



Waikato Diocesan School for Girls



Course Information Booklet

2017

NCEA Level 1 Advanced PhysiChem Student Course Information

Welcome to Level 1 Advanced PhysiChem, a course designed to incorporate different aspects of Physics and Chemistry in one comprehensive programme. Throughout the year we will be exploring five different Achievement Standards, of which two relate to Physics and three to Chemistry.

Level 1 Advanced PhysiChem Matrix

Level 1 Achievement standards	Credits	Assessment Mode	Literacy	Numeracy
AS 90940 Science 1.1 Demonstrate an understanding of aspects of mechanics	4	External	-	Y
AS 90937 Physics 1.3 Demonstrate an understanding of aspects of electricity and magnetism.	4	External	-	Y
AS 90932 Chemistry 1.3 Demonstrate an understanding of aspects of carbon chemistry	4	External	-	-
AS 90933 Chemistry 1.4 Demonstrate an understanding of aspects of selected elements	4	External	-	-
AS 90947 Science 1.8 Investigate selected chemical reactions	4	Internal	-	-
Total Credits Available	20			

The **Internal Achievement Standard** will be assessed as follows:

AS 90947 (Science 1.8) *Investigate selected chemical reactions*; will be assessed over two hours during the derived grade examinations in Term 3. This will be a practical and individual assessment.

The **Four External Achievement Standards** will be assessed in three external NCEA examination at the end of the year. (Level 1 Science, Level 1 Physics and Level 1 Chemistry).

You can gain the following grades in the Achievement Standards:

Standard not Attempted	SNA	Did not attempt the standard
Not Achieved	NA	Did not meet the standard
Achieved	A	The standard was achieved
Achieved with Merit	M	The standard was achieved demonstrating very good work
Achieved with Excellence	E	The standard was achieved demonstrating excellent work

Assessment Policy and Procedures

The Science Department will follow the procedures in the Waikato Diocesan School for Girls Assessment Policy booklet. Please ensure that you have carefully read the guidelines on; *Authenticity, Appeals, Course completion, Deadlines and Absences*.

Opportunity for Further assessment

Teachers may offer **Further Assessment Opportunities (FAO)** for Achievement Standards and Unit Standards according to the following guidelines:

- A maximum of **one** FAO for a standard can be provided within a year if it is practical and manageable
- The Department must publicise any FAO
- FAO are only appropriate if additional teaching and learning has taken place since the first assessment opportunity
- If a FAO is offered, it must be offered to all students
- All grades must be available as a result of a FAO (i.e. Not Achieved, Achieved, Merit, and Excellence, in the case of achievement standards)

Resubmissions can occur where a student is *offered* the opportunity to correct a minor error in an assessment but only if she is capable of identifying the error independently. Resubmissions will be limited to one per assessment opportunity.

Note: A further assessment opportunity **will not** be offered for *Achievement Standard 90947 (Science 1.8)* as it is not manageable and/or practicable.

Verifying Grades

Students are required to verify the final grades awarded by checking and signing the recorded results.

Compassionate Considerations

Internal Achievement Standard – compassionate consideration for a student who is absent from an internal assessment may be made if there is sufficient evidence available from other work related to the same skill/content and no other further assessment opportunity is available.

External Achievement Standards – NZQA guidelines will be followed.

Retention of Student Work

Student internal assessment material will be retained by the Department until it is no longer required for moderation purposes.

Student Obligations

1. Ensure you understand the assessment programme and policy.
2. Ensure you understand the requirements of each assessment being completed.
3. Ensure **you** keep a record of each assessment on your student tracking sheet.
4. Discuss problems/concerns with the Teacher/Head of Department.

Conditions for Assessment

Normal examination rules will apply.

Assessed by Assurance Process:

- Assessed by class teacher.
- Samples across the range 'Not Achieved, Achieved, Achieved with Merit, Achieved with Excellence' of assessed work will be submitted for assurance to another Physics teacher.
- Samples make comparisons to exemplars.
- Samples indicate assessment decisions made by teacher across the whole class.
- Students' results are confirmed once assurance process has occurred.

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Course Assessment Statement NCEA Level 1 Physichem



Standard number	Credits	Version	Title	Status	Internal/ External	Timing/ Due date	FAO
Science 1.1 AS 90940	4	V3	Demonstrate understanding of aspects of mechanics.		External	Term 1, Week 5 and Prelim exam	
Physics 1.3 AS 90937	4	V3	Demonstrate understanding of aspects of electricity and magnetism.		External	Term 2, Week 5 and Prelim exam	
Chemistry 1.3 AS 90932	4	V3	Demonstrate understanding of aspects of carbon chemistry.		External	Term 1, Week 11 and Prelim exam	
Chemistry 1.4 AS 90933	4	V4	Demonstrate understanding of aspects of selected elements.		External	Term 3, Week 2 and Prelim exam	
Science 1.8 AS 90947	4	V3	Investigate selected chemical reactions		Internal	Term 3 Prelim exam period	no

Level 1 Advanced PhysiChem Calendar 2017

Click on the link above to view the term by term breakdown for Level 2 Physics as well as the assessment time frames.

Waikato Diocesan School for Girls NCEA Level 1 Advanced PhysiChem Calendar 2017



Term 1

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11
31/01 -03/02	06/02 -10/02	13/02 -17/02	20/02 -24/02	27/02 -03/03	06/03 -10/03	13/03 -17/03	20/03 -24/03	27/03-31/03	03/04 - 07/04	10/04- 13/04
Intro Week	A.S 90940 Science 1.1 Mechanics (external) 4 credits				A.S 90932 Chemistry 1.3 Carbon Chemistry (external) 4 credits					A.S 90937
Welcome. Significant figures and graphing.	Distance, speed and acceleration. Distance-time graphs and Speed-time graphs.	Force, mass and acceleration. Free body diagrams, balanced and unbalanced forces. Net Force.	Mass and Weight. Friction and air resistance. Pressure.	Energy transformations, and the conservation of energy. Work and Power.	The importance of Carbon. Covalent bonding. Alkanes and alkenes.	Alcohols, melting and boiling points and solubility.	Combustion (complete and incomplete) Word and symbol equations.	Cracking, polymers, fermentation and fractional distillation.	Hydrocarbons and the environment.	Electricity and the role of the electron. Static Electricity, charging by friction and charge distribution.

Term 2

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
01/05 -05/05	08/05 -12/05	15/05 - 9/05	22/05 -06/05	29/05 -02/06	05/06 -09/06	12/06 -06/06	19/06 -03/06	26/06 -30/06	03/07 -07/07
Year 11 Camp	A.S 90937 Physics 1.3 Electricity and Magnetism (external) 4 credits				A.S 90933 Chemistry 1.4 Selected Elements (external) 4 credits				
Charge by induction, charge by contact. Discharge and Earthing	Voltage, Current and Resistance. Series and parallel circuits.	Ohm's law. Resistance and Ohm's law. Power and combination circuits	Bar magnets, magnetic fields, electromagnets and the RH rules.	Atoms, elements, ions and the periodic table. Electron arrangement.	Ionic compounds, writing and using chemical formulae. Word and balanced symbol equations	Metals and alloys. Reactivity of metals. Metals +Acid Metals +Oxygen Metals + Water	Corrosion. Alkali Metals. The activity series.	Non-metals and covalent bonding. Carbon.	