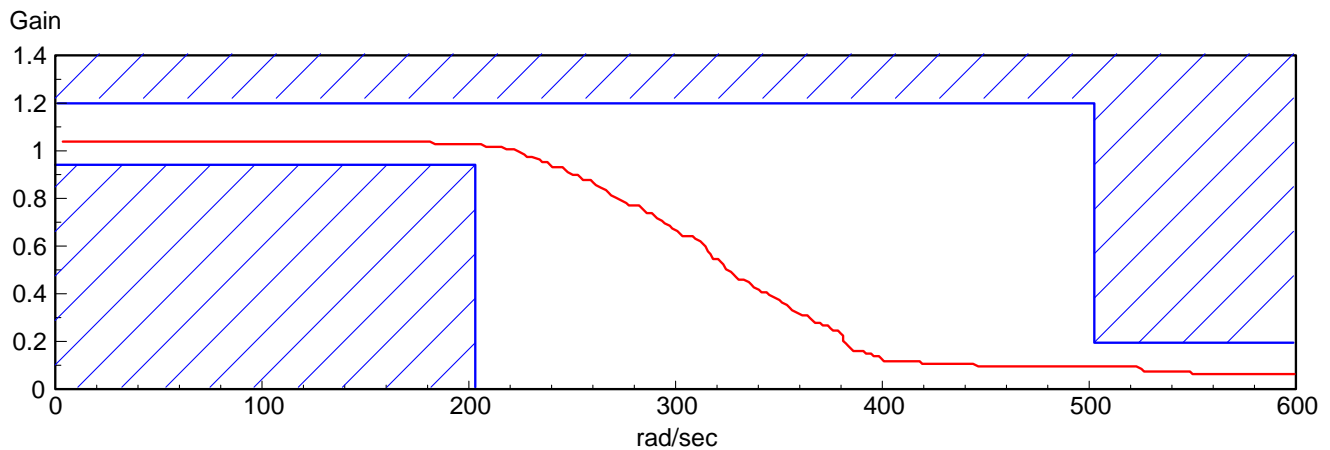# ECE 321 - Homework #3

Filter Design. Due Monday, April 18th

Design a filter where the gain is:

- Gain < 1.2   all frequencies
- Gain > 0.9   w < 200
- Gain < 0.2   w > 500

1) Give the transfer function for a filter which meets the above design specifications.

2) Plot the gain vs. frequency for your filter.

3) Design a circuit to implement the filter you designed.

321 Term Project

4) Specify the overall requirements for your term project. For ECE 321, the device must have

- An analog input (can take on many values)
- Analog output (can take on many values)
- At least two sections

5) Project Breakdown: Specify two sections for your term project. For each section, specify

- Input
- Output
- Relationship (what the circuit does)

Note that the sections should allow you to demonstrate your knowledge of ECE 321 material