



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 teaches botany to students taking Bed (Science), BSc (Biology), BSc among others.

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 and consultancy in the following areas:

- ❖ Plant pathology
- ❖ Ecology and Conservation
- ❖ Ecosystem Services
- ❖ Genetics
- ❖ Tissue Culture
- ❖ Plant Taxonomy
- ❖ Molecular Biology
- ❖ Plant extracts and their Microbial Properties
- ❖ Water quality and Wastewater management.

Academic staff and specialization

The Department has well qualified academic staff comprising 22 full time lecturers with diverse backgrounds including; Plant Pathology, Plant Physiology and Biochemistry, Ethnobotany, Plant Breeding, Genetics, Plant Taxonomy and Biosystematics, Molecular Biology, Plant Ecology, Limnology, Conservation, Wildlife Management, Economic Botany and Plant Biotechnology. The Department has 2 professors, 18 Ph.D. holders and 2 M.Sc. holder.

Departmental Speciality

Undergraduate programmes

Plant Sciences Department

- (a) offers **Bachelor of Science in Conservation Biology**
- (b) works with Department of Zoological Sciences to train competent high school teachers of biology under the **B.Ed Science Programme**
- (c) works with Zoological Sciences Department to train **BSc (Biology)** graduates.
- (d) works with other departments I the school of pure and applied sciences to train **BSc**. Students in various specialities related to Biology

These programmes are regularly reviewed to offer students a competitive edge in the job market.

Admission Criteria

A student wishing to pursue any of degree programmes offered in Plant Sciences Department must satisfy the minimum university requirements (mean grade of C+) and School of Pure and Applied Sciences regulations. A student must have C+ in Biology/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 from institution recognized by the University Senate.

Mode of Study Duration

The Department of Plant Sciences offers full time, Continuing Education Program 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

(a) Master of Science Programmes

The Master of Science Programmes are available in the following areas of specialization:

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

(b) Doctor of Philosophy programmes

- (c) PhD. (Ethnobotany)
- (d) PhD. (Genetics)
- (e) PhD. (Plant Biochemistry and Physiology)
- (f) PhD. (Plant Ecology)
- (g) PhD. (Plant Taxonomy)
- (h) PhD. (Plant Pathology)

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 out of which a thesis is submitted for examination.

Resources

Students have access to Botanical Garden Herbarium, Greenhouses, Library, teaching laboratories and

research laboratories such as Tissue Culture and Aquatic Sciences Laboratory.

Career Opportunities

Career opportunities for Plant Sciences graduates are diverse. Some are outlined below:

- ❖ Teaching/Lecturing in secondary schools, Polytechnics, Teaching Training Colleges, Universities.
- ❖ Horticulturists/Ecologists/Taxonomists in institutions as National Museums of Kenya, KEFRI and some NGOs.
- ❖ Phycologists/Plant Physiologists and biochemists/Plant Ecologists in research institutes such as KALRO, 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 and biochemists 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 pathologist/Phytosanitary experts in research institutions such as (KARLO, KESREF, ICIPE, CRF, TRF, KETRI, ILRI, KEFRI etc and regulatory authorities eg KEPHIS, PCPB, KEBs, NEMA, NBA, NGO and other international institutions eg IPPC, OECD, RPPO among others. Government Ministries, Agriculture, Environment, Trade and Private Horticulture, fruit and vegetable sector in various value chains
- ❖ Plant Geneticists/Plant Breeders/Plant Tissue Culture Experts in research institutes such KARI, Coffee Research Foundation, Tea Research Institute, Pyrethrum Board of Kenya and private horticulture firms.
- ❖ Water and sewerage works as well as research institutes such as KEMRI, KEFRI, KETRI, ICIPE, ILRI etc.

- ❖ Environmental NGOs

Contacts

The Chairman
Department of Plant Sciences
Kenyatta University
P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 020 8704421/4420
Email address: chairman-pms@ku.ac.ke
Website: www.ku.ac.ke