Optics 513L - Optical Testing Lab

OPTI 513L. Optical Testing Laboratory (1). Measurement of paraxial properties of optical components, refractive index, surface figure, and surface finish.

Course Outline (3-hour laboratory experiments)

1) Orientation Lab
2) Measurement of Paraxial Parameters
3) Refractive Index Measurement
4) Fizeau Interferometer and Spherometer
5) Twyman-Green Interferometer
6) Interference Microscopes
7) Foucault, Wire, Ronchi, and Star Tests
8) Shack-Hartmann Test and Smartt Point-Diffraction Interferometer
9) Scatterplate Interferometry
10) Lateral Shearing Interferometry
11) Laser Based Fizeau Interferometer
12) Moiré Interferometry

Lab Report due at end of semester

Grades:
30% Lab report
70% Lab book