

CEGR 4090/5090 - Applied Hydraulics - Fall 2007

Course Syllabus

Instructor

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Course Objectives

- Every student should get his/her hands wet every week.
- A hands-on hydraulics experiment will be performed each week
- Students will learn concepts in Hydraulics through experiments, lectures, homeworks, and computer work

Text

Chin, David A. 2006 "Water-Resources Engineering, Second Edition."
Pearson, Prentice-Hall, Upper Saddle River, New Jersey.

Grading and Exams

There will be two tests during the semester and one comprehensive final examination. It is expected that both tests will be take-homes. There will also be a class project. Homework problems will also be assigned and graded. The final numerical grade will be a weighted average of the tests, the final, and the homeworks, as follows:

Mid-term tests (2), project, final:	4x 22.5%=90%
Homeworks:	10%
Total:	100%

One homework grade will be dropped

Project

Students will work in groups of one or two. Each group will design and build a small device that demonstrates a fluid mechanics/hydraulics principal (e.g. Bernoulli equation, hydrostatic pressure distributions, critical flow, etc.). The device should be table-top size or smaller, and built from materials costing \$30 or less. Students will be reimbursed for project expenses. Each group will give a 10-minute or less presentation to the class explaining their device, and will also write a short project description (3-10 pages) for review by Dr. Bowen.

Student Conduct

All materials submitted for grades (e.g. test and final problems, homework assignments) must represent the student's original work. Students may discuss homework problems, including comparing answers. Copying another student's work, or copying a solutions manual is strictly forbidden. It is the responsibility of every student to know and observe the requirements of the UNCC Code of Student Academic Integrity. This code forbids cheating, fabrication or falsification of information, multiple submissions of academic work, plagiarism, abuse of academic materials, and complicity in academic dishonesty. Any student violating the code will be subject to the penalties described in this document. If in doubt, please ask before you engage in any activity about which you are unsure.

Students are responsible for meeting all class deadlines (e.g. completing homework assignments, taking tests and finals). Students must appear at the designated time to take in-class tests and finals to receive any credit, unless **prior** approval is granted for an alternate time. You will not be granted alternate test or final times afterwards.