



- C. RC coupled amplifier analysis
  - D. Bode plots
  - E. Miller effect
  - F. Gain-bandwidth product
  - G. DC amplifiers
  - H. Amplifier pairs: Darlington and emitter-coupled amplifiers
- III. Feedback Circuits
- A. Principles of feedback
  - B. Effects of feedback: noise, gain, frequency response, impedance
  - C. Types of feedback: voltage, and current.
  - D. Single stage voltage feedback
  - E. Negative feedback
- V. Sinusoidal Feedback Oscillators
- A. General operating criteria
  - B. Phase shift oscillators
  - C. Wien bridge oscillators
  - D. Crystal-controlled oscillators
  - E. Maximum frequency oscillators
- VI. Special Function ICs
- A. 555 timer
  - B. LM 317 voltage regulator
  - C. LM 318 Operational amplifier
  - D. LM 566 Voltage controlled oscillator
  - E. LM 565 Phase locked loop
- VII. Filter Circuits
- A. Passive
  - B. Active
- VIII. Operations Amplifiers
- A. Op amp operation
  - B. Differential amplifier
  - C. Inverting amplifier
  - D. Non-inverting amplifier
- IX. Voltage Regulators
- A. Voltage regulator concepts
  - B. Series voltage regulator
  - C. Shunt voltage regulator
  - D. IC voltage regulator
- X. Amplifier Frequency Response

- A. Gain and frequency measurements
- B. Low- and high-frequency response
- C. Op amp frequency response
- D. Multistage amplifiers

**REQUIRED TEXTBOOKS AND MATERIALS:**

Paynter, Robert. Introductory Electronic Devices and Circuits, Prentice Hall.

Paynter, Robert. Lab Manual for Introductory Electronic Devices and Circuits, Prentice Hall.

**STATEMENT FOR STUDENTS WITH DISABILITIES:**

Uvwfgpvu"yjq"tgs wktg"cecfgoke"ceeq o o qfcvkqpu"fwg"vq"cp{"rj{ukecn."ru{ejqni kecn."qt"ngctpkpi"  
fkucdkkv{"ctg"gpewtci gf"vq"tgs wguv"cuukvcpegkq# "c"flcdkkv{"ugt xkegufeqwplq"nqt"ykvjk"vj@ f