

**OTUMOETAI COLLEGE**  
**NCEA CHEMISTRY LEVEL 3 – (L3CHEM) 2018**

<b>CHEMISTRY – L3CHEM – Approved List</b>					
<i>Course Relationship to the National Vocational Pathways</i>					
Construction & Infrastructure	Manufacturing & Technology	Primary Industries	Services Industries	Social & Community Services	Creative Industries
<b>21</b>	<b>21</b>	<b>21</b>	<b>5</b>	<b>21</b>	<b>0</b>
<b>Course Entry</b>	Minimum entry requirement is 13 credits in Level 2 Chemistry (including two Externals - 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. This course is a prerequisite 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 22 credits at Level 3.				
<b>Cost</b>	Chemistry Workbook				<b>\$40.00</b>
	Education Perfect (Optional)				<b>\$20.00</b>
	ICAS Exam [Optional]				<b>\$7.00</b>

**Aim**

1. 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* – To use these competencies to live, learn, work, and contribute as active members of communities.
2. To develop an understanding of the composition and the properties of matter, the changes it undergoes and the energy involved.
3. As a result of studying Chemistry, students are able to:
  - use their understanding of the fundamental properties of Chemistry to make sense of the world around them
  - interpret their observations by considering the properties and behaviour of atoms, molecules and ions.
  - communicate their understandings using the symbols and conventions of Chemistry
  - understand science-related challenges, such as environmental sustainability and the development of new materials, pharmaceuticals and sources of energy.
4. To prepare students for success in NCEA Level 3 (and Scholarship) examinations and further study pathways.

**Description**

This course involves study of the key concepts of Chemistry to provide students with the background to understand Chemistry for everyday life, to prepare for the workforce or to choose further study pathways in this specialist area. Level 3 Chemistry is a prerequisite for entry into many university and Polytechnic Courses.

**Topics**

Oxidation and reduction  
 Atomic structure and thermochemistry  
 Organic reactions  
 Aqueous chemistry

## Assessment Programme 2018

AS No	Title of standard	Credits	
91388 v2	Demonstrate understanding of Spectroscopic data in Chemistry	3	I
91393 v2	Demonstrate understanding of oxidation – reduction processes	3	I
91390 v2	Demonstrate understanding of thermochemical principles and the properties of particles and substances	5	E
91391 v2	Demonstrate understanding of the properties of organic compounds	5	E
91392 v2	Demonstrate understanding of equilibrium principles in aqueous systems	5	E
<b>Total =</b>		<b>21</b>	

### 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 **as specified by the teacher (or published instructions) 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 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.**

# YEAR PLANNER 2018

# SUBJECT: L3 Chemistry

TERM 1 102 half-days	Week 1 29 Jan – 2 Feb	Week 2 5 - 9 Feb	Week 3 12 - 16 Feb	Week 4 19 - 23 Feb	Week 5 26 Feb – 2 Mar	Week 6 5 – 9 Mar	Week 7 12 – 16 Mar	Week 8 19 - 23 Mar	Week 9 27 - 30 Mar	Week 10 2 – 6 Apr	Week 11 9 – 15 Apr			
Context	Anniversary Day (30) Teacher-only-day Tues 31	L2 Recap	Waitangi Day (6)	Organic Chemistry 91391 External The properties of organic compounds AND Spectroscopy 91388 Internal Understand spectroscopic data							Easter Friday	Easter Monday	Easter Tuesday	Organics and Assess Spectroscopy
Assessment														
TERM 2 98 half-days	Week 1 30 Apr - 4 May	Week 2 7 - 11 May	Week 3 14 - 18 May	Week 4 21 – 25 May	Week 5 28 May – 1 Jun	Week 6 4 - 8 June	Week 7 11 - 15 June	Week 8 18 - 22 June	Week 9 25 - 29 Jun	Week 10 2-6 July				
Context	Finish and assess organics	Redox Internal 91393 Oxidation-Reduction Processes				Queen's B'day (4)	Finish and asses	Bonding and Energy 91390	SENIOR EXAMS WEEK	Bonding and energy 91390 EXT Thermochemical principles and the properties of particles				
Assessment														
TERM 3 100 half-days	Week 1 23 - 27 July	Week 2 30 July - 3 Aug	Week 3 6 – 10 Aug	Week 4 13 - 17 Aug	Week 5 20 - 24 Aug	Week 6 27-31 Aug	Week 7 3 - 7 Sept	Week 8 10 - 14 Sept	Week 9 19 - 21 Sept	Week 10 24 - 28 Sept				
Context	Bonding and energy 91390 EXT Thermochemical principles and the properties of particles and			Aqueous Systems 91392 External Equilibrium principles in aqueous systems			Revision	SENIOR EXAMS WEEK	Aqueous Systems 91392 External					
Assessment							WINTER TOURNAMENT WEEK							
TERM 4 78 half-days	Week 1 15 - 19 Oct	Week 2 22 - 26 Oct	Week 3 29 Oct - 2 Nov	Week 4 5 – 9 Nov	Week 5 12 - 16 Nov	Week 6 19 - 23 Nov	Week 7 26 – 30 Nov	Week 8 3 – 7 Dec						
Context	Aqueous Systems 91392 External	Labour Day (22)	Revision					TOD 8 Dec						
Assessment					NCEA EXAMS START									