

University of Pretoria Yearbook 2022

Introductory biochemistry 257 (BCM 257)

Qualification	Undergraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	12.00
NQF Level	06
Programmes	BDietetics
	BSc (Biochemistry)
	BSc (Biotechnology)
	BSc (Chemistry)
	BSc (Culinary Science)
	BSc (Ecology)
	BSc (Entomology)
	BSc (Food Science)
	BSc (Genetics)
	BSc (Human Genetics)
	BSc (Human Physiology)
	BSc (Human Physiology, Genetics and Psychology)
	BSc (Medical Sciences)
	BSc (Microbiology)
	BSc (Nutrition)
	BSc (Plant Science)
	BSc (Zoology)
	BScAgric (Animal Science)
Prerequisites	CMY 117 GS and CMY 127 GS and MLB 111 GS
Contact time	1 tutorial per week, 2 lectures per week
Language of tuition	Module is presented in English
Department	Biochemistry, Genetics and Microbiology
Period of presentation	Semester 1

Module content

Chemical foundations. Weak interactions in aqueous systems. Ionisation of water, weak acids and weak bases. Buffering against pH changes in biological systems. Water as a reactant and function of water. Carbohydrate structure and function. Biochemistry of lipids and membrane structure. Nucleotides and nucleic acids. Other functions of nucleotides: energy carriers, components of enzyme cofactors and chemical messengers. Introduction to metabolism. Bioenergetics and biochemical reaction types. Online activities include introduction to laboratory safety and Good Laboratory Practice; basic biochemical calculations; experimental method design and scientific controls, processing and presentation of scientific data.

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