**Subject: Phycology**

**Course Book**

**Academic Year: 2022/2023**

**Course Book (first course)**

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| **Course name** | **Theoretical Phycology** | |  | |
| **Lectur.** | **A.Dr. Sawsan Mohammed Abdulla Al-Sorchee** | |  | |
| **Department/** | **Biology** | |  | |
| **Contact-** | **e-mail:** [**sawsan\_sorchee@yahoo.com**](mailto:sawsan_sorchee@yahoo.com)**-----sawsan.ahdulla@su.edu.krd** | |  | |
| **Course code** |  | |  | |
| **Time (h)** | **Theoretical 2 hours** | |  | |
| **Teacher's academic profile** | 1. **Personal Information**   Date of birth: April 3rd, 1968  Marital status: Married  Nationality: Iraqi   1. **Academic qualifications**   Ph.D. / Baghdad University, College of Education, Biology Department, (2009)  M.Sc. / Baghdad University, College of Education, Biology Department, (2005)  B.Sc. / Baghdad University, College of Sciences, Biology Department, (1990)   1. **Degree requirements**  * **Ph.D. thesis:** Comparative study of the effect of some plant extracts on bacterial causatives of diarrhea in children in Erbil city * **M.Sc. thesis:** Immunological Study on Toxoplasmosis Women with a History of Abortion. * Laboratory technician in Telha Private Microbiology Diagnostic Laboratory, Baghdad: diagnosis of clinical cases by bacteriological culture, serological, immunological and direct examination methods. (1990– 1991) * Science teacher in a Girls’ Secondary School, Baghdad: teaching Science and Public Health to Grade 10 and 11 students using different teaching methods and practical demonstrations. (1990-1991) * Assistant Lecturer in the Microbiology Department, College of Education, Baghdad University: giving the talk of the practical sessions of Immunology and Microbiology to fourth year College students then supervision of the practical application by students.   (2002-2007)   * Laboratory technician in Al-Jemhoori Public Hospital and Raparine Children’s Hospital Microbiology Diagnostic Laboratory: diagnosis of clinical cases by bacteriological culture, serological, immunological and direct examination methods, in addition to diagnosis of viral diseases using ELISA technique. (2006-2008) * Lecturer in the biology Department, College of Education, Baghdad University: giving lectures to fourth year students in Immunology and Microbiology in addition to the supervision of the practical sessions. (2007-2012) * Assistant professor In the biology Department, College of Education, Sallaldeen University: the supervision of the practical microbiology laboratories sessions. (2012-2019) | |  | |
| Course Description  This class is a taxonomic introduction to the major algal groups (macrophytic and microscopic) with an emphasis on the marine seaweeds. Basic taxonomic differences will be covered, along with an introduction to macrophyte ecology, human uses and symbioses. Laboratory sessions will focus on morphology and reproduction. You will learn to identify the major algal groups based upon recognition characteristics and create your own herbarium collection and slides. | | |  | 2+3 | | 2-The Classification and Identification of Bacteria:  [Bacterial shapes](http://www.bmb.leeds.ac.uk/mbiology/ug/ugteach/icu8/introduction/bacteria.html#shapes)  -Bacterial cell walls  -[Properties associated with bacterial cell walls](http://www.bmb.leeds.ac.uk/mbiology/ug/ugteach/icu8/introduction/bacteria.html#cell_walls) [the genetic make up of bacteria](http://www.bmb.leeds.ac.uk/mbiology/ug/ugteach/icu8/introduction/bacteria.html#genetics) | | |
| **Course Objectives/Learning Outcomes**  **After completing the course, students will have skills in the use of taxonomic keys and algal identification, and knowledge of the general biology of the main algal groups plus some aquatic macrophytes** | | |  | 4+5 | | Microbial Metabolism | | |
| **10- References:**  **Graham J.W., Lee W. and Graham L.E. 2009. ALGAE. 3rd ED. This edition of Algae is only available in an eBook format to keep costs down (and allow them to include color images). You are able to download and keep your book.**  **Books can be ordered from: www.ljlmpress.com/algae.html** | | |  | 6+7 | | Elements of Microbial Nutrition, Ecology, and Growth | | |
| **Assessment scheme**  **The course grade will be determined as follows:**  **Course marks 40% (27% Theoretical, 13% Practical)**  **Final Exam 60% (40%Theoretical, 20%** **Practical)**  **‌** | | |  | 10+11 | | Antimicrobial Drugs | | |
| **Theoretical and practical lectures on the topic of algae** | | |  | 14+15 | | Microbial Mechanisms of Pathogenicity | | |
| Week  1-3 | | -Lecture: Introduction to phycology  Phylogeny; Morphology and Ecological Categories;  Aims  To know background information about the algal world.  To obtain the idea about the reproduction of algae.  To be acquainted with the forms of algae  Lab1-: Intro to lab techniques. |  | | Infections | | |
| 4 | | -The Classification Algae:  -Division: Cyanophyta  Cyanobacteria, Blue-Green Algae |  | | The Human Normal Flora. | | |
| 5 | | Division: Cyanophyta  Cyanobacteria, Blue-Green Algae |  | | Microbiology of the Soil. | | |
| 6 | | Division: Chlorophyta |  | | Microbiology of the water and sewage. | | |
| 7 | | Division: Chlorophyta |  | | Microbiology of the atmosphere. | |
| 8 | | Division: Chlorophyta |  | | Microbiology of the food and dairy products. | | |
| 9 | | Euglenophyta (euglenids) |  | | Industrial Microbiology.  Second – term examination | | |
| 10 | | Dinophlagellates( Pyrrophyta) & Phaeophyta (brown algae) |  | |
| 11 | | Rhodophyta (Red algae) |  | |
| 12 | | Chrysophyta (diatoms) |  | |