

Information about ASTM16: “Applied Optics”

Teaching material: Eugene Hecht: Optics (fourth edition Addison Wesley) plus notes.
 Standard times: Tuesday & Friday 15.15 to 17.00 (2009). Note vacancies and [Thursday May 07](#)
 Place: Cassiopeia

Preliminary Plan for Spring 2009

Date	Activity	Main Subject	Book
Tue. 14 Apr.	Lecture 1	History & nature of light: Waves – Particles?	Ch. 1 (pp. 1-10)
Tue. 28 Apr	Lecture 2	Wave superposition (phase & group velocity). Fourier analysis	Ch. 7 (pp. 281-324)
Tue. 05 May	Lecture 3	-/-	-/-
Thu. 07 May	Lecture 4	Interference (basics, examples) & Coherence (spatial, temporal)	Ch 12 & 9 (pp 560-581 & 385-416)
Tue. 12 May	Lecture 5	-/-	-/-
Fri. 15 May	Lecture 6	Interference (multi-beam) & Diffraction (basics)	Ch 9 & 10 (pp 416-443 & 443-457)
Tue. 19 May	Lecture 7	-/-	-/-
Tue. 26 May	Lecture 8	Diffraction (examples)	Ch 10 (pp 457-519)
Fri. 29 May	Lecture 9	-/-	-/-
Tue. 02 June	Lecture 10	Fourier optics. Coherent & incoherent imaging. Spatial filtering	Ch 11 & 13 (pp 519-560 & 603-623)
Fri. 05 June	Lecture 11	-/-	-/-
Tue. 09 June	Lecture 12	Holography. Non linear optics	Ch 13 (pp 623-649)
Fri. 12 June	Project Presentation	Pick your choice	Search the web and other sources!

Problems will be handed out at lectures or may be picked up in room B244
 Solutions **MUST** be handed in a week later as part of the course.

Examination: 5-10 pages on an individual subject plus 20 min. talk. Subjects may be proposed by you or picked from list distributed by teacher.