OPTI 512R Overview

OPTI 512R is an engineering course that is designed to introduce concepts in Linear System theory and Fourier Optics. The goal of the class is to provide understanding of the mathematics behind linear systems and Fourier transforms and be able to apply these skills to a wide variety of applications in optics including wave propagation and image quality assessment.

Instructor
Jim Schwiegerling
(jschwieg@u.arizona.edu)
(520) 621-8688

Course Web Site
https://wp.optics.arizona.edu/visualopticslab/opti-512r-linear-systems-fourier-transforms/

Tests

Midterm	October 14, 2020, 24-hour take home
Final Exam	Between December 11-17, 2020, 24-hour take home exam

Grading

Homeworks	30% (8-10 homeworks)
Midterm	35%
Final Exam	35%

Homework grades will be decreased by 10% for each day they are late.

Teaching Assistants
Jingwei Zhao zjw2213@email.arizona.edu
Chiao Huang chiaohuang@email.arizona.edu

Office Hours: No specific office hours. Coordinate with the TA and the instructor through email to arrange meeting times to answer questions regarding the course material.

Suggested Texts
Tyo, JS, Alenin A. Field Guide to Linear Systems in Optics. SPIE Press. 2015.

Gaskill, Jack D. Linear Systems, Fourier Transforms, and Optics. Wiley Interscience 1978.

Goodman, Joseph W. Introduction to Fourier Optics. 4th ed. Freeman & Company. 2017.