

ENGR 1047 ADVANCED ENGINEERING PHYSICS 1

Credit Points 10

Legacy Code 301334

Coordinator Leigh Sheppard ([https://directory.westernsydney.edu.au/search/name/Leigh Sheppard/](https://directory.westernsydney.edu.au/search/name/Leigh%20Sheppard/))

Description This unit will be offered at Engineering Innovation Hub - Hassall St, Parramatta campus. The aim of this unit is to introduce students to the conceptual, mathematical and practical aspects of the following topics in advanced engineering physics, viz: vectors, linear and circular motion, photons, electrons and atoms, Newtons laws of motion, work and kinetic energy, dynamics of rotational motion, fluid dynamics, thermodynamics, periodic motion and waves/acoustics. The content will be delivered via a combination of lectures, tutorials and hands-on practicals in order to develop the growth of theoretical and applied engineering physics knowledge. This will provide students with a solid foundation for their engineering studies.

School Eng, Design & Built Env

Discipline Other Engineering And Related Technologies

Student Contribution Band HECS Band 2 10cp

Check your HECS Band contribution amount via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Undergraduate Level 1 subject

Equivalent Subjects ENGR 1011 - Engineering Physics
ENGR 1013 - Engineering Physics

Assumed Knowledge

HSC Physics and HSC Mathematics Extension 1 (not General Mathematics).

Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Item	Length	Percent	Threshold	Individual/ Group Task
Report	2 hours per practical	15	N	Individual
Numerical Problem Solving	40 minutes	15	N	Individual
Practical Exam	2 hours	10	N	Individual
Numerical Problem Solving	5-10 problems	10	N	Individual
Final Exam	2 hours	50	N	Individual

Prescribed Texts

Young, HD & Freedman, RA 2020, Sears and Zemansky's University Physics with Modern Physics, 15th Global edn, Pearson Higher Ed, Boston.

Teaching Periods

Autumn

Parramatta City - Macquarie St

Day

Subject Contact Leigh Sheppard ([https://directory.westernsydney.edu.au/search/name/Leigh Sheppard/](https://directory.westernsydney.edu.au/search/name/Leigh%20Sheppard/))

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=ENGR1047_22-AUT_PC_D#subjects)