

Water Resource Management

2017-2018 Catalog

Award Granted Upon Completion: Associate in Applied Science in Water Resource

Credits/Contacts Required: 69/78

Major code: 03/340

Management

CIP Code: 150506

Description

The Water Resource Management Program is designed for providing specialized training in water and wastewater treatment theory and application to both entry-level personnel and those already in the field. Persons who complete degree requirements and gain appropriate work experience may qualify to progress through certification to the highest grade licensure in municipal and industrial water and wastewater treatment.

General Education Requirements – Min 18 credits

| | | <u>Cr</u> |
|----------|-------------------------------------|-----------|
| ENGL-101 | Rhetoric & Composition | 3 |
| ENGL-145 | Technical Report Writing | 3 |
| MATH-105 | Intermediate Algebra * | 4 |
| MATH-106 | -OR- Tech Algebra & Trig I * | |
| CHEM-108 | Technical Chemistry ** | 5 |
| CHEM-110 | General Chemistry I | |
| POLI-111 | American Government -OR- | 3 |
| POLI-262 | State & Local Government | |

Requirements – Min 51 credits

| | | <u>Cr</u> |
|------------------------|--------------------------------------------|-----------|
| ELEC-145 | Basic Process Control | 4 |
| GIS -201 | Intro to Geographic Info Systems | 3 |
| WATR-110 | Wastewater Operations & Mgmt. | 4 |
| WATR-120 | Water Operations & Management | 4 |
| WATR-150 | Team Project Course | 2 |
| WATR-220 | Industrial Solutions | 3 |
| WATR-230 | Aquatic Evaluations & Bacteriology | 3 |
| WATR-240 | Environmental Analysis | 5 |
| WATR-250 | Water Analysis & Techniques | 5 |
| WATR-255 | Mechanical & Instrumentation | 3 |
| WATR-260 | Current Issues for Managers | 3 |
| WATR-270 | Water in Motion | 4 |
| WATR-272 | Professional Field Experience (Water) | 4 |
| WATR-273 | Professional Field Experience (Wastewater) | 4 |
| <u>OPTIONAL</u> | | |
| CHEM-112 | General Chemistry II ** | 5 |

Suggested Sequences Per Semester

| | | <u>Cr / Ct</u> |
|------------------------|--------------------------------------|----------------|
| First Semester | | |
| ENGL-101 | Rhetoric & Composition | 3/3 |
| MATH-105 | Intermediate Algebra -OR- | 4/4 |
| MATH-106 | Technical Algebra & Trig I * | |
| WATR-110 | Wastewater Operations & Mgmt. | 4/4 |
| WATR-260 | Current Issues for Managers | 3/3 |
| | | 14/14 |
| Second Semester | | |
| CHEM-108 | Technical Chemistry ** | 5/7 |
| ENGL-145 | Technical Report Writing | 3/3 |
| ELEC-145 | Basic Process Control | 4/4 |
| WATR-120 | Water Operations & Management | 4/4 |
| WATR-230 | Aquatic Evaluations & Bacteriology | 3/4 |
| | | 19/22 |
| Third Semester | | |
| GIS -201 | Intro to Geographic Info Systems | 3/3 |
| POLI-111 | American Government -OR- | 3/3 |
| POLI-262 | State & Local Government | |
| WATR-150 | Team Project Course | 2/3 |
| WATR-240 | Environmental Analysis | 5/7 |
| WATR-270 | Water in Motion | 4/4 |
| | | 17/20 |
| Fourth Semester | | |
| WATR-220 | Industrial Solutions | 3/3 |
| WATR-250 | Water Analysis & Techniques | 5/7 |
| WATR-255 | Mechanical & Instrumentation | 3/4 |
| WATR-272 | Professional Field Exp. (Water) | 4/4 |
| WATR-273 | Professional Field Exp. (Wastewater) | 4/4 |
| | | 19/22 |

* MATH-106 and MATH-105 do not satisfy MTA.

- Transfer students should take MATH-110, which will fulfill the math requirement.

- Students will need to complete additional General Education requirements to satisfy MTA. See course catalog for additional information about the Michigan Transfer Agreement.

- Students should also check with their transfer institution for the level of math required.

** CHEM-110 and CHEM-112 are recommended for the first and second semesters for students transferring into a Baccalaureate degree. Students should check with the transfer institution.

- Students who choose to take CHEM-110 also need to take CHEM-112 to meet program requirements.

- Students who take CHEM-108 do not need CHEM-110 or CHEM-112; however, CHEM-108 is not transferrable in most cases.