

**KING FAHD UNIVERSITY OF PETROLEUM & MINERALS
DEPARTMENT OF PHYSICS**

PHYS 133 – PRINCIPLES OF PHYSICS
Second Semester 2010-2011 (Term 102)

Course Schedule, Syllabus and Grading Policy

Instructor : M.A. Al-Solami

1. COURSE DESCRIPTION (Undergraduate bulletin)

This is a non-calculus based Physics course. Topics include particle kinematics and dynamics, work, energy and power, kinetics theory of gases, temperature, first and second law of thermodynamics, heat transfer, wave motion and sound, electricity and magnetism, light and optics.

2. CO-REQUISITIE

MATH 131 or MATH 101

3. TEXTBOOK

“PHYSICS: Principles and Applications” by Douglas C. Giancoli, 5th Edition, Prentice-Hall International, 1998.

4. GRADING POLICY

(A) Course Grade:

The course grade will be evaluated as follows:

Quizzes	10 %
Laboratory	20 %
First Major Exam	20 %
Second Major Exam	20 %
Final Exam	30 %

(B) Class Works:

The class work shall comprise of quizzes, homework etc., and any other assignments.

(C) Laboratory Works:

The lab work will be based on any or a combination of the lab reports, lab quizzes, lab exam, etc. as chosen by the Lab Instructor.

(D) Major and Final Examinations:

Major and Final Examinations are scheduled as follows:

First Major Exam	19 March 2011	(Chapters 1-6)
Second Major Exam	04 May 2011	(Chapters 9,11,12,13 & 14)
Final Examination	04-14 June 2011	

5. ATTENDANCE

Attendance will be evaluated according to current university regulations. Please refer to article # 9 in the undergraduate study and examination regulation (P.17)

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Week	Date	Topics	Chapter	Section	Homework
1	12 Feb.	Introduction & Measurements	1	1-4	
	14 Feb.	Units and Standards	1	5-6	
2	16 Feb.	Reference frames, displacement and average velocity	2	1-2	
	19 Feb.	Instantaneous Velocity	2	3-4	
	21 Feb.	Motion at constant acceleration	2	5	
3	23 Feb.	Freely falling objects	2	7	
	26 Feb.	Problem solving			
	28 Feb.	Vectors and Scalars	3	1-2	
4	02 March.	Adding vectors by components	3	4	
	05 March	Dynamics: Force & Newton's First Law	4	1-3	
	07 March	Newton's second law & third law	4	4-5	
5	09 March	Weight and normal force	4	6 & 8	
	12 March	Problem solving			
	14 March	Work done by a constant force	6	1 & 3	
6	16 March	Potential energy	6	4-5	
	19 March	Mechanical Energy and its conservation	6	6-10	
	19 March 2011 - First Major Exam (Chapters 1-6)				
	21 March	Statics	9	1-2	
	23 March	Stability and balance	9	5-6	
7	26 March	Problem solving (Last day for grade "W")			
	28 March	Temperature	13	1-2	
	30 March	Thermal equilibrium	13	3-4	
8	02 April	Vapor pressure	13	14	
	04 April	Heat	14	1-3	
	06 April	Calorimetry	14	5-6	
9 – 13 April - Mid Term Brake					
9	16 April	Heat transfer	14	7-9	
	18 April	Wave	11	7-9	
	20 April	Reflection and interference	11	11-12	
10	23 April	Problem solving			
	25 April	Sound waves	12	1-2	
	27 April	Source of sound	12	5	
		Interference of sound waves	12	7	
11	30 April	String and Air column	12		
	02 May	Review			
04 May Second Major Exam (Chapters: 9,11,12, 13 and 14)					
12	07 May	Electric Battery	18	1-2	
	09 May	Ohm's Law	18	3,4&7	
	11 May	DC Circuit	19	1-3	
13	14 May	Kirchhoff's law	19	4-6	
	16 May	Circuit containing resistor and capacitor	19	7	
	18 May	Problem solving			
14	21 May	The Ray model of light	23	1-3	
	23 May	Index of Refraction	23	4-5	
	25 May	Thin lenses	23	6-7	
15	28 May	Thin lenses Equation	23	8	
	30 May	Problem solving			
	01 June	Review			
04-14 June. Final Examinations					

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PHYS 133 Lab Schedule (Term 102)

Week	Date	Experiments
1.	13 Feb 2011	No Lab
2.	20 Feb 2011	Graphing
3.	27 March 2011	Uniformly accelerated motion
4.	06 March 2011	Freely falling body I
5.	13 March 2011	The Spring
6.	20 March 2011	No Lab
7.	27 March 2011	Collision in one dimension
8.	03 April 2011	Standing wave in a cylinder
Mid Term Brake 9-13 April 2011		
9.	17 April 10	Speed of sound in air
10.	24 April 2011	Specific Heat of a metal
11.	01 May 2011	No Lab
12.	08 May 2011	Ohms Law # 1
13.	15 May 2011	No Lab
14.	22 May 2011	Lenses and mirrors
15.	29 May 2011	Lab final