CE 356 –Elements of Hydraulic Engineering, Fall 2007

University of Texas, Department of Civil Engineering       Instructor:    Dr. B. R. Hodges
Tue, Thurs, 3:30-4:45, CPE 2.204       Office:        ECJ 8.208
Unique No: 15730, 15735, 15740, 15745, 15750

Web site:  https://webspace.utexas.edu/hodgesbr/ce356/

Email: hodges@mail.utexas.edu (please include CE356 on subject line)

Office Hours:      Tues  10:30 – 11:30 a.m. and 1:30 – 2:30 p.m.
                  Thurs 12:00 – 1:00 p.m.

Exam dates:
FINAL EXAM: Wednesday, December 12, 2007; 0900 - 1200.
I will provide the midterm exam dates with a class schedule on the second class day.

Teaching Assistants for laboratories:


Prerequisites: Elementary Mechanics of Fluids, CE 319F, or the equivalent.

Course description: Analysis and design of civil engineering hydraulic systems, including piping, pumps, open channel flow,
weirs, and storm sewer design.

Course objectives: By the end of the course, students will be able to: 1) Identify and define fundamental concepts in hydraulics;
2) Use graphs in analyzing fluid system performance and characteristics; 3) Sketch primary characteristics of different fluid flows;
4) Analyze data from laboratory experiments and quantify uncertainty in experimental results.

Laboratory: Laboratories will be conducted during the laboratory period on the schedule attached. Note that labs are not
collected every week. There are six labs scheduled through the semester – it is your responsibility to know when your lab will be
conducted (labs are announced in class). Attendance at laboratory sessions is mandatory. The laboratory sessions, which are
graded on attendance, participation, and lab reports. Make-up labs will not be conducted. If students are unable to attend their
scheduled lab section they may check with the lab TA ahead of time to see if it is possible to attend a different session. Note that
such permission may not be granted if it would overload one of the lab sessions. You will not get credit for attending a lab outside
your normal session without prior approval from the TA. Additional guidelines for laboratories are provided on a separate handout.

Lecture hours: The lectures will be conducted from 3:30 to 4:45 with a 5 minute break around 4:10. Note that this is a 3 credit
class with 3 lecture hours per week and 12 laboratory hours over the semester. To keep the overall hours at the 3 credit level,
compensation for the lab hours requires cancellation of 4 lecture hours (2.5 classes). The dates for these class cancellations will be
announced by the professor during the term.

Homework: Homework assignments will be posted on the class web site. Homework is due by the end of class on the due date
listed on the web site (which is generally one week after assignment, unless a special deadline is specified). Homework is to be
submitted in the box labeled CE356 in ECJ 8.6. I will accept homework at the end of class to save you a trip to the 8th floor.
However, I will not accept homework delivered by hand in the hallway or my office, under the door, in campus mail, etc. Note
that ECJ 8.6 is only open during the normal M-F workday, so plan accordingly.

Attendance: Class attendance is strongly encouraged. The class will include both lecture and opportunities to discuss homework
problems.

Quizzes: Each class day will begin with a simple quiz. Grading for the quiz is 4 points for the correct answer, 3 points for an
incorrect answer and 0 if you fail to turn in the quiz. If you arrive late to class, submit a blank piece of paper with your name on it
at the end of class

Exam Policies: There will be four exams – three midterms and a final. A student who is sick on the day of the exam is expected
to call the professor (see phone number above) and leave a message. In such a case, the make up exam may be either a written
exam or an oral exam, at the discretion of the professor. Students who are sick on the day of the final will be required to take a 3-hour oral exam during the winter break.

Grading

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<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Quizzes</td>
<td>2%</td>
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<tr>
<td>Homework</td>
<td>8%</td>
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<tr>
<td>Midterm 1</td>
<td>15%</td>
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<td>Midterm 2</td>
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<td>Midterm 3</td>
<td>15%</td>
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<tr>
<td>Final Exam</td>
<td>30%</td>
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<td>Lab Reports</td>
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Grade reporting: All grades will be entered into the UT egradebook system (accessible from UT Direct with a UTEID) so that you can always know where you stand. Please do not ask me what your current grade is – you can do the math just as easy as I!

Professionalism: As engineering students, you are in training for professional careers and will conduct yourselves in a manner that is consistent with engineering and business practices in "the real world". Sloppy work, habitual tardiness and inadequate preparation are some of the unprofessional traits that are not tolerated in the real world and likewise will not be tolerated in this class. Please do not use your workload in other classes as an excuse for poor performance or preparation. Remember, if you are working for a consulting company and are submitting sealed bids on a project, no one will care if you had another simultaneous project deadline. If you do not get the bid submitted on time you cannot get the project. This also carries over to preparation for class (assigned reading) – in the real world, your boss may plan a meeting for a scheduled project milestone and you had better be prepared to give him answers.

Cheating: Cheating will not be tolerated. Exams will be proctored. Furthermore, the instructor will be keeping a photocopy or scanned image of a random sampling of the submitted exams. If a student asks for re-grading of an exam question and the exam submitted for re-grading does not match the exam held by the instructor, the student will be given a failing grade in the course and referred to Office of Student Judicial Services. The official College of Engineering policy is that students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the University. Since such dishonesty harms the individual, all students, and the integrity of the University, policies on scholastic dishonesty will be strictly enforced. For further information, visit the Student Judicial Services web site http://www.utexas.edu/depts/dos/sjs/.

Web site: Web-based, password-protected class sites will be associated with all academic courses taught at the University. Syllabi, handouts, assignments and other resources are types of information that may be available within these sites. Site activities could include exchanging email, engaging in class discussions and chats, and exchanging files. In addition, electronic class rosters will be a component of the sites. Students who do not want their names included in these electronic class rosters must restrict their directory information in the Office of the Registrar, Main Building, Room 1. For information on restricting directory information, see page 7 of the Course Schedule or http://www.utexas.edu/student/registrar/catalogs/gi00-01/app/appc09.html.

This class will use the UT webspace. Web address is given at the top of this syllabus.

Course/Instruction Evaluation Plan: Course/instructor evaluation forms will be distributed during one of the last lecture periods in the term. A student within the class will be asked to distribute and collect the evaluation forms, and to return them to the Department of Civil Engineering main office on the 4th floor of ECJ Hall.

Course drop date: College of Engineering policy is as follows: Undergraduate Students: From the 1st through the 4th class day, an undergraduate student can drop or add a course on ROSE or TEX. From the 5th through the 12th class day, a student can drop through ROSE or TEX; adds must be done in the department offering the course. For any drops beginning with the 13th class day, a student must initiate the drop process in the office of the Dean (ECJ 2.200). Departmental advisor and instructor approval may be required.

Students with disabilities: The University of Texas at Austin provides, upon request, appropriate academic adjustments for qualified students with disabilities. Any student with a documented disability (physical or cognitive) who requires academic accommodations should contact the Services for Students with Disabilities area of the Office of the Dean of Students at 471-6259 as soon as possible to request an official letter outlining authorized accommodations. For more information, contact that Office, or TTY at 471-4641, or the College of Engineering Director of Students with Disabilities at 471-4321.

Course schedule: to be provided in class on the second class day.