**Assignment #7 (Due April 24, 2023)**

**Chem 436 – Spring 2023**

1) Fill in the box with the appropriate reagents or major products:

a)





b)





2) Draw the complete curved arrow-pushing mechanism for the following:





3) Propose a route for the following synthesis:

a)





b)





4) Starting from ANY reagent, come up with ONE multistep reaction sequence that must be at least five steps long. Make sure to keep one step each from Chapter 20 (The Chemistry of Carboxylic Acids), Chapter 22 (The Chemistry of Enolate Ions, Enols, and alpha-beta-Unsaturated Carbonyl Compounds), and Chapter 23 (The Chemistry of Amines) in any sequence of your choice.