ECE 322 Final Exam

Fall 2021

1. Course

List / draw / connect the major concepts and ideas that (you think) were part of this course.

1.1. Specifications vs. procedures

Many of the deliverables for the course were described in terms of specifications or requirements to meet instead of the traditional schooling "calculate this / answer one question".

Describe the positive benefits of assignments given via requirements:

What gets lost or is missing from your learning about the course topics with these forms of assignments?

2. Project 1 and hw11

Both of these assignments required using platform-independent code that implemented your system's functionality, called "business logic" — the parts that are unique to your particular application.

By the end, your `app.c` and `app.h` were supposedly functional on three different MCU platforms: MSP430, ATmega328P, and ATtiny85.

- What was the most difficult part of achieving platform-independent code?

- If you were to re-visit Project 1 again, what would you do differently?

3. zyBook

3.1. Did you reference any of the C programming materials?

These were included as part of the purchase price of the course zyBook materials, though only a few segments were assigned as readings. This was partly to provide connection back to ECE 251/2.

Should the C-specific materials be included in future ECE 322 Microcontrollers 1 zyBook packages?

3.2. Usefulness

Using the zyBook as a hub for introducing microcontroller systems was an experiment. How did the zyBook system help you learn the core concepts in the course?

What are the reasons to NOT use a zyBook for ECE 322?

3.3. for 422 Microcontrollers 2

There is about 30% overlap between the topical content for 422 and the un-assigned chapters in the current zyBook. Also, there are some zyBook sections that will likely remain un-assigned during 422. Weigh the cost of another zyBook license for 422 against the benefit of using it as a learning tool. (cost would be less than 322 since it will not have the C content)

4. Misc

4.1. What should stay in next year's 322?

4.2. What should be replaced with something better in next year's 322?

4.3. Other comments