

## Chemistry Matters

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### Week one: Molecular structures

The course will start with introduce the representation and naming system for different chemicals, and then to understand the reason why molecules have certain shapes and structures by introduce concepts of atomic and molecular orbitals.

### Week two: Structural Determination

Physical characterisation methods (NMR, Mass spectroscopy and IR) will be used as tools for structural determination.

### Week three: Reaction Mechanisms

Develop a good understanding of organic reactions (substitution and elimination) . Curly arrows will be introduced as a tool to understand the concepts of mechanism.

### Week 4: Kinetics

The course will investigate how the mechanism of a reaction can be determined, with the help of the studying of kinetics of the reaction. The effect of temperature, concentration and other factors on the rate of reaction will be investigated.