The lab report is worth 35 points out of 100.

- **Abstract (2 points)**
  - The first page after the cover page should contain the abstract that summarizes what you did in this lab, the major problems you encountered, and the major features specific to your group’s implementation

- **Introduction (2 points)**
  - This is a short outline of the lab report

- **Design documentation (8 points)**
  - Software flow chart: you are expected to include a general (high-level) flow chart for your code. Note that this is different from the individual flow charts that might be needed for particular lab tasks, and should be included in the discussion section. If your software is organized into multiple disjoint “processes” (such as the main loop and interrupt handlers), include high-level flow charts for each. (3 points)
  - Schematic: you are expected to include a schematic of the entire circuit built. Again, similar to flow charts, you may want to move the more detailed schematics for specific tasks into the discussion section. At the highest level of detail, you should show all the device pins, including their pin numbers. (5 points)

- **Discussion and results (16 points)**
  - This is the real meat of the report; it should discuss how you achieved the lab goals. Notice the importance of how, not what. This section of the report should be broken into subsections according to the different tasks achieved in the lab. Each of these tasks could possibly be divided into subtasks if needed.
  - For each task or subtask, make sure to explain how it was achieved in terms of hardware and software. Your code should have been divided into a number of functions, where one or more functions correspond to the task or subtask. Explain the functions used for each task, and include the relevant snippets of code.
  - Make sure to include the task-specific schematics and flow charts in the discussion section for that particular task.
  - Any images or charts (oscilloscope/logic analyzer output) documenting your results should be included in the relevant subsection. The final results amount to 5 points of this section’s total 16 points.
  - Discuss any difficulties you encountered at each step and any issues remaining unresolved.

- **Conclusion (1 point)**
This should contain a summary of your lab experience and any concerns about the lab.

• Source code organization (3 points)
  o Comments: the code should be well commented. Remember that this is intended in to allow a person who has no idea what your code is doing to follow your code and debug it. Comment the less obvious higher level functionally of the code rather than what can be trivially understood by just looking at the code.
  o Modular code: your code should be broken into relevant functions. Code consisting of a long list of commands running from main is considered unacceptable.

• Structure (3 points)
  o The overall lab report should be well organized. Include a cover sheet with the report title, date, your names and ECE mailbox numbers. Include a table of contents. Number and label each figure and table. Number all equations. Clearly label all the sections.

• Signoff sheet
  o The completed signoff sheet is required to receive a lab grade.