

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 the website (<http://oregonstate.edu/gradwater/>).

Major Code: 3530

Code	Title	Credits
Core Courses		
WRP 507	SEMINAR (Water Resources)	1
or WRS 507	SEMINAR	
WRP 505	READING AND CONFERENCE	1
or WRE 505	READING AND CONFERENCE	
or WRS 505	READING AND CONFERENCE	
WRP 507	SEMINAR (Water Resources Seminar and Journal Club)	1
or WRE 507	SEMINAR	
or WRS 507	SEMINAR	
WRP 524	SOCIOTECHNOLOGICAL ASPECTS OF WATER RESOURCES	3
Water Resources Science Courses		
Select 12 credits of the following for MS or 15 credits of the following for PhD:		12-15
ATS 520	CLIMATE PHYSICS	
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		
ENVE 521	DRINKING WATER TREATMENT PROCESSES	
ENVE 554	GROUNDWATER REMEDIATION	

FE 530	WATERSHED PROCESSES
FE 532	FOREST HYDROLOGY
FW 556	FRESHWATER ECOLOGY 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
GEOG 580	REMOTE SENSING I: PRINCIPLES AND APPLICATIONS
GEOG 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 Credits 18-21

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