Schedule of Teaching

Department of Zoology A.B.V. Govt. College Sunni Distt. Shimla (H.P)

Teaching Plan for BSc Zoology First Year (DSC Courses)

Name of the Department: Zoology

Name of the Teacher: Dharminder Singh Uttam

Name of the Course: DSC 1A: **Animal Diversity** (ZOOL 101 TH)

DSC 1B: Comparative Anatomy and developmental Biology of Vertebrates (ZOOL 102 TH)

Month	Weeks	Book/ Unit/Topic	Teaching Method / Resources	Student Activities
July		UNIT (ZOOL 101 TH)	Lecture	Assignments
	1 ,	1. Kingdom Protista/		
	1st	2. Phylum Porifera		
	$2^{\rm nd}$	3.Phylum Cnidaria/		C1 T 4
	3 rd	4.Phylum Platyhelminthes		Class Test
	4 th	5.Phylum Nemathelminthes		
	4"	Class Test		
August			Lecture	Discussion
		6. Phylum Annelida/ 7.		
	1st	Phylum Arthropoda		
		8.Phylum Mollusca/		
	2nd	9. Phylum Echinodermata		
		10. Protochordates/		
	3rd	11Agnatha		
	4th	Discussion		
September			Lecture	Quiz
	1st	12. Pisces/13. Amphibia		
	2^{nd}	14.Reptiles/15. Aves		
	3rd	16. Mammals		
	4 th	Quiz		
				Students
October		UNIT (ZOOL 102 TH)	Lecture	presentations
		1. Integumentary/2. Skeletal		
	1st	system		
		3.Digestive/ 4. Respiratory		
	2nd	system		

		5.Circulatory/		
	3^{rd}	6.Urinogenital system		
	4th	Students presentations		
		7.Nervous system/8. Sensse		
November	1st	organs	Lecture	
		9.Early Embryonic		
	2^{nd}	Development		
	3rd	do		Assignments
	4th	Assignments		
		10. Late Embryonic		
December	1 st	Development	Lecture	Quiz
	2nd	Mid –Term Exams		
		10.Late Embryonic		
February	2^{nd}	Development	Lecture	Students presentation
	$3^{\rm rd}$	11. Control of Development		
	4th	Students presentation		

Teacher's Signature

Teaching Plan for BSc Zoology Second Year (DSC Courses)

Name of the Department: Zoology

Name of the Teacher: Assistant Professor Dharminder Singh Uttam

Name of the Course: DSC 1C: **Physiology and Biochemistry** (ZOOL 201 TH)

DSC 1D: Genetics and Evolutionary Biology (ZOOL 202 TH)

Month	Weeks	Book/ Unit/Topic	Teaching Method / Resources	Student Activities
July		Unit (ZOOL 201 TH)	Lecture	Assignments
	1st	1. Nerve and Muscle		
	$2^{\rm nd}$	2. Digestion		Class Test
	3^{rd}	3. Respiration		
	4 th	Class Test		
August			Lecture	Discussion
	1st	4. Excretion		
	2nd	5. Cardiovascular System		
		6. Reproduction and		
	3rd	Endocrine Glands		
	4th	Discussion		
September			Lecture	Quiz
	1st	7. Carbohydrate Metabolism		
	$2^{\rm nd}$	8. Lipid/ 9.Protein Metabolism		
	3rd	10.Enzymes		
	$4^{ m th}$	Quiz		
0ctober		Unit (ZOOL 202 TH)	Lecture	Students presentations
	1st	1. Introduction to Genetics		
	2nd	2. Mendelian Genetics		
		3. Linkage, Crossing over		
	3^{rd}	and Chromosomal mapping		
	4th	Students presentations		

		4.Mutations/ 5.Sex		
November	1st	determination	Lecture	Group Discussion
		6.History of life/7.		
		Introduction to Evolutionary		
	2^{nd}	theories		
		8.Direct evidences of		
	3rd	Evolution		Assignments
	4th	Assignments		
		9.Processes of Evolutionary		
December	1 st	change	Lecture	Quiz
	2nd	Mid –Term Exams		
February	2^{nd}	10.Species concept	Lecture	Students presentation
		11.Macro-		
	$3^{\rm rd}$	Evolution/12.Extinction		
	4th	Students presentation		

Teacher's Signature

Teaching Plan for BSc Zoology Second Year (SEC Courses)

Name of the Department: Zoology

Name of the Teacher: Assistant Professor Dharminder Singh Uttam

Name of the Course: SEC I MEDICAL DIAGNOSTICS (ZOOL 203 TH)/ SEC II: APICULTURE (ZOOL 204 TH)

			Teaching Method /	
Month	Weeks	Book/ Unit/Topic	Resources	Student Activities
July		Unit (ZOOL 203 TH)	Lecture	Class Test
		1.Introduction to Medical		
		Diagnostics and its		
		Importance / 2.		
		Diagnostics Methods Used		
	1st	for Analysis of Blood		
	2 nd	do		
	3 rd	do		
	4 th	Class Test		
August			Lecture	Discussion
		3.Diagnostic Methods Used		
	1st	for Urine Analysis		
		4.Non -infectious Diseases		
	2nd			
	3rd	do		
	4th	Discussion		
September			Lecture	Quiz
		5.Infectious Diseases /		
		6.Tumours		
ļ	1st			
	2 nd	do		
	3rd	do		
	4^{th}	Quiz		

0ctober		Unit (ZOOL 204 TH)	Lecture	Students presentations
	1st	1. Biology of Bees		
	2nd	do		
	3 rd	2.Rearing of Bees		
	4th	Students presentations		
November	1st	2.Rearing of Bees	Lecture	Group Discussion
	2 nd	do		•
	3rd	3.Diseases and Enemies		Assignments
	4th	Assignments		
December	1 st	3.Diseases and Enemies	Lecture	Quiz
	2nd	Mid –Term Exams		
February	$2^{\rm nd}$	4.Bee Economy	Lecture	Students presentation
	$3^{ m rd}$	5.Entrepreneurship in Apiculture		
	4th	Students presentation		
		Apiculture		

Teaching Plan for BSc Zoology Third Year (DSE Courses)

Name of the Department: Zoology

Name of the Teacher: Assistant Professor Dharminder Singh Uttam Name of the Course: **DSE 1A Applied Zoology (ZOOL 301 A TH)**

DSE 1B: Insect, Vectors and Diseases (ZOOL 302 A TH)

Month	Weeks	Pook/Unit/Tonio	Teaching Method / Resources	Student Activities
IVIOIIIII	WEEKS	Book/ Unit/Topic Unit (ZOOL 301 A TH)	/ Resources	Student Activities
July		Omt (ZOOL 301 A 1H)	Lecture	Class Test
		1.Introduction to Host-parasite		
		Relationship /2.Epidemiology of		
	l 1st	Diseases		
	2 nd	3.Rickettsiae and Spirochaetes		
	3 rd	4.Parasitic Protozoa		
	4 th	Class Test		
August			Lecture	Discussion
August	1st	5.Parasitic Helminthes	Lecture	Discussion
	2nd	6.Insects of Economic Importance		
	3rd	do		
	4th	Discussion		
September			Lecture	Quiz
	1st	7.Insects of Medical Importance		
	2 nd	8.Animal Husbandry		
	3rd	9.Poultry Farming		

		/10.Fish Technology		
	4 th	Quiz		
0ctober		Unit (ZOOL 302 A TH)	Lecture	Students presentations
	1st	1.Introduction to Insects		
	2nd	2.Insects as Vectors		
	$3^{\rm rd}$	3.Dipteran as Disease Vectors		
	4th	Students presentations		
November	1st	3.Dipteran as Disease Vectors	Lecture	Assignments
	$2^{\rm nd}$	do		
	3rd	do		
	4th	Assignments		
December	1^{st}	4. Siphonaptera as Disease Vectors	Lecture	
	2nd	Mid –Term Exams		
February	$2^{\rm nd}$	5.Siphunculata as Disease Vectors	Lecture	Students presentation
	$3^{\rm rd}$	6.Hempitera as Disease Vectors		
	4th	Students presentation		

Teaching Plan for BSc Zoology Third Year (SEC Courses)

Name of the Department: Zoology

Name of the Teacher: Assistant Professor Dharminder Singh Uttam Name of the Course: SEC III: SERICULTURE (ZOOL 303 TH) SEC IV: AQUARIUM FISH KEEPING (ZOOL 304 A TH)

Month	Weeks	Book/ Unit/Topic	Teaching Method / Resources	Student Activities
July		Unit (ZOOL 303 TH)	Lecture	Class Test
	1st	9. Introduction		
	$2^{\rm nd}$	do		
	3^{rd}	2.Biology of Silkworm		
	4 th	Class Test		
August			Lecture	Discussion
	1st	3.Rearing of Silkworms		
	2nd	do		
	3rd	do		
	4th	Discussion		
September			Lecture	Quiz
	1st	4.Pests and Diseases		
	$2^{\rm nd}$	do		
	3rd	5.Entrepreneurship in Sericulture		
	4 th	Quiz		
				Students
0ctober		Unit (ZOOL 304 A TH)	Lecture	presentations
		1.Introduction to Aquarium Fish		
	1st	Keeping		
	2nd	do		

		2.Biology of Aquarium Fishes		
	and			
	3 rd			
	4th	Students presentations		
		2.Biology of Aquarium Fishes		
November	1st		Lecture	Group Discussion
	2 nd	do		
		3.Food and feeding of		
		Aquarium fishes		
	3rd			Assignments
	4th	Assignments		
	-			
		3Food and feeding of		
		Aquarium fishes		
December	1 st		Lecture	Quiz
	2nd	Mid –Term Exams		
		4.Fish Transportation		
February	$2^{\rm nd}$		Lecture	Students presentation
		5.Maintenance of Aquarium		
	3 rd			
	4th	Students presentation		