

# University of Pretoria Yearbook 2021

## Algebra 381 (WTW 381)

<b>Qualification</b>	Undergraduate
<b>Faculty</b>	<a href="#">Faculty of Natural and Agricultural Sciences</a>
<b>Module credits</b>	18.00
<b>NQF Level</b>	07
<b>Programmes</b>	<a href="#">BCom</a>
	<a href="#">BCom Statistics and Data Science</a>
	<a href="#">BSc Computer Science</a>
	<a href="#">BSc Applied Mathematics</a>
	<a href="#">BSc Chemistry</a>
	<a href="#">BSc Geology</a>
	<a href="#">BSc Mathematical Statistics</a>
	<a href="#">BSc Mathematics</a>
	<a href="#">BSc Physics</a>
<b>Service modules</b>	Faculty of Engineering, Built Environment and Information Technology
	Faculty of Education
	Faculty of Economic and Management Sciences
	Faculty of Humanities
<b>Prerequisites</b>	WTW 114 and WTW 211
<b>Contact time</b>	1 tutorial per week, 2 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Department</b>	Mathematics and Applied Mathematics
<b>Period of presentation</b>	Semester 1

### Module content

Group theory: Definition, examples, elementary properties, subgroups, permutation groups, isomorphism, order, cyclic groups, homomorphisms, factor groups. Ring theory: Definition, examples, elementary properties, ideals, homomorphisms, factor rings, polynomial rings, factorisation of polynomials. Field extensions, applications to straight-edge and compass constructions.

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