



KENYATTA UNIVERSITY

SCHOOL OF PURE & APPLIED SCIENCES

Department of Plant Sciences

*Committed to Creativity, Excellence & Self
Reliance*

Internal Links

The Department of Plant Sciences (PS) is part of the School of Pure and Applied Sciences and also offers units to students from the School of Education and School of Applied Human Sciences.

External Links

The Department has research links with several local and international research institutions that facilitate staff scientific visits for advanced research and joint research activities. Such collaborations create opportunities for postgraduate students support.

Research Activities

Staff members are currently involved in research in the following areas:

- ❖ Aquatic Ecology
- ❖ Genetic Transformation
- ❖ Tissue Culture
- ❖ Plant Taxonomy
- ❖ Molecular Biology
- ❖ Plant Extracts and their Microbial Properties
- ❖ Water quality and Wastewater Reuse.

Academic staff and specialization

The Department has well qualified academic staff, covering several areas of specialization such as Plant Physiology and Biochemistry, Ethnobotany, Plant Breeding, Genetics, Plant Taxonomy and Biosystematics, Molecular Biology, Plant Ecology, Limnology, Conservation, Economic Botany and Plant Biotechnology. There are 2 professors, 7 Ph.D. holders and 1 M.Sc. holder.

Departmental Speciality

In addition to training competent high school teachers of biology under the B.Ed. Science Programme, PS Department offers three unique degree programmes in areas of Science and Conservation Biology. These programmes are regularly reviewed to offer students a competitive edge in the job market.

Undergraduate Programmes

The Department of Plant Sciences offers undergraduate programmes leading to the degree of:

1. Bachelor of Science (B.Sc.)
2. Bachelor of Science (Conservation Biology)
3. Bachelor of Education (Science)

The programmes cover pure and applied aspects of PS and include an optional research in the final year.

Admission Criteria

A student wishing to pursue any of degree programmes offered in PS Department must satisfy the minimum university requirements and School of Pure and Applied regulations. A student must have C+ in Biological Sciences, PLUS at least a C+ in ANY TWO of the following subjects; Physical Sciences, Physics, Chemistry, Geography and Agriculture, or at least 2 principals passes one which must be Biology in the Kenya Advanced Certificate of Education (KACE), or C Plain in KCSE (OR DIVISION III KCE/EACE) with a credit pass at diploma level in a relevant area of study institution recognized by the University Senate.

Mode of Study Duration

The Department of Plant Sciences offers full time, School Based and Opening Learning mode of study. All programmes last four academic years. By using the optional additional period of study during the long vacations it is possible for the students to complete these programmes in three years.

Postgraduate Programmes

Postgraduate programmes are available for the degrees of Master of Science (M.Sc.) and Doctor of Philosophy (Ph.D.). The Master of Science Programmes are available in the following areas of specialization:

- ❖ M.Sc. (Developmental Botany)
- ❖ M.Sc. (Ethnobotany)
- ❖ M.Sc. (Genetics)
- ❖ M.sc. (Plant Biochemistry and Physiology)
- ❖ M.Sc. (Plant Ecology)
- ❖ M.Sc. (Plant Taxonomy)

Ph.D. programmes are available in most areas of PMS, depending upon the availability of specialized staff for supervision.

Mode of study and duration

The M.Sc. programme consists of nine months of course work with written examinations, followed by one year of research, at the end of which a thesis is submitted for examination. The Ph.D. programme involves three years of research which a thesis is submitted for examination.

Resources

The Department has Greenhouse, Botanical Garden Herbarium, Departmental Library, teaching laboratories, and research laboratories such as Tissue Culture and Aquatic Sciences Laboratory.

Student Profiles

Qualified students from high school and diploma colleges choose courses in our department to gain hands on experience in theory and practice in different fields of PS.

Career Opportunities

Career opportunities in Plant Sciences graduates are diverse and some of them are outlined below:

- ❖ Teaching/Lecturing secondary schools, Polytechnics, Teaching Training Colleges, Universities.
- ❖ Horticulturalists/Ecologists/Taxonomists such as institutions as National Museums of Kenya, KEFRI and some NGOs.
- ❖ Phycologists/Plant Physiologists/Plant Ecologists research institutes such as KARI, KEMRI, NEMA and others.
- ❖ Specialists in the science fields of plant taxonomy, ecology and range management in regional, national and private conservation organizations.
- ❖ Food scientists/Plant Physiologists dealing with herbicides, pesticides, fungicides, fertilizers, brewing, food and pharmaceuticals and plant propagation.
- ❖ Environmental experts in consulting firms focusing on botanical and ecological issues.
- ❖ Plant Geneticists/Plant Breeders/Plant Tissue Culture Experts in research institutes such

KARI, Coffee research Foundation, Teach Research Foundation, Pyrethrum Board of Kenya and private horticulture firms.

- ❖ Water and sewerage works and research institutes such as KEMRI, KERI, KETRI, ICIPE, ILRI etc.

Contacts

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