



University of Pretoria Yearbook 2023

Chemical and microbiological aspects of food 451 (FPP 451)

Qualification	Undergraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	20.00
NQF Level	08
Prerequisites	Third-year status or permission from the HOD.
Contact time	1 practical per week, 2 lectures per week
Language of tuition	Module is presented in English
Department	Consumer and Food Sciences
Period of presentation	Semester 1 or Semester 2

Module content

Chemical aspects: The role and composition of the major chemical components of food (water, carbohydrates, proteins and lipids). The content and nutritional role of different minor chemical components of food (minerals and vitamins). The principles and control of enzymic and non-enzymic browning. The composition and use of enzymes in food processing. Microbiological aspects: Introduction to micro-organisms. Intrinsic and extrinsic factors that affect growth and survival of micro-organisms. Important microbial groups in food. Microbial spoilage of foods. Determination of micro-organisms and/or their products in foods. The preservation of foods. Microbial indicators of food safety and quality. Food borne diseases and intoxications. The utilisation of micro-organisms in food production.

Regulations and rules

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

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.

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 (HEQF) 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.