

Advanced Plant Taxonomy

Department of Biological Sciences
University of Jordan

Plant Taxonomy 0324753
First Semester 2002/2003

Course Description

Prerequisites: Nothing
Credit Hours: Three
Contact Hours: Three hours per week
Course period: Four months semester

Lecturer: Prof. Dawud M. Al-Eisawi
Office: The Herbarium and greenhouse building
Office Tel. 5355000 ext. 2307
e-mail: aleisawi@ju.edu.jo

Intended Learning Outcome Objectives

- I. Knowledge and understanding
 1. Knowledge of the main groups of the plant kingdom
 2. Understanding the various morphological variations and changes through groups and time.
 3. Understanding the life cycles and the alternation of generations and the dominance generation between aquatic and land plants of both groups spore and seed produces
 4. Understanding the course of evolution within and between the major plant divisions

- II. Cognitive/Intellectual analysis
Students are expected to understand the various concepts of plant morphology, diversity structure and the evolutionary changes through the time table. Trying to realize changes in plant groups from fossil records up to know and see how major plants evolved from each others as suggested by the various scientific arguments and facts. The they expect to find out what are the groups of plants that became extinct and what are the evolved groups until recent time where flowering plants became the dominant on earth.

- III. Subject-specific and practical skills
 1. A better understanding of the major groups of the plant Kingdom
 2. Understanding life cycles and the course of evolution



3. The ability to identify the major plant groups
4. Link habitat with the occurrence of plant groups
5. Learning terms related to the plant morphology
6. Appreciation of the vast plant variation within and between plant groups.

IV. General transferable skills

1. Being able to work in the field of plant biology
2. Being able to work in conservation programme at the national level.
3. Understanding life forms and the importance of plants as a major component of the living ecosystem.
4. Training ability and transfer of knowledge

Text Book:
Morphology of Plants and Fungi
By:
Bold, H., Alexopolus, C. and Delevoryas, T.
Fifth Edition
Harper International Edition , 1987

Tentative Schedule

1. Superkingdom Prokaryonta, Kingdom Monera: Bacteria and Cyanophyta.
2. Introduction to the Superkingdom Eukaryonta and Kingdom Phyta.
3. Introduction to the Algae; Division Chlorophyta.
4. Division Charophyt.
5. Division Euglenophyta.
6. Division Phaeophyta.
7. Division Chrysophyta and Pyrrophyta.
8. Division Rhodophyta.
9. The Algae: Recapitulation.
10. Introduction to the land plants: Divisions Hepatophyta and Anthocerotophyta.
- 11. FIRST HOUR EXAM**
12. Division Bryophyta.
13. Introduction to vascular plants.
14. Vascular Cryptogams I: Division Microphylophyta.
15. Vascular Cryptogams II: Division Arthropyt.
16. Vascular Cryptogams III: Division Pteridophyta I.
17. Vascular Cryptogams IV: Division Pteridophyta II.
18. Vascular Cryptogams V: Division Pteridophyta III.
19. Vascular Cryptogams VI: Division Psilotophyta.
20. Vascular Cryptogams Recapitulation and Fossil Record.
- 21. SECOND HOUR EXM.**
22. Introduction to Seed Plants; Division Cycadophyt.



23. Division Ginkgophyta.
24. Division Coniferophyta.
25. Division Gnetophyta.
26. Gymnosperms: Recapitulation and Fossil Record.
27. Division Anthophyta I.
28. Division Anthophyta II.

Marks:

First hour exam	15/100
Second hour exam	15/100
Mid term Practical	15/100
Drawing Note Book	05/100
Subtotal	50/100
Final Practical	15/100
Final Exam	35/100
Subtotal	50/100

TOTAL **100/100**



OTHER REFERENCE

- Mauseth, J. D. (1991). *Botany An Introduction to Plant Biology*. Sanders College Publishers. Philadelphia, Ft. Worth, Chicago, San Francisco, Montreal, Toronto, London, Sydney, Tokyo. Pp. 800 + Glossary.
- Raven, P., Evert, R. and Eichhorn, S. (1992). *Biology of Plants*, (Ed. Six). Worth Publishers. New York. Pp. 791.
- Stern, K. R. (1994). *Plant Biology*. Wm. C. Brown Publishers. Dubuque, Melbourne, Oxford. Pp. 537.

