



University of Pretoria Yearbook 2016

Cell structure and function 367 (BCM 367)

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| Qualification | Undergraduate |
| Faculty | Faculty of Natural and Agricultural Sciences |
| Module credits | 18.00 |
| Programmes | BSc Biochemistry BSc Biotechnology BSc Genetics BSc Human Genetics BSc Human Physiology BSc Microbiology BSc Physics BSc Plant Science |
| Prerequisites | BCM 251 and BCM 252 and BCM 261 |
| Contact time | 2 lectures per week, 180 minute practical per week |
| Language of tuition | Double Medium |
| 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 electron-, immunofluorescent- and confocal microscopy. TLC of neutral lipids and phospholipids. Isolation and characterisation of erythrocyte membranes. Active transport studies in yeast cells.

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