BIRZEIT UNIVERSITY

Faculty of Engineering and Technology

Department of Electrical and Computer Engineering

Second Semester 2024 – 2025

Course Information	
Course Title and Number	Electric Circuits Lab (ENEE2110)
Prerequisites	General Physics lab 2 (PHYS112) Network analysis 1 – (ENEE2311)
Credits and contact hours	Credit: 1 (Lecture: 0, Lab: 3)
Instructors	Dr. Jaser Sa'ed Eng. Mohammed A Deek & Eng. Mohammad J Al-Battat
Office Hours	TBD

Text Books and References
Lab manual, by Electrical and Computer Engineering Department, 2025
Electric Circuits, by James W. Nilsson, and Susan A. Riedel, Pearson, 10th edition, 2015

Intended Learning Outcomes "ILO's"
By the end of the course the students will be able to: • Conduct experiments and then analyze and interpret results • Correctly operate electronic test equipments such as oscilloscope, function generator, digital multi-meter... etc. • Analyze a circuit and compare its theoritical performance to actual performance. • Troubleshoot electric circuits and correct the errors. • Write an organized written technical engineering report. • Function on multidisciplinary teams. • Apply modern simulation tools such as PSPICE for analysis of electric circuits.

Course Content
Experiments: • Experiment #1: Introduction to PSPICE and report writing • Experiment #2: Introduction to measurements and lab devices • Experiment #3: Simple resistive circuits • Experiment #4: Network theorems • Experiment #5: First order circuits • Experiment #6: Second order circuits • Experiment #7: Impedance and sinusoidal steady state • Experiment #8: AC & DC power analysis and design • Experiment #9: Three phase circuits • Experiment #10: Frequency selective circuits • Experiment #11: Two port networks

Assessment Policy		
Assessment Type	**Expected Details**	**Weight**
Performance during the Lab	Weekly	5%
Quizzes	4-6 quizzes	15%
Pre-labs	4 Prelab for each student Prelab for Exp # 4 Prelab for Exp #5 Prelab for Exp #7 Prelab for Exp#10	15%
Reports	3 reports per student	30%
Final Exam (Practical +Theoretical)	Last Week of experments	35% (20 Practical + 15 Theoretical)

Policies:

- No late submissions will be accepted.
- Class attendance is required by the university regulations. Come to All labs and activities.
- All students are expected to comply with University rules and regulations on academic Integrity and honesty.