AE/ME 5313 FLUID DYNAMICS
Fall 2014
Mondays, Wednesdays and Fridays 1:00 – 1:50 p.m.
Woolf Hall; Room 311

Instructor:
Albert Y. Tong; Ph.D.

Office:
Room 206A Woolf Hall

Office Hours:
2:00 – 4:00 p.m. MW or by appointment.

Phone:
817-272-2297

Mailbox:
Box 19023, UTA, Arlington, TX 76019

Email:
tong@uta.edu

Course WWW site:
http://elearn.uta.edu
Login with your NetID and password

Teaching Assistant:
Peter Martinez; Woolf Hall 300A
Office Hours: 10-11 MWF or by appointment
petermartinezengineer@gmail.com

Course Prerequisites:
Graduate standing with undergraduate fluid mechanics background.

Required Textbook(s):
"Fundamental Mechanics of Fluids" by I. G. Currie; Marcel Dekker Publisher. (4th edition; 2012)

Course Description:
Basic conservation laws, flow kinematics, special forms of the governing equation, two-dimensional potential flows, surface waves, and some exact solutions of viscous incompressible flows.

Course Content:

1. Basic Conservation Laws (Ch. 1)
2. Flow Kinematics (Ch. 2)
3. Special Forms of the Governing Equations (Ch. 3)
4. Two-Dimensional Potential Flows (Ch. 4)
5. Surface Waves (Ch. 6)
6. Exact Solutions of Viscous Flows of Incompressible Fluids (Ch. 7)

Grading Policy:
Mid-Term Exam   40%
Final Exam   60%

The total will be curved based on the following formula:
"*Curved Total = (Total /Highest Total in class) X 100".*
(Example: your total is 60 and the highest total in class in 88, your curved total will be 68.2)

The overall curved total of 85% and above is A; 70-85% is B; 55-70% is C; 40-55 is D and below 40 is F. Examination format will be announced in advance. <u>No make-up exams</u> will be given except for documented excuses of inability acceptable to the instructor.

Attendance and Drop Policy:
The university policy on drop will be followed. Attendance will be taken at the beginning of each class. Students who come in late and miss signing the attendance sheet will be considered as absence. It will be used for grade consideration in the borderline situation at the end of the semester.

Calculator Policy: Only nonprogrammable calculators with basic computational features, such as arithmetic and transcendental functions will be allowed in the exam.

Classroom Etiquette: No food is allowed. Please be on time for the class. Working on laptops/cellphones, texting, etc. are not permitted and cell phones should be on silent mode. Questions and discussion involving the entire class are encouraged. Please never feel shy to ask questions.

Americans with Disabilities Act
The University of Texas at Arlington is on record as being committed to both the spirit and letter of federal equal opportunity legislation; reference Public Law 93112-The Rehabilitation Act of 1973 as amended. With the passage of new federal legislation entitled Americans with Disabilities Act – (ADA), pursuant to section 504 of The Rehabilitation Act, here is renewed focus on providing this population with the same opportunities enjoyed by all citizens.

As a faculty member, I am required by law to provide **"reasonable accommodation"** to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests with **informing faculty at the beginning of the semester and in providing** *authorized* **documentation through designated administrative channels.**

Academic Dishonesty
It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspensions or expulsion from the University.

"Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts." (Regents' Rules and Regulations, Part One, Chapter VI, Section 3, Subsection 3.2, Subdivision 3.22)