

GEORGIA INSTITUTE OF TECHNOLOGY  
School of Physics

PHYS-3226-A : Modern Optics Lab

**General Information**

**Instructor**

Prof. Michael Chapman  
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**Office**

Physics, N010

**Phone**

404-894-5223

**Schedule**

Lab            Mon. & Wed. 3:05-4:55 pm    S-202, Howey Physics

**Recommended Textbook:**

Hecht, Schaum's Outlines in Optics, (McGraw Hill, 1975)  
Fowles, "Introduction to Modern Optics," 2<sup>nd</sup> edition, (Dover, 1975)  
Steck, "Classical and Modern Optics" (you can download this from  
<http://atomoptics.uoregon.edu/~dsteck/teaching/optics/>).

**Other Recommended Books**

Hecht, "Optics," 4<sup>th</sup> edition (Addison Wesley, 2002)  
Pedrotti, Pedrotti, and Pedrotti, "Introduction to Optics," 3<sup>rd</sup> edition (Pearson  
Prentice-Hall, 2007)  
Meschede, "Optics, Light and Lasers," 2<sup>nd</sup> edition, (Wiley-VCH, 2007)  
Google and Wikipedia. O.k., they're not books, but they are very useful and  
they're free.

**Exams**

There will be no midterm or final exam.

**Attendance policy**

Attendance for all lab sessions is required and very important. Unexcused absences will reduce your grade by ½ a letter grade for each occurrence. If you need to miss a lab due to illness or other reason, e-mail me in advance. You will be responsible for scheduling a make-up session for missed labs.

**Labs**

There will be ~10-12 labs this semester covering the topics of laser beam measurement, lens systems, diffraction, interference, optical cavities, optical spectrum analyzers and polarization.

**Lab reports and Grades**

Grades will be determined by the successful completion of the lab work together with the lab reports that you will submit for each completed lab.