Microbiology and Parasitology

II. Course Description:
This course provides basic knowledge of life including basic processes in living organisms, cell structure and function and inheritance of living organisms.

I.Course Content:

A – Theoretical Aspect:

Order	Units/Topics List	Sub Topics List	No. of Weeks	Contact hours	Learning Outcomes
1	Scope of Biology	▪ Definition and brief history of biology ▪ Living organisms and Non-Living things ▪ Chemical context of life ▪ Biological structures of living organisms: cell, tissue, organ, system. ▪ Common features of Life process. ▪ Energy sources in living organisms	2	4	a1, a2
2	The cell : the basic unit of life	▪ Function of Micro and macro molecules of cell and enzymes ▪ Chemical constituents of the protoplasm ▪ cell membranes : types, Functions and properties ▪ Basic process in the cell (respiration, nutrition, etc.) ▪ life cycle of the cell ▪ Differences between animal and plant cell.	3	6	a2, b1

3	Morphology & anatomy of Flowering plants	▪ Absorption and movement of water in plants ▪ Mineral & Nitrogen ▪ Nutrition in plants ▪ Photosythesis ▪ Reproduction in flowering plants. ▪ Growth and development of flowering plants	2	4	b1
4	Midterm exam		1	2	a2, b1
5	Animal Kingdoms	▪ classification : Genera and species; common features ▪ animal diversity ▪ animal reproduction	4	8	b1
6	Inheritance	▪ Mendel and the Gene Idea ▪ Molecular basis of inheritance chromosome, DNA, genes	2	4	a2
7	Final exam		1	2	a2, b1
Number of Weeks /and Units Per Semester			**15**	**30**	

B– Practical/clinical Aspect:				
Order	**Tasks/ Experiments**	**Number of Weeks**	**contact hours**	**Learning Outcomes**
1	The use of microscope	**1**	2	
2	Classification of living organism	**1**	2	c1
3	The Eukaryotic and prokaryotic cell	**1**	2	c1
4	The type of epithelial cell	**1**	2	c1
5	Gram positive and gram negative bacteria	**1**	2	c1
6	Rickettsia and fungi prepared slide	**1**	2	c1
7	Tests for proteins, carbohydrates, fats, lipids and starches.	**2**	4	c1
8	Cell division mitosis and meiosis	**1**	2	c1
9	.Dissection of frogs and rabbits	**1**	2	c1
10	To visualize the digestive system, blood, circulation, heart, urino-genetal system, pancreas and liver	**2**	4	c1
Number of Weeks /and Units Per Semester		**12**	**28**	

II. Teaching strategies of the course:

1. Lecture Discussion
2. Practical session
3. Explain using charts, microscopic and slides

VI.Schedule of Assessment Tasks for Students During the Semester

Theoretical part

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
1	Attendance and activities	15th week	5	5%	a1, a2, b1
2	Student assignments	5th and 12th week	5	5%	a2
3	Mid-term exam	7th or 8th week	10	10%	a1, a2, b1
4	Final-exam	16th-17th week	40	40 %	a1, a2, b1
Total Theory Weight			**60**	**60%**	

Practical part

Assessment	Type of Assessment Tasks	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
1	Attendance and Attitude	14th week	5	5%	c1
2	Semester work	1st and 14th week	10	10%	c1
3	Final exam (theory or oral)	15th week	5	5%	c1
4	Final exam (practical)	16th-17th week	20	20%	c1
Total Practical Weight			**40**	**40%**	