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**Department of** Health and Environmental Science

**College of Science**

**University of Salahaddin**

**Subject: Botany**

**Course Book: First Stage**

**Lecturer's name:**

**Abdulqader Musheer Younis (Theory),**

**Academic Year: 2022/2023**

**Course Book**

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| **1. Course name** | **Botany** | |
| **2. Lecturer in charge** | **Abdulqader Musheer Younis** | |
| **3. Department/ College** | **Environmental Sciences - Sciences** | |
| **4. Contact** | **e-mail: Abdulqader.younis@su.edu.krd**  **Tel: (optional) 009647504538795** | |
| **5. Time (in hours) per week** | **For example Theory: 2 Supervision** | |
| **6. Office hours** | **Every day before and after the lecture except off day** | |
| **7. Course code** |  | |
| **8. Teacher's academic profile** | I am **Abdulqader Musheer Yonis**, I MSc. in Limnology in environment I get it during 2011 at Biology Department -Salahaddin University. In addition, I get , Bachelor during 2004 at the biology department. I participated in different training courses such as, Instruction course, . I published 4 articles in Scientific Journals. I am working and Teaching in College of Science since 2011. Iam know phD student in Salahaddin university | |
| **9. Keywords** | **Plant cell, plant pigments, type of cell and tissue.** | |
| **10. Course overview:**  **Botany means the scientific study of plant life. The course include 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:**  **The course will cover principle information about Climate, temperature, pressure, rainfall as so on and how use some sources of energy as cleaner and safer for organisms especially human on the earth. The course will give students a better understanding of the different type of inland water, and teaching the student how protect the Environment from of pollution** | | |
| **12. Student's obligation**  Botany is an excellent way to introduce you to the world of biology. In this year, 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 plant cell, plant tissues, 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. | | |
| **13. Forms of teaching**  **Different forms of teaching will be used to reach the objectives of the course: power point presentations for the head titles and definitions and summary of conclusions, classification of metrology phenomenon and any other illustrations, besides worksheet will be designed to let the chance for practicing on several aspects of the course in the classroom, furthermore students will be asked to prepare research papers on selective topics and summarise articles contents published in English into either Kurdish or Arabic language, those articles need to be from printed media or internet articles. There will be classroom discussions and the lecture will give enough background to translate, solve, analyse, and evaluate problems sets, and different issues discussed throughout the course.**  **To get the best of the course, it is suggested that you attend classes as much as possible, read the required lectures, teacher’s notes regularly as all of them are foundations for the course. Lecture’s notes are for supporting and not for submitting the reading material including the handouts.try as much as possible to participate in classroom discussions, preparing the assignments given n the course.** | | |
| **14. Assessment scheme**  **Your final grade will be derived as follows:**  **Quizzes: About 3 quizzes will be given throughout the semester. They will be given at the beginning of the class period and last 10 minutes.5 grade.**  **Exams: There will be two closed book exams given throughout the semester. Each test will be scheduled for 60 minutes.30% of your grade.**  **Seminars 5 marks**  **Final Exam: The Final Exam is Comprehensive in all course outlines.50% of your grade‌**  **All was 20%**  **Final examination: 50%**  **Final Exam: The Final Exam is Comprehensive in all course outlines.50% of your grade‌**  **Mean of two examinations: 50%**  **Final examination: 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:**  **Required book:**  • 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. 2006. Introductory Plant Biology,9th ed. New York: McGraw -Hill.Higher  Education.  • Botany Journals.  • Scientific google websites.applied  approach.  3. www.google.com | | |
| **17. The Topics:** | | **Lecturer's name** |
| **The Topics: Week 1: Introduction**  **Week 2: The Scientific Method**  **Week 3: Cell Structure and Function**  **Week 4: Respiration**  **Week 5:Plastids**  **Week 6: Photosynthesis: Photosynthesis- Light Reactions**  **Week 7: Photosynthesis-“Dark” Reactions**  **Week 8: Plant Tissues I (simple)**  **Week 9: Plant Tissues II (complex)**  **Week 10: Leaves**  **Week 11 : Types of leaves**  **Week 12: EXAM I**  **Week 13: Stems**  **Week 14 : Types of stems**  **Week 15: Roots**  **Week 16:Flowers**  **Week 17 : Fruits**  **Week 18:Seeds**  **Week 19:Water in Plants**  **Week 20:Growth** | | **Abdulqader M. Younis**  **ex:(2 hrs)** |
| **18. Practical Topics (If there is any)** | |  |
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| **19. Examinations:**  Examples of Questions  Q1- Describe the light-independent reactions in photosynthesis?  Q2-Write an assay about "Soil particles and Soil profiles?  Q3-Define the following terms:  a-Chromoplast  b-Guttation  c-Multiple fruit  Q4-The plant hormone that stimulates the enlagment of cells is:  a-Gibberellins b-Auxins c-Ethylene gas d-cytokinin | | |