

University of Pretoria Yearbook 2017

Cell structure and function 367 (BCM 367)

Qualification	Undergraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	18.00
Programmes	BSc Biochemistry BSc Biotechnology BSc Chemistry BSc Entomology BSc Genetics BSc Human Genetics BSc Human Physiology BSc Microbiology BSc Plant Science BSc Zoology
Prerequisites	BCM 251 and BCM 252 and BCM 261
Contact time	2 lectures per week, 180 minute practical per week
Language of tuition	Afrikaans and English is used in one class
Academic organisation	Biochemistry
Period of presentation	Semester 2

Module content

Visualising cell structure and localising proteins within cells. Cell ultrastructure. Purification of subcellular organelles. Culturing of cells. Diversity and commonality of cells. Biomembrane structure. Transmembrane transport of ions and small molecules. Moving proteins into membranes and organelles. Vesicular traffic, secretion, exocytosis and endocytosis. Cell organisation and movement. Cell-cell and cell-matrix adhesion. Practical training includes tutorials on cytometry and microscopy, mini-research projects where students are introduced and guided through aspects of research methodology, experimental planning as well as techniques associated with cellular assays. Active transport studies in yeast cells.

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