

Water Resource Management

Associate in Applied Science Degree



Contact

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baycollege.edu

Why Water Resource Management?

The Water Resource Management Program at Bay College 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. This career has a 100% placement rate! We swim in it, bathe in it, drink it, make a living with it, and over 70 percent of the Earth is covered by it – WATER. Our proximity to the Great Lakes, which contain approximately 18 percent of the world's fresh water supply and make up the largest system of fresh surface water on earth, makes a career in water a natural choice.

Why Bay College?

The [Water Resource Management program](#) at Bay College has run for 47 continuous years and is one of the few programs of its kind in the nation. Graduates are highly sought after and targeted as desired candidates for employment. There is great opportunity for rapid promotion and job mobility because graduates are in such high demand nationwide. Upon completion of the program, graduates are immediately eligible to take highest level state certifications, which are accepted across the country. Instructors help students with state exam preparation and practice certification exams. The [Water Resource Management 1+1 degree](#) is designed for students who have completed a basic Freshman curriculum in science. It allows students to transfer to Bay College and take specialized courses in Water Technology, and upon graduation, they will receive an Associate in Applied Science in Water Resource Management degree. Graduates are immediately eligible for certification and entrance into the water/wastewater treatment industry.

Career Opportunities

Students can complete an Associate in Applied Science Degree in Water Resource Management and then can obtain a career as:

- **Water Resource Specialist**
- **Water Resource Project Manager**
- **Water Resource Maintenance Mechanic**
- **Water Resources Director**
- **Water/Wastewater Operations Specialist**
- **Laboratory Technician**
- **Water/Wastewater Consultant**
- **Entrepreneur**

Water Resource Management, AAS

Award Granted Upon Completion: Associate in Applied Science in Water Resource Management
Credits/Contacts Required:69/78

Major code: 03/340
CIP Code: 150506

General Education Requirements (Min. 18 Credits)

Course #	Course Name	Cr
ENGL 101	Rhetoric & Composition	3
ENGL 145	Technical and Report Writing	3
MATH 105	Intermediate Algebra	4 or
MATH 106	Technical Algebra & Trigonometry I	4*
CHEM 108	Technical Chemistry	5**
POLI 111	American Government	3 or
POLI 262	State & Local Government	3

Requirements (Min. 51 Credits)

Course #	Course Name	Cr
ELEC 145	Basic Process Control	4
GIS 201	Introduction to Geographic Information Systems	3
WATR 110	Wastewater Operations & Management	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

Optional

Course #	Course Name	Cr
CHEM 110	General Chemistry I	5**
CHEM 112	General Chemistry II	5**

Suggested Sequences Per Semester

First Semester

Course #	Course Name	Cr/Ct
ENGL 101	Rhetoric & Composition	3
MATH 105	Intermediate Algebra	4* or
MATH 106	Technical Algebra & Trigonometry I	4*
WATR 110	Wastewater Operations & Management	4
WATR 260	Current Issues for Managers	3
First Semester Total - Credit(s): 14 Contacts: 14		

Second Semester

Course #	Course Name	Cr/Ct
CHEM 108	Technical Chemistry	5**
ELEC 145	Basic Process Control	4
ENGL 145	Technical and Report Writing	3
WATR 120	Water Operations & Management	4
WATR 230	Aquatic Evaluations & Bacteriology	3
Second Semester Total - Credit(s): 19 Contacts: 22		

Third Semester

Course #	Course Name	Cr/Ct
GIS 201	Introduction to Geographic Information Systems	3
POLI 111	American Government	3 or
POLI 262	State & Local Government	3
WATR 150	Team Project Course	2
WATR 240	Environmental Analysis	5
WATR 270	Water in Motion	4
Third Semester Total - Credit(s): 17 Contacts: 20		

Fourth Semester

Course #	Course Name	Cr/Ct
WATR 220	Industrial Solutions	3
WATR 250	Water Analysis & Techniques	5
WATR 255	Mechanical & Instrumentation	3
WATR 272	Professional Field Experience (Water)	4
WATR 273	Professional Field Experience (Wastewater)	4
Fourth Semester Total - Credit(s): 19 Contacts: 22		

Note(s)

* MATH 105 and MATH 106 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.

** Students planning to transfer into a Baccalaureate degree program are encouraged to satisfy the chemistry requirement by taking CHEM 110 and CHEM 112 instead of CHEM 108 because CHEM 108 is not transferrable in some cases. Students should check with their transfer institution.