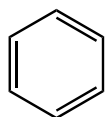


Suggested layout of 310N Roadmap. This arrangement is intended to minimize the number of arrows that must cross each other, although some crosses are unavoidable. Use a very large sheet of paper, like a poster board. Leave plenty of room between the functional groups. For each reaction, draw an arrow between the appropriate functional groups, with the reagents on top of the arrow, and stereochemistry, regiochemistry, and key mechanism steps under the arrow. Keep track of any reactions that make (or break) carbon-carbon bonds! These are especially valuable for synthesis.



Benzene

(leave plenty of space around this benzene ring as there will be many reactions here late in the semester)

α,β -Unsaturated carbonyl compounds

β -Dicarbonyl compounds

β -Hydroxy aldehydes
 α,β -Unsaturated aldehydes

β -Keto esters

Acid anhydrides

Aldehydes

Ketones

Carboxylic esters

Carboxylic acids

Amides

Alcohols

Nitriles

Amines

Alkanes

Haloalkanes

Alkenes

Vicinal or geminal dihaloalkanes

Alkynes