

Course Description

Prerequisites:	General Biology (B. 251)
Credit Hour:	Three
Contact Hours:	Two lectures and three hours practical each week
Course period:	Four months semester

Lecturer: Prof. Dawud M. Al-Eisawi
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OBJECTIVES:

Plant taxonomy or systematic botany is a basic course designed for the undergraduate Biological science and other branches of agriculture sciences, especially horticulture, weed control and rangeland management students. The course aims to train students on basic taxonomy, by giving the students basic knowledge about the aims of this science and the need of this science to other branches of biological, pharmacological and medical sciences. The students will be trained how to describe plants by teaching them the terminology of plants, as well as identification, classification, use and construction of keys. It also gives a back ground about collection and conservation of plant specimens in addition of herbarium management, importance and roll in documenting and preserving of plant specimens for future use. Then the course gives an idea about the methods of nomenclature and a little idea about the evidences of other branches of biological sciences to taxonomy. At last the students are exposed to some evolutionary aspect and origin of plat groups.

The practical part aims at teaching students to identify, major local flowering plant families by using given keys for identification. Lern how to identify, describe and constructyion of keys. Finally learn the proper method of collecting preserving, filling and handling of herbarium specimens.

Textbook:
Plant Systematics
By:
Samuel B. Jones
Arlene E. Luchsinger
Publisher: MC Graw-Hill Book Company, 1979

Tentative schedule

<u>Lect. No.</u>	<u>Topics</u>
1.	Introduction to Systematic Botany
2.	Definitions, Objectives and Phases
3.	Terminology of Flowering Plants
4.	Vegetative Morphology
5.	Reproductive Morphology
6.	Descriptive methods
7.	Methods of identifying vascular plants
8.	Key uses and constructions
9.	Key uses and constructions
10.	Specimen preparation and herbarium management
11.	Specimen preparation and herbarium management
12.	<u>FIRST HOUR EXAM</u>
13.	Historical background of classification
14.	Historical background of classification
15.	Plant Nomenclature
16.	Plant Nomenclature
17.	Principles of plant taxonomy
18.	Principles of plant taxonomy
19.	Sources of taxonomic evidences
20.	Morphology and anatomy
21.	Embryology, Cytology and Electron Microscopy
22.	Palynology, Paleobotany and Chemotaxonomy
23.	Ecology, Physiology and Biogeography
24.	<u>SECOND HOUR EXAM</u>
25.	The origin and classification of Angiosperm

26. The origin and classification of Angiosperm
27. The origin and classification of Angiosperm
28. Evolution and Biosystematics
29. Evolution and Biosystematics
30. Evolution and Biosystematics

MARKS

First Hour Exam	15/100
Second Hour Exam	15/100
Midterm Practical	15/100
Activities and attendance	5/100
Subtotal	50%
Final practical	15/100
Final Theoretical Exam	35/100
Subtotal	50%
TOTAL	100%

FIELD TRIPS

Five field trips are needed for this course and will be announced in the proper dates later on.

OTHER REFERENCE

- Lawrence, G. H.M. (1969). *Taxonomy of Vascular Plants* (Ed. Ten). The Macmillan Company: New York.
- Porter, C. L. (1967). *Taxonomy of Flowering Plants*. W.H. Freeman and Company, San Francisco. Pp. 472.
- Radford, A. E., Dickison, W. C., Massey, J. R. and Bell, R. C. (1974). *Vascular Plant Systematic*. Harper & Row, New York. Pp. 891.
- Stace, C. A. (1980). *Plant Taxonomy and Biosystematics*. Edward Arnold, London. Pp.279.
- Walters, D. R. and Keil, D. J. (1988). *Vascular plant Taxonomy (ed. Three)*. Kendal / Hunt Publishing Company, Iowa, USA.