



Course

Radio Frequency Electronics

ELEC4604

6 Units of Credit

Overview

Review of transceiver architectures. RF basics: transmission lines. Smith charts. S-parameters. RF active/passive devices and parasitics. Linearity and noise. Impedance matching. RF filters: design and implementation of microstripline filters, Kuroda identities. LNA: circuit architectures, impedance, noise, bandwidth, power gain. Mixers: active/passive mixer architectures, isolation, linearity, conversion gain. Oscillators: architecture, voltage controlled oscillators and tunability, phase noise. Phase-locked loops: analysis and dynamics of PLL, charge pump, frequency synthesiser. Power amplifiers: class C,E, F, efficiency.

Faculty

Faculty of Engineering

School

School of Electrical Engineering & Telecommunications

Study Level

Undergraduate

Offering Terms

Term 1

Campus

Kensington

Indicative contact hours

6

Timetable

[Visit timetable website for details](#)

Conditions for Enrolment

Prereq: ELEC3106

Course Outline

To access course outline, please visit:

[ELEC4604 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