Course Title:	**Physics II**
Course Code:	**PHYS600**
Descriptor Start Date:	**01/01/2022**
Descriptor End Date:	**30/01/2025**
POINTS:	**15.00**
LEVEL:	**6**
PREREQUISITE/S:	**PHYS500, MATH501**
COREQUISITE/S:	**None**
RESTRICTION/S:	**None**

LEARNING HOURS

Hours may include lectures, tutorials, online forums, laboratories. Refer to your timetable and course information in Canvas for detailed information.

Total learning hours: 150

PRESCRIPTOR

A calculus-based general physics paper. The topics covered include: Electro- and magnetostatics, DC and AC circuits, time-varying fields, Maxwell's equations, electromagnetic waves, geometric optics, interference and diffraction, the quantum nature of particles and light, atomic and nuclear phenomena.

LEARNING OUTCOMES

1. Formulate laws of electricity and magnetism, optics, interference and diffraction, and demonstrate understanding of these laws (e.g. by applying them to interpretation of experimental findings and natural phenomena).
2. Select and apply appropriate mathematical techniques to solving physics problems.
3. Select and apply principles of physics to problem solving in electricity and magnetism, geometric optics, interference and diffraction.

CONTENT

- Electrostatics,
- Magnetostatics,
- DC and AC circuits,
- Time-varying fields,
- Maxwell's equations,
- Electromagnetic waves,
- Geometric optics,
- Interference and diffraction

LEARNING & TEACHING STRATEGIES

Lectures – pre-recorded online videos, Tutorials – consultation with teaching staff, Discussion Forum – Q&A interaction with teaching staff, Assigned Problem Solving, Independent Project

ASSESSMENT PLAN

Assessment Event	Weighting %	Learning Outcomes
Portfolio and End-of-paper Oral Assessment	100.00	1,2,3

Grade Map **MAP1**

A+ A A- Pass with Distinction
B+ B B- Pass with Merit
C+ C C- Pass
D Fail

Overall requirement/s to pass the course:

To pass the course, the student must achieve a minimum overall grade of C- .

LEARNING RESOURCES

“Physics for Scientists and Engineers with Modern Physics”, R A Serway and J W Jewett (Latest edition, 2010), ISBN 9-781439-048757. A supplementary reading list will be provided.

For further information, contact: Te Ara Auaha - Faculty of Design & Creative Technologies

Principal Programme: **DJ1041, Bachelor of Science**

Related Programme/s: **AK1042**
AK1043
AK3001