

E80 Spring 2016 Course Final Assessment

Name _____

Section (circle) 1(MT) 2(TW) 3(WTh) 4(ThF) Professor _____

Note: The results of this survey will not be used in any form of summative evaluation, (e.g., grading) and your name will not be known by anyone other than the compiler of the data. The inclusion of your name is purely to permit tracking of cohorts with regard to individual changes rather than trying to infer individual changes from group data. We will not use your name in any of the reports generated from this survey.

Course Objectives:

By the end of the course students will:

1. Demonstrate hardware and equipment skills:
 - a. Demonstrate the safe and proper use of basic laboratory equipment: e.g., digital multimeter (DMM), signal generator, oscilloscope, breadboard, and analog transducers.
 - b. Demonstrate the safe and proper use of computer-based and embedded-processor-based data acquisition systems.
 - c. Demonstrate proper techniques for debugging/troubleshooting an experimental setup.
 - d. Design, build, and fly a custom set of transducers to make engineering and/or scientific measurements.
2. Demonstrate experimental and analytical skills:
 - a. Demonstrate the design/planning and completion of safe experiments to answer open-ended questions.
 - b. Demonstrate manipulation and presentation of experimentally obtained data to answer open-ended questions.
 - c. Analyze and compare the results of mathematical and computer modeling of an experiment with actual experimental results.
3. Demonstrate the beginnings of professional practice:
 - a. Effectively communicate in written form the design, completion, and analysis of experiments to answer open-ended questions.
 - b. Effectively communicate by oral presentation and Q-and-A session the design, completion, and analysis of experiments to answer open-ended questions.

1	How would you rate your skill with basic laboratory equipment such as a DMM, oscilloscope, or pressure sensor?	PreE80 PostE80	Ouch Ouch	Poor Poor	Fair Fair	Good Good	Wow Wow
2	How would you rate your skill at using a computer-based DAQ or a data logger?	PreE80 PostE80	Ouch Ouch	Poor Poor	Fair Fair	Good Good	Wow Wow
3	How would you rate your skill at debugging or troubleshooting an experimental setup?	PreE80 PostE80	Ouch Ouch	Poor Poor	Fair Fair	Good Good	Wow Wow
4	How would you rate your skill at designing and building a custom set of transducers to make engineering and/or scientific measurements?	PreE80 PostE80	Ouch Ouch	Poor Poor	Fair Fair	Good Good	Wow Wow
5	How would you rate your skill at designing and completing an experiment to answer an open-ended question?	PreE80 PostE80	Ouch Ouch	Poor Poor	Fair Fair	Good Good	Wow Wow
6	How would you rate your skill at manipulating and presenting experimental data?	PreE80 PostE80	Ouch Ouch	Poor Poor	Fair Fair	Good Good	Wow Wow
7	How would you rate your skill at comparing the results of an experiment with analytical or computer models of the experiment and analyzing the comparison?	PreE80 PostE80	Ouch Ouch	Poor Poor	Fair Fair	Good Good	Wow Wow

8	How would you rate your skill at writing a report in proper technical English that effectively communicates the design, completion, and analysis of an experiment?	PreE80 PostE80	Ouch Ouch	Poor Poor	Fair Fair	Good Good	Wow Wow
9	How would you rate your skill at preparing and delivering an oral presentation that effectively communicates the design, completion, and analysis of an experiment?	PreE80 PostE80	Ouch Ouch	Poor Poor	Fair Fair	Good Good	Wow Wow
10	How would you rate E80 as an effective and enjoyable class?	PreE80 PostE80	Ouch Ouch	Poor Poor	Fair Fair	Good Good	Wow Wow
11	I learned a lot in this course.		Ouch	Poor	Fair	Good	Wow

What aspects of the course were least valuable to you or most in need of change?

What aspects of the course were most valuable to you or most need to be left as is?