Catalog Data: ECE 212L Circuit Analysis and Design Lab (0-3-1) (F,S). Lab work to accompany ECE 212 Circuit Analysis and Design. COREQ: ECE 212.

Textbook: None.

Goal: The goal of this laboratory course is to introduce the students to modern instrumentation, proven laboratory practice, and safety in the analysis, simulation, design, testing, and troubleshooting of electric circuits.

Course Coordinator:
Instructor: Dr. Said Ahmed-Zaid, Email: sahmedzaid@boisestate.edu
Office: Room MEC 202H, Phone: (208) 426-4073, Fax: (208) 426-2470
Office Hours: Tu-Th 9:00 a.m. – 10:30 a.m., Fr 10:00 a.m. - Noon. Other hours by appointment.
Classroom: We 4:30 p.m. – 7:15 p.m. in RUCH 337.

Prerequisites by Topic:
1. Basic Circuit Analysis (ECE 210 or ENGR 240)

Topics:
01/15: Lab Orientation
01/22: Experiment #1: Waveform Measurements
01/29: Experiment #2: Sinusoidal Steady State and Resonant Circuits
02/05: Experiment #3: Impedance Measurements
02/12: Lab Practical #1
02/19: Experiment #4: Power Factor Correction
02/26: Experiment #5: Three-Phase AC Power Measurements
03/04: Experiment #6: Transformers, Mutual Inductance, and Coupled Coils
03/11: Experiment #7: Basics of Operational Amplifiers
03/18: Experiment #8: The Integrating and Differentiating Op-Amp Circuits
03/25: Spring Break
04/01: Experiment #9: First and Second-Order Circuit Transients
04/08: Experiment #10: Frequency Response Measurements
04/15: Experiment #11: Active Filter Design
04/22: Experiment #11: Active Filter Design (Continued)

04/29: Lab Practical #2

Grading Policy

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<tr>
<td>Prelabs</td>
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<tr>
<td>Lab Reports</td>
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Academic Dishonesty:

Students are required to abide by the Student Code of Conduct at Boise State University at: https://www.boisestate.edu/deanofstudents/student-conduct/