**Stat 230, Spring 2016**
**Homework 5: Path Models**
**Due Thursday Feb 26 at 11:55pm on bspace.**
I'd like you to read and understand these problems from the book:
Ch 5: D2, E1,6, Disc 11
Ch 6: A3, B2

**Part 1: From the book** Do Lab 9 in the text on page 303.

**Part 2: More with the same path model** You've basically done all the work since you've done Lab 9, but let's actually do the hypothesis tests explicitly.

1. Reproduce the hypothesis tests done by Gibson to show that the -0.35 in his path diagram (page 88) is highly significant ($p < 0.01$) but that the -0.06 is not. However, do it unweighted as Freedman argues he should have done on page 90.

2. Do the hypothesis test with the null that $(\hat{\beta}_2 - be\hat{t}a_1) = 0$, discussed on pages 89-90.

3. Comment on the validity of these hypothesis tests and what conclusions can be drawn from them. (I know this is open-ended, please write 2-3 sentences about each situation describing issues and conclusions.)