

# Lab 6

EEET-332-01: Systems, Signals, and Transforms Lab

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## 1 Section 1

$$|H|^2 = \frac{1}{1 + (\frac{\omega}{\omega_{CO}})^{2n}}$$

$$|H|^2 = \frac{1}{1 + (1.5)^{2n}}$$

$$20 \log(|H|) = -10dB$$

$$|H| = 0.316227$$

$$|H|^2 = 0.1$$

$$0.1 = \frac{1}{1 + (1.5)^{2n}}$$

$$0.1 + (0.1)(1.5)^{2n} = 1$$

$$1.5^{2n} = 9$$

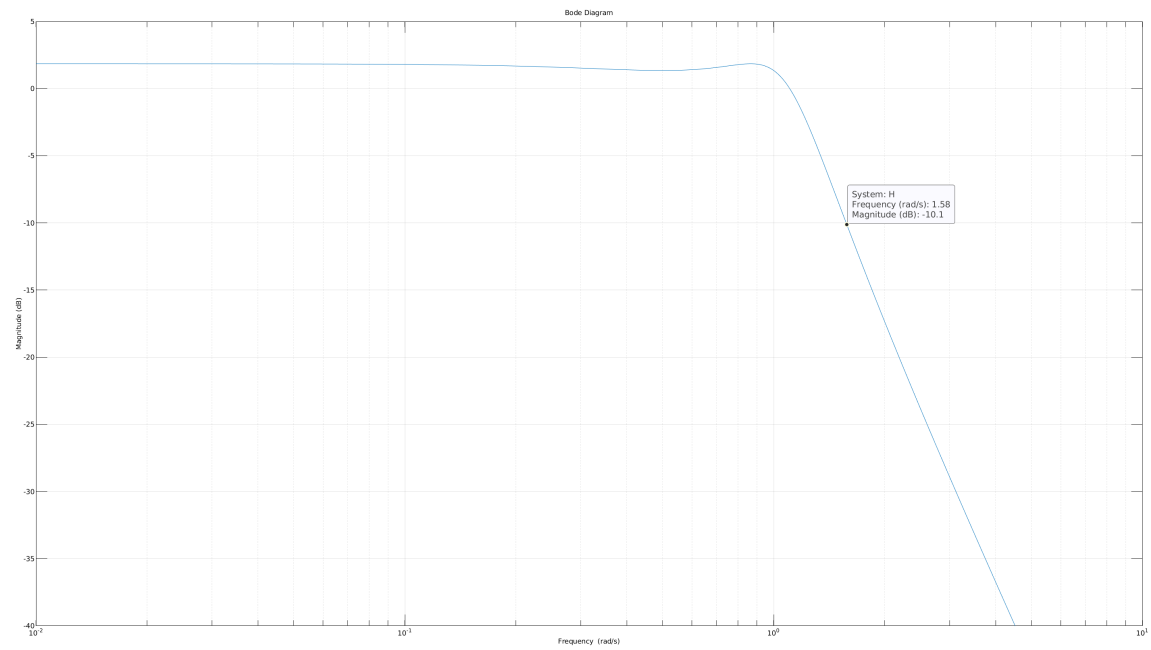
$$2n = \log_{1.5}(9)$$

$$n = 2.709$$

$$n = 3$$

(1)

## 2 Section 3



## 3 Section 5

