FRESHWATER SCIENCES AND TECHNOLOGY, MS: PROFESSIONAL SCIENCE: WATER POLICY, ECONOMICS, AND MANAGEMENT

The School of Freshwater Sciences offers a graduate program of studies providing students with advanced training and education in four areas:

- Freshwater System Dynamics
- Human and Ecosystem Health
- Freshwater Technology
- Freshwater Policy and Economics

Each of these focus areas is interrelated with the others, and includes biologic, physical, technologic and policy aspects of freshwater.

The Master of Science program has two tracks designed to provide a strong foundation necessary for the training of graduates that will utilize novel approaches to the sustainable and equitable use and management of freshwater systems worldwide. The Doctor of Philosophy program is a research degree designed to explore and discover novel approaches to the sustainable and equitable use and management of freshwater systems worldwide. These programs will create an interdisciplinary atmosphere for training the next generation of scientists armed with the knowledge, skills and experience to anticipate and address the freshwater issues of the future.

Timely application is encouraged for students seeking financial support. Applicants should describe their previous education and experience, their specific research interests and their preparation for graduate study. They should identify an advisor whose research interests are closest to their own, regarding the likelihood of one serving as the student’s major professor.

Admission Requirements

Application Deadlines

Application deadlines vary by program, please review the application deadline chart (http://uwm.edu/graduateschool/program-deadlines/) for specific programs. Other important dates and deadlines can be found by using the One Stop calendars (https://uwm.edu/onestop/dates-and-deadlines/).

MS Professional Science: Water Policy, Economics, and Management Track Admission Requirements

Prerequisite Coursework

The following prerequisites are strongly recommended:

1. At least one semester coursework in three of the following at the college level: chemistry, biological sciences, microeconomics, statistics, political science, and advanced algebra or calculus.
2. One additional semester of statistics, microeconomics, geographic information system, chemistry, or biological sciences.

Admission will be considered based upon the applicant’s academic and/or professional background, proposed course of study, and possible additional coursework once in the degree program, should important preparatory gaps be identified.

Other Admission Requirements

An applicant must meet Graduate School requirements (http://uwm.edu/graduateschool/admission/) plus these departmental requirements to be considered for admission to the program:

1. A bachelor’s degree in economics, environmental policy, political science, public policy, journalism/communications, biology, or other appropriate natural science, social science, or engineering discipline.
2. A minimum GPA of 3.0.
3. Three letters of recommendation from persons familiar with the applicant’s scholarship and/or research potential.

The student must indicate in the Statement of Purpose (part of the formalized application process) the track to which they are applying and the intended focus of their MS studies. The statement must also indicate how their previous education has prepared them for graduate studies.

Credits and Courses

Professional Science: Water Policy, Economics, and Management

The minimum degree requirement for the Professional Science: Water Policy, Economics, and Management track is 32 graduate credits.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>FRSHWTR 510G</td>
<td>Economics, Policy and Management of Water</td>
<td>3</td>
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<tr>
<td>FRSHWTR 585G</td>
<td>Applied Water Statistics and Data Manipulation</td>
<td>3</td>
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<tr>
<td>FRSHWTR 781</td>
<td>Water Law for Scientists and Policy Makers</td>
<td>3</td>
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<tr>
<td>FRSHWTR 810</td>
<td>Professional Development for Water Leaders</td>
<td>3</td>
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<td>FRSHWTR 890</td>
<td>Science Communication</td>
<td>3</td>
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<td>FRSHWTR 900</td>
<td>Colloquium in Freshwater Sciences</td>
<td>1</td>
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<td>FRSHWTR 502G</td>
<td>Aquatic Ecosystem Dynamics</td>
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<td>FRSHWTR 504G</td>
<td>Quantitative Freshwater Analysis</td>
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<tr>
<td>FRSHWTR 506G</td>
<td>Environmental Health of Freshwater Ecosystems</td>
<td></td>
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</tbody>
</table>

Electives

Select 12 credits in consultation with the students major advisor

Graduate Internship

FRSHWTR 980  Graduate Internship  1

Total Credits  32

Additional Requirements

Major Professor as Advisor

Upon admission to the program, each student in the professional track will be assigned an initial advisor based on their background. The initial advisor will provide counseling to the students and help to identify goals and objectives of their graduate education. Students should identify their permanent advisor during the first semester in the program. The advisor will oversee the student’s internship.
A plan of study is required and planned by the student in consultation with their advisor and the internship coordinators of the program. The plan of study identifies the planned courses and timeline for completion of the degree coursework and internship.

**Internship**
All students in the professional science track are required to participate in an internship research experience, generally between the first and second years of the program. Internship experiences focus on complex regional, national, and global water problems and often involve authentic, practical problems in the field. The program coordinators provide resources and internship opportunities with industry, government, and non-profit organizations. It is the responsibility of the student and advisor to identify the internship and the direct supervisor within a specific organization and submit a proposal that identifies goals and objectives of the internship. Proposals will be reviewed and approved by the advisor. Alternatively, a group project may occur in lieu of an internship and should provide students with training and experience in performing professional-level work that involves managing group dynamics and applying technical expertise to solve complex, multidisciplinary water-related problems.

**Time Limit**
The student must complete all degree requirements within seven years of initial enrollment.

**Accelerated Program Option**
This program is offered as part of an accelerated bachelor’s/master’s program. For more information, see Accelerated Master’s Degrees (http://catalog.uwm.edu/opportunities-resources/accelerated-masters-degrees/).