

VILLANOVA UNIVERSITY

WATER RESOURCES AND
ENVIRONMENTAL ENGINEERING
GRADUATE PROGRAM

Evening Course in

Introduction To Hydraulic Engineering And Hydrology

C.E.E. 7111

Offered – All Years – Summer*

(Available through Real Time Distance Education)

Engineers and planners must understand nature before they attempt to manipulate it. The development of water resources requires the planning, design, construction, and operation of facilities to control and manage valuable water resources. The most essential tool for effective work in this discipline is a broad understanding of the principles of engineering hydraulics and hydrology, as applied to the design of structures and systems for hydraulic developments.

This course is an extension of fluid mechanics. Basic principles, mathematical concepts and solution methods, experimental data, and engineering judgment are applied to a variety of problems encountered in water resources developments. Computer applications are included.

This course is being offered in both in class and distance education (over the web) format. Contact Dr. Chadderton for distance education section.

COURSE COVERAGE:

Major topics include pressurized flow systems, free surface flows, hydraulic structures, hydrologic data interpretation, hydrograph analysis and synthesis, and flood routing concepts.

PREREQUISITES: Introductory, undergraduate fluid mechanics or its equivalent.

INSTRUCTOR: Dr. Ronald A. Chadderton, P.E.
Professor of Civil Engineering
610-519-4960 ronald.chadderton@villanova.edu

Prospective students may contact the instructor or the Department of Civil & Environmental Engineering, 610-519-4960.

Further information on all of the Department's graduate programs is available at:

<http://www.engineering.villanova.edu/ce/>

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*Instructor/Course Offerings are subject to change.

