

Optics, TTVN, Spring '11

Dr. David Craig, WTAMU

January 13, 2011

1 Meeting times and location

This a TTVN course transmitted from WTAMU on MWF at 11–1:50 AM CST. For the local students the classroom will be HLC 56 (basement of the library.)

2 Contact and TTVN transmission information

My email is dcraig@wtamu.edu and I can accept PDFs, Word files, and most graphics formats produced by scanners if you do your work on paper and scan it. I prefer PDF files.

Because of the need to allow remote students access, the WTAMU Angel system (wtclass) will only be used for reporting final grades. There will be a link to course materials at <http://homedirs.wtamu.edu/~dcraig/>.

3 Course requirements

Completion of the introductory calculus-based physics sequence, including differential and integral calculus.

4 Objectives

We will cover chapters 1–10 of Hecht's *Optics*, 4th edition. This will give a general introduction to physical and geometrical optics with an emphasis on physical optics and wave propagation. Some modern aspects of optics, such as quantum optics, will also be introduced.

5 Evaluation (Grading)

5.1 Homework

Problems (mostly from the text) will be assigned as practice for the tests and as topics to be discussed actively in class. You will be free to discuss and work

together on these, when you turn them in, please note who worked with you. I will usually post solutions to these.

5.2 Formal exams

There will be two exams and a final. The exams will be mostly open-book, take-home format with students on the honor system for *individual* work. I also may include an in-class part. They may include questions from the text or other sources. Questions about the test problems should be directed to the instructor during TTVN sessions or via e-mail.

The tentative due dates for the exams are

Chapters 1–4 Friday, Feb. 13

Chapters 5–7(?) Friday, Mar 13

Final Around April 28 or so (end of WT's term).

5.3 Item breakdown

| | |
|-------------|---------------------|
| Tests | 50% total |
| Homework: | 30% |
| Final Exam: | 20% (Comprehensive) |

Grade scale: 90–100% A, 89–80% B, 79–70% C, 69–60% D, below 60%: F.

If you have unexpected severe personal problems late in the term and request an incomplete, please do so in writing. If it is granted, we will need to fill out a contract together.

6 University Policies

The following policies also apply to this course:

6.1 Academic Integrity

All work must be completed individually unless otherwise stated. Commission of any of the following acts shall constitute scholastic dishonesty: acquiring or providing information for any assigned work or examination from any unauthorized source; informing any person or persons of the contents of any examination prior to the time the exam is given in any subsequent sections of the course or as a makeup; plagiarism; submission of a paper or project that is substantially the same for two courses unless expressly authorized by the instructor to do so. For more information, see the Student Code of Life at <http://www.wtamu.edu/administrative/ss/code/appendix3.htm>

6.2 Acceptable Student Behavior

Classroom behavior should not interfere with the instructor's ability to conduct the class or the ability of other students to learn from the instructional program (Code of Student Life). Unacceptable or disruptive behavior will not be tolerated. Students engaging in unacceptable behavior may be instructed to leave the classroom. Inappropriate behavior may result in disciplinary action or referral to the University's Behavioral Intervention Team. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc.

6.3 ADA statement:

West Texas A& M University seeks to provide reasonable accommodations for all qualified persons with disabilities. This University will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to register with Disability Support Services and to contact the faculty member in a timely fashion to arrange for suitable accommodations.

6.4 Evacuation

If you receive notice to evacuate the building, please evacuate promptly but in an orderly manner. Evacuation routes are posted in various locations indicating all exits, outside assembly area, location of fire extinguishers, fire alarm pull stations and emergency telephone numbers (651-5000 or 911). In the event an evacuation is necessary: evacuate immediately; do not use elevators; take all personal belongings with you; report to outside assembly area and wait for further information; students needing assistance in the evacuation process should bring this to the attention of the instructor at the beginning of the semester.

6.5 Chemical and Equipment Safety

Safety is everyone's responsibility. Material Safety Data Sheets (MSDSs) are provided for all chemicals used in this class. MSDSs provide information about physical properties, health risks, fire explosion data, and other important information associated with these chemicals. Before handling or using a chemical, you should refer to the MSDS for that chemical. It is your responsibility to inform the instructor in writing of any health conditions that may prevent you from safely using a chemical (pregnancy, auto immune deficiency, etc.). It is also the responsibility of the student to report any spill or problems found while storing or using a chemical. If you are unsure about a chemical, always ask. If you see any unsafe condition, notify your instructor immediately. If you are unsure about the proper and safe operation of any piece of equipment, ask

your instructor for proper instruction. All injuries, spill of materials and unsafe conditions must be reported to the instructor immediately.