

# University of Pretoria Yearbook 2016

## Discrete structures 115 (WTW 115)

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| <b>Qualification</b>          | Undergraduate  |
| <b>Faculty</b>                | Faculty of Natural and Agricultural Sciences   |
| <b>Module credits</b>         | 8.00   |
| <b>Programmes</b>             | BIT Information Technology<br>BSc Information Technology Information and Knowledge Systems<br>BSc(Computer Science) Computer Science<br>BSc Applied Mathematics<br>BSc Chemistry<br>BSc Extended programme - Mathematical Sciences<br>BSc Geography<br>BSc Geology<br>BSc Mathematical Statistics<br>BSc Mathematics<br>BSc Meteorology<br>BSc Physics |
| <b>Service modules</b>        | Faculty of Engineering, Built Environment and Information Technology<br>Faculty of Education<br>Faculty of Economic and Management Sciences  |
| <b>Prerequisites</b>          | Refer to Regulation 1.2: A candidate must have passed Mathematics with at least 50% in the Grade 12 examination  |
| <b>Contact time</b>           | 1 tutorial per week, 2 lectures per week   |
| <b>Language of tuition</b>    | Both Afr and Eng   |
| <b>Academic organisation</b>  | Mathematics and Applied Maths  |
| <b>Period of presentation</b> | Semester 1   |

### Module content

Propositional logic: truth tables, logical equivalence, implication, arguments. Mathematical induction and well-ordering principle. Introduction to set theory. Counting techniques: elementary probability, multiplication and addition rules, permutations and combinations, binomial theorem, inclusion-exclusion rule.



The information published here is subject to change and may be amended after the publication of this information. The [General Regulations \(G Regulations\)](#) apply to all faculties of the University of Pretoria. It is expected of students to familiarise themselves well with these regulations as well as with the information contained in the [General Rules](#) section. Ignorance concerning these regulations and rules will not be accepted as an excuse for any transgression.