## Lab Notebooks for PHYS 375 R. Gammon 2/16/06

- 1. Front of notebook
  - name
  - course section
- 2. Inside front cover
  - table of contents with page numbers
- 3. For each experiment
  - title on beginning of your dated notes about it.
  - dated records of work
    - diagrams of equipment and how it was used
    - notes on experiments tried
    - raw data
    - comments about experimental conditions/ discoveries
    - names of data files where data is stored
    - data analysis
    - plots of data
- 4. For each experiment Report section of notebook (dated summary of work with conclusions)
  - title of experiment
  - methods
    - experimental procedures used to make the measurements
    - diagram of equipment and how it was used
  - measurements
    - data tables or file names with descriptions
    - comments about experimental conditions/ discoveries
  - data analysis
    - plots of data
    - formulae used to extract measured quantities
    - uncertainty analysis
      - sources of error
      - methods of error assignment
      - uncertainty propagation
      - systematic vs. statistical
  - discussion of results
    - final results with uncertainty
    - identification of predominant source of uncertainty
    - discussion of ways to improve measurement
    - discussion of other possible measurements