

University of Pretoria Yearbook 2016

Algebra 381 (WTW 381)

Qualification Undergraduate

Faculty [Faculty of Natural and Agricultural Sciences](#)

Module credits 18.00

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

[BA Music Music](#)

[BSc Applied Mathematics](#)

[BSc Chemistry](#)

[BSc Environmental and Engineering Geology](#)

[BSc Environmental Sciences](#)

[BSc Geography](#)

[BSc Geoinformatics](#)

[BSc Geology](#)

[BSc Mathematical Statistics](#)

[BSc Mathematics](#)

[BSc Meteorology](#)

[BSc Physics](#)

Service modules Faculty of Education

Faculty of Economic and Management Sciences

Faculty of Humanities

Prerequisites WTW 114 and WTW 211

Contact time 1 tutorial per week, 2 lectures per week

Language of tuition Double Medium

Academic organisation Mathematics and Applied Maths

Period of presentation 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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