

UNIVERSITY OF NAIROBI

SCHOOL OF BIOLOGICAL SCIENCES

SBT 521: ANGIOSPERM SYSTEMATIC

Course Description, Rationale and Goals: This is an advanced study of plant taxonomy that will provide the student with a broad understanding of the working principles of systematic botany aided by an opportunity to gain an understanding of the major groups of flowering plants found throughout East Africa and the world in general. The goal is to provide the student with a foundation for and knowledge of the relationships between and among flowering plants based on evolutionary principles. Laboratory emphasis will be on knowledge of the major families of flowering plants.

Schedule

Lectures

1. Introduction- definitions, and general characters of angiosperms
2. Methods and principles of biological systematics
3. Classification of flowering plants- historical
4. Taxonomic evidence- structural, biochemical & molecular
5. Overview of green plant phylogeny
6. Diversity and classification of angiosperm
7. Systematic treatment of east African angiosperm families

Practicals

- Structure and terminology used for flowering plants: General vegetative and Reproductive characters
- Preparation and use of keys
- Specimen preparation and identification
- Characteristics and economics of selected angiosperm families

References

- 1) Shukla, P. and Misra, S.P., 1979. An introduction to taxonomy of Angiosperm.
- 2) Stace C.A., 1989. Plant taxonomy and biosystematics ed. 2.
- 3) Lawrence 1955. An introduction to plant taxonomy.
- 4) Lawrence GMH. 1989. Taxonomy of vascular plants
- 5) Agnew and Agnew 1994. Upland Kenya wild flowers ed. 2.
- 6) Beentje, 1994. Shrubs, trees and lianes, ed. 2.
- 7) Judd et al. 2002. Plant systematics: A phylogentic approach. Ed. 2.

Evaluation: will be based on two CATs and project (30 marks) and a final written exam (70 marks)

Project: Will be a written term paper on a topic to be proposed by the student, subject to approval by the instructor.