COURSE INFORMATION

Richard Rose Sixth Form
The best in everyone™
Part of United Learning

Subject: Key Stage 5 Sciences.

Level: A Level Chemistry:

The exam board is AQA.

This is a two year course made up of the following units.

Year 12	Year13
3.1 Physical chemistry	3.1.8 Thermodynamics (Yr13)
3.1.1 Atomic structure	3.1.9 Rate equations (Yr13))
3.1.2 Amount of substance	3.1.10 Equilibrium constant K_p for homogeneous systems (Yr13)
3.1.3 Bonding	3.1.11 Electrode potentials and electrochemical cells (Yr13)
3.1.4 Energetics	3.1.12 Acids and bases (Yr13)
3.1.5 Kinetics	3.2.4 Properties of Period 3 elements and their oxides (Yr13)
3.1.6 Chemical equilibria, Le Chatelier's principle and K_c	3.2.5 Transition metals (Yr13)
3.1.7 Oxidation, reduction and redox equations	3.2.6 Reactions of ions in aqueous solution (Yr13)
3.2 Inorganic chemistry	3.3.7 Optical isomerism (Yr13)
3.2.1 Periodicity	3.3.8 Aldehydes and ketones (Yr13)
3.2.2 Group 2, the alkaline earth metals	3.3.9 Carboxylic acids and derivatives (Yr13)
3.2.3 Group 7(17), the halogens	3.3.10 Aromatic chemistry (Yr13)
3.3 Organic chemistry	3.3.11 Amines (Yr13)
3.3.1 Introduction to organic chemistry	3.3.12 Polymers (Yr13)
3.3.2 Alkanes	3.3.13 Amino acids, proteins and DNA (Yr13)
3.3.3 Halogenoalkanes	3.3.14 Organic synthesis (Yr13)
3.3.4 Alkenes	3.3.15 Nuclear magnetic resonance spectroscopy (Yr13)
3.3.5 Alcohols	3.3.16 Chromatography (Yr13)
3.3.6 Organic analysis	

COURSE INFORMATION

There is also a practical component to the course with the compulsory completion of 12 required practical activities, along with a whole range of other practical activities to help students develop an understanding of scientific processes. These practical activities will not form part of the overall A Level grade but the practical activities have to be passed. At least 15% of the overall assessment of A-level Chemistry will assess knowledge, skills and understanding in relation to this practical work.

All external exams are at the Year 13 and comprise of the following:

Paper 1	+	Paper 2	+	Paper 3
What's assessed • Relevant Physical chemistry topics (sections 3.1.1 to 3.1.4, 3.1.6 to 3.1.8 and 3.1.10 to 3.1.12) • Inorganic chemistry (Section 3.2) • Relevant practical skills		**What's assessed** • Relevant Physical chemistry topics (sections 3.1.2 to 3.1.6 and 3.1.9) • Organic chemistry (Section 3.3) • Relevant practical skills		**What's assessed** • Any content • Any practical skills
How it's assessed • written exam: 2 hours • 105 marks • 35% of A-level		**How it's assessed** • written exam: 2 hours • 105 marks • 35% of A-level		**How it's assessed** • written exam: 2 hours • 90 marks • 30% of A-level
Questions 105 marks of short and long answer questions		**Questions** 105 marks of short and long answer questions		**Questions** 40 marks of questions on practical techniques and data analysis. 20 marks of questions testing across the specification 30 marks of multiple choice questions

Overall, at least 20% of the marks in assessments for chemistry will require the use of mathematical skills. These skills will be applied in the context of chemistry and will be at least the standard of higher tier GCSE Mathematics.

External AS Chemistry exams are taken at the end of Year 12. This allows a thorough assessment of progress so far and means that if students do drop the subject at the end of Year 12 they will have some points to go towards their UCAS points total when applying for Higher Education courses.