



# MEEG 311 – Lecture 24

## Vibration and Control

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### **Goals:**

- Frequency response interpretation:
  - Definition of bandwidth
  - Amplification, passing, and attenuation frequency bands
- Example: System with one real (stable) pole
  - Break frequency
  - Low frequency asymptote (gain = 1 or 0dB, “passing region”)
  - High frequency asymptote (“attenuation region”)
- Conclusions from example:
  - Moving the pole further to the left on the negative real axis results in moving the break frequency to larger values (both cases correspond to faster system)
  - Increasing the gain results in shifting the magnitude plot up, pushing the crossover frequency to larger values