

## A level Chemistry

We study OCR GCE A level Chemistry (H432 – from September 2015).

The two-year A level Chemistry course is assessed by three written exams and 12 core practical activities. The practical activities are assessed throughout the two-year course and students will be required to demonstrate they meet the practical competencies through their records, observations and responses to associated tasks.

The course content is composed of six modules:

<b>Module</b>	<b>Assessment</b>
1 – Development of practical skills in chemistry	<ul style="list-style-type: none"><li>- Practical skills assessed in a written examination</li><li>- Practical skills assessed in the practical endorsement</li></ul>
2 – Foundations in chemistry	<ul style="list-style-type: none"><li>- Atoms, compounds, molecules and equations</li><li>- Amount of substance</li><li>- Acid–base and redox reactions</li><li>- Electrons, bonding and structure</li></ul>
3 – Periodic table and energy	<ul style="list-style-type: none"><li>- The periodic table and periodicity</li><li>- Group 2 and the halogens</li><li>- Qualitative analysis</li><li>- Enthalpy changes</li><li>- Reaction rates and equilibrium (qualitative)</li></ul>
4 – Core organic chemistry	<ul style="list-style-type: none"><li>- Basic concepts</li><li>- Hydrocarbons</li><li>- Alcohols and haloalkanes</li><li>- Organic synthesis</li><li>- Analytical techniques (IR and MS)</li></ul>
5 – Physical chemistry and transition elements	<ul style="list-style-type: none"><li>- Reaction rates and equilibrium (quantitative)</li><li>- pH and buffers</li><li>- Enthalpy, entropy and free energy</li><li>- Redox and electrode potentials</li><li>- Transition elements</li></ul>

6 – Organic chemistry and analysis	<ul style="list-style-type: none"> <li>- Aromatic compounds</li> <li>- Carbonyl compounds</li> <li>- Carboxylic acids and esters</li> <li>- Nitrogen compounds</li> <li>- Polymers</li> <li>- Organic synthesis</li> <li>- Chromatography and spectroscopy (NMR)</li> </ul>
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Assessment:

<b>Examination title</b>	<b>Module content assessed</b>	<b>Overview of assessment</b>	<b>Percentage of overall grade</b>
Paper 1 – H432/01 – Periodic table, elements and physical chemistry	Content assessed from modules 1, 2, 3 and 5.	Written paper - 100 marks (2 hours 15 minutes)	37%
Paper 2 – H432/02 – Synthesis and analytical techniques	Content assessed from modules 1, 2, 4 and 6.	Written paper - 100 marks (2 hours 15 minutes)	37%
Paper 2 – H432/03 – Unified chemistry	Content assessed from all modules (1 to 6)	Written paper - 70 marks (1 hour 30 minutes)	26%
Practical Endorsement in chemistry	Content assessed from all modules (1 to 6)	Non exam assessment – centre assesses if practical competency criteria have been met	Reported separated from exam result

Homework:

A homework timetable will be issued at the beginning of the A level course. Homework is designed to encourage independent learning of the key content through past exam question practice.