PH 315 Experimental II

Portland State University
Winter 2015
Room SNB 201
T & Th 14:00-16:50

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Office Hours:
T & Th: 17:00-18:00

Text

No specific textbook is required. Due to the variety of experiments to be covered, students may have to consult different textbooks available at the PSU library.

The following is a set of references that I have consulted to organize the course:
- J.R. Cogdoll, "Foundations of Electronics," Prentice Hall
  (Available at Reserve Room PSU Library)
  (Available at Reserve Room PSU Library)
  (MicrocontrollerIntroductionBeginnersGuideToTheAVR/AVRMega128.aspx)

Laboratory notes will be available online.

Grading

Individual lab notebook 40%
Reports of all experiments, including the three write-ups (see below) must be included in the lab notebook.
Reason for keeping a lab--notebook: It helps develop skills for reporting scientific results.
Good presentation is expected: clear, readable, neat.
Each experiment description should be broken down into sections:
  Abstract,
  List of equipment used,
  Procedure, Graphs,
  Data Analysis, and
  Conclusions.
Laboratory reports guidelines can be found at http://www.rose-hulman.edu/~tilstra/
(http://www.rose-hulman.edu/~tilstra/)
Lab notebooks will be randomly revised on a weekly basis.

Quiz 20%
An oral quiz will be taken during the last two weeks of classes, on an individual basis. It will include basic questions related to any of the experiments performed. You will be allowed to use your lab notebook as a reference, but the grade will be based on how you address the questions. For this reason, keep your lab notebook well organized and updated at all times.

Work performance during laboratory sessions 20%
Attendance throughout the whole session is required.
Keep your lab station clean, free of dust.
Good record attendance during official time meeting.
Positive attitude to complete tasks.
Follow guidelines to prevent equipment damage (i.e. make sure power supplies are in lowest output values before turning them on.)
Estimate the precision of the equipment used.

Report write-ups 20%
Out of the 10 experiments listed below, we will require write-up papers, journal quality, of 3 selected experiments: 01, 03 and 08.
They are due the week after the experiment is officially scheduled.
A hard copy should also be given to Dan. (Near the end of the term, attach those hard copies to your lab notebook.

A  95–100
A− 90–94
B+  81–89
B   76–80
B−  71–75
C+  66–70
C   61–65
C−  55–59