ENS 203 Electronic Circuits I

Fall 2022-2023

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Catalog Data: ENS 203 Electronic Circuits I (3 cr.) Prerequisites: MATH 102. Passive components, basic circuit analysis, first order circuits, transient and steady state analysis, second order RLC circuits, resonance, amplifier fundamentals, operational amplifiers, introduction to diodes and transistors.

Textbook:

- Allan R. Hambley, *Electrical Engineering: Principles & Applications, 7th Edition*, Pearson, 2018.

Computer Usage: Circuit simulation using LTspice®.

Course Objective: Learn and apply principles of circuit theory to the analysis and design of basic electronic circuits.

Weekly Schedule:

01	03/10–07/10	1. Introduction	1.1–1.7
02	10/10–14/10	2. Resistive Circuits	2.1–2.4
03	17/10–21/10	2. Resistive Circuits (cont'd)	2.5–2.8
04	24/10–28/10	2. Resistive Circuits (cont'd)	2.5–2.8
05	31/10–04/11	3. Inductance and Capacitance	3.1–3.5
06	07/11–11/11	4. Transients	4.1–4.4
07	14/11–18/11	5. SS Sinusoidal Analysis	5.1–5.6
08	21/11–25/11	5. SS Sinusoidal Analysis	5.1–5.6
09	28/11–02/12	6. Freq. Response	6.1–6.3
10	05/12–09/12	6. Freq. Response	6.1–6.3
11	12/12–16/12	9. Diodes	9.1–9.5
12	19/12–23/12	10. Amplifiers	10.1–10.3
13	26/12–30/12	13. Operational Amplifiers	13.1–13.5
14	02/01–06/01	13. Operational Amplifiers	13.1–13.5

General Rules

- Homework and simulation assignments are weekly announced.
- Submission deadlines and exams are never postponed.
- Cheating and late submissions are severely penalized.
- Two midterms, one final exam. Dates TBA.
- Makeups to be held week following missed exam.
- Official medical report required to attend a make-up.
- Students required to get at least 25/100 from the final exam to pass ENS203.

Grading: Midterms 50% (25% each); Homework & Assignments 20%, Final 30%.