

## Course outline for PHYS-101 (Semester 441)

**Textbook:** الفيزياء العامة في الكهرباء والمغناطيسية، الضوء، الفيزياء الحديثة لطلاب الجامعات – الطبعة الثالثة

From Sunday	Weeks	Chapters	Sections
<b>Part I: Electricity and magnetism</b>			
28/08-11/09	01-02	Chapter 1: Electric field and Electric Potential	1.1-1.3, 1.7, 1.8
18/09	03	Chapter 2: Capacitors	2.1-2.5, 2.7
25/09	04	Chapter 3: Direct Electric Current	3.1- 3.3, 3.5- 3.7
02/10	05	Chapter 4: Magnetic field	4.1. 4.3, 4.7, 4.8, 4.10
<b>Part II: Light and Optics</b>			
02/10	05	Chapter 7: Nature of Light, Reflection of Light	7.1, 7.2, 7.4 - 7.6
09/10	06	Chapter 8: Refraction of Light	8.1- 8.3, 8.6- 8.10
16/10	07	Chapter 9: Thin Lenses and Optical Instruments	9.1 - 9.8, 9.10
23/10	08	Chapter 10: Interference, diffraction and polarization of light	10.1 - 10.3
<b>Part III: Modern Physics</b>			
30/10	08-09	Chapter 12: Quantum Theory of Light and Atomic Spectra	12.1 - 12.6, 12.8, 12.9
09/11	10	Chapter 14: Nuclear Physics	14.1 - 14.13
		Chapter 15: Nuclear Energy (Fission and Fusion)	15.1 - 15.4

### Credit units distribution:

4 (3+0+2)

3 units of lectures a week (10 weeks in the semester).

2 units a week for laboratory experiments.

### Marks distribution:

- 1) Midterm Exams -----M----- = 30 marks (Chapters: 01-06)  
 2) Practical Work (Lab.)-----L----- = 30 marks  
 3) Final Exam-----F----- = 40 marks (covering all the chapters)
- Total----- = 100 marks

### Absence Policy:

#### I. Attendance percentage:

- Student should attend the course lectures during all the weeks of the semester.
- Students with absence hours more than 25% of the total course hours will be banned from the Final Exam.

#### II. Absence from Examinations:

- **If you are unable to attend an examination owing to illness or other unavoidable circumstances, you should provide an acceptable evidence of ‘good cause’ for such absence to the competent commission. If the absence is regarded as authorized, student will grant a Makeup Exam only once.**
- **All Makeup Exams will be scheduled at the same time one week before the Final Exam.**
- **No other Makeup Exam will be done in the same semester. If you miss the Makeup Exam, you will have a mark of zero.**

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