



PLEASE TURN OFF YOUR MOBILE
Before coming to Lectures

بسم الله الرحمن الرحيم

Welcome to all attendance of 103 phys course:

Three lectures + lab (2h) = 4 credits

Text Book: Physics for Scientists & Engineers

by Serway (6th Edition)

Your Prof. = ??? (room 2A19) د. عبدالله بن محمد الزير

Course Outline for PHYS-103				
TEXT BOOK: PHYSICS FOR SCIENTISTS AND ENGINEERS WITH MODERN PHYSICS (6 th Edition) Author: R. A. SERWAY				
Chapter	Title	Section	Hours	Suggested problems
1	Physics and measurement	1.1, 1.4, 1.5	2	13,15,21,25,31
2	Motion in One Dimension	2.1, 2.2, 2.3, 2.5, 2.6	4	4,5,11,15,16,20,21,22,23,25,27,28,29, 32,33,40,42,43,46,48,51,52
3	Vectors	3.1--to--3.4	4	1,4,19,21,27,30,31,33,39,49,50
4	Motion in Two Dimensions	4.1--to--4.5	4	1,3,5,6,8,14,15,17,19,20,22,23,25,29
5	The Laws of Motion	5.1--to--5.8	6	3,7,11,16,18,24,25,26,28,30,31,37,41, 44,45,46,68
6	Circular Motion and Other Applications of Newton's Laws	6.1	2	1,2,5,7,59
7	Energy and Energy Transfer	7.2--to--7.8	4	1,4,7,13,14,15, 16,19,21,24,25,26,28,31,32,33,35,37, 40
8	Potential Energy	8.1--to--8.5	4	2,5,6,11,13,17, 31,33,36,38,42,55,57,59,60
9	Linear Momentum and Collisions	9.1--to--9.4	5	1,2,4,5,7,8,9,10,13,15,16,17,18,21,25, 27,32,33,35
10	Rotation of a Rigid Object About a Fixed Axis	10.1--to--10.8	6	1,3,5,6,8,12,13,16,17,18,20,21,31,35, 37,46,70,71

The students must know how to solve these suggested problems in addition to all the examples under supervision of the teacher.

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Class Policy	
➤ You are expected to come to the class on time.	
➤ Late attendance will not be tolerated and will be counted as an absence.	
➤ Attendance in classes will be recorded.	
➤ You are expected to respect others in the class. Talking, eating, drinking, etc. will not be tolerated during the class. Sleeping during the class will not be encouraged.	
➤ Asking questions regarding your subject matter is specially encouraged.	

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Given exercises and problems are the least that student must try. There shall be two MID-TERM exams. Class activities are also integral parts of final assessment

- Date of FIRST MID-TERM exam: Will be posted
- Date of SECOND MID-TERM exam: Will be posted
- Distribution of marks:

Two mid- Term Exams = 30

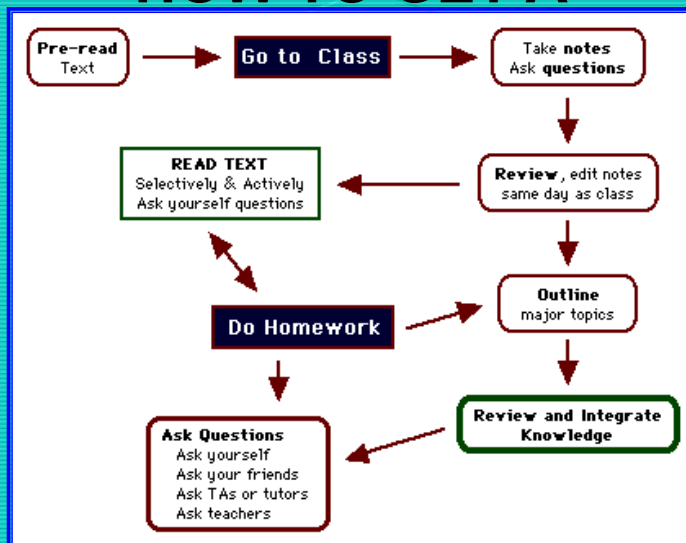
Laboratory = 30

Final exam = 40

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Physics:

The most basic of all sciences!

- **Physics:** The “Mother” of all sciences!
- **Physics** = The study of the behavior of and the structure of matter and energy and of the interaction between matter and energy.

Physics: General Discussion

- **Goal of Physics** (& all of science): To quantitatively and qualitatively **describe the “world around us”**.
- **Physics** IS NOT merely a collection of facts and formulas!
- **Physics** IS a creative activity!
- Physics → Observation → Explanation.
- Requires **IMAGINATION!!**

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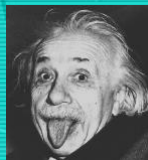
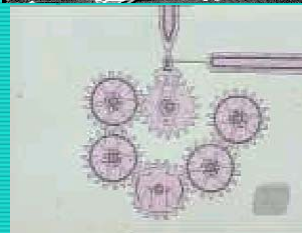
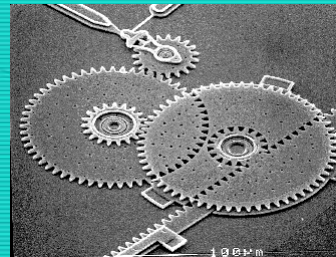
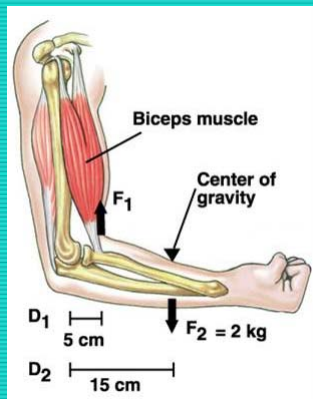
Physics & its relation to other fields

- The "Mother" of all Sciences!
- The foundation for and is connected to **ALL** branches of science and engineering.
- Also useful in everyday life and in **MANY** professions
 - Chemistry
 - Life Sciences
 - Architecture
 - Engineering.
 -

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LEARN ABOUT THE PILL'S PARTS

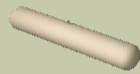
SEE HOW IT WORKS

The smart pill

Artificial muscle technology is used to automatically administer drugs

Developers are working on a capsule that can start and stop the flow of medication as needed without the patient's help.

The smart pill is about the same size as a matchstick



POWERED BY THE **EDGE**

CREDITS

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YOU NEED PHYSICS

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