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Scientific content and requirements of PARA 709

Level	week	subject	Credit units	Lecture hrs	Practical hrs	SDL hrs
FIRST SEMESTER = 5 CREDIT UNITS (60 HRS LECTURE + 30 HRS PRACTICAL)	1	An overview of parasites diversity	11 credits	4		
	2	Parasite immunology (molecular approach)		4		
	3	Parasites and drug resistance		4		
	4	Overview of parasites ecology (Environmental changes and parasitism)		4		
	5	Parasites and their interaction with non-parasitic diseases		4		
	6	The challenge of parasite control		4		
	Up-to-date of medically important helminthes					
	7	Trematoda: Schistosomes.		4	2	
	8	Trematoda: Fasciola, Fasciolopsis; Opisthorchis, Clonorchis & Paragonimus.		4	4	
	9	Trematoda: Heterophyes, Metagonimus, Gastrodiscoides Echinostoma & Dicrocoelium		4	4	
	10	Cestoda: Introduction, Diphyllobothrium, Taenia (saginata, solium & multiceps)		4	4	
	11	Cestoda: Hymenolepis, Dipylidium, Echinococcus		4	4	
	12	Nematoda: Entrobisus, Ascaris and Trichuris, Hookworm, Strongyloides and Trichostrongylus		4	4	
	13	Nematoda: Toxocara, Trichinella		2	4	
		Nematoda: Filaria: Wuchereria		2		
	14	Nematoda: Onchocerca, Loa loa & other filaria and Medina worm		4	2	

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	15	Nematoda: Capillaria, Thelazia, Gnathostoma & Anisakis.		4	2	
SECOND SEMESTER = 6 CREDIT (60 LECTURE + 60 PRACTICAL)	Up-to-date of medically important protozoa					
	16	Introduction; Amoeba		4	4	
	17	Flagellates: Leishmania		4	4	
	18	Flagellates: Trypanosoma		4	4	
	19	Flagellates: Giardia lamblia; Trichomonas vaginalis		4	4	
		Ciliates: Introduction; Balantidium coli				
	20	Apicomplexa: Plasmodium		4	4	
	21	Apicomplexa: Toxoplasma, Cryptosporidium		4	4	
	22	Apicomplexa: Cyclospora, Isospora, Microspora, Sarcocystis. - Blastocystis.		4	4	
	Up-to-date of medically important arthropods					
	23	Introduction		4	4	
		Mosquitoes				
	24	Flies, myiasis,		4	4	
	25	Maggot therapy & forensic entomology.		4	4	
	26	Fleas		4	4	
		Ticks & Lice				
	27	Mites		4	4	
		Bugs; Cyclops				
	Up-to-date of diagnostic parasitology					
	28	- Indirect techniques 1 (immunological)		4	4	
		- Indirect techniques 2 (molecular)				

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	29	- Indirect techniques 3 (imaging)		4	4	
	30	- Up-to-date of direct examination techniques		4	4	
THIRD + FOURTH SEMESTERS = 9 credits	Self-directed learning (SDL)					
	31-34	SDL 1	9 credits			20
	35-48	SDL 2				20
	49-42	SDL 3				20
	43-46	SDL 4				20
	47-50	SDL 5				20
	51-55	SDL 6				20
	56-60	Final written (2 papers 3 hrs. each). Oral exam. Practical exam.				6 4 5
Log Book (course requirements; 20 credit hours):						
- Participation of at least 12 of parasitology department seminars.			4 credits.			
- Participation of at least 4 workshops relevant to parasitology.			4 credits.			
- Attendance of at least 4 scientific conferences relevant to parasitology.			4 credits.			
- Publishing a scientific paper in peer reviewed periodical.			2 credits.			
- Preparation of permanent prepared parasites specimens.			4 credits.			
- Handout illustrations booklet of practical lessons.			2 credits.			
Total teaching hours = 345			40 credits	120	90	135