

4.

## Career Opportunities

Chemistry is the study of matter and materials, and the changes that they undergo. It is a fundamental science that advances our understanding of the natural world, but it also provides solutions to everyday problems, as well as innovations that enhance and enrich our everyday lives.

Chemistry is a vital science today, but it will be even more so in tomorrow's world. As society looks to the future and the challenges it will face, chemistry will be instrumental in helping to meet these challenges by providing new products and greener energy sources and meeting the growing demands for clean water, food and raw materials.

Chemistry underpins a broad range of disciplines and a career in the chemical sciences offers a range of opportunities that can be extremely rewarding, both personally and financially.



## Chemistry

YEAR 11 & YEAR 12 COURSES



**COFFS HARBOUR**  
SENIOR COLLEGE

1.

## Why do Chemistry?

The Chemistry Stage 6 Syllabus explores the structure, composition and reactions of and between all elements, compounds and mixtures that exist in the Universe. The discovery and synthesis of new compounds, the monitoring of elements and compounds in the environment, and an understanding of industrial processes and their application processes are central to human progress and our ability to develop future industries and sustainability.

Chemistry is an academically rigorous course and is primarily designed for those students intending to undertake tertiary studies in the Sciences.

Whilst it is not required, it is recommended that students wishing to undertake studies in Chemistry also study a high-level Mathematics course such as Advanced Mathematics or above.

2.

## Course Description (structure/delivery)

### YEAR 11 COURSE:

**Module 1:** Properties and Structure of Matter

**Module 2:** Introduction to Quantitative Chemistry

**Module 3:** Reactive Chemistry

**Module 4:** Drivers of Reactions.

### YEAR 12 COURSE:

**Module 5:** Equilibrium and Acid Reactions

**Module 6:** Acid/Base Reactions

**Module 7:** Organic Chemistry

**Module 8:** Applying Chemical Ideas.

3.

## School Opportunities

### Mandatory Field Study and Depth Study.

A Depth Study is any type of investigation/activity that a student completes individually or collaboratively that allows the further development of one or more concepts found within or inspired by the syllabus. It may be one investigation/activity or a series of investigations/activities. Depth studies provide an excellent opportunity for students to investigate a topic of interest of significance to themselves or their community as part of the Year 11 and Year 12 studies.

### Year 12 Sydney Science Excursion.

Each year students from the College travel to Sydney for 3 days of intensive HSC studies at venues including Sydney University, the Maritime Museum and ANSTO at Lucas Heights.

