Course Description Form

1. Course Name: biology
2. Course Code:
3. Semester / Year:1-2 2024/2025
4. Description Preparation Date:2024-2025
5. Available Attendance Forms: Daily attendance
6. Number of Credit Hours (Total) / Number of Units 2 Hours (Total) 30 week
7. Course administrator's name (mention all, if more than one name)
name: sammar Jassim Mahan email : samar@g.alzahu.edu.iq
Course Objectives .٨

Course Objectives	**includes a description of the material, the purpose of its study and the philosophy of its teaching, as this course aims to study the principles of Biology and the most important genetic laws and the importance of studying and classifying all living organisms and the role of primitive organisms And high-end on human health and the study of diseases and damage to some microorganisms on the organs of the human body Especially the eye.**

9. Teaching and Learning Strategies	
Strategy	1. Education Strategy Collaborative Concept Planning 2- Brainstorming education strategy. 3. Education Strategy Notes Series 4- Presentation, training, discussion research and reports

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method

1	2	Knowledge	**Definition of Biology, Biological Kingdom.**	Use the whiteboard display	Daily exam and oral questi ons
2	2	Knowledge	**Prokaryotes and eukaryotes.**	Use the whiteboard display	Daily exam and oral questi ons
3	2	Knowledge	**The cell: Introduction, structure and function to the organelle.**	Use the whiteboard display	Daily exam and oral questi ons
4	2	Knowledge	The cell : Introduction, structure and function to the organelles (Mitochondria, Free ribosomes , Rough endoplasmic reticulum, smooth endoplasmic reticulum, Golgi apparatus, Lysosomes (primary and secondary lysosomes), Microtubules ,cilia, flagella and centrioles.	Use the whiteboard display	Daily exam and oral questions
5	2	Knowledge	The tissue (types and properties).	Use the whiteboard display	Daily exam and oral questi ons
6	2	Knowledge	Classifiation tissue.	Use the whiteboard display	Daily exam and oral questi ons
7	2	Knowledge	Nucleic acid, DNA structure, properties.	Use the whiteboard display	Daily exam and oral questi ons
8	2	Knowledge	RNA structure, properties.	Use the whiteboard display	Daily exam and oral questi ons
9	2	Knowledge	Transprtation of biological wastes International Transport Regulations The Basic Triple Packaging System	Use the whiteboard display	Daily exam and oral questi ons
10	2	Knowledge	Overview of biological safety and security equipment	Use the whiteboard display	Daily exam and oral questi ons
11	2	Knowledge	Introduction to Biosafety and Security • Key components of Biorisk Management • Components of safety in all laboratories	Use the whiteboard display	Daily exam and oral questi ons

			Universal safety precautions		
12	2	Knowledge	*Biosafety* training	Use the whiteboard display	Daily exam and oral questi ons
13	2	Knowledge	*Biosafety* training	Use the whiteboard display	Daily exam and oral questi ons
14	2	Knowledge	biosafety rules simulation 3D	Use the whiteboard display	Daily exam and oral questi ons
15	2	Knowledge	examinati	Use the whiteboard display	Daily exam and oral questi ons
16	2	Knowledge	Replication of DNA	Use the whiteboard display	Daily exam and oral questi ons
17	2	Knowledge	Transcription, protein synthesis and type of mutation.	Use the whiteboard display	Daily exam and oral questions
18	2	Knowledge	Division Cell (Mitosis and meiosis)	Use the whiteboard display	Daily exam and oral questi ons
19	2	Knowledge	Mitosis	Use the whiteboard display	Daily exam and oral questi ons
20	2	Knowledge	Gametogene sis	Use the whiteboard display	Daily exam and oral questi ons
21	2	Knowledge	Spermatogen esis and oogenesis	Use the whiteboard display	Daily exam and oral questi ons
22	2	Knowledge	Introduction of bacteria (Shape, arrangement, size, gram stain).	Use the whiteboard display	Daily exam and oral questi ons
23	2	Knowledge	Bacterial staining techniques, Gram stain	Use the whiteboard display	Daily exam and oral questi ons
24	2	Knowledge	Media and nutritional requirement	Use the whiteboard display	Daily exam and oral questi ons
25	2	Knowledge	Introduction of Viruses	Use the whiteboard display	Daily exam and oral questi ons
26	2	Knowledge	Introduction of Parasite	Use the whiteboard display	Daily exam and oral questi ons
27	2	Knowledge	Introduction of Mycology.	Use the whiteboard display	Daily exam and oral questi ons

28	2	Knowledge	Sterilization and disinfecting	Use the whiteboard display	Daily exam and oral questi ons
29	2	Knowledge	Eye infections, Bacterial eye infection, Fungal eye infection. Parasitic eye infection, Viral eye infection.	Use the whiteboard display	Daily exam and oral questi ons
30			Examination		

11. Course Evaluation

5 marks are calculated on reports
5 points are calculated on daily exams
5 degrees are calculated on the daily preparation
And the rest of the grade is for the monthly exams

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Biology Books
Main references (sources)	Curriculum scheduled within t sectoral committees
Recommended books and references (scientific journals, reports…)	Biology Raven et al The cell M. Prakasn
Electronic References, Websites	ncbi,google scholar,reserachgate