



STARK STATE COLLEGE

GENERAL SYLLABUS

Course Information

Course Name: AC Circuit Analysis
Course Number: EET122

Required Materials

Textbook(s): Introductory Circuit Analysis – Boylestad, 13th ed, ISBN 978-0-13-392360-5, Laboratory Manual to Accompany Introductory Circuit Analysis 13th, Ed. 978-0-13-392378-0

Required Readings: None

Additional Materials: Slides, video links and other materials through LMS system

Course Outline/Calendar

The date of coverage and order of coverage may be modified based on the faculty member and events beyond the control of faculty members that interfere with class times and teaching.

Week	Chapter/Topic/Lab
1	Chapter 13-Overview/DC Circuits Review/AC Intro, Lab1: Complex Math/Phasors
2	Chapter 13-Sinewaves-Average/RMS/Phasors
3	Chapter 14-Phasors, Ohm's Law, Reactance, Oscilloscope
4	Chapter 15-Reactance/Series AC Circuits, Lab4: RLC (passive) Components/Reactance
5	Chapters 16/17-Parallel AC Circuits/Series-Parallel, Exam I
6	Chapters 16/17-Lab 5: Frequency Response/Reactance, Lab 6: RL-Frequency Response
7	Chapter 18-Mesh/Nodal, Delta-to-Y, Bridge, Lab 8: Phase Measurements
8	Chapter 19-Network Theorems: Thevenin's/super/max power, Lab 11: Series-Parallel Sinusoidal Circuits
9	Chapter 20-Review/AC Power, Exam II
10	Chapter 20-AC Power: Reactive, Apparent, Real, Power Factor, Lab 13: Thevenin's/Max Power
11	Chapters 21&22-Resonance/Bode/Decibels/Filters, Lab 14:Series Resonant
12	Chapters 21&22-Lab 17: Passive Filters, Chapter 23-Transformers (ideal)
13	Chapter 23-Transformers (auto, tapped, real (lossy)/nameplate), Lab 19: Transformers
14	Exam III, Chapter 24-Polyphase (3-phase)
15	Chapters 25 & 26-Pulse/Non-Sinusoidal, Lab21: Balanced Three Phase
16	Final Exam