CVEN 339 Water Resources Engineering

Fall 2003

Instructor: Francisco Olivera, Ph.D., P.E.
Wisenbaker Engineering Research Center, Room 205 – F
Tel.: 979-845-1404
e-mail: folivera@civilmail.tamu.edu

Objectives: In this course, the fundamental concepts of hydrologic and hydraulic engineering will be presented. After taking this course, the students will be able to solve basic problems of water resources engineering, including flow in pipes and channels, groundwater flow, and watershed analysis.

Schedule: Tuesday and Thursday 9:35 a.m. – 10:50 p.m. @ CE 110

Office hours: Open door.

Prerequisite: CVEN311 Fluid Dynamics and CVEN302 Computer Applications in Engineering and Construction

Class web page: ceprofs.tamu.edu/folivera/CVEN339WRE/Fall2003/home.htm

Textbook: Water Resources Engineering by Ralph Wurbs and Wesley James, Prentice Hall 2002

Grading: Homework 25%
Two in-class tests (2 x 25%) 50%
Final Exam 25%

Letter grades will be assigned according to: A (100 – 90), B (89 – 80), C (79 – 70), D (69 – 60), and F (less than 60). Numeric grades will be rounded to the nearest integer.

Topics to be covered: Review of fluid mechanics (Chapter 3)
Hydrology (Chapter 2)
Pipe hydraulics (Sections 4.1 to 4.5)
Open channel hydraulics (Sections 5.1 to 5.8)
Flood Routing (Section 6.1)
Groundwater flow (Sections 9.1 to 9.3)
Watershed hydrology (Sections: 8.1 to 8.6)
Hydrologic frequency analysis (Section: 7.1 to 7.6, 7.9 and 7.11)

Any student that believes has a disability requiring an accommodation, should contact Services for Students with Disabilities at 979-845-1637, Koldus 126.

It is the student’s responsibility to be fully acquainted and to comply with the University Student Rules (http://student-rules.tamu.edu).