

WATER RESOURCES (WR)

WR 500 Master's Research & Thesis (1-16 credits)

Credit arranged

WR 501 (s) Seminar (1-16 credits)

Credit arranged

WR 502 (s) Directed Study (1-16 credits)

Credit arranged

WR 503 (s) Workshop (1-16 credits)

Credit arranged

WR 504 (s) Special Topics (1-16 credits)

Credit arranged

WR 505 (s) Professional Development (1-16 credits)

Credit arranged

WR 506 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. (Fall only)

WR 516 Hydrologic Effects of Forest Management (1 credit)

Cross-listed with FOR 516

Joint-listed with FOR 416

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 518 (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 519 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 385, LARC 395) and basic computer skills. (Summer, alt/odd years) Typically Offered: Summer. Cooperative: open to WSU degree-seeking students.

WR 544 Water Quality in the Pacific Northwest (3 credits)

Cross-listed with ENVS 544

Joint-listed with ENVS 444, SOIL 444

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 552 Water Economics and Policy Analysis (3 credits)

Joint-listed with AGECE 452

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: Spring. Cooperative: open to WSU degree-seeking students.

WR 598 (s) Internship (1-16 credits)

Credit arranged

WR 599 (s) Non-thesis Master's Research (1-16 credits)

Credit arranged

WR 600 Doctoral Research and Dissertation (1-45 credits)

Credit arranged

WR 601 (s) Seminar (1-16 credits)

Credit arranged

WR 604 (s) Special Topics (1-16 credits)

Credit arranged