SYLLABUS and REQUIREMENTS

PHYS6313 *Elementary Particle Physics*, Spring 2009
Prof. Xinchou Lou

Objectives of the Course
Students will acquire the essential knowledge and understanding of elementary particle physics, the kinematics of productions and decays of particles, hadron compositions, the Quark Model and the Standard Model, and particle collisions. Students will also study advanced topics in elementary particles including the current research with the BaBar experiment and the Atlas experiment at the Large Hadron Collider.

Physics 6313 Course Policy
(1) Class attendance is required for this course.
(2) Homework problems and reading material is assigned in class weekly.
(3) Each homework is due one week from the time it is assigned.

Reference Books
Introduction to Elementary Physics
David Griffths, ISBN-13 0-471-60386-4, Wiley-Vch. (required)

The Review of Particle Physics
C. Amsler *et al.*, Physics Letters **B667**, 1 (2008), (available online at http://pdg.lbl.gov/)

Course Content and Schedule
PHYS6313 is a one-semester course. Contents and class schedule is included next page.

The class web site is at
http://www.utdallas.edu/~xinchou/phys6313-Spring2009.htm.

Weekly Homework Assignments
Weekly homework problems are assigned each Friday and are due in one week. Full details and the instruction on these homework problems will be given at the class web site. Homework solutions (in the form of printed hardcopy) must be submitted to the instructor in person or placed inside the instructor's mail box in ECS2.518. No late homework submission will be permitted. After the due date homework problems will be reviewed in class or during review sessions.

Grades
The grade of the course will be based on weekly homework (85%) and end-of-semester presentations by students (15%).

Office Hours *(preliminary--subject to change)*
Friday 12:00 – 1:00 pm, other time by appointment only.
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