

Fall 2016

Optics I. Theory

CPHY-62250/72250

- Lecture times:** T, Th 3:20 – 4:25
- Room:** LCM 107
- Text:** class notes
Saleh & Teich: *Fundamentals of Photonics*
Guenther: *Modern Optics*
- Electronic Resources:** <http://mpalffy.lci.kent.edu/optics>
- Instructor:** Peter Palffy-Muhoray
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672-2604
mpalffy@kent.edu
- Topics to be covered:** topics in optics and photonics which are relevant to the field of liquid crystals, including:
- ray/wave/beam optics
 - Maxwell's equations
 - Fresnel reflection & refraction
 - light propagation in uniaxial crystals
 - Gaussian beams
 - light sources and detectors
- Evaluation:** There will be two mid-term exams and one final exam. The final grade will be computed from grades on the mid-terms (20% each) take home assignments (30%), the final examination (25%) and instructor evaluation of performance during the course (5%).