

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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