

**OTUMOETAI COLLEGE**  
**NCEA CHEMISTRY LEVEL 2 – (L2CHEM) 2019**

CHEMISTRY – L2CHEM					
Course Relationship to the National Vocational Pathways					
Construction & Infrastructure	Manufacturing & Technology	Primary Industries	Services Industries	Social & Community Services	Creative Industries
20	20	20	8	20	16
<b>Course Entry</b>	Minimum entry requirement is 12 credits in Level 1 Science (including Acids and Bases - at Merit / Excellence level advisable) or if given HOD approval.				
<b>Course Overview</b>	This course involves study of the key concepts of Chemistry to enable students to choose further study pathways in this specialist area. Chemistry study includes atomic structure, analysis of solutions, types of reactions, energy changes in reactions and organic chemistry. The course is a prerequisite for Level 3 Chemistry and required for entry into many University and Polytechnic Course pathways.				
<b>Assessment</b>	This course will be assessed to a selection of Achievement Standards, both internal and external, with students having the opportunity to gain up to 20 credits at Level 2.				
<b>Cost</b>	ICAS Exam [Optional]				\$7.00
	Chemistry Workbook				\$40.00
	Educational Perfect (Optional)				\$20.00

**Aim**

- To provide a context to develop the five key competencies identified in the New Zealand Curriculum - *thinking, using language, symbols, and texts, managing self, relating to others, participating and contributing* – Students will learn to use these competencies to live, learn, work, and contribute as active members of communities.
- To develop an understanding of the world, built on current scientific theories;
- To learn that Science involves particular processes and ways of developing and organising knowledge and that these continue to evolve.
- To use their current scientific knowledge and skills for problem solving and developing further knowledge.
- To use scientific knowledge and skills to make informed decisions about the communication, application, and implications of Science as these relate to individual lives and cultures and to the sustainability of the environment.
- To prepare students for success in NCEA Level Two examinations and further study pathways.

**Description**

This course involves study from the specialist area of Chemistry to provide students with a Chemical Science background giving them an understanding of Scientific Method and technology as it relates to the Material world in the following areas: types and rates of reactions, patterns in groups of related substances, energy changes and atomic structure and bonding. Level 2 Chemistry is a prerequisite for Level 3 Chemistry and entry into many University and Polytechnic courses.

**Topics**

Oxidation Reduction Reactions; Bonding, Structure, Properties and Energy Changes; Organic Chemistry; Calculations and Titrations, Chemical Reactivity.

### Assessment Programme – Achievement Standards 2019

#### External

AS91164 v2	Demonstrate understanding of bonding, structure, properties and energy changes.	5 credits
AS91165 v2	Demonstrate understanding of the properties of selected organic compounds.	4 credits
AS91166 v2	Demonstrate understanding of chemical reactivity.	4 credits

#### Internal

AS91161 v2	Carry out quantitative analysis.	4 credits
AS91167 v2	Demonstrate understanding of oxidation -reduction	3 credits

### Assessment Opportunity

Students are expected to complete all assessment activities on or before the due date. A further assessment opportunity will only be offered to classes where practicable. The final decision as to whether the class will be offered a further assessment opportunity lies with the Head of Faculty.

### Derived Grades

These are only available for external standards and will depend on evidence available from practice examinations and other assessed work completed in class that is related to the same learning outcomes.

### Work Deadlines & Lateness

All work must be handed in **at the beginning of the lesson on the due date**. Work **must be personally delivered to the teacher concerned** and must not be placed in the teacher's pigeonhole or left on the teacher's desk.

All in-class and fieldtrip assessments must be completed on the set day unless **prior approval** has been requested of the individual teacher and approved by the Head of Department.

Assessment tasks handed in late without prior approval, will not necessarily be accepted for marking. The decision to accept or not accept a late assessment tasks will be made by the individual decision. Students who fail to submit work for assessment will be recorded as "not submitted" and can expect to receive a "not achieved" for that standard.

Students enrolled in all Science Department course are entered in all standards being assessed as part of that course unless they negotiate to be removed from that particular standard **at the beginning of the year** and will require written parental permission to be removed from any standard.

### How to Appeal a Grade

Appeals against grades awarded should be made following the procedure outlined in the school policy on appeals. Students wishing to appeal a grade must do so within 48 hours of receiving notification of their assessed grade.

### Storage of Student Work

The Science Department will retain all student assessment material until it is no longer required by the NZQA for moderation purposes.

**Authenticity**

Except where specified in the assessment task, all work is to be the student's own. Assessment tasks completed outside of examination conditions will require a signed statement of authentication from students.

**Marking and Moderation**

Student's work will be marked by the class teacher following NCEA assessment schedules. For marking consistency, some assessment tasks or sections of tasks may be marked by the same teacher for all classes. Moderation will take place at the beginning and end of the marking to ensure consistency between classes.

**Resources & Texts**

Texts and resource material will only be loaned to students through the bar coded issue system and remain the property of the Science Department. Lost materials and texts will be replaced by the students responsible at his/ her own cost which must be cleared before further texts will be issued.

**Welcome to the Science Department. The Science staff are here to help you enjoy your learning and make the most of the learning opportunities provided.**