

Graduate Student and Faculty Advisor

HANDBOOK

Waters of the West

Graduate Education & Research Program



University of Idaho

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I. Program Overview

The Water Resources Graduate Program (WRGP) is an interdisciplinary graduate program. The term "Water Resources" is used here in the broadest sense: the study of how water moves through and interacts with natural systems, its chemical and biological components, and the physical, social, economic, and legal aspects of human interaction with the water cycle.

The WRGP is a University-wide program that integrates over 60 faculty in 15 departments in 7 colleges who share a common interest in research, education, and/or outreach in water resources. The program is housed in the College of Agricultural and Life Sciences which provides administrative support, but students are academically supported by faculty members across the University of Idaho campus. The program trains students to address complex water resources issues by building disciplinary depth in concert with interdisciplinary breadth to understand focused problems and communicate across disciplines (see [Appendix A: Student Learning Outcomes](#)). The program also allows students to develop a highly interdisciplinary academic program and/or thesis/dissertation with the approval of their academic committee. We strive to educate scientists and engineers to be more politically aware and policymakers to be more scientifically knowledgeable. To accomplish both objectives, the program is designed to have three overlapping degree option areas in both the M.S. and Ph.D. programs:

- Water Resources Engineering & Science
- Water Resources Science & Management
- Water Resources Law, Management & Policy

Additionally, concurrent JD/M.S. and JD/Ph.D. degree options are available with any of the three option areas. Cross recognition of courses allows a JD/M.S. to be completed in 4 years and a JD/Ph.D. in 6 years.

Overview of Graduate Degree Requirements and Recommendations

Students in the Water Resources Program must meet the general requirements set forth by the College of Graduate Studies (see Part Four) for the M.S. or Ph.D. degrees with the following exceptions. The degree of M.S. in Water Resources requires 24 credits of course work and completion of a thesis, equivalent to a minimum of 9 credits of Research and Thesis, for a total of 30 credits¹ (note for transfers: An M.S. student must complete at least 18 of the total 30 required credits at the University of Idaho while matriculated in the College of Graduate Studies). A total of 18 credits must be at or above the 500 level.

The degree of Ph.D. in Water Resources requires a minimum of 33 credits of course work beyond the bachelor's degree and completion of a dissertation for a total of 78 credits (note for transfers: A Ph.D. student must complete at least 39 of the 78 required credits at the University of Idaho while matriculated in the College of Graduate Studies). A total of 52 credits must be at or above the 500 level. Students in the Water Resources concurrent J.D. track must meet the general requirements set forth by the College of Graduate Studies and Water Resources Graduate Program for the M.S. or Ph.D. degrees and the College of Law for the J.D. The following sections summarize specific requirements for the three option areas as well as for the joint M.S./ J.D. and Ph.D./ J.D.

PLEASE NOTE: We update this publication annually. However, changes can occur in academic regulations during the year. Please check with the College of Graduate Studies for the latest changes.

¹ The Water Resources Graduate Program curriculum is currently undergoing minor revisions and requirements listed in Degree Audit can be aligned with the requirements in this handbook by completing a [substitution/waiver form](#).

II. Water Resources Curriculum and Requirements

Curriculum requirements listed below were updated in October 2022 and are currently being routed for internal UI approval and are expected to be implemented starting in the 2024 academic year. Current students can complete [substitution/waiver forms](#) as needed to align their Program of Study to the revised curriculum listed below.

Engineering & Science Option Area

Entry Requirements

Coursework in the following is required for (M.S. and Ph.D.) admission to the Water Resources Engineering & Science Option Area. Provisional admission for M.S. students may be granted to those who have completed the majority of this coursework, provided the remaining coursework is completed as deficiency requirements.

- Calculus (minimum of 9 credits)
- Differential Equations (3 credits)
- Statistics for Scientists/Engineers (3 credits)
- Chemistry (minimum of 4 credits)
- Physics (minimum of 4 credits)
- Engineering Fluid Mechanics (minimum of 3 credits)

Water Resources Graduate Program Requirements and Recommendations

- Water Resources Common Core (3 credits), required
- Engineering & Science Option Core (M.S. 6 credits; Ph.D. 9 credits), required
- Quantitative and Statistics Courses (M.S. 3 credits; Ph.D. 6 credits), recommended
- Outside Track Core (M.S. 3 credits, recommended; Ph.D. 3 credits, required)
- Elective Courses (as recommended and approved by Academic Committee)

Water Resources Required Common Core

The following courses are required of both M.S. and Ph.D. students in all of the Water Resources Option Areas. The objective of WR506 is to understand the epistemological foundations of different disciplines that contribute to natural resources science and management. The objective of WR501 is to expose students to diverse questions and challenges facing water resources in the region.

- WR 501 Water Resources Seminar (1 cr.)
- WR 506 Interdisciplinary Methods in Water Resources (2 cr.)
- One elective course in an option area outside the main option area (3 cr., PhD only)

Engineering & Science Option Core Courses

M.S. students are required to take 6 credits, and Ph.D. students are required to take 9 credits from the following:

- CE 421 Engineering Hydrology (3 cr.)
- CE 511 Design of Water and Wastewater Systems I (3 cr.)
- CE 520 Fluid Dynamics (3 cr.)
- CE 526 Aquatic Habitat Modeling (3 cr.)
- CE 535 Fluvial Geomorphology and River Mechanics (3 cr.)
- GEOL 531 Chemical Hydrogeology (3 cr.)
- HYDR 509 Quantitative Hydrogeology (3 cr.)

HYDR 576 Fundamentals of Modeling Hydrogeologic Systems (3 cr.)
SOIL 552 Environmental Water Quality (3 cr.)

Electives for Engineering & Science Option Area

As noted under Common Courses for Ph.D. only, an elective course *must* be in either the Science & Management or Law, Management & Policy Option Areas. A core course may be considered an elective course once the core requirements are satisfied. A detailed list of elective courses for this option area is provided on the Water Resources Program web site.

Courses may be substituted with the permission of the academic committee if they pertain to water resources science, management, and/or outreach.

Course descriptions: <http://www.uidaho.edu/registrar/classes/catalogs>.

Science & Management Option Area

Entry Requirements

Coursework in the following is required for (M.S. and Ph.D.) admission to the Water Resources Science & Management Option Area. Provisional admission for M.S. students may be granted to those who have completed the majority of this coursework, provided the remaining coursework is completed as deficiency requirements.

- Calculus (6 credits)
- Statistics (3 credits for M.S.)
- Chemistry or Physics or Biology/Ecology (6 credits total)

Water Resources Graduate Program Requirements and Recommendations

- Water Resources Common Core (3 credits), required
- Science & Management Option Core (M.S. 6 credits; Ph.D. 9 credits), required
- Quantitative and Statistics Courses (M.S. 3 credits; Ph.D. 6 credits), recommended
- Outside Track Core (M.S. 3 credits, recommended; Ph.D. 3 credits, required)
- Elective Courses (as recommended and approved by Academic Committee)

Water Resources Required Common Core

The following courses are required of both M.S. and Ph.D. students in all of the Water Resources Option Areas. The objective of WR506 is to understand the epistemological foundations of different disciplines that contribute to natural resources science and management. The objective of WR501 is to expose students to diverse questions and challenges facing water resources in the region.

- WR 501 Water Resources Seminar (1 cr.)
- WR 506 Interdisciplinary Methods in Water Resources (2 cr.)
- One elective course in an option area outside the main option area (3 cr., PhD only)

Water Resources & Science Option Core Courses

M.S. students are recommended to take 6 credits, and Ph.D. students are recommended to take 9 credits from the following:

Aquatic Ecology

- FISH 430 Riparian and River Ecology (3 cr.)
- FISH 535 Limnology (4 cr.)

Fluvial Geomorphology and Aquatic Habitat

- CE526 Aquatic Habitat Modeling (3 cr.)
- CE 535 Fluvial Geomorphology and River Mechanics (3 cr.)

Physical Hydrology

- ENVS 450 Environmental Hydrology (3 cr.)

Subsurface Hydrology

- HYDR 509 Quantitative Hydrogeology (3 cr.)
- SOIL 515 Soil and Environmental Physics (3 cr.)

Water Quality

- HYDR 512 Environmental Hydrogeology (3 cr.)
- SOIL 552 Environmental Water Quality (3 cr.)

Quantitative and Statistics Courses

All students are strongly encouraged to take at least one course in tools and technology such as statistics, GIS, remote sensing, numerical modeling, or programming that most closely aligns with their career goals.

Electives for Science & Management Option Area

As noted under Common Courses for Ph.D. only, an elective course *must* be in either the Engineering & Science or Law, Management, and Policy Option Areas. A core course may be considered an elective course once the core requirements are satisfied.

Courses may be substituted with the permission of the academic committee if they pertain to water resources science, management, and/or outreach.

Course descriptions: <http://www.uidaho.edu/registrar/classes/catalogs>.

Law, Management & Policy Option Area

Entry Requirements

A background in government, public policy, or management is required for M.S. and Ph.D. admission to the Law, Management, and Policy Option Area. Students without an undergraduate degree in Political Science, Public Policy, Government, Constitutional Law, Civil Procedure, or related field may be granted provisional admission, but will be required to complete coursework (in addition to standard program and option area requirements) that demonstrates a minimum level of competency. This should include:

American Government (6 credits at the 400 level)

Public Policy (6 credits at the 400 level) or

Both requirements above may be met by taking equivalent law courses including:

Constitutional Law and similar classes as approved by the Major Professor (12 credits at the 500 or 900 level).

Subject to approval of the Water Resources Program curriculum committee, other relevant completed courses (or professional experience) may be substituted to meet these requirements.

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Water Resources Graduate Program Requirements and Recommendations

Water Resources Common Core (3 credits), required

Law, Management & Policy Option Core (M.S. 6 credits; Ph.D. 9 credits), required

Research and Analytical Methods (3 credits, determined in consultation with committee)

Outside Track Core (M.S. 3 credits, recommended; Ph.D. 3 credits, required)

Elective Courses (as recommended and approved by Academic Committee)

Water Resources Required Common Core

The following courses are required of both M.S. and Ph.D. students in all of the Water Resources Option Areas. The objective of WR506 is to understand the epistemological foundations of different disciplines that contribute to natural resources science and management. The objective of WR501 is to expose students to diverse questions and challenges facing water resources in the region.

WR 501 Water Resources Seminar (1 cr.)

WR 506 Interdisciplinary Methods in Water Resources (2 cr.)

Water Resources Law, Management & Policy Option Core Courses

M.S. students are required to take 6 credits, and Ph.D. students are required to take 9 credits from the following:

LAW 938 International Environmental and Water Law (3 cr.)

LAW 939 Law, Science, and the Environment (2 cr.)

LAW 942 Water Law of the American West (3 cr.)

LAW 947 Environmental Law (3 cr.)

LAW 948 Natural Resources Law and Policy (3 cr.)

NRS 555 Human Dimensions of Natural Resources (3 cr.)

NRS 588 NEPA in Policy and Practice (3 cr.)

WR 552 Water Economics and Policy Analysis (3 cr.)

Similar courses may be substituted if approved by the Major Professor.

Electives for Water Resources Law, Management & Policy Option Area

As noted under Common Courses for Ph.D. only, an elective course *must* be in either Engineering & Science or Science & Management Option Areas. A core course may be considered an elective course once the core requirements are satisfied.

Courses may be substituted with the permission of the academic committee if they pertain to water resources science, management, and/or outreach.

Course descriptions: <http://www.uidaho.edu/registrar/classes/catalogs>.

Concurrent J.D. Degree

Entry Requirements

Completion of requirements for admission to both the College of Law and the specific Water Resources option area is required. Students are required to apply separately to the College of Law and the College of Graduate Studies, Water Resources Graduate Program. Acceptance to both colleges does not have to occur simultaneously. A law student can apply for summer or fall admission to the Water Resources Program in the College of Graduate Studies during the first year of law school. Then, during the second year of law school, a student can begin graduate school. A Steering Committee consisting of the Director of the Water Resources Graduate Program, the Associate Dean for Administration and Students of the College of Law, one non-law member of the Water Resources faculty and one member of the Law faculty will make admission decisions to the concurrent degree program.

Common/Core Courses

All students seeking to earn the Water Resources concurrent J.D. degree are required to complete coursework as specified for the particular Water Resources Option Area for the M.S. or Ph.D., as well as coursework required by the Law School for a J.D.

Electives

The student and faculty committee will select courses appropriate to satisfy the requirements of the College of Graduate Studies and College of Law.

Concurrent Degree Details

Students in the Water Resources concurrent J.D. track must meet all graduation requirements set forth by the College of Graduate Studies for the M.S. or Ph.D. degrees and the College of Law for the J.D.

Each student shall have a “graduate committee.” The student’s graduate committee must meet the requirements of the College of Graduate Studies and must have at least one member from the faculty of the College of Law.

A total of 18 credits may be double counted for a J.D./M.S. concurrent degree, and a total of 21 credits may be double counted for a J.D./Ph.D. concurrent degree under the following guidelines:

No more than 12 credits of M.S. and Ph.D. graduate school credit are allowed toward the J.D. degree. The courses must be approved by the student’s advisor in the College of Law with the following guidelines: 1) courses approved for credit toward a J.D. must be complementary to an emphasis in water law; 2) must enhance the candidate’s ability to serve clients and the legal profession in the area of water law; and, 3) must not be the substantive equivalent to a course offered in the College of Law and available to the student.

No more than 6 credits from Law are allowed toward the M.S. degree in Engineering & Science and Science & Management option areas, no more than 12 credits towards the M.S. degree in Law, Management & Policy option area, and no more than 9 credits toward the Ph.D. degree from the following list:

| | |
|---------|---|
| LAW 907 | Administrative Law (3 cr.) |
| LAW 934 | Land Use Law and Planning (3 cr.) |
| LAW 938 | International Environmental and Water Law (3 cr.) |
| LAW 939 | Law, Science and the Environment (2 cr.) |
| LAW 942 | Water Law of the American West (3 cr.) |
| LAW 947 | Environmental Law (3 cr.) |
| LAW 948 | Public Lands and Resources Law (3 cr.) |

| | |
|---------|--|
| LAW 949 | Native American Law (3 cr.) |
| LAW 969 | Water Law II (2 cr.) |
| LAW 979 | Native American Natural Resource Law (3 cr.) |

Satisfactory completion of both degrees is required to qualify for the exchange credit, as the degrees are granted concurrently. The first year of study for concurrent M.S. or Ph.D. students must be exclusively in the College of Law. M.S. students are required to write a thesis. Ph.D. students are required to write a dissertation. If the student fails to complete the M.S. or Ph.D. in Water Resources, only 6 credits from the Water Resources Program are allowed toward the J.D. degree. If a student fails to complete the J.D. degree, the student must satisfy all requirements for the particular option area in the Water Resources Program to receive the M.S. or Ph.D. degree.

Once in the Program

Students should develop a study plan consulting with both their Law and Graduate advisors by the end of the second semester of graduate school.

Eighteen credits may be double counted toward both degrees [12 from the M.S. can count toward the JD, 6 from the JD can count toward the M.S.; this may be reversed for an M.S. in the Law, Policy and Management Option Area].

Students should be advised to take the full 4-5 years for both degrees. This is necessary if they want to double count the 18 credits. In addition, completion of the JD in 3 years followed by the bar exam reduces the level of integration with the graduate degree and the likelihood of timely completion of the graduate degree.

Students should be advised to take Water Law I and II in their 2L year and Water Resources 506 in the fall of their 3rd year.

Law Emphasis Areas

Students completing a JD/M.S. in water resources should have no difficulty also completing the requirements for a Natural Resources and Environmental Law Emphasis and are encouraged to do this.

III. Student and Major Professor Expectations

The student, not the major professor, is responsible for meeting all deadlines and academic requirements and for initiating a process of regular communication with major professor and committee. The student is responsible for his/her own program. This includes:

- Initiating regular communication and frequent meetings with Major Professor.
- Beginning work with the Major Professor on research topic immediately. To complete all requirements in a timely manner requires focus and diligence.
- Setting a timetable with short- and long-term goals and referring to it regularly.
- A meeting of the committee as early as possible to ensure that the program of study and/or research includes thinking from the physical, biological, and/or social science areas.
- Working with the Major Professor to create and present the research proposal including interdisciplinary integration of the proposed research, if appropriate.
- Completing the Interdisciplinary Thesis/Dissertation Approval Form after proposal presentation, if appropriate and/or requested by the student or any member of the academic committee.
- Considering meeting with the academic committee each semester to keep them up-to-date on scholarly activities. At a minimum, the student should communicate with them regularly.
- Professional development activities such as attending conferences, presenting conference papers, presenting at departmental graduate student seminars, and writing papers for publication.
- Informing the committee of participation in professional development activities.
- Writing sections of the thesis/dissertation as soon as possible. Delaying writing is a common problem for many graduate students and substantial early progress on the introduction, background, and methods can be made by developing a detailed research proposal.
- Preparing drafts (proposal, thesis, etc.) in consultation with the Major Professor prior to sending it to committee members. Drafts should be grammatically correct and free of typographical and spelling errors and forwarded to the committee following approval by the Major Professor.
- Completing the Interdisciplinary Thesis/Dissertation Approval Form prior to thesis/dissertation defense, if appropriate.

* Adapted from Graduate Orientation, "Surviving (and Enjoying!) Graduate School" by Dr. Margrit von Braun, former Dean of the College of Graduate Studies.

IV. Interdisciplinary Requirements and Opportunities

“Interdisciplinary research (IDR) is a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts, and/or theories from two or more disciplines or bodies of specialized knowledge to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline or area of research practice.” From *Facilitating Interdisciplinary Research*, National Academy of Sciences (NAS), 2004.

To ensure that each thesis/dissertation is interdisciplinary, the Water Resources Program requires the following:

1. Committee Requirements

Each Committee shall be composed of members from more than one discipline. For the M.S. a minimum of three members is required; for the Ph.D. a minimum of four members is required. All committee members must approve a) the student’s study plan, b) the interdisciplinary component(s) of the thesis/dissertation proposal by signing the Interdisciplinary Thesis/Dissertation Proposal Approval Form (if applicable), and c) the interdisciplinary component(s) of the thesis/dissertation at the time of the final defense by signing the Interdisciplinary Thesis/Dissertation Approval Form (if applicable).

2. Program Requirements

Each program of study and/or thesis/dissertation shall reflect education and/or research beyond a single discipline. Integration can be achieved throughout the academic program and/or through a separate interdisciplinary chapter (possibly co-authored) that specifically integrates knowledge, methods, and/or information from at least two distinct disciplines. All chapters of the thesis/dissertation shall be integrated into a coherent whole.

Strategies for Interdisciplinary Research

Suggested ways to develop interdisciplinary work:

- From the beginning of your project, think about how the research includes aspects and implications of physical, biological, and/or social sciences, and/or humanities.
- Your research question and objectives should be created so that achieving the objectives requires work in at least two of the disciplinary areas.
- Consider and discuss with your Major Professor and committee how your research is different as a Water Resources student than in a single discipline.
- Think about devoting a chapter in the thesis/dissertation to explaining the interdisciplinary nature of the research or discussing the broader implications of the work.
- Engage in a process of planning and thought regarding how you would go about collecting and using data from at least one of the other disciplines. For example, why and how would social science and/or physical science data enrich a biological research project? What would you collect, given sufficient time and money, and how would you use it?
- Imagine that an agency is so impressed by your research that they decide to fund you to include the broader aspects of the problem including the other two areas. What would you do, how would you do it, and how would you use it?
- At the defense, your Major Professor and committee should ask at least one of the following questions (or another integrating question):
 - How has this research used ideas or approaches from at least two of the areas of physical, biological, social science, and humanities?

- Could this work have been done in the same way in a single discipline?
- What are the broader implications of your work as they apply outside of your option area?
- If you went on to continue work on this project, how would you continue to gather data and integrate information from the different disciplines into your research?
- As you apply the results of your work in the field, how would you integrate information or methods from the different disciplinary areas?
- If you had to explain the implications of your research to a person with a completely different background (a manager, politician, or member of the public), what would you say?
- What is important about your research in solving environmental problems?

Further Readings in Interdisciplinarity

National Academy of Sciences. 2004. Committee on Facilitating Interdisciplinary Research, National Academy of Sciences, National Academy of Engineering, Institute of Medicine. Facilitating Interdisciplinary Research.

Gilbert, L.E. 1998. "Disciplinary breadth and interdisciplinary knowledge production," *Knowledge, Technology, and Policy* 11: 4-15.

Janssen, W. and P. Goldsworthy. 1996. "Multidisciplinary research for natural resource management: conceptual and practical implications," *Agricultural Systems* 51.3: 259- 279.

Klein, J.T. 1990. *Interdisciplinarity: History, Theory, and Practice*. Detroit, MI: Wayne State University.

Klein, J.T. 1996. *Crossing Boundaries: Knowledge, Disciplinarity, and Interdisciplinarity*. Charlottesville, VA: UP of Virginia.

Lattuca, L.R. 2001. *Creating Interdisciplinarity: Interdisciplinarity Research and Teaching Among College and University Faculty*. Nashville, TN: Vanderbilt UP.

Newell, W.H. 2001. "A Theory of Interdisciplinary Studies," *Issues in Integrative Studies*, 19: 1-25.

Nissani, M. (1995). Fruits, salads, and smoothies: A working definition of interdisciplinarity. *Journal of Educational Thought*. 29(2), 121-128.

Repko, A.F. 2008. *Interdisciplinary Research: Process and theory*. Sage Publications. ISBN 978-1-4129-5915-5 (Q180.55.I48R47 2008).

V. Materials, Equipment, and Services

The following is a list of policies and procedures for ordering materials, equipment and services related to the research. These are laid down by the university and the department as it pertains to graduate students. University equipment or material (including such things as tablets and paper clips) is for project use only as authorized by the project leader. University property may NEVER be used for personal use.

Travel

Discuss arrangements for travel to conferences and meetings with your major professor. Graduate students can apply for travel funding through the Graduate and Professional Student Association (GPSA). For more information, visit the GPSA website: <http://www.uiweb.uidaho.edu/gpsa/>.

Copying, Printing, and Library Use

Many references are available on-line. See the library web site for a Journal List (<http://www.lib.uidaho.edu/>). U.S. Government documents, magazines and journals in the library holding cannot be checked out. A copy of a portion of a book or an article from a journal or magazine at the library can be scanned onsite on delivered directly to your email. Students are responsible for observing copyright rules (<http://www.lib.uidaho.edu/copyright/index.html>). Copies made for the project reference files will remain part of the project and cannot be removed after graduation. Students are advised to keep detailed record of sources of articles and books so they can be tracked at a later time.

Graduate students may check books out of the library for an entire semester. These books should be returned in a timely manner when they are no longer actively used. This also applies to books and references borrowed from fellow students and faculty members. Books or reference material cannot be taken from an office or lab without asking permission.

Computer Usage

All students have access to computer resources. Computer accounts are requested from the University Information Technology Services (<http://www.uidaho.edu/its>). When using a computer, students are responsible to adhere to the computer use policy for the University of Idaho (<http://www.uidaho.edu/apm/30/12>).

Research Records and Notebooks

During the course of the thesis/dissertation research, a voluminous amount of data will be collected along with many notes, reminders, procedures, etc. It is very important to keep these data in an organized fashion so all records are available when writing the thesis/dissertation chapters. Research records must be zealously protected from any harm. Consider purchasing a notebook that can be dedicated solely to your research. Also, be sure to back-up your files and keep copies of all important information.

VI. Steps to the Degree

M.S. Program

| <u>Activity</u> | <u>Suggested Completion</u> |
|--|--|
| Identify Major Professor | Prior to Admission |
| File Committee Form Appointment of Major Professor http://www.uidaho.edu/cogs/forms | Beginning of 1 st semester |
| Appoint Committee | Beginning of 2 nd semester |
| File Committee Form Appointment of Committee http://www.uidaho.edu/cogs/forms | 2 nd semester |
| Prepare Study Plan | End of 2 nd semester |
| File Study Plan via Vandal Web | End of 2 nd semester |
| Research proposal to Committee | 2 nd semester |
| Present research proposal | 2 nd semester |
| Research | |
| Analyze data/summarize results | End of 3 rd semester |
| Work with Major Professor & Committee on draft document | 3 rd and 4 th semester |
| File application for degree via Vandal Web | End of 3 rd semester |
| Thesis review by Major Professor & Committee | 4 th semester |
| Prepare final draft | 4 th semester |
| Grad school check of thesis format | End of 4 th semester |
| File authorization for final defense Request to Proceed with Final Defense http://www.uidaho.edu/cogs/forms | End of 4 th semester |
| Pick up defense forms from Grad school | End of 4 th semester |
| Final defense | End of 4 th semester |
| Prepare final copy of thesis, complete forms, & turn into the Grad school Checklist for Final Submission of Document http://www.uidaho.edu/cogs/forms | End of 4 th semester |

Ph.D. Program

| <u>Activity</u> | <u>Suggested Completion</u> |
|---|---------------------------------------|
| Identify Major Professor | Prior to Admission |
| File Committee Form Appointment of Major Professor http://www.uidaho.edu/cogs/forms | Beginning of 1 st semester |
| Appoint Committee | Beginning of 2 nd semester |
| File Committee Form Appointment of Committee http://www.uidaho.edu/cogs/forms | 2 nd semester |
| Prepare Study Plan | 3 rd semester |
| File Study Plan via Vandal Web | End of 3 rd semester |
| Qualifying Exam (if needed) | |
| Research proposal to Committee | End of 3 rd semester |
| Present research proposal | End of 3 rd semester |
| Preliminary Examination | End of 3 rd semester |
| File Candidacy form Report of Preliminary Exam & Advancement to Candidacy http://www.uidaho.edu/cogs/forms | End of 3 rd semester |
| Research | |
| Analyze data/summarize results | End of 4 th semester |
| Work with Major Professor & Committee on draft document | End of 4 th semester |
| File application for degree via Vandal Web | End of 5 th semester |

| | |
|---|---------------------------------|
| Dissertation review by committee | 6 th semester |
| Prepare final draft | 6 th semester |
| Grad school check of dissertation format | 6 th semester |
| File authorization for final defense Request to Proceed with Final Defense http://www.uidaho.edu/cogs/forms | 6 th semester |
| Pick up defense forms from Grad school Authorization to Submit Thesis or Dissertation http://www.uidaho.edu/cogs/forms | End of 6 th semester |
| Final defense | End of 6 th semester |
| Prepare final copy of dissertation, complete forms, & turn into the Grad school Checklist for Final Submission of Document http://www.uidaho.edu/cogs/forms UMI Doctoral Dissertation Agreement http://www.uidaho.edu/cogs/forms Survey of Earned Doctorates http://www.uidaho.edu/cogs/forms | End of 6 th semester |

VII. Professional Conduct and Ethics

As graduate students and professional scholars-in-training, you are expected to exercise high standards of ethical and professional behavior toward your peers and your professors. Science as a whole can only make progress if individual scientists are truthful and trustworthy. As academic professionals and members of the larger community of scientists, graduate students should practice intellectual honesty at all times. You should exercise scholarly discipline and good critical skills, while engaging in civil, collegial discussion of scientific and professional matters. Ideally, scientific professionals should strive to be objective and fair in their criticism and discussion of colleagues' work. Graduate students must never engage in, permit or otherwise support professional misconduct, including plagiarism, falsification of information, or deception of any kind. Each of us is obligated to report professional misconduct to a supervisor or Program Director as appropriate.

Academic Honesty and Research Ethics

As stated above, graduate students are expected to uphold high standards of intellectual and academic honesty at all times, and to enforce university and departmental standards for academic honesty. The University Faculty and Staff Handbook states that "cheating on classroom or outside assignments, examinations or tests is a violation of [the academic honesty] code. Plagiarism, falsification of academic records, and the acquisition or use of test materials without faculty authorization are considered forms of academic dishonesty..." Should you encounter academic dishonesty, you should immediately bring it to the attention of your teaching supervisor. Other instances should be discussed with your major professor or the Program Director. There is an expectation that graduate students spend an appropriate amount of time researching and producing new papers for class research projects. If previous papers are to be expanded, you must have permission from the course instructor. A paper written for one course and turned in for a subsequent course will be considered a breach of academic honesty.

Harassment

Graduate students are expected to treat other students, peers, professors, and other colleagues in the university workplace respectfully at all times. By the same token, you are also entitled to respectful behavior on the part of your coworkers. "Harassment" in the workplace is often defined in sexual terms. However, harassment in a broader sense can also take the form of teasing, insults and other hostile or harsh speech, crude gestures, or otherwise acting toward another person in an extremely objectionable or humiliating manner, even when that behavior lacks a sexual context. Legally prohibited harassment includes not only sexual harassment but also harassment based on race, color, national origin, religion, age, disability, sexual orientation or status as a Vietnam-era veteran.

The University of Idaho Faculty and Staff Handbook Policy 3220 defines sexual harassment as "unwelcome sexual advances, requests for sexual behaviors, or other verbal or physical conduct of a sexual nature." Such conduct is deemed especially deplorable when it occurs in a relationship where there is a significant power differential, such as harassment of a student by an instructor, "...creating an intimidating, hostile, or offensive learning environment," or interfering with a student's education. Under no circumstances should a graduate student engage in behavior that might be construed as harassment, sexual or otherwise. If you feel you have been harassed or are aware of a possible violation of the University's harassment policy, you are strongly encouraged to contact the University's Office of Diversity and Human Rights, the Women's Center, your major professor, supervisor, or the Program Director.

Policy on Graduate Student Complaints

If a graduate student has a serious complaint regarding how they have been treated in class or research projects, this should be brought to the Program Director or the student graduate committee advisor. Complaints may include, but are not limited to, conflicts that involve a colleague, teaching supervisor, employer, or major professor. The student should attempt to resolve the problem by informal discussion

with those involved in the grievance before a formal grievance is brought to the Program Director. The Program Director will work with the student to bring the situation to a reasonable conclusion. If necessary, the student may visit the College of Graduate Studies for additional assistance.

Online Resources

Water Resources Graduate Program Homepage

<https://www.uidaho.edu/cals/water-resources>

College of Graduate Studies

<http://www.uidaho.edu/cogs>

Admission Requirements

<http://www.uidaho.edu/admissions>

Financial Aid

<http://www.uidaho.edu/financialaid.aspx>

Schedule of Classes

<https://webpages.uidaho.edu/schedule/>

Student Accounts/Cashier

<https://www.uidaho.edu/current-students/student-accounts>

Graduate and Professional Student Organization

<https://uidahogpsa.com>

Brand Resources Center – logos, PowerPoint templates etc.

<https://www.uidaho.edu/brand-resource-center>

Copy and Print Center

<https://printonline.uidaho.edu/home>

UI Water Resources Facebook Page

<https://www.facebook.com/UIWaterResources/>

Appendix A: Student Learning Outcomes²

Science & Management

Ph.D.

1. Students will understand the diverse philosophical bases of different disciplines and work effectively in interdisciplinary teams to solve complex interdisciplinary water resources challenges.
2. Students will gain knowledge of fundamental scientific theories and concepts within their sub-field of water resources and application to management challenges.
3. Students will independently synthesize key knowledge gaps to conceptualize, develop, and implement a novel disciplinary and/or interdisciplinary water resources research project.
4. Students will develop written and oral communication skills to engage professional peers and the public in a concise, factually accurate, mechanically correct, and engaging manner.

Science & Management

M.S.

1. Students will understand the diverse philosophical bases of different disciplines and work effectively in interdisciplinary teams to solve complex interdisciplinary water resources challenges.
2. Students will gain knowledge of fundamental scientific theories and concepts within their sub-field of water resources and application to management challenges.
3. Students develop the breadth and depth of disciplinary understanding and critical thinking to contribute to the design, data collection, and analysis of an original water resources research project.
4. Student will develop written and oral communication skills to engage professional peers in a concise, factually accurate, mechanically correct, and engaging manner.

² Student Learning Outcomes finalized by core WR faculty members: October 13, 2022.

Engineering & Science**Ph.D.**

1. Students will understand the diverse philosophical bases of different disciplines and work effectively in interdisciplinary teams to solve complex interdisciplinary water resources challenges.
2. Students will gain knowledge of fundamental scientific theories and concepts within their sub-field of water resources and application to engineering practices.
3. Students will independently synthesize key knowledge gaps to conceptualize, develop, and implement a novel disciplinary and/or interdisciplinary water resources research project.
4. Students will develop written and oral communication skills to engage professional peers and the public in a concise, factually accurate, mechanically correct, and engaging manner.

Engineering & Science**M.S.**

1. Students will understand the diverse philosophical bases of different disciplines and work effectively in interdisciplinary teams to solve complex interdisciplinary water resources challenges.
2. Students will gain knowledge of fundamental scientific theories and concepts within their sub-field of water resources and application to engineering practices.
3. Students develop the breadth and depth of disciplinary understanding and critical thinking to contribute to the design, data collection, and analysis of an original water resources research project.
4. Student will develop written and oral communication skills to engage professional peers in a concise, factually accurate, mechanically correct, and engaging manner.

Law, Management, and Policy**Ph.D.**

1. Students will understand the diverse philosophical bases of different disciplines and work effectively in interdisciplinary teams to solve complex interdisciplinary water resources challenges.
2. Students will gain knowledge of fundamental tenets and the interfaces between water resources law, management, and policy.
3. Students will independently synthesize key knowledge gaps to conceptualize, develop, and implement a novel disciplinary and/or interdisciplinary water resources research project.
4. Students will develop written and oral communication skills to engage professional peers and the public in a concise, factually accurate, mechanically correct, and engaging manner.

Law, Management, and Policy**M.S.**

1. Students will understand the diverse philosophical bases of different disciplines and work effectively in interdisciplinary teams to solve complex interdisciplinary water resources challenges.
2. Students will gain knowledge of fundamental tenets and the interfaces between water resources law, management, and policy.
3. Students develop the breadth and depth of disciplinary understanding and critical thinking to contribute to the design, data collection, and analysis of an original water resources research project.
4. Student will develop written and oral communication skills to engage professional peers in a concise, factually accurate, mechanically correct, and engaging manner.

Appendix B. Social Justice Statement

Prepared by Water Resources Graduate Program alumni, students, and faculty. Finalized June 8, 2020.

Along with the rest of the nation and the world, student, alumni, and faculty leaders in the University of Idaho Water Resources Graduate Program mourn the recent murders of George Floyd, Breonna Taylor, Ahmaud Arbery, as well as the many other Black men and women who have been murdered or harmed by police violence and systemic racism. In this moment, we state and affirm our support of peaceful protest and our commitment to anti-racism, dismantling white supremacy, and the fact that Black lives matter.

We make this statement of solidarity with humility, recognizing that we have much to learn about systemic racism and how to dismantle it within our households, social circles, work, and academic spaces. As water resources professionals, we take this moment to reevaluate opportunities to apply universal water security values in our work in reflection that water rights are human rights. We recognize that statements and words are limited in their power to effect change and want to make our intentions and values clear. Determining the actions we can take to match these values will be an ongoing project of discussion and critical self-evaluation and we are starting with small steps now. For example, we are dedicating a portion of our ongoing annual seminar series to water resources challenges specifically facing disadvantaged communities. Numerous studies illuminate these challenges including a 2019 Report by the NAACP on the disproportionate impact of increased water rates and failing water infrastructure on communities of color, the Michigan Civil Rights Commission report on the role of racism in the Flint water quality crisis, and the DigDeep and the US Water Alliance report showing that Native Americans are more likely to lack access to safe drinking water than others in the US. By the continued integration of water resources and environmental justice issues in our education, research, and outreach programs we will produce more aware water resources professionals and contribute to an equitable future for all.

We welcome feedback and open dialog to address ongoing concerns of BIPOC (Black, Indigenous, and People of Color) communities in our region and beyond. We continue our commitment to equal access to water resources graduate education from the communities we serve and welcome feedback on how we can improve recruitment from and support for BIPOC communities. We stand in solidarity with the millions of Americans peacefully demanding justice and working towards an end to systemic racism.