

## **Assignment Summary—Fall 2011 PHYS 596**

### **Graduate Physics Orientation**

**Instructor -- S. Lance Cooper**

**Group Journal Club Assignment (#1)** -- Each team will choose a short ( $\leq$  5 pages) paper intended for a general physics audience (e.g., from Science, Nature, Physical Review Letters, Physics Today, etc.), conduct appropriate research, then give a group oral (e.g., PowerPoint) presentation to the class on this paper. Each member of the team will also write referee reports on the paper.

**Group Scientific Paper Assignment (#2)** -- Each team will select a research topic on which to write for the semester. You will generate a detailed outline for the paper, and each team member will write one part of the paper. Each section should include references and at least one figure + figure caption. Include all major parts of a scientific paper—abstract, background and introduction, methods, results and conclusions, references, figures.

**Group Web-based Research Highlight Assignment (#3)** -- Using the research topic your team has identified, write a short summary appropriate for the typical Home Page highlight on the standard Physics Department Web site or for an article in a popular science journal. Your highlight should feature several images including equipment used, author pictures, results, schematic diagrams illustrating relevant physical processes, etc. You should investigate useful links and include them so readers can “learn more about it.” The main purpose of this assignment is to explain the science associated with your research topic at a level appropriate for non-expert readers. These web-based highlights will be posted on the Phys. 596 homepage.

**Group Scientific Poster Assignment (#4)** – Each team will use PowerPoint to create a scientific poster that conveys the essential elements of your team’s chosen research project. You will present this poster in a poster session during the last day of class.