Physics 499-150
A Topical Introduction to Atomic Molecular and Optical Physics
Fall 2010

Class Hours: Wednesday 1:00-1:50 PM and Thursday 2:00 -3:40 PM
Start date: September 8, 2010.
Room: 2250 Computer and Space Science Building

Instructor: Luis A. Orozco, Dept of Physics, CSS 2203, 5-9740, lorozco@umd.edu

Course Description:
This course is an introduction to Atomic Molecular and Optical Physics, with a topical emphasis on modern developments on the field, such as precision spectroscopy, trapping and cooling of atoms, ultra-cold gases, and frequency metrology.

Prerequisites:
First course of Quantum Mechanics PHY 401 or approval of the instructor.

Textbook: There will be no required textbook.

Course Objectives and expected outcomes:
The purpose of this course is to expose students to aspects of modern research in Atomic Molecular and Optical Physics.– it is not to be a complete survey of either field, but will instead cover selected topics and methods. The format will be lecture-based, with some homework and practice in reading, evaluating and writing scientific papers, and emphasis on design of precision measurements and null tests.

Grading Scheme:
Writing assignments and oral presentations: 60%
Class participation: 40%