Chem 130
Quiz 4 Study Guide

These are the topics you must master to complete this quiz.

Identification of the functional groups in an organic compound

You'll need to be able to recognize each of these types of functional groups in a chemical structure. You also need to know the name of the functional group.

Functional Group	Structure
Alkane (aliphatic hydrocarbons)	See the inside back cover of your textbook for the function group structure of each of these groups as well as an example of a compound that contains this functional group. The quiz will not use there particular examples but the examples will give you an idea of what you'll be looking for in the compounds on the quiz.
Alkene	
Arene (aromatic hydrocarbons)	
Alcohol	
Phenol (see p. 174 and following for structure and examples)	
Ether	
Aldehyde	
Ketone	
Carboxylic Acid	
Ester	
Amine	
Amide	

Use in Embalming

You'll need to know how compounds containing these functional groups are related to embalming.

Functional Group	Connections to Embalming
Alkane	Building blocks for organic compounds. Important as fuels.
Alkene	Many pigments contain compounds with alkenes in them. Bruising and jaundice colors are related to compounds containing alkenes.
Arene	Important building block for many organic compounds. Many dyes contain arene groups.
Alcohol	Alcohols are important vehicles for embalming fluids. Alcohols are also important in disinfection. Some are used for preservation. Polyalcohols are often used as humectants.
Phenol	Phenolic compounds are often used as preservatives and germicides.
Ether	Sometimes used as solvents but they can be unstable and are often quite flammable so they're less important for embalming than alcohols and other functional group solvents.
Aldehyde	Formaldehyde is an aldehyde! So is gluteraldehyde. Used as preservatives and disinfectants. Aromatic aldehydes are sometimes used as perfuming agents.
Ketone	Often used in external solvents.
Carboxylic Acid	Polycarboxylic acids are often used as anticoagulants. Carboxylic acids are also important in forming proteins.
Ester	Many esters have nice aromas. They are used in fragrances and as perfuming agents.
Amine	Important in forming proteins. Very important decomposition product. Quaternary ammonium compounds are used as supplementary germicides.
Amide	Structure of a protein bond. Important in decomposition reactions.