



University of Pretoria Yearbook 2021

Plant physiology and biotechnology 261 (BOT 261)

Qualification	Undergraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	12.00
NQF Level	06
Programmes	BEd Senior Phase and Further Education and Training Teaching BSc Biochemistry BSc Biotechnology BSc Chemistry BSc Ecology BSc Entomology BSc Genetics BSc Geography and Environmental Science BSc Human Physiology BSc Microbiology BSc Plant Science BSc Zoology BScAgric Applied Plant and Soil Sciences BScAgric Plant Pathology
Service modules	Faculty of Education
Prerequisites	BOT 161 and CMY 127.
Contact time	1 practical per week, 2 lectures per week
Language of tuition	Module is presented in English
Department	Department of Plant and Soil Sciences
Period of presentation	Semester 2



Module content

Nitrogen metabolism in plants; nitrogen fixation in Agriculture; plant secondary metabolism and natural products; photosynthesis and carbohydrate metabolism in plants; applications in solar energy; plant growth regulation and the Green Revolution; plant responses to the environment; developing abiotic stress tolerant and disease resistant plants. Practicals: Basic laboratory skills in plant physiology; techniques used to investigate nitrogen metabolism, carbohydrate metabolism, pigment analysis, water transport in plant tissue and response of plants to hormone treatments.

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