collection techniques. I trust that a number of industries will benefit from students having these abilities after just two years."

– Richard Raetz, P.E.  
President, Global Remediation Technologies



**\$1.5million**

**IN NMC SCHOLARSHIPS AWARDED  
TO NMC STUDENTS IN 2023-24**

### We're here to support you:

- > Learn from nationally-ranked experts
- > Enjoy beautiful Traverse City, MI
- > Stop by the Academic & Career Advising Center
- > Meet with a coach at the Student Success Center
- > Live in on-campus housing
- > Experience hands-on learning opportunities





There is a huge job market that comes with this associate degree. There are jobs available for me once I graduate.

- Jacob Holcomb, NMC student, Water Quality & Environmental Technology



## WATER QUALITY & ENVIRONMENTAL TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE, WATER QUALITY AND ENVIRONMENTAL TECHNOLOGY

### YEAR 1

	COURSE	TITLE	CREDITS
FALL	ENG 111	English Composition	4
	GEO 115	Introduction to GIS	3
	MTH 121	College Algebra	
	or MTH 131	or Intro to Prob & Stats	3-4
	WSI 106	Introduction to Water Quality	3
		<b>CREDITS</b>	<b>13-14</b>
SPRING	CHM 101	Introductory Chemistry	
	or CHM 150	or General Chemistry I	4
	CHM 101L	Introductory Chemistry Lab	
	or CHM 150L	or General Chemistry I Lab	0
	ENG 220	Technical Writing	3
	ENV 111	Physical Geology	4
	ENV 111L	Physical Geology Lab	0
	WSI 110	OSHA HAZWOPER 40 hour	3
	WSI 150	Introduction to Site Assessment and Remediation	3
		<b>CREDITS</b>	<b>17</b>
SUMMER	WSI 290	Internship	1-3
		<b>CREDITS</b>	<b>1-3</b>

### YEAR 2

	COURSE	TITLE	CREDITS
FALL	BIO 110	Essential Biology	
	or BIO 115	or General Biology I	4
	BIO 110L	Essential Biology Lab	
	or BIO 115L	or General Biology I Lab	0
	DD 170	CADD/Computer Modeling	4
	EET 103	Electrical Studies I	3
	WSI 250	Groundwater Monitoring and Aquifer Sampling	4
		<b>CREDITS</b>	<b>15</b>
SPRING	Approved Elective		3-4
	Approved Elective		3-4
	Group I Humanities		3-4
	UAS 121	UAS Applications in Surveying	3
		<b>CREDITS</b>	<b>12-15</b>
		<b>TOTAL CREDITS</b>	<b>60-64</b>

#### GENERAL EDUCATION

- English Composition
- Technical Writing
- Algebra or Statistics
- Biology
- Chemistry
- Physical Geology
- Humanities

#### CORE COURSES

- OSHA HAZWOPER (40 hour course)
- Intro to Site Assessment & Remediation
- Groundwater Monitoring and Aquifer Sampling
- Internship

#### TECHNICAL COMPETENCIES

- Intro to GIS
- CADD/Computer Modeling
- Intro to Field Surveying
- Electrical Studies
- Intro to Water Quality
- UAS/Drone Surveying

Start your journey today!

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1701 E. Front Street, Traverse City, MI  
Admissions: (231) 995-1054  
admissions@nmc.edu

Great Lakes Water Studies Institute  
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