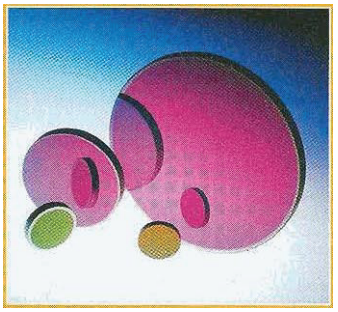
Undergraduate Elective Course

ECE 4500

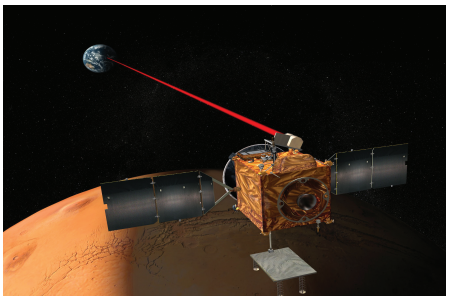
OPTICAL ENGINEERING

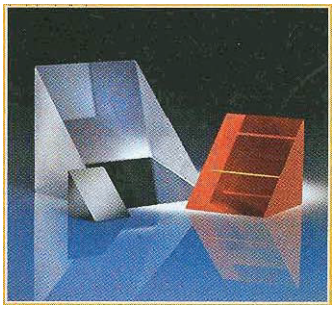
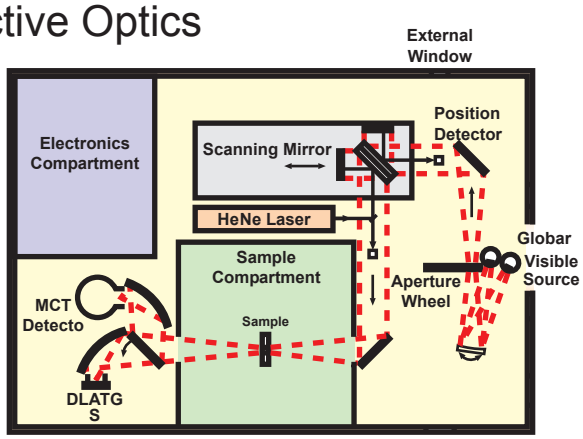
The objective of this course is to provide a working knowledge of optics and optical components as applied to modern engineering systems.



Text: Class notes.
Supplemented byF. L. Pedrotti, L. S. Pedrotti, and L. S. Pedrotti, Introduction to Optics, Third Edition, Prentice Hall, 2007. .

Instructor: Prof. Thomas K. Gaylord



SUMMARY OUTLINE

- Modern Optical/Optoelectronic Systems
- Light Sources and Light Measurement
- Geometrical Optics and Optical Imaging
- Close-Up Imaging
- Refractive/Diffractive Photographic Lenses
- Aberrations in Optical Systems
- Electromagnetic Optics
- Waveguide Optics
- Wave Optics, Diffractive Optics
- Fourier Optics