ECEN 2611 - Instrumentation and Computation Lab 1

Fall 2026 Syllabus, Section 01, CRN 40726,

Credit hours: 1

Instructor

Xiaomei Ren

Professional Qualifications:
Master of Science in Engineering, Electrical Engineering, Youngstown State University 1999
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Public Instructor Information

Instructor Title: Senior Lecturer
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Course Description

2611. Instrumentation and Computation Lab 1. Laboratory experiments and computer exercises to accompany ECEN 2632. Laboratory experimentation and basic instrumentation. Computer-aided analysis and simulation. Prereq. or concurrent ECEN 2632. 1 s.h.

Course Readings

Group	Title	Author	ISBN
Required	Lab Instruction Manuals		

Lab handouts

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Schedule of Topics and Assignments

Day	Date	Proposed Topic	Due/To Prepare for Class
Tue	8/25	Lab Safty and Syllabus Review	
Tue	9/1	Introduction to Oscilloscope and function waveform generator	Pre-lab
Tue	9/8	Introduction to digital multimeter and DC power supply 1	Pre-lab
Tue	9/15	Introduction to digital multimeter and DC power supply 2	
Tue	9/22	PSpice and DC measurements	Pre-lab
Tue	9/29	PCB design 1	Pre-lab
Tue	10/6	PCB design 2	
Tue	10/13	Voltage dividers and digital to analog converters	Pre-lab

Tue	10/20	Thevenin and Norton Equivalent Circuit Experiment	Pre-lab
Tue	10/27	Maximum power transfer and DC sweep	Pre-lab
Tue	11/3	Phasor and LC measurement 1	Pre-lab
Tue	11/10	Phasor and LC measurement 2	
Tue	11/17	AC average power	Pre-lab
Tue	11/24	Final project 1	
Tue	12/1	Final project 2	
Tue	12/8	Make-up lab	

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.