

ONR Pre Survey Winter 2016 – EE 360

Do *not* write your name anywhere on this survey.

May we use your responses on this survey (with no name attribution) for evaluation of the effectiveness of educational techniques?

Circle one: YES NO

(Only circle “yes” if you signed the informed consent document; the redundancy is just to help us keep track.)

Demographics

1. What is your age? _____
2. What is your gender? Circle one:
Female / Male / Prefer not to answer / Other (please specify)
3. What is your field of study? (e.g. electrical engineering)
4. Approximately how many prior signals courses have you completed?
5. Approximately how many prior college mathematics courses have you completed? _____

Motivation & Interest

Please rate your level of agreement with each of the following statements by circling a choice.

6. I am interested in theoretical mathematics of signals and radios.
Strongly Disagree / Disagree / Neither Agree nor Disagree / Agree / Strongly Agree
7. I am interested in design of systems that use signals and radios.
Strongly Disagree / Disagree / Neither Agree nor Disagree / Agree / Strongly Agree
8. I am interested in construction of systems that use signals and radios.
Strongly Disagree / Disagree / Neither Agree nor Disagree / Agree / Strongly Agree
9. I am interested in testing and validation of systems that use signals and radios.
Strongly Disagree / Disagree / Neither Agree nor Disagree / Agree / Strongly Agree
10. I am interested in doing outside reading on signals and radios.
Strongly Disagree / Disagree / Neither Agree nor Disagree / Agree / Strongly Agree

Perceptions of Signals and Radios

Choose one number between each adjective pair to indicate how you feel about the object:

11. To me, signal processing theory and communication theory are:
Boring 1 2 3 4 5 Interesting
12. To me, signal processing hardware and communication hardware are:
Boring 1 2 3 4 5 Interesting
13. To me, signal processing theory and communication theory:
Means nothing 1 2 3 4 5 Means a lot
14. To me, signal processing hardware and communication hardware:
Means nothing 1 2 3 4 5 Means a lot

Abilities

Please rate your level of agreement with each of the following statements by circling a choice.

- 15. I can explain or describe the mathematics behind signals and radios.
Strongly Disagree / Disagree / Neither Agree nor Disagree / Agree / Strongly Agree
- 16. I can perform mathematical manipulations related to signals and radios. Circle one:
Strongly Disagree / Disagree / Neither Agree nor Disagree / Agree / Strongly Agree
- 17. I can design a system that incorporates signals and radios.
Strongly Disagree / Disagree / Neither Agree nor Disagree / Agree / Strongly Agree
- 18. I can build and test a system that incorporates signals and radios.
Strongly Disagree / Disagree / Neither Agree nor Disagree / Agree / Strongly Agree
- 19. I can write MATLAB code that executes correctly.
Strongly Disagree / Disagree / Neither Agree nor Disagree / Agree / Strongly Agree
- 20. I can write MATLAB code that is compact and computationally efficient.
Strongly Disagree / Disagree / Neither Agree nor Disagree / Agree / Strongly Agree
- 21. I would feel comfortable talking to an engineer about signals and radios.
Strongly Disagree / Disagree / Neither Agree nor Disagree / Agree / Strongly Agree
- 22. I would feel comfortable teaching someone else about signals and radios.
Strongly Disagree / Disagree / Neither Agree nor Disagree / Agree / Strongly Agree

23. Rate your degree of ability to work independently to perform the following tasks by recording a number from 0 to 100. (0 = low; 50 = moderate; 100 = high)

- Conduct engineering design _____
- Identify a need _____
- Research a design need _____
- Develop design solutions _____
- Select the best possible design _____
- Construct a prototype _____
- Evaluate and test a design _____
- Communicate a design _____
- Redesign _____