

WATER RESOURCES SCIENCE AND MANAGEMENT OPTION (PH.D.)

Doctor of Philosophy. Major in Water Resources - Science and Management Option.

Entry Requirements

Coursework in the following is required for admission to the Water Resources Ph.D in the Science and Management Option. Provisional admission 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)
- Chemistry or Physics or Biology/Ecology (6 credits total)

Common Courses

Students are required to fulfill a set of common courses, applicable to all three Water Resources Option Areas. These include the following courses:

Code	Title	Hours
WR 5010	Seminar	1
WR 5060	Interdisciplinary Methods in Water Resources	2
Total Hours		3

Core Courses

Students are required to take 9 credits of the following courses:

Code	Title	Hours
Aquatic Ecology		
FISH 4300	Riparian and River Ecology	3
FISH 5350	Limnology	4
Fluvial Geomorphology and Aquatic Habitat		
CE 5260	Aquatic Habitat Modeling	3
CE 5280	Fluvial Geomorphology and River Mechanics	3
Physical Hydrology		
ENVS 4500	Environmental Hydrology	3
Subsurface Hydrology		
HYDR 5090	Quantitative Hydrogeology	3
SOIL 5150	Soil and Environmental Physics	3
Water Quality		
HYDR 5120	Environmental Hydrogeology	3
SOIL 5520	Environmental Water Quality	3

Elective Courses

At least one elective course *must* be in either the Engineering & Science or Law, Management & Policy Option Areas. A core course may be considered an elective course once the core requirements are satisfied. 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. A detailed list of elective courses for this option area is provided in the Graduate Handbook (<https://www.uidaho.edu/-/media/UIDaho-Responsive/Files/cals/college/Majors/water-resources-graduate-handbook-2023.pdf?la=en&hash=1CE2B2B004EDBB68CF84E9949F2EB7DF6C7FAE36>) on the Water Resources Program website.

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.