EEE 4361 – Electronics 2

Credits: 3 credits

Text book, title, author, and year: Sedra and Smith, " ", Sixth Edition, Oxford University Press, 2010

a. **Supplemental materials:** none.

Specific course information

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Specific outcomes of instruction: By the end of the course students will be able to: (i) understand both the theory and applications of Differential Amplifiers; (ii) Power Amplifiers; (iii) High-Frequency Response of Transistor Amplifiers; (iv) Feedback in Electronic Amplifiers ; (v) Analysis, Design and applications involving the 555 Timer; (vi) Electronic applications covered in Laboratory 2

o be covered:

be able to analyze and design current mirror DC current sources.
understand the use of current sources for transistor biasing and

be able to design multi-stage transistor amplifier (an op-amp) to meet CMRR and input resistance specifications.

4. The student will understand the properties and design of the three basic BJT amplifier configurations - CE, CB and CC.
5.

skills such as multi-runs for parametric sweep, Monte-Carlo Simulation and Worst Case Analysis, use of ABM components and editing of EVAL and Breakout Components.

14. The student will understand Design Tradeoffs: Gain vs. Input Resistance vs. Bandwidth vs. Swing. 7