



Philadelphia University

Faculty of Engineering - Department of Mechanical Engineering
First Semester 2019/2020

Course Information

Title:	Engineering Measurements (620344)
Prerequisite:	Electric circuits
Credit Hours:	3 credit hours (16 weeks per semester, approximately 44 contact hours)
Textbook:	Experimental Methods for Engineers, J.P Holman, 8th edition, McGraw Hill, 2011.
References:	Introduction to INSTRUMENTATION AND MEASUREMENTS, Robert B. Northrop, 2 nd edition Taylor and Francis, 2005
Instructors:	Eng. Laith Batarseh Email: lbatarseh@philadelphia.edu.jo Office: Engineering building, room E61208, ext: 2135 Office hours: Sunday and Tuesday 10:00 – 11:00 Monday and Wednesday 11:30 – 12:30

Course Topics

Week	Topic
1	Introduction to engineering measurements
2+3	Basics concepts
4 - 6	Analysis of Experiments data
7+8	Basic electrical measurements and sensing devices
9+10	Pressure measurements
11+12	Flow measurements
13+14	Temperature Measurements
15	Force and strain measurements
16	Review, and final exam

Course Learning Outcomes and Relation to ABET Student Outcomes:

Upon successful completion of this course, a student should:

1.	Learn some of the fundamental concepts related to engineering measurements	1
2.	Be able to analyze experimental data	1
3.	Be familiar to the basic electrical sensing and measuring devices	1
4.	Understand the basic concepts of pressure, flow, temperature, force and strain measurement	1
5.	Conduct a project about measurement instrument not included in the course	3,5,7

Assessment Instruments:

Evaluation of students' performance (final grade) will be based on the following categories:

Exams: Two written exams will be given. Each will cover about 3-weeks of lectures

Quizzes: 10-minute quizzes will be given to the students during the semester. These quizzes will cover material discussed during the previous lecture(s).

Participation: Questions will be asked during lecture and the student is assessed based on his/her response

Final Exam: The final exam will cover all the class material.

Grading policy:

First Exam	20%
Second Exam	20%
Quizzes and participation	20%
Homework	
Final Exam	40%
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Total:	100%

Attendance policy:

Absence from classes and/or tutorials shall not exceed 15%. Students who exceed the 15% limit without a medical or emergency excuse, acceptable to and approved by the Dean of the relevant college/faculty, shall not be allowed to take the final examination and shall receive a mark of zero for the course. If the excuse is approved by the Dean, the student shall be considered to have withdrawn from the course.