



# University of Pretoria Yearbook 2017

## Discrete structures 115 (WTW 115)

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| <b>Qualification</b>          | Undergraduate  |
| <b>Faculty</b>                | <a href="#">Faculty of Natural and Agricultural Sciences</a>   |
| <b>Module credits</b>         | 8.00   |
| <b>Programmes</b>             | <a href="#">BIT Information Technology</a><br><a href="#">BSc Computer Science</a><br><a href="#">BSc Information and Knowledge Systems</a><br><a href="#">BSc Applied Mathematics</a><br><a href="#">BSc Chemistry</a><br><a href="#">BSc Extended programme - Mathematical Sciences</a><br><a href="#">BSc Mathematical Statistics</a><br><a href="#">BSc Mathematics</a><br><a href="#">BSc Physics</a> |
| <b>Service modules</b>        | <a href="#">Faculty of Engineering, Built Environment and Information Technology</a><br><a href="#">Faculty of Education</a><br><a href="#">Faculty of Economic and Management Sciences</a>  |
| <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>           | 2 lectures per week, 1 tutorial per week   |
| <b>Language of tuition</b>    | Separate classes for Afrikaans and English   |
| <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.