

# University of Pretoria Yearbook 2018

## Introduction to proteins and enzymes 251 (BCM 251)

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| <b>Qualification</b>       | Undergraduate  |
| <b>Faculty</b>             | Faculty of Natural and Agricultural Sciences   |
| <b>Module credits</b>      | 12.00  |
| <b>Programmes</b>          | BDietetics<br>BSc Biochemistry<br>BSc Biotechnology<br>BSc Chemistry<br>BSc Culinary Science<br>BSc Ecology<br>BSc Entomology<br>BSc Food Science<br>BSc Genetics<br>BSc Human Genetics<br>BSc Human Physiology<br>BSc Human Physiology, Genetics and Psychology<br>BSc Medical Sciences<br>BSc Microbiology<br>BSc Nutrition<br>BSc Plant Science<br>BSc Zoology<br>BScAgric Animal Science<br>BScAgric Applied Plant and Soil Sciences<br>BScAgric Plant Pathology |
| <b>Service modules</b>     | Faculty of Health Sciences   |
| <b>Prerequisites</b>       | CMY 117 GS and CMY 127 GS and MLB 111 GS   |
| <b>Contact time</b>        | 2 lectures per week, 90 minute practical per week  |
| <b>Language of tuition</b> | Afrikaans and English are used in one class  |

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| <b>Department</b> | Biochemistry |
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| <b>Period of presentation</b> | Semester 1 |
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**Module content**

Structural and ionic properties of amino acids. Peptides, the peptide bond, primary, secondary, tertiary and quaternary structure of proteins. Interactions that stabilise protein structure, denaturation and renaturation of proteins. Introduction to methods for the purification of proteins, amino acid composition, and sequence determinations. Introduction to enzyme kinetics and enzyme inhibition. Allosteric enzymes, regulation of enzyme activity, active centres and mechanisms of enzyme catalysis. Examples of industrial applications of enzymes. Practical training in laboratory techniques and Good Laboratory Practice. Techniques for the quantitative and qualitative analysis of biological molecules. Processing and presentation of scientific data.

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