

Course Assessment- Part B: Your Results & Analysis

COMPLETE

#495

Please select your course and name from the drop-down menu. If your course or name are incorrect or missing, contact the Curriculum and Assessment Administrative Assistant, 541-506-6037 or swade@cgcc.edu.

EET 252 - Digital Electronics II - Programmable Logical Devices - 1096402 - Chris Spengler - Winter 2021

* **Part B: Your Results DIRECTIONS** 1. Report the outcome achievement data gathered via the assignments, tests, etc. you identified for each outcome (question 3) of your Part A. (Only include data for students who completed the course. Do not include students who withdrew or earned an incomplete) Data for all 3 outcomes should be reported below.

Outcome #1: Four labs using VHDL to build a logic circuit with a FPGA programmable logic device were assigned and completed by the students. 90% of students earned a C or better.

Outcome #2: Four labs with basic sequential devices (SR Latch, D Latch, D Flip Flop, JK Flip Flop) using TTL components were assigned. 90% of students earned a C or better.

Outcome #3: Two labs, using MultiSim were assigned. This is an area that could be improved. 90% of students earned a C or better for this outcome.

* **Outcome #1**

Use behavioral modeling with VHDL to build a logic circuit with a FPGA programmable logic device.

* **% of students who successfully achieved the outcome (C or above)**

90

* **Outcome #2**

Determine the behavior of basic sequential devices (SR Latch, D Latch, D Flip Flop, JK Flip Flop) using TTL components and interpret TTL specifications sheet.

* **% of students who successfully achieved the outcome (C or above)**

90

* **Outcome #3**

Analyze and design a finite state machine to implement a task, using MultiSim.

* **% of students who successfully achieved the outcome (C or above)**

90

* **ANALYSIS 3. What contributed to student success and/or lack of success?**

Lab participation was the major factor in the student's success. Student whom came prepared by completing the assigned homework and watching the assigned video lecture were more likely to complete the assigned labs correctly in the assigned lab period.

* **4. Helping students to realistically self-assess and reflect on their understanding and progress encourages students to take responsibility for their own learning. Please compare your students' perception of their end-of-term understanding/mastery of the three outcomes (found in student evaluations) to your assessment (above) of student achievement of the three outcomes.**

I feel most of the technical skills improve. Troubleshooting skills and conceptual understanding of electronic principles were the areas that improved the greatest.

*** 5. Did student achievement of outcomes meet your expectations for successfully teaching to each outcome (question 4 from Part A)**

This years class group seem to be more focus on the assigned labs and getting them completed than groups in the past.

*** 6. Based on your analysis in the questions above, what course adjustments are warranted (curricular, pedagogical, student instruction, etc.)?**

I would to work on continue working on improving the moodle presentation for the students. Improve labs to engage the students more. Add more content that will reinforce the concepts cover during course.

7. What resources would be required to implement your recommended course adjustments (materials, training, equipment, etc.)? What Budget implications result?

the wish list is long and the well is shallow. I will spend the funds that are made available.

*** 8. Describe the results of any adjustments you made from the last assessment of this course (if applicable) and their effectiveness in student achievement of outcomes.**

Improvements were made with some of the labs. Labs were expanded to go deeper into the subject matter. VHDL / FPGA labs were expanded the most.

9. Describe how you explain information about course outcomes and their relevance to your students.

Grading. Reviewing the completed labs with the students, reinforcing the critical concepts covered for the individual labs with the student when signing off on the completed lab.

10. Please describe any changes/additions to instruction, curriculum or assessment that you made to support students in better achieving the CGCC Institutional Learning Outcomes: ILO #1: Communication. The areas that faculty are focusing on are: "Source and Evidence" and "Organization and Presentation" and ILO #2: Critical Thinking/Problem Solving. The areas that faculty are focusing on are: "Student's Position" (Critical Thinking) and "Evaluate Potential Solutions" (Problem Solving). ILO #4: Cultural Awareness. The area that faculty is focusing on is: "Curiosity" - Encouraging our students to "Ask deeper questions about other cultures and seek out answers to these questions" ILO #5: Community and Environmental Responsibility. The area that faculty are focusing on are: "Applying Knowledge to Contemporary Contexts" and "Understanding Global Systems" ILO#3 -Quantitative Literacy - "Application/Analysis" and/or "Assumptions"

Continued to try to improve the relevance of the material covered in the lectures with the material in lab. I reviewed the labs and solicited comments on the lab content from the students to find out the engagement of the student while they completed the lab.