



Course

Electrical Energy

ELEC3105

6 Units of Credit

Overview

Electrical energy supply systems: transmission and distribution systems; Basic aspects of both the supply and utilization of electrical energy, with some emphasis on contemporary aspects of energy utilization including modern developments, energy efficiency and environmental aspects. Basic concepts used in power circuit analysis: phasors, leading/lagging, power, power factor, reactive power.

Transformers: equivalent circuits, single and three-phase transformers, delta-wye connections, harmonics; Principles of energy conversion; Operating principles and analyses of DC, induction and synchronous machines; Introduction to power electronics: single- and three-phase switching of electrical power. DC-AC, DC-DC and AC-AC converters.

Faculty

Faculty of Engineering

School

School of Electrical Engineering & Telecommunications

Study Level

Undergraduate

Offering Terms

Term 2

Campus

Kensington

Indicative contact hours

5.5

Timetable

[Visit timetable website for details](#)

Conditions for Enrolment

Prerequisite/s: ELEC2134 and ELEC3115

Equivalent Courses

ELEC3005 6 UOC

Electric Energy 1

Course Outline

To access course outline, please visit:

[ELEC3105 Course Outline](#)

Fees

Commonwealth Supported Students \$1191

Domestic Students \$5970

International Students \$5970

DISCLAIMER

Please note that the University reserves the right to vary student fees in line with relevant legislation. This fee information is provided as a guide and more specific information about fees, including fee policy, can be found on the [fee website](#).

For advice about fees for courses with a fee displayed as "Not Applicable", including some Work Experience and UNSW Canberra at ADFA courses, please contact the relevant Faculty.

Where a Commonwealth Supported Students fee is displayed, it does not guarantee such places are available.

Pre-2019 Handbook Editions

Access past handbook editions (2018 and prior)

[Pre-2019 Handbook Editions](#)

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Authorised by Deputy Vice-Chancellor (Academic)

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ABN: 57 195 873 179