

# Organic Chemistry 3

## Alcohols and Carboxylic Acids

The key areas of study in this topic are:

- The properties and reactions of alcohols
- The properties and reactions of carboxylic acids

By the end of this topic I should be able to:

	Start	End
9.26C Recall the formulae of molecules of the alcohols, methanol, ethanol, propanol (propan-1-ol only) and butanol (butan-1-ol only), and draw the structures of these molecules, showing all covalent bonds		
9.27C Recall that the functional group in alcohols is $-OH$ and that alcohols can be dehydrated to form alkenes		
9.28C Core Practical: Investigate the temperature rise produced in a known mass of water by the combustion of the alcohols ethanol, propanol, butanol and pentanol		
9.29C Recall the formulae of molecules of the carboxylic acids, methanoic, ethanoic, propanoic and butanoic acids, and draw the structures of these molecules, showing all covalent bonds		
9.30C Recall that the functional group in carboxylic acids is $-COOH$ and that solutions of carboxylic acids have typical acidic properties		
9.31C Recall that ethanol can be oxidised to produce ethanoic acid and extend this to other alcohols (reagents not required)		
9.32C Recall members of a given homologous series have similar reactions because their molecules contain the same functional group and use this to predict the products of other members of these series		
9.33C Describe the production of ethanol by fermentation of carbohydrates in aqueous solution, using yeast to provide enzymes		
9.34C Explain how to obtain a concentrated solution of ethanol by fractional distillation of the fermentation mixture		

