

University of Pretoria Yearbook 2019

Carbohydrate metabolism 252 (BCM 252)

Qualification	Undergraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	12.00
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
Service modules	Faculty of Education
	Faculty of Health Sciences
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

Carbohydrate structure and function. Blood glucose measurement in the diagnosis and treatment of diabetes. Bioenergetics and biochemical reaction types. Glycolysis, gluconeogenesis, glycogen metabolism, pentose phosphate pathway, citric acid cycle and electron transport. Total ATP yield from the complete oxidation of glucose. A comparison of cellular respiration and photosynthesis. Practical techniques for the study and analysis of metabolic pathways and enzymes. PO ratio of mitochondria, electrophoresis, extraction, solubility and gel permeation techniques. Scientific method and design.

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