

Advanced Computer Programming

Spring 2015 Final Exam

- Throughout the completion of your Capstone Project you have needed to complete various documentation assignments. These assignments will be put together in a technical report and will constitute your final exam.
- If you did not complete all of the documentation activities when they were assigned you will need to complete them for this final exam.
- In addition to the documentation needed throughout the project, you will also need to include a few extra requirements. Use the information in the table below to help you verify that you have completed all of the requirements for your technical report.
- In order for you to receive credit for your final exam you will need to compile all documentation for your project into a single Word Document.
- The order should follow the Technical Report Evaluation Rubric outlined below.
- Examples of quality work for each of the requirements will be available on the HUB.
- **Each person needs to submit their own technical report even though some of the documentation will be the same.**
- Your technical report will be due on May 22nd (Note that computers will be taken down on the 21st)

If you have any questions or are in need of clarification on any of the requirements, see me ASAP.

Course Technical Report Evaluation Rubric

Technical report Category (Page)	Requirements	Possible Pts	Pts Earned
Title Page and Headers	<input type="checkbox"/> Create a title page that includes: Project name + "Capstone Project Technical report", your name, class name, my name, period, and a picture of your finished product. <input type="checkbox"/> Each page should have a header that says your name and your project's name	5	
Table of Contents	<input type="checkbox"/> Each page of your technical report should be numbered and each category should be indexed in the Table of Contents	5	
Capstone Description	<input type="checkbox"/> Describe your project with enough detail so that future students will be able to know exactly what your goal was. <input type="checkbox"/> Include any necessary background information a student might need to know before starting this project. EX: What is POV and how does it work? <input type="checkbox"/> To receive full credit your description must include details that go beyond the description in the Capstone Project Book.	15	
Bill of Materials	<input type="checkbox"/> List all materials used for your project. <input type="checkbox"/> To receive full credit make sure you are as specific as possible with all items. EX: 10 resistors vs. 10 560 ohm resistors.	10	
Milestones	<input type="checkbox"/> This should be the final version of your milestones and should accurately reflect how you spent your time each week. <input type="checkbox"/> To receive full credit your milestones should contain an explanation of the measurable/observable progress you made that week.	15	
Schematic	<input type="checkbox"/> This should be the final version of your schematic drawing, including all improvements. <input type="checkbox"/> To receive full credit each component should be labeled appropriately and I should be able to recreate your circuit based on your schematic.	15	

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Algorithm	<input type="checkbox"/> Describe the approach you took to reach your goal. Place a special emphasis on all of the problem solving steps you took to get there. Talk about what coding mechanisms/architecture you used in your final code and why. (EX: loops, ifs, declaring new variables, etc.) <input type="checkbox"/> To receive full credit your algorithm description must go beyond listing the coding structures you used. You should approach your algorithm description in a "Problem/Solution" manner.	25	
Challenges	<input type="checkbox"/> Describe the challenges you encountered during your 6 weeks working on your project. What did you do to solve these issues?	10	
Recommendations	<input type="checkbox"/> Make recommendations to future students attempting to recreate your project.	10	
Neatness and Correctness	<input type="checkbox"/> Report is neat, organize, and contains no grammatical errors. <input type="checkbox"/> Report is written in passive voice.	5	
Additional Documentation			
Project Video and Code	<input type="checkbox"/> In addition to the report you will also need to upload a video of your project where you explain how your project works to the HUB. <input type="checkbox"/> You will also need to upload the .ino file(s) that contain(s) your code to the HUB.	10	
Final Reflection	<p><i>(You will need to compose 2 paragraphs that answer the following questions. You must use a minimum of 8 grammatically correct and complete sentences per paragraph.)</i></p> <p>Paragraph 1</p> <p>Reflect on what you learned from this class. What knowledge are you walking away with that you previously didn't have?</p> <p>Paragraph 2</p> <input type="checkbox"/> Reflect on your favorite topic and what you liked about it. <input type="checkbox"/> Reflect on your least favorite topic (arrays excluded) and what you didn't like about it and what you would suggest to improve it. <input type="checkbox"/> Reflect on the one thing you would have liked to learn more about. <input type="checkbox"/> Reflect on what else Ms. Rendon could have done to help you be successful in this class.	25	
Final Exam Score		150	: