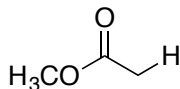
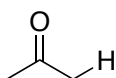
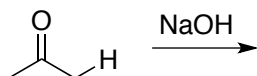
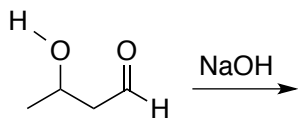
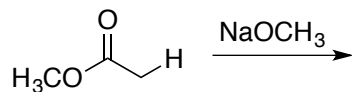
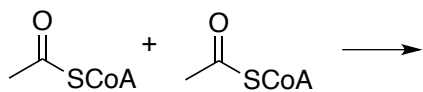
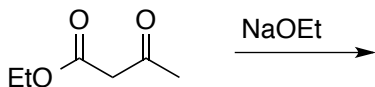
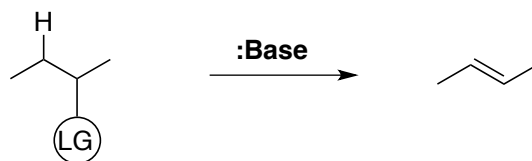


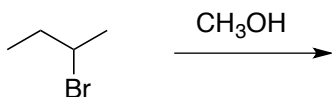
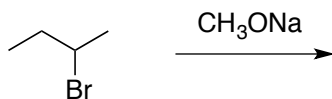
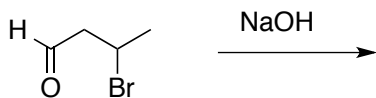
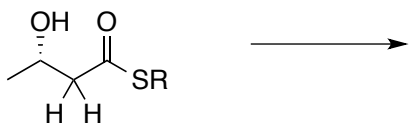
LECTURE OUTLINE

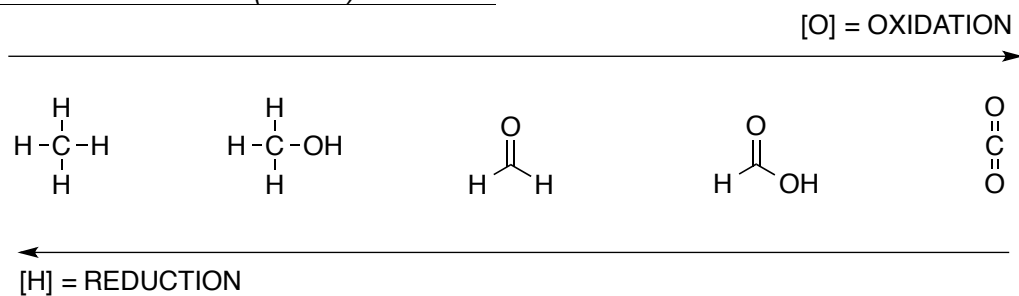
- M&B Reading – Chapter 1.7-1.9
- Mechanism Review
 5. Carbonyl Condensation
 - A. Aldol Condensation
 - B. Claisen Condensation
 6. Elimination Reactions
 7. Redox Reactions

HW: M&B Chapter 1 # 9-11,13-15**MECHANISM REVIEW****5. Carbonyl Condensation: Enolate Ions****5A. Aldol Condensation***Retro-aldol Reaction:***5B. Claisen Condensation**Claisen Condensation in Biology: *Lipid Biosynthesis***Acetyl CoA
(thioesters)***Retro-Claisen Reaction:*

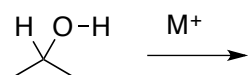
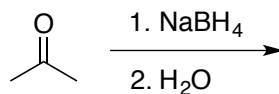
6. Elimination Reactions

Don't worry about predicting/distinguishing between these mechanisms. Just know that there are a few different styles of arrow-pushing for elimination reactions.

E1**E2****E1cB***Elimination in synthesis...***E1****E2****E1cB***Elimination in Biology – Fatty Acid Synthesis* **β -Hydroxy thioester**

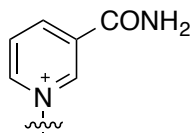
7. Oxidation and Reduction (Redox) Reactions

Redox in synthesis...

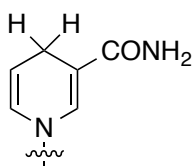
Metal-mediated oxidation of alcohols*Reduction of ketones*

Redox in Biology...Fig 1.15

OXIDIZING AGENTS
NAD⁺ & NADP⁺



REDUCING AGENTS
NADH & NADPH



Next time...pKa and Amino Acids – McMurry 26.1-26.2