



Department of Biology
College of Science
Salahaddin University- Erbil

Subject: Botany

Course Book: 1st Year/ Spring Semester

Lecturer's name of theory: Dr. Pakhshan M. Maulood

Dr. Ardalan A. Dzayee.

Lecturer name of Practical: Dr. Badr Q. Surchi

Academic Year: 2020/2021

Course Book

1. Course name	Botany
2. Lecturer in charge	Dr. Pakhshan Mustafa Maulood Dr. Ardalan A. Dzayee Dr. Badr Qader Surchi
3. Department/ College	Biology/Science
4. Contact	e-mail: Dr. Pakhshan (pakhshan.maulood@su.edu.krd) Dr. Ardalan (Ardalan.sulayman@su.edu.krd) Dr. Badr (badr.surchi@su.edu.krd) Mob. (07504564589)
5. Time (in hours) per week	Theory 2hr./week Practical 2hrs/week
6. Office hours	To be return to the schedule on the office door
7. Course code	SBIO305
8. Teacher's academic Profile	Dr. Pakhshan CV: Attained BSc degree in Biology 1991, Salahaddin University, College of Science. Also, MSc in the same department in 1997. Attained Scientific tittle Assistant Prof. in 6-3-2012. I obtained PhD degree at College of Science-Salahaddin University at 2020. I published more than 12 manuscript in local and international Journals, participate in local conference and workshops. Dr. Ardalan CV: I graduated from Salahaddin University-College of science in 1986. In 1997 I finished my M.Sc degree at Al-mustansiriyah University in 1999. In 2002 I got my PhD degree from Al-mustansiriyah University in the field of plant tissue culture. Since 2003 a teaching staff member at College of science. College library curator from 2004 to 2013. College of science. Dr. Badr Qader Surchi CV: B.Sc. in Biology, Biology, University of Salahaddin, College of Sciences, 1998. M.Sc. in Plant Biology, University of Salahaddin, College of Sciences, 2006. Ph.D in Medicinal Plants, Kahramanmaraş Sütçü Imam University, 2018.
9. Keywords	Osmosis, transpiration, photosynthesis, plant taxonomy,
10. Course overview:	Botany means the scientific study of plant life. The course includes the study of plant body in general also plant parts from the cells to the organs and the importance of plants in humans live. The effect of plants on the environment. Photosynthesis process which is the critical factor for the most life features on our planet. A the end of the course ,the students be able to

understand botany in general ,the plant body, tissues ,growth, and other important subjects concerning to good understanding plant biology.

11. Course objective:

Botany is an excellent way to introduce you to the world of biology

In this year,

- To understand basic principles of botany
- To provide an overview of plant taxonomy
- To understand the mechanisms of action and the important plant

- We will examine a wide range of topics related to the biology of plants.
- We will investigate how the individual plant works: how plant bodies are built, how plants obtain and transport food and water, and how plants reproduce themselves.
- Upon these, the course is covering topics like photosynthesis, plant growth, and structure of monocot and dicot seeds, soil and soil profile, alternation of generations and many other topics related to the plant science.

12. Student's obligation

***Exam policy:** Student Should take 2 exams during the course There will be no make-up exams for absences students without medical report.

***Classroom polices:**

- 1- **Attendance:** Students are strongly encouraged to attend class on a regular basis.
- 2- **Lateness:** Lateness to class is disruptive
- 3- **Electronic devices:** All cell phones are to be turned off at the beginning of class and put away during the entire class.
- 4- **Talking:** During class please refrain from side conversations. These can be disruptive to your fellow students and your professor
- 5- **No Disrespectful to both the professor and to your fellow students.**

13. Forms of teaching

- 1- Lecture presentation by lecturer using data show or board or both
- 2- Brainstorming and Group discussion
- 3- Direct questions
- 4- Use of relevant pictures/ educational films
- 5- Lectures slides will be distributed in Power Point/ PDF format to be print it or in word document

14. Assessment scheme:

The grades scheme as follows:

Two writing exams.

Several activities during the course including: attendances, reports, quizzes, posters, workshops etc.

Midterm: (theory and practical) 50%

- Midterm theory exam(s): 15%

Component	Date	Percent
Exam 1	00/00/2021	50%
Exam 2	00/00/2021	50%
Total		100%

- Midterm practical exam(s): 20%

Activities: ,attendances, quizzes, Reports.....15%

Final examination (theory) 50%**15. Student learning outcome:**

After completion of this course, you will be able to:

- Define common terms used in botany.
- Identify structure and shape of plants.
- Identify plant parts.
- Understanding plant growth.
- Understanding the relationship between humans and plants

16. Course Reading List and References:

- Neil A. Campbell, Jane Reece, Lisa A. Urry, Michael L. Cain, Steven A. Wasserman, Peter V. Minorsky. 2020. Campbell Biology. Published by Pearson. ISBN 10:0-321-77565-1; ISBN 13:978-0-321-77565-8
- Bendre A.,and P.C. Pande .2008.*Introductory Botany*,4th revised edition. New Delhi: Pastogi Publications.
- Raven P. H., R.F.Evert, and S.E. Eichhorn .2005. *Biology of Plants*, 7th ed. New York: W.H. Freeman and Company Publishers.
- Stern. K. R. 2018. *Introductory Plant Biology*,18th ed. New York: McGraw -Hill. Higher Education.
- Botany Journals.
- Scientific google websites.

**17. Theory topics:
Week 1: Introduction**

Dr. Pakhshan
Mustafa Maulood

2 hr./week

<p>Week 2: Botany and their branches Week 3: The fruits and seeds Week 4: Seed germination Week 5: Growth hormones Week 6: EXAM I Week 7: Growth inhibitors Week 8: Mineral nutrition Week 9: Growth and development of plants Week 10: Senescence Week 12: Movement in plants Week 13: EXAM 2 Week 14: Plant ecology Week 15: Water absorption in plant</p>	
<p>18. Practical Topics (If there is any)</p>	<p>Dr. Badr Qader Surchi</p>
<p>Lab. 1: Introduction, course outline, concept for plant physiology and taxonomy. Lab. 2: The osmosis Lab. 3: The transpiration Lab. 4: Permeability Lab. 5: Photosynthesis Lab. 6 Exam 1 Lab. 7: Plant taxonomy (leaves) Lab. 8: Plant taxonomy (The root) Lab. 9: Plant taxonomy (The stem) Lab. 10: Plant taxonomy (The Flower) Lab. 11: Plant taxonomy (Inflorescence) Lab. 11: Plant taxonomy (The fruit and seed) Lab. 12: Final Exam</p>	<p>2 hr./week</p>
<p>19. Examinations: (Practical part) Examples of Questions Q 1- Describe the light-independent reactions in photosynthesis? Q 2-Write an essay about "Soil particles and Soil profiles?" Q 3-Define the following terms: a-Chromoplast b-Guttation c-Multiple fruit Q 4-The plant hormone that stimulates the enlargement of cells is:</p>	

a- Gibberellins b- Auxins c- Ethylene gas d- cytokinin

Q 5- Identify this sample and there function?



Q 6-Identify these point?

