

Course Information

Instructors:	Chandra Radhakrishnan	Peter Kairouz
Email:	cradhak@illinois.edu	kairouz2@illinois.edu
Office Hours:	T: 10:00 AM - 12:00 PM	R: 10:00 AM - 12:00 PM
Office:	120 CSL	119 CSL

Lecture: T, 5:00 PM - 6:00 PM
EH 106B6

Web: <http://courses.engr.illinois.edu/ece311/>

Textbook

- Optional: Buck, Daniel, Singer, Computer Explorations in Signals and Systems Using MATLAB, Prentice Hall, 2nd Ed., 2001.

Pre/Co-requisites

- Prerequisite: ECE 210 (Analog Signal Processing)
- Pre/co-requisite: ECE 310 (Digital Signal Processing I)

Course Schedule

- Lab 1: Introduction to Matlab
- Lab 2: DTFT, DFT, DFT Spectral Analysis
- Lab 3: Sampling, A/D Conversion, LSI Systems, Convolution and Impulse Responses, Difference Equations
- Lab 4: Z-transforms, Pole-Zero Diagrams, BIBO Stability, Quantization Effects
- Lab 5: Frequency Response of Discrete Time Systems
- Lab 6: FIR Filter Design
- Lab 7: IIR Filter Design
- Lab 8: Multi-Rate Signal Processing
- Take home final exam: FFT, Fast Convolution, and a mix of the above

Grading

Lab Reports (8)	80%
Take Home Final Exam	20%
Total	100%

- Late lab reports will reduce the grade by 20% per day
- A lab assignment will be posted after each lecture and it will be due one week later
- There will be a 24 hours take home final exam in a form of lab assignment