

**UNIVERSITY OF CALIFORNIA, DAVIS**  
**DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING**

**COURSE: ENGINEERING HYDRAULICS (ECI 141)**  
**INSTRUCTOR: Fabián A. Bombardelli ([fabianbombardelli2@gmail.com](mailto:fabianbombardelli2@gmail.com),  
[fabombardelli@ucdavis.edu](mailto:fabombardelli@ucdavis.edu), [bmbdrll@yahoo.com](mailto:bmbdrll@yahoo.com))**  
**OFFICE: 3105, Ghausi Hall (former Engineering III building)**  
**Class: Tuesdays and Thursdays-3:10 to 4:30 PM (216 Wellman)**

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### **COURSE DESCRIPTION**

This course focuses on the application of concepts of fluid mechanics to address problems of hydraulics, such as flow in pipes and open channels, hydraulic jumps, backwater curves, similarity laws, pumps, flow separation, lift and drag.

### **TEXT**

The text for the course is “Fluid Mechanics,” by Frank M. White, Seventh Edition, McGraw-Hill, 2011.

### **SOME OTHER REFERENCES**

1. Mays, L. (2008). “*Water Resources Engineering.*” John Wiley and Sons.
2. Mays, L., Ed. in Chief (2001). “*Stormwater Collection Systems Design Handbook.*” McGraw-Hill.
3. Chow, V. T., Mays, L., and Maidment, D. (1998). “*Applied Hydrology.*” McGraw-Hill.
4. Linsley, R. K., and Franzini, J. B. (1979). “*Water-Resources Engineering.*” McGraw-Hill.
5. Chow, V. T. (1986). “*Open-channel hydraulics.*” McGraw-Hill.

### **OFFICE HOURS**

Mondays, 12:00 to 2:00 PM, and Wednesdays, 12:00 to 2:00 PM. Also, please e-mail me to make special appointments ([fabianbombardelli2@gmail.com](mailto:fabianbombardelli2@gmail.com), [bmbdrll@yahoo.com](mailto:bmbdrll@yahoo.com), [fabombardelli@ucdavis.edu](mailto:fabombardelli@ucdavis.edu)).

### **GRADING**

Assignments	25%
In class exam	30%
Final exam (2 hours)	40%
Class participation	05%

## ASSIGNMENT AND EXAM POLICIES

The purpose of homework is to contribute significantly to the learning process. Students are strongly encouraged to develop assignments in teams, since this is what you mostly will do during your professional life. The total number of team members should not exceed *five (5)*. The composition of the team can be varied from homework to homework, but the students have to turn in just *one* solution to the homework. Team members receive the same grade. Based on this, it is mandatory that the students of the team share similar loads of work. It is not necessary to report the names of the team members to the instructor in advance. Just make a cover page with the names of the members when turning in the homework solution.

Normally, each assignment should be completed in about 7 days. Assignments turned in one (1) week after the deadline will be penalized with 30 points out of 100. After two (2) weeks, assignments will not be accepted.

Examination solutions must represent the efforts of ***individuals only***. It is strongly recommended that the students have a copy of the graded solution before the examination. Exams will be closed notes, closed books.

## COURSE WEBSITE

There is a course website developed by Prof. Bombardelli at:  
[http://fabianbombardelli.com/ECI141/default\\_ECI\\_141.htm](http://fabianbombardelli.com/ECI141/default_ECI_141.htm)

Homeworks and solution sheets can be found in that website, in addition to other useful materials.