OTUMOETAI COLLEGE
NCEA PHYSICS LEVEL 3 – (L3PHYS) 2018

PHYSICS – L3PHYS – Approved List

Course Relationship to the National Vocational Pathways

Construction & Infrastructure	Manufacturing & Technology	Primary Industries	Services Industries	Social & Community Services	Creative Industries
23	23	16	0	23	0

Course Entry	Minimum entry requirement is 16 credits in Level 2 Physics (including Mechanics and Electricity - at Merit / Excellence level advisable) or if given HOD approval. A solid grounding in Algebra and Trigonometry is expected.	
Course Overview	This course involves study of the key concepts of Physics to enable students to choose further study pathways in this specialist area. Physics study includes waves, mechanics, relativity, particle physics, electricity and introduction to quantum physics and nuclear physics. This course is a prerequisite for entry into many University and Polytechnic Course pathways.	
Assessment	This course will be assessed to a selection of Achievement Standards, both internal and external, with students having the opportunity to gain up to 23 credits at Level 3.	
Cost	Attending Field Trip [Optional] Attending Osborne Lecture, Waikato University (Optional) Course Book	**$100.00** **$25.00** **$30.00**

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* – Students will learn to use these competencies to live, learn, work, and contribute as active members of communities.
2. To develop an understanding of the world, built on current physical theories;
3. To learn that Physics involves particular processes and ways of developing and organising knowledge and that these continue to evolve.
4. To use their current scientific knowledge and skills for problem solving and developing further knowledge.
5. 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.
6. To prepare students for success in NCEA Level one examinations and further study pathways and to allow them to develop skills in research and experimental techniques.

Description

This course involves study from the areas of Mechanics, Light & Waves, Nuclear Physics and Electrical Systems to provide students with a Physics background to understand applications of Physics, prepare for the workforce or to choose further study pathways.

Topics

Waves
Mechanics
Nuclear
Electrical Systems

Assessment Programme – Achievement Standards 2018

External

AS91523 v2 **Physics 3.3**	Demonstrate understanding of wave systems	4 credits
AS91524 v2 **Physics 3.4**	Demonstrate understanding of mechanical systems	6 credits
AS91526 v2 **Physics 3.6**	Demonstrate understanding of electrical systems	6 credits

Internal

AS91522 v2 **Physics 3.2**	Demonstrate understanding of the application of physics to a selected context	3 credits
AS91527v2 **Physics 3.7**	Use Physics knowledge to develop an informed response to a socio-scientific issue	3 credits
AS91525 v2 **Physics 3.5**	Demonstrate understanding of Modern Physics	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 for AS91525 **Physics 3.5**, and **not** AS91522, **Physics 3.2** or AS9152, **Physics 3.7**. 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 or before 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 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 courses 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.

Finally …….. 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 PHYSICS