SYLLABUS, PHYSICS 370
Instructor: R. Armstrong, GN 251, 646-4308, roarmstr@nmsu.edu
Office Hours: TuTh 1000-1200 or by appointment
Time and place: 1030-1100, MW, GN 216
Summary: This course develops geometrical optics as a tool in the analysis of optical imaging systems. Basic principles are discussed, followed by applications to a variety of optical systems, ending with elements of optical design.

Classes, examinations, topics covered, homework, reading tests:
Jan 14, 1.1,2,3,
Jan 19, Martin Luther King Holiday
Jan 21, 1.4,5, CH1 P, CH1.2 RT, out
Jan 26, 2.1,2,3, CH1.2 RT due
Jan 28, 2.4,5,6, CH1 P due
Feb 2, 2.7,8 CH2 P, CH3 RT out
Feb 4, 3.1,2, CH3 RT due
Feb 9, 3.3,4, CH2 P due
Feb 11, 3.5,6 CH3 P, CH4 RT out
Feb 16, 4.1,2,3, CH4 RT due
Feb 18, **Test 1, CH3 P due**
Feb 23, 4.4,5,6,
Feb 25, 4.7,8 CH4 P, CH5 RT out
Mar 1, 5.1,2, CH 5 RT due
Mar 3, 5.3,4, CH 4 P due
Mar 8, 5.5,6 CH5 P, CH6 RT out
Mar 10, 6.1,1,2,3, CH6 RT due,
Mar 15, 6.1,4,5,6.2,1,2, CH 5 P due
Mar 17,6.2,3,4,5 CH6 P, CH7 RT out
Mar 22, Spring Break
Mar 24, Spring Break
Mar 29, 7.1,2, CH 7 RT due, CH 6 P due
Mar 31, **Test 2**
Apr 5, 7.3,4
Apr 7, 7.5,6,7 CH7 P, CH8 RT out
Apr 12, 8.1, CH8 RT due
Apr 14, 8.2,3, CH7 P due
Apr 19, 8.4,5 CH8 P, CH9 RT out
Apr 21, 9.1,2, CH9 RT due
Apr 26, 9.3,4, CH8 P due
Apr 28, 9.5 CH9 P, CH10 RT out
May 3, 10.1, CH10 RT due
May 5, 10.2,3 CH9 P due, CH10 P out
May 10, **Final Exam, 1030-1230 CH10 P due**

Key: P (chapter problems) and RT (reading test on following chapter) turned out on final lecture of chapter; P due 1 week after turned out; RT due day following chapter starts.
Concept Exercises: At least once each lecture a conceptual question will be turned out for individual or group consideration (student’s choice) followed by instructor input.

Grading: Grades will be earned according to the following schedule: 60 points for tests (3 tests, 20 points /test); 30 points for homework (10 assignments, 3 points/assignment); 10 points for reading tests (10 tests, 1 point/assignment). At any time during the semester you can determine your numerical score out of 100. Since I will give you the average scores for the tests and homework, you can estimate your letter grade.

Course Philosophy: You are encouraged to discuss course materials with your fellow students or with me during in-class conceptual questions; during lectures, questions or comments are encouraged and welcomed. You are encouraged to discuss homework assignments with your fellow students or with me (before and after you turn them in). Tests are open-book but work should be yours alone.