

منهاج العملي لمادة علم الأحياء العام

Practical syllabus	
week	Details
1	prokaryotic & eukaryotic cell.
2	Plasma membrane (structure, chemical composition).
3	Mitochondria (structure), lysosomes (types), Golgi complex (structure).
4	Endoplasmic reticulum (smooth & rough) . Ribosome.
5	The nucleus, nuclear envelope.
6	The cell cycle. Mitosis, cell division, meiosis.
7	Cell chemistry, water, salts, and ions.
8, 9	Macromolecules, proteins, carbohydrates, lipids.
10	Nucleic acids.
11	DNA structure .
12, 13	Chromosome, structure, changes (duplication, translocation, inversion)
14	First examination
15	Radiation biology concept, history, sources.
16	Techniques used in radiation biology.
17	Types of radiation, chemical yield.
18	Types of radiation, ionic yield.
19	Radiation effects on water, hydrogen peroxide.
20	Radiation effects on DNA molecule, repair mechanism.
21	Application of radiation isotopes, medical application.
22	food preservation by irradiation.
23	Control of insects, genetic studies.
24	Second examination
25	Bacterial growth requirements.
26	Bacterial growth curve.
27	Anatomy of bacterial cell.
28	Types of stains & smear preparation.
29	Media & classification.
30	Final examination