

HYDROLOGY (HYDR)

HYDR 404 (s) Special Topics (1-16 credits)

Credit arranged

HYDR 409 Quantitative Hydrogeology (3 credits)

Joint-listed with HYDR 509

A rigorous introduction to the description of flow in porous media; the basic equations of potential flow theory as they relate to ground water problems, with application to common engineering problems encountered by hydrogeologists and engineers; dimensional analysis, properties assignment, and heterogeneous systems. Additional reading, presentations, and/or written reports of assigned literature required for graduate credit. Typically Offered: Varies.

Prereqs: 'C' or higher in either MATH 160 or MATH 170

HYDR 412 Environmental Hydrogeology (3 credits)

Joint-listed with HYDR 512

Methods of hydrogeologic site characterization for the delineation of environmental problems. Additional independent research paper required for graduate credit.

Prereqs: GEOL 309

HYDR 499 (s) Directed Study (1-16 credits)

Credit arranged

HYDR 500 Master's Research and Thesis (1-16 credits)

Credit arranged

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

Credit arranged.

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

Credit arranged

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

Credit arranged

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

Credit arranged

HYDR 509 Quantitative Hydrogeology (3 credits)

Joint-listed with HYDR 409

A rigorous introduction to the description of flow in porous media; the basic equations of potential flow theory as they relate to ground water problems, with application to common engineering problems encountered by hydrogeologists and engineers; dimensional analysis, properties assignment, and heterogeneous systems. Additional reading, presentations, and/or written reports of assigned literature required for graduate credit. Typically Offered: Varies.

HYDR 512 Environmental Hydrogeology (3 credits)

Joint-listed with HYDR 412

Methods of hydrogeologic site characterization for the delineation of environmental problems. Additional independent research paper required for graduate credit.

Prereqs: GEOL 309

HYDR 576 Fundamentals of Modeling Hydrogeologic Systems (3 credits)

Development and application of models representing physical systems, with particular emphasis on ground water flow. Development and solution of the basic equations of potential flow will be covered, along with their assumptions and limitations. Properties assignment, parameter sensitivity, and dimensional analysis will also be discussed. The course will emphasize when modeling is appropriate, how to design a model, and how properties should be selected to achieve meaningful results. Cooperative: open to WSU degree-seeking students.

Prereqs: MATH 275 or Permission

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

Credit arranged

HYDR 599 (s) Research (1-16 credits)

Credit arranged. Research not directly related to a thesis or dissertation.