Overview

This course is about mechanical proof assistants, how they work, and what they can be used for. It presents specification and proof techniques used in industrial grade theorem provers, teaches the theoretical background to the techniques involved, and shows how to use a theorem prover to conduct formal proofs in practice. The courses is intended to bring third/fourth year and postgraduate students into contact with the current research topics in the field of theorem proving and automated deduction and to teach them the necessary skills to successfully use industrial grade verification environments in modelling and verification.

Topics covered included: higher order logic, natural deduction, lambda calculus, term rewriting, data types and recursive functions, induction principles, calculational reasoning, mathematical proofs, decision procedures for a variety of logical domains, and proofs about programs.

Note: experience with (first-order) logic and functional programming is required.
Faculty
Faculty of Engineering

School
School of Computer Science and Engineering

Study Level
Postgraduate

Offering Terms
Term 3

Campus
Kensington

Delivery Mode
Fully on-site

Indicative contact hours
4

Timetable
Visit timetable website for details
Conditions for Enrolment

Prerequisite: Completion of 48 UOC
Course Outline

To access course outline, please visit:

COMP4161 Course Outline
**Fees**

Commonwealth Supported Students  $1191  
Domestic Students  $4470  
International Students  $5910  

**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)

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