WATER RESOURCES SCIENCE GRADUATE MAJOR (MS, PHD)

Graduate Areas of Concentration

Water resources science

A graduate major in Water Resources Science for master of science and doctor of philosophy degree programs is offered with specialization in hydrology or geochemistry. Seminars, readings, and conferences are offered by the Water Resources Graduate Program.

The graduate major options are structured around courses designed to broaden the student's education in water resources science, specifically in hydrology or geochemistry. University departments and schools that offer courses related to water resources science include the departments of Biochemistry and Biophysics; Biological and Ecological Engineering; Botany and Plant Pathology; Chemistry; Crop and Soil Science; Entomology; Fisheries and Wildlife; Geosciences; Mathematics; Microbiology; Rangeland Ecology and Management; Statistics; and Zoology; and the School of Forest Engineering, Resources and Management; the School of Biological and Population Health Sciences; the School of Chemical, Biological, and Environmental Engineering; the School of Civil and Construction Engineering; the School of Mechanical, Industrial, and Mechanical Engineering; the School of Public Policy; and the College of Earth, Ocean, and Atmospheric Sciences. About 20 departments conduct teaching or research programs in water resources.

For more information, contact gradwater_director@oregonstate.edu or visit http://oregonstate.edu/gradwater/

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>WRP 507 or WRS 507</td>
<td>SEMINAR (Water Resources)</td>
<td>1</td>
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<tr>
<td>WRP 505 or WRE 505 or WRS 505</td>
<td>READING AND CONFERENCE</td>
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<td>WRP 507 or WRE 507 or WRS 507</td>
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<td>WRP 524</td>
<td>SOCIOTECHNOLOGICAL ASPECTS OF WATER RESOURCES</td>
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**Core Courses**

**Water Resources Science Courses**

Select 12 credits of the following for MS or 15 credits of the following for PhD:

- ATS 520 PRINCIPLES OF CLIMATE: PHYSICS OF CLIMATE AND CLIMATE CHANGE
- ATS 564 INTERACTIONS OF VEGETATION AND ATMOSPHERE
- BEE 512 PHYSICAL HYDROLOGY
- BEE 525 STOCHASTIC HYDROLOGY
- BEE 533 IRRIGATION SYSTEM DESIGN
- BEE 542 VADOSE ZONE TRANSPORT
- BEE 544 OPEN CHANNEL HYDRAULICS
- BEE 546 RIVER ENGINEERING
- BEE 549 REGIONAL HYDROLOGIC MODELING
- CE 517 HYDRAULIC ENGINEERING DESIGN
- CE 518 GROUNDWATER MODELING
- CE 543 APPLIED HYDROLOGY
- CE 548 WATER QUALITY DYNAMICS
- ENVE 521 DRINKING WATER TREATMENT PROCESSES
- ENVE 554 GROUNDWATER REMEDIATION
- FE 530 WATERSHED PROCESSES
- FE 532 FOREST HYDROLOGY
- FW 556 FRESHWATER ECOSYSTEMS AND CONSERVATION
- FW 579 WETLANDS AND RIPARIAN ECOLOGY
- FW 580 STREAM ECOLOGY
- GEO 530 GEOCHEMISTRY
- GEO 531 ENVIRONMENTAL GEOCHEMISTRY
- GEO 532 APPLIED GEOMORPHOLOGY
- GEO 691 MASS AND HEAT TRANSPORT IN THE ENVIRONMENT
- GEG 580 REMOTE SENSING I: PRINCIPLES AND APPLICATIONS
- GEG 596 FIELD RESEARCH IN GEOMORPHOLOGY AND LANDSCAPE ECOLOGY
- GPH 665 GEOPHYSICAL FIELD TECHNIQUES
- MB 548 MICROBIAL ECOLOGY
- OC 670 FLUID DYNAMICS
- RNG 555 RIPARIAN ECOHYDROLOGY AND MANAGEMENT
- SOIL 523 PRINCIPLES OF STABLE ISOTOPES
- SOIL 535 SOIL PHYSICS
- SOIL 536 VADOSE ZONE HYDROLOGY LABORATORY
- SOIL 545 ENVIRONMENTAL SOIL CHEMISTRY
- SOIL 555 BIOLOGY OF SOIL ECOSYSTEMS

Total Hours 18-21

Major Code: 3530