

University of Pretoria Yearbook 2025

Carbohydrate metabolism 252 (BCM 252)

Qualification	Undergraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	12.00
NQF Level	06
Programmes	Bachelor of Dietetics [BDietetics]
	BSc in Biochemistry
	BSc in Biotechnology
	BSc in Chemistry
	BSc in Chemistry 4-year programme
	BSc in Entomology
	BSc in Food Management specialising in Culinary Science
	BSc in Food Management specialising in Nutrition
	BSc in Food Science
	BSc in Genetics
	BSc in Human Genetics
	BSc in Human Physiology
	BSc in Human Physiology 4-year programme
	BSc in Human Physiology, Genetics and Psychology
	BSc in Medical Sciences
	BSc in Microbiology
	BSc in Plant Science
	BSc in Zoology
	BScAgric in Animal Science
Service modules	Faculty of Education
	Faculty of Health Sciences
Prerequisites	BCM 251 GS and BCM 257 GS.
Contact time	2 lectures per week, 1 tutorial per week
Language of tuition	Module is presented in English

Department Biochemistry, Genetics and Microbiology

Period of presentation Semester 2

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. Online activities include 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.

General Academic Regulations and Student Rules

The [General Academic Regulations \(G Regulations\)](#) and [General Student Rules](#) apply to all faculties and registered students of the University, as well as all prospective students who have accepted an offer of a place at the University of Pretoria. On registering for a programme, the student bears the responsibility of ensuring that they familiarise themselves with the General Academic Regulations applicable to their registration, as well as the relevant faculty-specific and programme-specific regulations and information as stipulated in the relevant yearbook. Ignorance concerning these regulations will not be accepted as an excuse for any transgression, or basis for an exception to any of the aforementioned regulations. The G Regulations are updated annually and may be amended after the publication of this information.

Regulations, degree requirements and information

The faculty regulations, information on and requirements for the degrees published here are subject to change and may be amended after the publication of this information.

University of Pretoria Programme Qualification Mix (PQM) verification project

The higher education sector has undergone an extensive alignment to the Higher Education Qualification Sub-Framework (HEQSF) across all institutions in South Africa. In order to comply with the HEQSF, all institutions are legally required to participate in a national initiative led by regulatory bodies such as the Department of Higher Education and Training (DHET), the Council on Higher Education (CHE), and the South African Qualifications Authority (SAQA). The University of Pretoria is presently engaged in an ongoing effort to align its qualifications and programmes with the HEQSF criteria. Current and prospective students should take note that changes to UP qualification and programme names, may occur as a result of the HEQSF initiative. Students are advised to contact their faculties if they have any questions.