Assignment List
Physics 240
Winter 2012

Machining project 1
- Safety quiz (5 pts).
- Machining pieces (30 pts).

Machining project 2
- Machining pieces (20 pts).

CAD training
- CAD drawings of pieces (10 pts).

LabVIEW training
- LabVIEW Basics parts 3–8 (10 pts).

Temperature measurements of cryostat
- Construct heating coil (5 pts).
- Reading temperature from diode (10 pts).
- Measuring heating and cooling curves, determining $C, \gamma, T_c$ (10 pts).
- Lab notebook (20 pts).
- 2-page temperature paper (20 pts).

Temperature controller contest
- Control temperature of the cryostat (20 pts).
- Lab notebook (20 pts).

Superconductivity measurements
- Make low temperature measurement VI (5 pts).
- Build circuit (5 pts).
- Calibrate diode (5 pts).
- Measure conductivity of superconductor (15 pts).
- Lab notebook (20 pts).
- The formal report will be graded separately (10% of your final grade).

Ethic in science
- Active participation in discussion on ethics in science (40 pts).