

Physics 202 Syllabus: Spring 2012

Syllabus: The primary focus of the course is an elucidation of the laws of Electromagnetism:

- Electric Charge and Electric Field: Coulomb's Law; Jones & Childers (JC)-Ch: 16
- Electric Potential, Electric Energy, and Capacitance; JC-Ch: 17
- Electric Current, Ohm's Rule, and DC-Circuit; JC-Ch: 18
- Magnetism, Magnetic Force and Ampere's Law; JC-Ch: 19
- Electromagnetic Induction and Faraday's Law; JC-Ch: 20
- Unification of Electricity and Magnetism, Maxwell's Equations; JC-Ch: 20

In addition we shall endeavour to touch upon topics such as:

- Geometric Optics; The Wave Nature of Light: Interference, Diffraction; JC-Ch: 22–24
- Special relativity: JC-Ch: 25

And, time permitting, a smattering of topics from 'Modern Physics' comprising Relativity, Quantum Mechanics and Atomic Physics, Nuclear and Particle Physics, Astrophysics and Cosmology.

A *tentative*, perhaps somewhat ambitious, syllabus is outlined in the Table ?? based on the chapters of the text book by Jones & Childers (JC). For example, "Ch.18/19" means Chapter-18 and -19 of JC, and "Week of .." refers to the Monday heralding the week. We will continually evaluate our progress and proclivity, and, if need be, deviate with intent from the following topics and time-table (see the following page).

Week-Number	Week of ...	Tuesday	Thursday
#1	9/Jan	10/Jan: Chap.16	12/Jan: Chap.16
#2	16/Jan	17/Jan: Chap.16	19/Jan: Chap.17
#3	23/Jan	24/Jan: Chap.17	26/Jan: Chap.17
#4	30/Jan	31/Jan: Chap.18	2/Feb: <u>1st. Test</u> <u>on Thr. (2.Feb.12)</u>
#5	6/Feb	7/Feb: Chap.18	9/Feb: Chap.18
#6	13/Feb	14/Feb: Chap.19	16/Feb: Chap.19
#7	20/Feb	21/Feb: Chap.19	23/Feb: Chap.19
#8	27/Feb	28/Feb: Chap.20	1/Mar: <u>2nd. Test</u> <u>on Thr. (1.Mar.12)</u>
#9	5/Mar	Spring Brk.	Spring Brk.
#10	12/Mar	13/Mar: Chap.20	15/Mar: Chap.20
#11	19/Mar	20/Mar: Chap.20	22/Mar: Chap.20
#12	26/Mar	27/Mar: Chap.22	29/Mar: Chap.22
#13	2/Apr	3/Apr: Chap.24	5/Apr: <u>3rd. Test</u> <u>on Th. (5.Apr.12)</u>
#14	9/Apr	10/Apr: Chap.24/25	12/Apr: Chap.25
#15	16/Apr	17/Apr: Last Week :)	19/Apr: Review :))=
<u>FINAL</u> <u>Note!!</u>	2/May/12 (Wed)	Final for Phys.202 Different Time/Day!!	9:00am at PSC-210

Table 1: Tentative Syllabus for the course Phys.202 in Spring, 2012: Chapters are from Jones & Childers. **NOTE:** The time (**9:00 am**) and day (**Wednesday**) of the Final are different from that of lectures (**T/Th 2pm**!)