***Supplement #2: Typical Functional Group Chemistries Studied in 1st Year Organic***

***Chemistry (see also: Table 2.1 pg 56 of text)***

*Chemistry 3514 Organic Chemistry I*

**Y functional group name R-Y condensed form1**

**-OH alcohols ROH**

**-OR’ ethers ROR’**

**-F,Cl,Br,I alkyl halides RX**

**-N(H orR)3 amines RNH2, RNHR’, RNR’R”**

**>C=C< alkene RR’C=CR”R’’’**

**-C≡C- alkyne RC≡CR’**





**arene (aromatic)**

**-C=O aldehydes RCHO**

**|**

**H**

**-C=O ketones RCOR”**

**|**

**R”**

**-C=O esters RCOOR”**

**|**

**OR”**

**-C=O carboxylic acid RCOOH**

**|**

**OH**

**-C=O acid chloride RCOCl**

**| (acyl chloride)**

**Cl**

**-C=O amide RCONH2, RCONHR’, RCONR’R”**

**|**

**N(H,R”)2**

**-SH thiol RSH**

**-S- sulfide R’SR**

**1R- =alkyl group (CnH2n+1) can be substituted by alkenyl (C=C- ); alkynl (C ≡C-) and aryl ( arene ) which are also functional groups**