CVEN 458 Hydraulic Engineering  
Fall 2004

Instructor: Francisco Olivera, Ph.D., P.E.  
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Office hours: Mondays and Wednesdays 9:15 a.m. – 10:15 a.m.

Schedule: Mondays, Wednesdays and Fridays 10:20 a.m. – 11:10 a.m.  
at CE219

Objectives: This course discusses the fundamental concepts of pressure  
conduit and open channel hydraulics and presents the  
computer simulation packages. After taking this course, the  
student will be able to analyze and solve complex problems  
involving open channels, watershed hydrology and pressure  
conduits using software packages standard in the  
professional environment.

Prerequisite: CVEN 339 Water Resources Engineering.

Class web page ceaprofs.tamu.edu/folivera/cven458/fall2004/home.htm  
The class web page includes an Announcements page in which last-minute information will be posted. Students are expected to access the Announcements page at least each other day.

Textbook: Water Resources Engineering by Wurbs and James,  
Prentice Hall.

Grading:  
Homework 20%  
Class participation 15%  
Two in-class test 40% (20% each)  
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.

Outline:  
- Introduction  
- Open Channel Hydraulics  
  Flow in open channels
HEC-RAS (computer simulation package)
- Watershed Hydrology and Stream Hydraulics
  Rainfall-runoff processes
HEC-HMS (computer simulation package)
- Pressure Conduit Hydraulics
  Flow in pipes
KYPIPE (computer simulation package)

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

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of student Life, Services for Students with Disabilities in Room 126 of the Koldus Building, or call 845-1637.

Final Exam: December 14, 8:00 a.m. – 10:00 a.m.