

**ECE113, Winter 2023**

Digital Signal Processing

University of California, Los Angeles; Department of ECE

**Homework #7**

Prof. A. Kadambi

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Due Friday, 24 March 2023, by 11:59pm to Gradescope.

+20 extra-credit points total.

**Submission instructions:** Generate a .pdf file of the jupyter notebook. Make sure all your answers and graphs are clearly visible. Submit it to the assignment called HW7 on Gradescope

**1. (20 E.C. points) Z-transform and Digital Filters: Programming Assignment**

Coding Assignment Instructions:

- (a) Find the hw7\_coding.zip file on BruinLearn. Download and unzip it.
- (b) The zip contains several files. You will only be editing "hw7.ipynb".
- (c) Make sure you only make changes in the code where specifically asked of you by Python comments.
- (d) In addition to code, the assignment has 9 questions written in markdown for you to answer within the notebook.