

EECE 4510/5510 – Digital Signal Processing Fred J. Frigo, Ph.D.

Fall 2018

Summary:

Introduction to the theory and practice of discrete-time signals and systems. Concepts covered include: Fourier Transforms, Z-transforms, linear time invariant system analysis in the time and frequency domains, sampling theory and Discrete Fourier Transforms. Application of these concepts includes: digital filter design techniques and the use of Fast Fourier Transforms for efficient frequency domain analysis. Labs and design projects related to specific signal processing applications are used to illustrate the material, including topics such as audio and image processing.

Location & Schedule:

Class meets Mondays & Wednesdays: 5:30pm-6:45pm

Haggerty Engineering Hall - Room Olin 120

Midterm Exam: Wednesday, October 17, 2018

Final Exam: Wednesday, December 12, 2018 5:45pm-7:45pm

No class – Labor Day – Monday, September 3, 2018

No class – Thanksgiving Break – Wednesday, November 21, 2018

Grading:

Homework and Projects: 60%

Mid-term exam: 20% Final exam: 20%

Required Text:

Discrete-Time Signal Processing, 3rd Edition By Alan V. Oppenheim and Ronald W. Schafer

ISBN-10: 0-13-198842-5 ISBN-13: 978-0-13-198842-2 Published by Prentice Hall © 2010

Office Hours:

By appointment – Haggerty Hall – Room 215

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