

## Flow up of implementation celli pass play

| Course Instructor  | Prof. Dr. Faris M. Suhail  |            |         |         |            |
|--------------------|--|------------|---------|---------|------------|
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| Title              | Principles of microbiology   |            |         |         |            |
| Course Coordinator | first  |            |         |         |            |
| Course Objective   | Introduce students the basics of microbiology according to the vocabulary of substance of microbiology for students of second stage of the students Soil and water resources department .  |            |         |         |            |
| Course Description | Included vocabulary material Definition of microbiology and its inception and its development stages, location taxonomic of microorganisms and name it, and nutrition microbiology and definition bacteria forms and composition, the definition fungal described the importance and the installation of the fungal cell, and then identify the algae types and their reproduction and viruses . |            |         |         |            |
| Textbook           | <ul> <li>1- Principles of microbiology. Dr. Faaz Aziz al-Ani and Dr. Amin Suleiman<br/>Badawi. 2000 University of Mosul.</li> <li>2- microbiology. Authoring a committee of my teaching Department of Life<br/>Sciences - Baghdad University, Dar al-Hikma for printing and publishing in<br/>1991</li> </ul>  |            |         |         |            |
| Course Assessments | Term Tests   | Laboratory | Quizzes | Project | Final Exam |
|                    | 20%  | 15%        | 5%      |         | 60%        |
| General Notes      |  |            |         |         |            |



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| week | Date | <b>Topics Covered</b>   | Practical Part  |
|------|------|---|---|
| 1    |      | Definition and development of microbiology  | Identify the microbiology laboratory –<br>Instruments and tools- general<br>guidelines and safety methods . |
| 2    |      | Taxonomy site of microorganisms in the world<br>of biology                          | Sterilization , the microscope , type of microscope   |
| 3    |      | Naming microbiology - Classification of<br>microbiology                             | Culture media , types, methods of preparation   |
| 4    |      | Bacteria, presence, components, forms   | Sampling methods of microorganisms-   |
| 5    |      | The bacterial cell wall and its components, cytoplasmic membrane and its components | Isolate microorganisms  |
| 6    |      | Permeability and the transition across<br>membranes cytoplasmic                     | Diagnosis of bacteria , shape of bacteria   |
| 7    |      | Bacterial flagella, pilli   | Fungi, Diagnosis of fungi, shape of fungi. Diagnosis of molds and yeasts                                    |
| 8    |      | Cytoplasm, nucleic acids  | Staining of bacteria, simple staining   |
| 9    |      | Objects moderation, Spores, plasmids, cysts   |   |
| 10   |      | Fungi, described the fungus, its importance   | Compound staining, spore staining   |
| 11   |      | Installation of the fungal cell, the cytoplasm and its contents                     |   |
| 12   |      | Algae, types, presence, growth and reproduction                                     | Mobility of bacteria hanging ( drop preparation )   |
| 13   |      | Microbiology nutrition, reproduction<br>microbiology                                | The minimum inhibitory concentration using antibiotics.   |
| 14   |      | viruses   |   |
| 15   |      |   |   |

Instructor's signature Prof. Dr. Faris M.Suhail 15/1/2025

Dean's signature Prof. Dr. Raaed Ibrahim Khalil 15/1/2025