

WATER RESOURCES (WR)

WR 5000 Master's Research & Thesis (1-16 credits, max 99)

Credit arranged Typically Offered: Fall.

WR 5010 (s) Seminar (1-16 credits, max 99)

Credit arranged

WR 5020 (s) Directed Study (1-16 credits, max 99)

Credit arranged

WR 5030 (s) Workshop (1-16 credits, max 99)

Credit arranged

WR 5040 (s) Special Topics (1-16 credits, max 99)

Credit arranged

WR 5050 (s) Professional Development (1-16 credits, max 99)

Credit arranged

WR 5060 Interdisciplinary Methods in Water Resources (2 credits)

Student and faculty teams from traditionally disparate disciplines address real issues to develop methods for communicating across disciplines and for solving water resources problems. The course takes a problem-oriented approach using case studies. Faculty will lead students through this integrative process with lectures and working sessions. Typically Offered: Fall.

WR 5160 Hydrologic Effects of Forest Management (1 credit)

Cross-listed with FOR 5160

Joint-listed with FOR 4160

Evaluation and discussion of how management activities affect hydrological processes, flow regimes, and water quality in forested watersheds. Seminar based on primary literature. Recommended preparation: Basic knowledge of hydrology. Additional assignments and exams required for graduate credit. Graded Pass/Fail. Typically Offered: Spring (Even Years).

WR 5180 (s) System Modeling for Water Resources Planning and Management (2 credits)

System dynamics modeling for many natural resources management applications, including: 1) water resources management, 2) biological assessments, 3) environmental studies in a changing global environment, 4) sociopolitical studies of public policy on natural resources. Recommended Preparation: Basic data management or computer programming Typically Offered: Summer (Even Years). Cooperative: open to WSU degree-seeking students.

WR 5190 Hydrological Modeling and Applications for Sustainable Water Management (2 credits)

Hydrological processes and modeling for many natural and water resources management applications, including: 1) surface hydrology, 2) geospatial water data access, 3) hydrological modeling, and 4) hydrological responses to climate change and/or land use changes. Recommended Preparation: Basic GIS and knowledge of hydrologic concepts (e. g. , GEOG 3850, LARC 3950) and basic computer skills. Typically Offered: Summer. Cooperative: open to WSU degree-seeking students.

WR 5440 Water Quality in the Pacific Northwest (3 credits)

Cross-listed with ENVS 5440, SOIL 5440

Joint-listed with ENVS 4440, SOIL 4440

Qualitative aspects of water are covered in this class. Major topics are qualitative aspects of (1) surface water, (2) groundwater, (3) drinking water, (4) water in the oceans, and (5) the human waste stream. Concepts presented are relevant to world-wide water quality issues and concepts; however, an emphasis is placed on issues within the four Pacific Northwest states (ID, AK, OR, WA). Typically Offered: Fall.

WR 5520 Water Economics and Policy Analysis (3 credits)

Joint-listed with AGECE 4520

This course will provide students with an in-depth look at the role of economics in water resource planning. Topics will include an introduction to water law, common concepts in hydrology, and the tools necessary to evaluate irrigation and other water use decisions. The course will focus on economic theory and a practical background of water resource management, as such, significant time will be spent developing the tools most frequently utilized by water resource economists. This includes Linear Programming, Cost/Benefit Analysis, Residual Imputation methods, Regression Analysis, Input-Output Modeling, Survey Design and Implementation, and Cost of Avoidance Techniques. Additional work required for graduate credit. Typically Offered: Fall. Cooperative: open to WSU degree-seeking students.

WR 5980 (s) Internship (1-16 credits, max 99)

Credit arranged

WR 5990 (s) Non-thesis Master's Research (1-16 credits, max 99)

Credit arranged

WR 6000 Doctoral Research and Dissertation (1-45 credits, max 99)

Credit arranged

WR 6010 (s) Seminar (1-16 credits, max 99)

Credit arranged

WR 6040 (s) Special Topics (1-16 credits, max 99)

Credit arranged