



University of Pretoria Yearbook 2018

Algebra 381 (WTW 381)

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| Qualification | Undergraduate |
| Faculty | Faculty of Natural and Agricultural Sciences |
| Module credits | 18.00 |
| Programmes | BCom BSc Computer Science BSc Applied Mathematics BSc Geology BSc Mathematical Statistics BSc Mathematics |
| 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 | Afrikaans and English are used in one class |
| Department | Mathematics and Applied Mathematics |
| 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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