



# University of Pretoria Yearbook 2023

## Bacteriology 251 (MBY 251)

<b>Qualification</b>	Undergraduate
<b>Faculty</b>	Faculty of Natural and Agricultural Sciences
<b>Module credits</b>	12.00
<b>NQF Level</b>	06
<b>Programmes</b>	BSc (Information and Knowledge Systems) BSc (Biochemistry) BSc (Biotechnology) BSc (Chemistry) BSc (Ecology) BSc (Entomology) BSc (Food Management) <i>Culinary Science</i> BSc (Food Science) BSc (Genetics) BSc (Geography) <i>Geography and Environmental Science</i> BSc (Human Genetics) BSc (Human Physiology) BSc (Medical Sciences) BSc (Microbiology) BSc (Plant Science) BSc (Zoology) BScAgric (Plant Pathology)
<b>Service modules</b>	Faculty of Engineering, Built Environment and Information Technology
<b>Prerequisites</b>	MBY 161 GS
<b>Contact time</b>	2 lectures per week, fortnightly practicals
<b>Language of tuition</b>	Module is presented in English
<b>Department</b>	Biochemistry, Genetics and Microbiology
<b>Period of presentation</b>	Semester 1



## Module content

Growth, replication and survival of bacteria, Energy sources, harvesting from light versus oxidation, regulation of catabolic pathways, chemotaxis. Nitrogen metabolism, iron-scavenging. Alternative electron acceptors: denitrification, sulphate reduction, methanogenesis. Bacterial evolution, systematic and genomics. Biodiversity; bacteria occurring in the natural environment (soil, water and air), associated with humans, animals, plants, and those of importance in foods and in the water industry.

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