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# University of Pretoria Yearbook 2019

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## Theoretical computer science 210 (COS 210)

<b>Qualification</b>	Undergraduate
<b>Faculty</b>	<a href="#">Faculty of Engineering, Built Environment and Information Technology</a>
<b>Module credits</b>	8.00
<b>Programmes</b>	<a href="#">BSc Computer Science</a> <a href="#">BSc Information and Knowledge Systems</a> <a href="#">BSc Physics</a>
<b>Prerequisites</b>	COS 110 and COS 151
<b>Contact time</b>	2 lectures per week, 1 practical per week
<b>Language of tuition</b>	Module is presented in English
<b>Department</b>	Computer Science
<b>Period of presentation</b>	Semester 1

### 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.

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