



JORDAN UNIVERSITY OF SCIENCE & TECHNOLOGY
MECHANICAL ENGINEERING DEPARTMENT
Fluid Mechanics ME 343
_____ Semester

Catalog Data - 2013: 3 Credit hour, the primary objective of this course is to help students understand the basic principles of fluid mechanics and develop an orderly approach to engineering problem solving. The course covers concepts in both areas of fluid statics and fluid dynamics. Basic conservation equations of mass, momentum and energy will be covered and applied to several applications.

Text Book(s): Introduction to Fluid Mechanics, Fox & McDonald, latest Ed.

References:
-Fluid Mechanics, Frank White , 4th edition
-Engineering Fluid Mechanics, C.T. Crowe, D.F. Elgar and J.A. Roberson (9th or 10th edition)

Instructor: _____

Class Schedule: _____

Office Hours: _____

Course Objective:
The primary objective of this course is to help students understand the basic principles of fluid mechanics and develop an orderly approach to engineering problem solving. The course covers concepts in both areas of fluid statics and fluid dynamics. Basic conservation equations of mass, momentum and energy will be covered and applied to several applications.

Prerequisite: math and physics

Topics Covered:

Introduction	2 lectures
Fundamentals Concepts	3 lectures
Fluid Statics	5 lectures
Basic equation in integral form for a control volume	7 lectures
Introduction to differential analysis of fluid motion	6 lectures
Incompressible inviscid flow	6 lectures
Dimensional analysis and similitude	5 lectures
Internal incompressible viscous flow	6 lectures

Computer Usage: None

Design Activities/Project(s): None

Lab. Experiment(s): None
 Scientific Visit(s): None

Evaluation: First Exam, (23/10/2016) 30 %
 Second Exam, (27/11/2016) 30 %
 Final Exam , 40 %

Relationship of the Course to ME Outcomes:

ABET a – k	√	Level (L, M, H)	Mechanical Eng. Program Outcomes
a	√	M	a. Apply knowledge of mathematics, science, and engineering in practice.
b			b. Design and conduct experiments as well as analyze and interpret data.
c			c. Design a system, components, or process to meet desired needs.
d			d. Function on multidisciplinary teams.
e	√	H	e. Identify, formulate, and solve engineering problems.
f			f. Understanding of professional and ethical responsibility of an engineer.
g			g. Communicate effectively.
h			h. Broad education to understand the impact of engineering solutions in global and societal context.
i			i. Recognition of the need for, and possess the ability to engage in, lifelong learning.
j			j. Possess knowledge of contemporary issues.
k			k. Use the techniques, skills, and modern engineering tools necessary for engineering practice.
l			l. Adhere to safety rules and regulations.

L: Low, M: Medium, H: High

ABET Category:

Engineering Science 3 Credits
 Engineering Design 0 Credits

Prepared By: _____ Date: _____

Rules and notes:

- Never come late to the classroom, you will disturb your mates and your instructor if you do so.
- Turn OFF your cell phones during the class.
- DO Not TALK during the class please, unless you have a question for me.
- Make up exams are not held without an official signed and approved excuse from the **Department Chairman**. Please understand that this is a university law and I have no control over it.
- Office hours are the hours I dedicate for you to ask me. If you think they do not suit you, then we can still arrange for a time of our convenience by sending an e-mail to me (you should expect an approval from my side).
- The exams specified on the course syllabus are not subject to negotiations or change once approved by you **TODAY**. It is your responsibility to inform the other instructors about your assigned exams.