WATER RESOURCES MANAGEMENT, M.S.

The Water Resources Management (WRM) program is an interdisciplinary graduate program leading to a master of science (M.S.) degree in water resources management. The program addresses the complex, interdisciplinary aspects of managing water resources by helping students integrate the biological and physical sciences (which identify and assess problems) with engineering (which defines technological alternatives) as well as law and the social sciences (which assess needs and potential for institutional response). Through the WRM program, a student gains breadth in relevant planning and management areas while developing depth in an area specialty.

The water resources management degree is designed to prepare students for employment as water resources management professionals. Rather than conduct individual research projects, WRM students participate in a summer group practicum workshop with a water resources management focus. Students who wish to add individual research credentials to their records frequently arrange to complete a second, simultaneous master’s program in one of the university’s traditional departments. Those interested primarily in individual research may wish to consider the Nelson Institute’s Environment and Resources program as an alternative. The WRM program does not offer a doctoral degree.

Any person who attended an accredited institution and earned an undergraduate degree there in the biological sciences, earth sciences, economics, education, engineering, history, journalism, landscape architecture, law, mathematics, physical science, political science, urban and regional planning, or other relevant field may apply for admission to the WRM program.

The WRM M.S. contains an alternate reduced-credit curricular path for those who have at least three years of pertinent professional experience or for those advanced students who already have a related master’s degree prior to entering the program. This path can be pursued with the consultation of one’s faculty advisory committee once that candidate is enrolled in the program. The candidate’s advisory committee and the program chairperson make the final determination as to whether or not the alternate reduced-credit path is appropriate. See Requirements (p. 1) for more details.

ADMISSIONS

Please consult the table below for key information about this degree program’s admissions requirements. The program may have more detailed admissions requirements, which can be found below the table or on the program’s website.

Graduate admissions is a two-step process between academic programs and the Graduate School. Applicants must meet the minimum requirements (https://grad.wisc.edu/apply/requirements/) of the Graduate School as well as the program(s). Once you have researched the graduate program(s) you are interested in, apply online (https://grad.wisc.edu/apply/).

DEADLINES

Application materials for Water Resources Management must be received by January 15 for admission to the following summer session or fall semester and by October 15 for admission to the following spring semester.

FUNDING

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (https://grad.wisc.edu/funding/) is available from the Graduate School. Be sure to check with your program for individual policies and restrictions related to funding.

PROGRAM RESOURCES

In most cases Water Resources Management is unable to guarantee any funding to students. However, many of our students obtain funding through other departments on campus, and we recommend that students contact faculty or departments directly if they have teaching skills in specific areas. Individual faculty members occasionally have their own sources of support for project assistants, though we strongly urge students not to depend on these as guaranteed sources of funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (http://guide.wisc.edu/graduate/#policiesandrequirementstext), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Face to Face</th>
<th>Evening/Weekend</th>
<th>Online</th>
<th>Hybrid</th>
<th>Accelerated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Deadline</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Spring Deadline</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Mode of Instruction Definitions
Accelerated: Accelerated programs are offered at a fast pace that condenses the time to completion. Students are able to complete a program with minimal disruptions to careers and other commitments.

Evening/Weekend: Courses meet on the UW–Madison campus only in evenings and/or on weekends to accommodate typical business schedules. Students have the advantages of face-to-face courses with the flexibility to keep work and other life commitments.

Face-to-Face: Courses typically meet during weekdays on the UW-Madison Campus.

Hybrid: These programs combine face-to-face and online learning formats. Contact the program for more specific information.

Online: These programs are offered 100% online. Some programs may require an on-campus orientation or residency experience, but the courses will be facilitated in an online format.

CURRICULAR REQUIREMENTS

<table>
<thead>
<tr>
<th>Requirements Detail</th>
<th>Minimum Credit Requirement</th>
<th>45 credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Graduate Coursework Requirement</td>
<td>23 credits must be graduate-level coursework. Details can be found in the Graduate School's Minimum Graduate Coursework (50%) policy (<a href="https://policy.wisc.edu/library/UW-1244">https://policy.wisc.edu/library/UW-1244</a>).</td>
<td>Overall GPA required</td>
</tr>
<tr>
<td>Graduate GPA Requirement</td>
<td>This program follows the Graduate School's GPA Requirement policy (<a href="https://policy.wisc.edu/library/UW-1203">https://policy.wisc.edu/library/UW-1203</a>).</td>
<td>Other Grade Requirements</td>
</tr>
<tr>
<td>Assessments and Examinations</td>
<td>All students must hold an evaluation and guidance conference with their faculty advisory committee, preferably no later than their third semester in the program.</td>
<td>Language Requirements</td>
</tr>
</tbody>
</table>

REQUIRED COURSES

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGROECOL/AGRONOMY/ENVIR ST</td>
<td>Agroecosystems and Global Change</td>
<td>3</td>
</tr>
<tr>
<td>AGRONOMY/ATM OCN/SOIL SCI</td>
<td>Environmental Biophysics</td>
<td>3</td>
</tr>
<tr>
<td>AGRONOMY/ENTOM/F&amp;W ECOL/M&amp;ENVTOX</td>
<td>Ecotoxicology: The Chemical Players</td>
<td>1</td>
</tr>
<tr>
<td>ATM OCN/BOTANY/CIV ENGR/ENVIR ST/GEOSCI/ZOOLOGY</td>
<td>Limnology and Marine Science Seminar</td>
<td>1</td>
</tr>
<tr>
<td>BOTANY 330</td>
<td>Algae</td>
<td>3</td>
</tr>
<tr>
<td>BOTANY/ENVIR ST/F&amp;W ECOL/ZOOLOGY</td>
<td>Conservation Biology</td>
<td>3</td>
</tr>
<tr>
<td>BOTANY/F&amp;W ECOL</td>
<td>Dendrology</td>
<td>2</td>
</tr>
</tbody>
</table>
### Category C: Analytical & Design Tools in Water Resources courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>A A E/ENVIR ST/POP HLTH/PUB AFFR 881</td>
<td>Benefit-Cost Analysis</td>
<td>3</td>
</tr>
<tr>
<td>BSE 571</td>
<td>Small Watershed Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CIV ENGR 310</td>
<td>Fluid Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>CIV ENGR 415</td>
<td>Hydrology</td>
<td>3</td>
</tr>
<tr>
<td>CIV ENGR 416</td>
<td>Water Resources Systems Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CIV ENGR 515</td>
<td>Hydroclimatology for Water Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>CIV ENGR 716</td>
<td>Statistical Modelling of Hydrologic Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIV ENGR/ENVIR ST/GEOG 377</td>
<td>An Introduction to Geographic Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>CIV ENGR/ENVIR ST/LAND ARC 556</td>
<td>Remote Sensing Digital Image Processing</td>
<td>3</td>
</tr>
<tr>
<td>ECON/PUB AFFR/URB R PL 734</td>
<td>Regional Economic Problem Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ENVIR ST/ENVIR ST/GEOG/GEOSCI/LAND ARC 371</td>
<td>Introduction to Environmental Remote Sensing</td>
<td>3</td>
</tr>
<tr>
<td>ENVIR ST/GEOG/LAND ARC/URB R PL 532</td>
<td>Applications of Geographic Information Systems in Planning</td>
<td>3</td>
</tr>
</tbody>
</table>

### POLICIES

#### GRADUATE SCHOOL POLICIES

The Graduate School’s Academic Policies and Procedures (https://grad.wisc.edu/acadpolicy/) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

#### MAJOR-SPECIFIC POLICIES

##### PRIOR COURSEWORK

Graduate Work from Other Institutions

With faculty advisory committee and program chair approval, students are allowed to count up to 15 credits of graduate coursework from other institutions. Students must have at least three UW-Madison credits in each of the three breadth categories, and at least nine UW-Madison credits in the Area of Specialty category. Coursework completed five or more years prior to admission to the program is not allowed to satisfy graduate degree or graduate coursework requirements.

**UW–Madison Undergraduate**

No credits from a UW–Madison undergraduate degree are allowed to count toward the program.
UW–Madison University Special
This program follows the Graduate School’s policy for Transfer from UW–Madison University Special Student Career at UW–Madison. (https://policy.wisc.edu/library/UW-1216/)

PROBATION
This program follows the Graduate School’s Probation policy. (https://policy.wisc.edu/library/UW-1217/)

ADVISOR / COMMITTEE
All students must assemble a three-member faculty advisory committee that represents a minimum of two departments, preferably no later than their second semester in the program. To meet the interdisciplinary requirement the committee must include members tenured in one of the natural sciences divisions (Biological Sciences, Physical Sciences) and one of the social sciences divisions (Social Studies, Arts & Humanities).

CREDITS PER TERM ALLOWED
15 credits

TIME LIMITS
This program follows the Graduate School’s Time Limits policy. (https://policy.wisc.edu/library/UW-1221/)

GRIEVANCES AND APPEALS
These resources may be helpful in addressing your concerns:

- Bias or Hate Reporting (https://doso.students.wisc.edu/bias-or-hate-reporting/)
- Graduate Assistantship Policies and Procedures (https://hr.wisc.edu/policies/gapp/#grievance-procedure)
- Hostile and Intimidating Behavior Policies and Procedures (https://hr.wisc.edu/hib/
  - Office of the Provost for Faculty and Staff Affairs (https://facstaff.provost.wisc.edu/)
  - Dean of Students Office (https://doso.students.wisc.edu/) (for all students to seek grievance assistance and support)
- Employee Assistance (http://www.eao.wisc.edu/) (for personal counseling and workplace consultation around communication and conflict involving graduate assistants and other employees, post-doctoral students, faculty and staff)
- Employee Disability Resource Office (https://employeedisabilities.wisc.edu/) (for qualified employees or applicants with disabilities to have equal employment opportunities)
- Graduate School (https://grad.wisc.edu/) (for informal advice at any level of review and for official appeals of program/departmental or school/college grievance decisions)
- Office of Compliance (https://compliance.wisc.edu/) (for class harassment and discrimination, including sexual harassment and sexual violence)
- Office of Student Conduct and Community Standards (https://conduct.students.wisc.edu/) (for conflicts involving students)
- Ombuds Office for Faculty and Staff (http://www.ombuds.wisc.edu/) (for employed graduate students and post-docs, as well as faculty and staff)
- Title IX (https://compliance.wisc.edu/titleix/) (for concerns about discrimination)

This document was reviewed by the Graduate Student working group and approved by vote of Nelson Institute Governance with subsequent review by campus HR; please note that this was prior to the revision of GAPP by campus in 2019-20, as well as present and expected changes in 2020 after to Title IX, Office of the Dean of Students, etc.

Preamble:
Any student who feels that they have been treated unfairly by a faculty or staff member has the right to seek redress and to receive a hearing of the grievance following these procedures. It applies only to grievances about those persons who are employees of the Nelson Institute, who teach for the Nelson Institute or otherwise are subject to administrative oversight by the Institute. The complaint may concern course grades, program admission, classroom treatment, hostile or intimidating behavior, or any other issue. Note that these procedures are for students bringing grievances to the Nelson Institute, they do not cover issues relating to the classroom behavior of students which must be referred to the Dean of Students.

The procedures outlined below are used in the Nelson Institute to ensure a prompt and fair hearing of complaints, and to protect the rights of both the student and the person at whom the complaint is directed. These policies describe formal procedures. A student is free to bypass these procedures if they do not wish for an Institute sanctioned resolution.

A complaint covered here may involve issues that either require or that would benefit from being directed to one of the campus programs or offices addressing complaints and grievances. See https://compliance.wisc.edu/ and https://compliance.wisc.edu/wp-content/uploads/sites/102/2018/09/Safe-Learning-and-Work-Guide.Fall_FY19-Accessible.pdf (Accessed Oct. 2020). Please review the most recent information on Title IX on campus, as guidelines and contacts may change. Graduate students should review information at https://grad.wisc.edu/documents/grievances-and-appeals/ (Accessed Feb. 2019) Undergraduate students may wish to review information available in the undergraduate course catalog. There they will find this option presented: “For assistance in determining options, students can contact the on-call dean in the Dean of Students Office, 608-263-5700, Room 70 Bascom Hall, Monday– Friday, 8:30 a.m.–4:30 p.m.”

Also, students should know that academic administrators may be required to report instances of sexual harassment or violence in accordance with university policy and the Clery act. (See: http://uwpd.wisc.edu/crime-data/clery-act/ Accessed Oct. 2018).

State law contains additional provisions regarding discrimination and harassment. Wisconsin Statutes 36.12 reads, in part: “No student may be denied admission to, participation in or the benefits of, or be discriminated against in any service, program, course or facility of the system or its institutions or center because of the student’s race, color, creed, religion, sex, national origin, disability, ancestry, age, sexual orientation, pregnancy, marital status or parental status.” In addition, UW–System prohibits discrimination based on gender identity or gender expression. Students have the right to file discrimination and harassment complaints with the Office for Equity and Diversity.

Questions about Nelson Institute procedures can be directed to the Associate Dean for Research and Education.

Procedures:
1. If possible, the student (complainant) should first talk with the person against whom the grievance is directed to advise them of their complaint and to determine if resolution is possible.
2. If the student is not satisfied, or if they do not feel comfortable addressing the person to whom the grievance is directed,
they should ask to speak to the immediate supervisor of the person involved. If the complaint is directed against a teaching assistant, the student should talk to the TA’s supervisor, who is usually the course professor. If the student grievance concerns a faculty or staff member in Nelson, the next formal step is for the student to meet with the Associate Dean for Research and Education. If the complaint is not resolved at this level, the student may continue to the next step (4).

3. It is recognized that a student may be reluctant to bring their grievance to the person against whom the complaint is directed, or to their supervisor, or to anyone else in the administrative hierarchy. In that case, the student should seek out a person who can guarantee confidentiality to the extent allowed by the law and university policy and provide non-judgmental advice as to appropriate next steps. Note that if criminal activity is involved confidentiality cannot be guaranteed. If a student does not know of any suitable person, they may approach any member of the Nelson Institute Academic Programs staff who will be able either to serve as a confidential discussant or who will be able to direct the student to someone who can assure confidentiality. Their role is to be that of Ombuds, meaning that they are not to take a position with respect to the validity of the grievance. Their role is to advise the student as to appropriate next steps.

4. To start a formal grievance process, the student must submit the grievance in writing to the Nelson Institute Associate Dean for Research and Education (hereafter Associate Dean) as soon as possible. An email for which receipt is acknowledged will be considered a written submission.

5. On receipt of the written complaint, the Associate Dean will acquaint themselves with the issues. This may involve face to face meetings or other means of establishing the facts in dispute. The Associate Dean will have the option of proposing a resolution. If the proposed resolution is accepted by parties directly involved, the matter will be considered settled at this level. Relevant documents will be archived by the Office of the Assistant Dean for Administration. At any point in the proceedings after the receipt and acknowledgement of the grievance by the Associate Dean, the complainant or the compliance will have the option of requesting that the matter be referred to an ad hoc committee. This request must be submitted in writing and acknowledged by the Associate Dean.

6. If the matter cannot be settled through the mediation of the Associate Dean, or if the Associate Dean has concluded that the case merits further attention, or if the complainant has requested that the matter be referred to an ad hoc committee an ad hoc committee will be appointed by the Dean of the Nelson Institute or their designee. The committee will consist of at least three members. Within 10 working days, the student will be allowed to revise the complaint or to add material to the complaint document to be provided to the committee. The complainant may request a change in committee membership, but the final decision on the committee will remain with the Dean. The committee may request a written response from the person toward whom the complaint is directed. This response shall be shared with the person filing the grievance. The ad hoc committee will meet to discuss the case. They are authorized to seek additional information if they feel it is necessary. They will convey their written decision regarding the case including any recommendations for remediation or mediation to the Associate Dean within 30 working days from the charge to the committee. The Associate Dean will provide a copy of the committee’s written decision to the student regarding the case within 10 working days of receiving the committee’s report; the Associate Dean will also confirm that the past record on file of any grievances regarding the parties involved has been investigated; and, the Associate Dean will provide the student a statement outlining the formal plan of steps that will be taken officially on the part of the Nelson Institute.

7. The complainant then has the option of taking their grievance to the university level. There are several options available. Consult websites referenced above.

8. The written documents relevant to the grievance will be archived in hard copy and electronic form as appropriate in a “Grievance Record” by the office of the Assistant Dean of Administration and will be maintained for a minimum of five years.

9. The cumulative record involving any of the parties to a grievance will be reviewed each time a formal grievance is presented as in Step 4, above, in order to determine whether the pattern of grievance, such as past filings, indicates any actions are warranted.