Class times: MWF 9:00-9:50 Location: 318 WIL

Instructor: Miriam Deutsch  
Office: 275 WIL  Tel: 6-5973  
Email: miriamd@darkwing  
Office hours: 10-11 am Monday and Friday. You may also drop in whenever you are free, or make an appointment.

TA: Lan Sun  
Email: lsun1@darkwing  Other contact information: TBA.

Course text: Optics and Photonics, Graham Smith and King (Wiley, 2000).

Other recommended texts: 
Principles of Optics, Born and Wolf.  
Optical Electronics, Yariv.  
Fundamentals of Photonics, Saleh and Teich.  
Modern Optics, Guenther.  
Optics, Hecht.

Course outline:

Geometrical optics  
* Basic postulates  
* Simple optical components  
* Guided light  
* Matrix optics  
* Aberrations

Wave optics  
* Maxwell’s equations  
* Electromagnetic waves  
* Gaussian beams  
* Reflection and transmission of light

Polarization of light  
* Fundamentals of polarization  
* Polarizers  
* Optics of anisotropic media
Classroom Office

Fall 2003

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Fall 2003

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Fall 2003
Interference

* Basic principles of interference
* Thin film interference
* Multiple beam interference
* Interferometers

Homework

Homework will be assigned weekly. I will assign the problems each Wednesday and will usually collect them on Wednesday of the following week. There will be nine (or \( n \)) problem sets. Only the eight (or \( n - 1 \)) with the highest grade will count towards your final grade. You should always make an effort to submit your assignments on time. Homework submitted late will be judged on a case-by-case basis.

Grade determination

Homework – 35%
Midterm – 20%
Final – 45%