

OPTI 396H- Honors Special Topics Seminar

Course Description:

An Honors special topics seminar course for Honors Active juniors and seniors. Course includes small group discussion, research, and presentations on a variety of optical sciences related special topics of interest. Current research, relevant issues, historical perspectives and guest speakers may be included. Honors sophomores may enroll with consent of the department.

Textbooks:

- Adams, James L. (2001). *Conceptual Blockbusting* (4th ed.). Basic Books. ISBN 978-0738205373
- Hobbs, Philip C.D. (2007). *Building Electro-Optical Systems: Making It all Work*. Wiley. ISBN 978-0470402290

Special Materials

Professor Herman Gordon's web pages for CMM 479/579 [Art of Scientific Discovery](#).

Grading Policy:

Attendance & Participation: Discussion and exchange of ideas is the primary component of this class. Students are expected to attend all classes and participate in discussion. (40% of final grade)

Facilitation: Each student will summarize the reading and facilitate the discussion at least once per semester (20% of final grade)

Interview and Presentation: Students will interview an inventor/patent holder and present an oral and written report of the inventor's discovery process and analysis of such process. (20% of final grade)

Question/Problem Presentation: Students will present a technical problem which is of most interest to solving and a plan for its solution. (20% of final grade)

Grades will depend on the class score statistics. Nominally, the following range will be used to assign grades:

100-90=A,S | 89-80=B,P | 79-70=C | 69-60=D | 59-0=E

Objectives

The course will encourage you to reflect on problem solving skills and innovative thinking with real/practical application in designing optical systems and inventions/ discoveries in general. We'll have guest speakers share some of their "aha" moments and how they got there.