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# University of Pretoria Yearbook 2019

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## Theoretical computer science 210 (COS 210)

**Qualification** Undergraduate

**Faculty** [Faculty of Engineering, Built Environment and Information Technology](#)

**Module content** This module introduces students to a framework for investigating both computability and complexity of problems. Topics include, but are not limited to: finite-state machines, regular expressions and their application in a language such as awk, the Halting problem, context-free grammars, P vs NP problem, NP-complete class, reduction techniques, regular languages, DFAs and NFAs, Lattices, Church-Turing thesis.

**Module credits** 8.00

**Programmes** [BSc Computer Science](#)

[BSc Information and Knowledge Systems](#)

[BSc Physics](#)

**Prerequisites** COS 110 and COS 151

**Contact time** 2 lectures per week, 1 practical per week

**Language of tuition** Module is presented in English

**Department** Computer Science

**Period of presentation** Semester 1

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