

The Department of Plant and Soil Science offers a range of degrees:

Undergraduate

BSc in Plant Science

BSc in Biotechnology

with the Department of Biochemistry, Genetics and Microbiology

BSc in Ecology

with the Department of Zoology and Entomology

BScAgric in Applied Plant and Soil Sciences

BScAgric in Plant Pathology

Postgraduate

BScHons, MSc, PhD (Plant Science)

in Plant Diversity, Plant Ecology or Plant Physiology and Biotechnology

BScHons, MSc, PhD (Medicinal Plant Science)

BScHons, MSc, MSc(Agric), PhD (Soil Science and Environmental Soil Science)

BScHons (Crop Science)

BScHons, MSc, PhD (Biotechnology)

MSc, MScAgric, PhD (Plant Pathology)

MSc, PhD (Forest Science)

MSc (Forest Management and the Environment)

MScAgric, PhD (Agronomy)

MScAgric, PhD (Horticulture)

MScAgric, PhD (Pasture Science)

Admission Requirements

Candidates must have:

National Senior Certificate (NSC) with Bachelor's degree pass

Admission Point Score (APS) of 32

English or First Additional Language NSC/IEB 5 or AS level C (60-69%)

Mathematics: NSC/IEB 5 or AS level C Physical Sciences: NSC/IEB 5 or AS level C (60-69%)

Applicants with a school-leaving qualification other than NSC or IEB, must submit a Certificate of Complete Exemption or Foreign Conditional Exemption from USAf.

Please consult the UP program information brochure for more details.

Contact Us

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Department of Plant and Soil Sciences



Unlocking Africa's plant secrets

*Training future leaders in
plant and soil sciences*

Plant Pathology

Plant pathology is the science of plant health, and builds upon disciplines such as microbiology, botany, genetics, bioinformatics, statistics and soil science. Key areas include plant health, soilborne, leaf and fruit/vegetable diseases, postharvest pathology, agrimicrobiomes, seed science and food security.

Career Opportunities in Plant Pathology

Crop consultant
Retailer and exporter
Soil health expert
Precision farming specialist
Integrated pest manager
Research scientist or Research technician



Plant Biotechnology

In plant biotechnology, the molecular biology, genetics, biochemistry and physiology of plants are studied. Genome analyses, gene discovery and trait measurements in the lab and field explore plant responses to the environment, pests and diseases.

Gene editing, genetic modification and breeding are used to improve crops.

Career Opportunities in Plant Biotechnology

Crop molecular breeder
Genomics scientist
Research scientist (Laboratory or Field)
Biosafety officer



Plant Diversity and Ecology

Plants provide a habitat and food for most organisms. In the study of plant diversity and ecology, students learn about the functions, adaptations and importance of plants and vegetation and how to facilitate conservation and management strategies of important ecosystems for future generations. It combines ecological theory, field surveys and data processing skills to study plants and their interactions with organisms and the environment.

Career Opportunities in Plant Diversity and Ecology

Herbarium curator
Natural resource management
Environmental consultant
Nature documentary and film production
Botanical surveys
Environmental educator
Biological control scientist

Applied Plant and Soil Science

In this programme students will be equipped with the necessary knowledge and skills to analyse and evaluate crop production systems to identify problems and opportunities to improve the efficiency of production. It focuses on understanding plant and environmental interactions and insights into soil chemical, physical and biological processes

Career Opportunities in Applied Plant and Soil Science

Crop consultant
On-site evaluation
Environmental scientist
Soil conservationist
Research scientist or technician



Medicinal Plant Science

In medicinal plant science, students learn about the discovery and use of plant medicines and phytotherapeutically important molecules obtained from plants. The medicinal plant science programme is multidisciplinary and collaborative; it incorporates botany, phytochemistry, pharmacology as well as safety and efficacy issues of commonly used phytodrugs with emphasis on pharmaceutical application.

Career Opportunities in Medicinal Plant Science

Clinical Researcher
Research scientist
Research technician
Consultant
Lab assistant/manager
Entrepreneur
Cosmeceutical/Nutraceutical product specialist