

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.

Two tracks are available. All applicants should apply for the regular 45-credit track, which provides depth in an area specialty in addition to breadth in resource management and planning. The alternate track (30 to 44 credits) is 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. Either such candidate may appeal for the alternate track based on their background. The alternate track, also known as the reduced-credit track, 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 track is appropriate. No thesis is required for either track, but every WRM student must complete the 2-credit spring planning seminar and the associated 4-credit summer group practicum workshop.

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/>).

Requirements	Detail
Fall Deadline	January 15
Spring Deadline	October 15
Summer Deadline	January 15
GRE (Graduate Record Examinations)	Required.
English Proficiency Test	Every applicant whose native language is not English or whose undergraduate instruction was not in English must provide an English proficiency test score and meet the Graduate School minimum requirements (https://grad.wisc.edu/apply/requirements/#english-proficiency).
Other Test(s) (e.g., GMAT, MCAT)	n/a
Letters of Recommendation Required	3

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

GRADUATE SCHOOL RESOURCES

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/#policiesandrequirements>), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

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

Requirements Detail	
Minimum Credit Requirement	M.S.: 45 credits M.S.: reduced-credit track: 30–44 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	Grades of BC or C are not typically accepted toward program requirements unless the grade is allowed by the student's faculty advisory committee and the program chair. Grades of BC and C may not be used in the area specialty category. A maximum of 3 credits graded S may be counted toward program requirements if approved by the student's faculty advisory committee and the program chair. Courses that are audited or graded pass/fail or credit/no credit will not count toward program requirements.
Assessments and Examinations	All students must hold an evaluation and guidance conference with their faculty advisory committee, preferably no later than their third semester in the program.
Language Requirements	No language requirements.

REQUIRED COURSES

Code	Title	Credits
Breadth Requirements		
Category A: Natural Science & Technology ¹		9
Category B: Water Resources Institutions & Public Decision-Making Processes ²		9
Category C: Analytical & Design Tools in Water Resources ³		6
Area of Specialty ⁴		15
Summer Group Practicum & Workshop		
ENVR ST/CIV ENGR/ URB R PL 718	Water Resources Management Practicum Planning Seminar II	2
ENVR ST/CIV ENGR/ URB R PL 719	Water Resources Management Summer Practicum	4
Total Credits		45

- ¹ Students choose any biological sciences and/or physical sciences courses in the 300–999 range.
- ² Students choose any social sciences and/or arts & humanities courses in the 300–999 range.
- ³ Students choose any measurement/analysis/tools/methods courses in the 300–999 range.
- ⁴ Students choose courses, in the 300–999 range, in a cohesive area of study pertaining to their intended career path.

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 graduate coursework from other institutions. The number of such credits is determined on a case-by-case basis. 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

With faculty advisory committee and program chair approval, students are allowed to count up to 15 credits of coursework taken as a UW–Madison Special student. Such credits from courses numbered 300 and higher can count toward graduate residency and graduate degree requirements. Credits from graduate-level courses (courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/>)).

BrowseByTitle/)) can count toward the graduate coursework requirement. Coursework completed five or more years prior to admission to the program is not allowed to satisfy graduate residency, graduate degree, or graduate coursework requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

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 CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

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://employee disabilities.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.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd/>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Expand their knowledge of the physical, chemical, biological, and social sciences and learn how to apply this knowledge to the management of water resources.

2. Understand water resource decision-making at governance levels from local to national.
3. Use a wide range of analytical tools to sustainably manage water resources.
4. Participate in as well as lead interdisciplinary teams.
5. Orally and in writing communicate to stakeholders the findings and recommendations of interdisciplinary projects.
6. Have an understanding of professional and ethical responsibility.

PEOPLE

FACULTY EXECUTIVE PROGRAM COMMITTEE

Anita Thompson (Program Chair), Paul Block, Michael Cardiff, Caroline Druschke, Kenneth Genskow, James Hurley, Steven Loheide, Sharon Long, Kenneth Potter, Stephen Ventura, Paul Zedler (Ex Officio)