

ECE 438 Digital Signal Processing

Week 7: Discrete Fourier Transform and Fast Fourier Transform Algorithms (lab 6a)

Date _____

Section ____

Name	Sign	Time spent outside lab
[%]		
[%]		

Grading Rubric (Spring 2020)

	below expectations	lacks in some respect	meets all expectations
Completeness of the report			
Organization of the report <i>One-sided, with cover sheet, answers are in the same order as questions in the lab, copies of the questions</i>			
Quality of figures <i>Correctly labeled with title, x-axis, y-axis, and name(s)</i>			
Understanding the effects of truncating the signal on its DTFT (20 pts) <i>Magnitude and phase plots, hamming/rect windows, questions</i>			
Implementation of DFT and inverse DFT (40 pts) <i>Matlab codes, frequency and time-domain plots, analytical expressions</i>			
Implementation of DFT and IDFT using matrix multiplication (30 pts) <i>Matrices A,B,C, matlab codes, plots, questions</i>			
Computation time comparison (10 pts) <i>Runtimes, questions</i>			