## INTRO TO ALGEBRAIC TOPOLOGY HOMEWORK 7 DUE MARCH 26

Turn in the following:

- (1) Hatcher Exercise 2.1.1 (p. 131)
- (2) Hatcher Exercise 2.1.5 (p. 131)
- (3) Find a  $\Delta$ -complex structure for the orientable surface of genus two and compute the simplicial homology groups of this  $\Delta$ -complex.
- (4) Find a  $\Delta$ -complex structure for  $S^3$  and compute the simplicial homology groups of this  $\Delta$ -complex.
- (5) Hatcher Exercise 2.1.8 (p. 131)

Think about the following (but do NOT turn in):

• Find a  $\Delta$ -complex structure for the orientable surface of genus g and compute the simplicial homology groups of this  $\Delta$ -complex.