PC/CP120 Introduction to Digital Electronics
Lab Evaluation Results
Wilfrid Laurier University

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This evaluation for the purpose of evaluating my teaching methods and your impressions of the labs. It is anonymous and you can omit any question(s) you don't wish to answer.

Labs in this Course

Choose the answer which best expresses your feelings about the labs.

1. I am taking this course because

   40% it is required for my program, and I won't take any more electronics than I have to.

   47% it is required for my program, but I like electronics.

   3% it fulfills a science requirement, and is a personal interest.

   10% it is not required for my program, but is a personal interest.

2. The lab web page was

   37% organized and easy to follow

   34% better than having a printed lab manual

   19% both of the above

   10% neither of the above

3. The lab *demonstrator* was

26% helpful in the lab.

11% knowledgeable about the lab.

59% both knowledgeable and helpful.

3% neither knowledgeable nor helpful.

4. The lab marking

47% was fair.

3% included helpful feedback.

47% was both fair and helpful.

3% was neither fair nor helpful.

5. Observing the lab demonstrator in this course has made me

26% consider applying to become a demonstrator for this course

13% consider applying to become a demonstrator but not for this course

2% less likely to become a lab demonstrator for this course

0% less likely to become a lab demonstrator for this or any other course

60% It has had no effect on my attitudes about lab demonstrating

6. The lab *supervisor* (ie. Terry) was

24% helpful in the lab.

18% knowledgeable about the lab.

58% both knowledgeable and helpful.

0% neither knowledgeable nor helpful.

7. How clear was the lab schedule? (How clear were things like what lab you would be doing each week, when things were due to be handed in, etc.?)

   70% very

   26% fairly

   3% not much

   0% awful

8. Being required to demonstrate things in the lab was

   26% useful to summarize important sections of each lab

   20% a good way to have part of the lab mark assigned

   54% both of the above

   0% neither of the above

9. The *sequence* of the labs was

   82% useful because over time we were exposed to several different things (breadboards, keypads, LEDs, etc.)

   3% less useful than if each week's circuit would have been needed for the following week's lab

   15% Either of the above would have been equally effective.

10. After reading and *following data sheets* in these labs,

    64% I feel pretty confident in doing that from now on.

    26% I could do what I had to do in the labs again, but I'm not sure I could do it well for other things.

    5% I don't think I could do it like I did in the lab without following the lab instructions again.

    5% I was never really clear on how to do it in the lab.

11. After using the *breadboard* in these labs,

79% I feel pretty confident in using it from now on.

18% I could do what I had to do in the labs again, but I'm not sure I could use it well for other things.

0% I don't think I could use it like I did in the lab without following the lab instructions again.

3% I was never really clear on how to use it in the lab.

12. After using the *debugger board* in these labs,

81% I feel pretty confident in using it from now on.

15% I could do what I had to do in the labs again, but I'm not sure I could use it well for other things.

3% I don't think I could use it like I did in the lab without following the lab instructions again.

2% I was never really clear on how to use it in the lab.

13. After using *Quartus II* in these labs,

61% I feel pretty confident in using it from now on.

26% I could do what I had to do in the labs again, but I'm not sure I could use it well for other things.

10% I don't think I could use it like I did in the lab without following the lab instructions again.

2% I was never really clear on how to use it in the lab.

14. After using *CPLDs* in these labs,

    71% I feel pretty confident in using them from now on.

    23% I could do what I had to do in the labs again, but I'm not sure I could use them well for other things.

    5% I don't think I could use them like I did in the lab without following the lab instructions again.

    0% I was never really clear on how to use them in the lab.

For the following questions, use the following scale to indicate how much you agree with the statement that you feel comfortable with the devices in question:

(a) disagree strongly
(b) disagree
(c) neither agree nor disagree
(d) agree
(e) agree strongly

15. (**12% 8% 22% 27% 32%**) I feel comfortable using *resistor arrays*.

16. (**10% 3% 16% 27% 44%**) I feel comfortable using *DIP switches*.

17. (**6% 15% 19% 29% 31%**) I feel comfortable using *keypads*.

18. (**10% 8% 16% 31% 34%**) I feel comfortable using *pushbutton switches*.

19. (**10% 7% 11% 23% 49%**) I feel comfortable using *individual LEDs*.

20. (**6% 6% 15% 29% 44%**) I feel comfortable using *bargraph LEDs*.

21. (**3% 8% 23% 28% 37%**) I feel comfortable using *7 segment LED displays*.

22. Many topics in the lab had written explanations on the web page as well as videos or screencasts. Which of these did you find more useful most of the time?

24% I found the written explanations much more useful.

15% I found the videos much more useful.

44% I found them both about equally useful (or it depended on the topic).

15% I hardly ever watched the videos; I usually just read the explanations on the web page.

3% I hardly ever read the explanations on the web page; I just watched the videos.

23. Compared to the other labs, I thought the project was

63% more interesting than regular labs

8% less work than 2 or 3 more labs

18% Both of the above are true.

10% Neither of the above are true.

24. When doing *Phase I* of the project; (i.e. description, inputs and outputs)

81% I found the sample on the website really helpful

13% I looked at the sample, but it didn't help much.

6% I didn't need the sample.

25. When doing *Phase II* of the project; (i.e. logic equations)

72% I found the sample on the website really helpful

20% I looked at the sample, but it didn't help much.

8% I didn't need the sample.

26. When doing *Phase III* of the project; (i.e. drawing and simulation)

82% I found the sample on the website really helpful
11% I looked at the sample, but it didn't help much.
5% I didn't need the sample.

27. The marking checklists for the project phases

74% were concise and made expectations consistent
11% were concise but did not make expectations consistent
11% made expectations consistent but were not concise
2% were not concise and did not make expectations consistent

28. Pick whichever fits.

38% The project improved my understanding of digital design.
18% The project improved my wiring and debugging skills.
34% Both of the above are true.
10% Neither of the above are true.

29. Designing, drawing and simulating the circuit for the project and then producing the working prototype

53% made me see how the whole process fit together
8% helped me have confidence that I could do the same in the future
33% both of the above
5% was unnecessary; the labs and assignments in the course covered all of the same stuff
0% was a waste of time; I didn't really understand it at all

30. The project *poster* was

45% useful to summarize the work involved in the project
15% a good way to assign part of the project mark
18% both of the above
22% neither of the above

31. The project *demonstration* was

33% useful because it showed the project circuit in operation

17% a good way to assign part of the project mark

42% both of the above

8% neither of the above

32. How did you feel about evaluating other students' projects? (Pick whichever fits best.)

27% It helped me pay attention to what makes a good project.

20% I liked the chance to indicate whether people did a good job or slacked off.

33% Both of the above are true.

17% I was uncomfortable evaluating other students.

33. How did you feel about other students evaluating *your* project? (Pick whichever fits best.)

13% I didn't like it; people would just mark based on whether the presenter was a friend or not.

55% I liked it; I think students will sometimes judge more fairly than instructors and it wasn't just one person making the evaluation.

15% I didn't like it; I don't think students have consistent or realistic expectations.

17% I don't care how it's done.

34. The rubric for marking final projects had descriptions of *poor*, *average*, and *excellent* examples of each of the criteria. How helpful was that?

42% I found it quite helpful for all of the criteria.

42% I found it quite helpful for most of the criteria.

15% I found it helpful for a few of the criteria.

0% I read it, but it wasn't really helpful; I never had a clear idea of the distinctions.

2% I didn't look at it; I didn't find it necessary.

35. The labs were

37% a good *complement to* the lectures
17% a good *reinforcement of* the lectures
32% both of the above
12% pretty disconnected from the lectures and not much use
2% Both the labs and the lectures seemed pretty useless.

36. If someone was thinking of taking this course as an elective, you'd tell them

39% the labs make it more fun
25% the labs make everything seem more 'real'
31% Both of the above are true
5% the labs make it a lot more difficult
0% the labs don't really make much difference

37. The amount of *work required* for the labs was

11% *much* more than for the PC131 labs
14% more than for the PC131 labs
32% about the same as for the PC131 labs *or* I didn't do PC131 labs
29% less than for the PC131 labs
14% *much* less than for the PC131 labs

38. The amount of *potentially useful learning produced* by the labs was

45% *much* more than for the PC131 labs
14% more than for the PC131 labs
39% about the same as for the PC131 labs *or* I didn't do PC131 labs
2% less than for the PC131 labs
0% *much* less than for the PC131 labs

39. Pick the answer that best describes your feelings:

66% I look forward to doing more electronics labs in the future, if they're similar to these.

10% I dread doing more electronics labs in the future, if they're similar to these.

21% I don't expect to do any more electronics labs, so what I thought of these doesn't matter for the future.

3% I think the labs in different courses will be different enough that I can't base my expectations for future electronics labs on these.

40. **In order to improve teaching beyond my own courses, I'd like to be able to share the results of these evaluations with other instructors, students, etc. May I have your permission to do that?**

84% **Yes, I'd be glad if any improvement could come from this.**

16% **Yes, this is anonymous enough that I don't mind how the results are used.**

0% **No, this isn't anonymous enough for me to be comfortable with the results being shared.**

0% **No, even though this is anonymous I don't want the results to be shared.**