TEACHING PLAN (CBCS)-ODD SEMESTER (2022-2023)

DEPARTMENT OF PHYSIOLOGY
PHYSIOLOGY HONOURS (PHYA)
SEMESTER-I

PAPER	FULL MARKS	TOPIC	TEACHER	CLASS HOUR	TEACHING METHOD
CC1 TH	50	1. Cellular basis of Physiology	SD	12	Interactive,
		2. Genetics (Chromosome and Cell cycle)	SM,	12	Learner-centric
		3. Enzyme	RM	12	methods
CC1P	30	1. Study of stages of meiosis from grasshopper testis	SD AS	06	Experiential
PRACTICAL		2. Cell viability study by Trypan blue staining	PS RM,AD	06	learning (hands
		3. Osmotic fragility test of goat blood R.B.C		06	-on training)
		4. 4. Staining of adipose tissue using Sudan III or IV.		06	
				Total =60	
CC2TH	50	1. Biophysical principles	PS,	08	Interactive,
		2. Instrumentation	RM	04	Learner-centric
		3. Biochemistry (Carbohydrate)	AC	08	methods
		4. Biochemistry (Lipid)	AP	04	with ICT tools.
		5. Biochemistry (Protein)	MMS	06	
		6. Biochemistry (Nucleic acid)	SD,AS	06	
CC2P PRACTICAL	30	1. Qualitative tests for the identification of 2. Preparation of Buffer and Ph measurement.	AC,AP, MMMS, RM , AD	20 04	Experiential learning (hands -on training)
				Total= 60	

SEMESTER- III

PAPER	FULL MARKS	TOPIC	TEACHER	CLASS HOUR	TEACHING METHOD
CC5 TH	50	1. Blood physiology	AD	20	Interactive,
		2. Blood volume	AD	04	Learner-centric
		3. Hemostasis	AS	06	centric
		4. Body fluid and lymph	PS	06	methods
CC5P	30	1. Peripheral blood smear by Leishman stain	AS MMS	06	Experiential
PRACTICAL		2. TC, DC of blood	RM MMS,SD SM	08	learning
		3. Hemoglobin estimation		02	(hands -on
		4. Bone marrow and megakaryocyte staining		04	training)
		5. Haemin crystal preparation		02	
		6. Reticulocyte staining		02	
				TOTAL = 60	
CC6TH	50	1. Cardiovascular physiology	SD	12	Interactive,
		2. ECG	AC	06	Learner-centric
		3. Hemodynamics & pulse	AC	12	centric
		4. Blood pressure	RM	06	methods
CC6P	3	1. Determination of Blood pressure	AC, AD	04	Experiential

	0	2. Perfusion experiment- effect of adrenaline, excessK+ 3. ECG.	AC, AP ^{AD}		
PRACTI CAL				10	learning
				10	(hands -on training)
				TOTAL = 60	
CC7TH	5 0	1. Respiratory physiology	RM	18	Interactive,
		2. Gas transport	SM	10	Learner-
		3. Pulmonary disorders	MMS	08	centric
					methods
CC7P	3 0	1. Pneumographic recording	AP,MM S	12	Experiential
PRACTI CAL		2. Spirometry(manual) and analysis of the results.	AP,AS	08	learning
		3. Peak flowmetry		04	
				TOTAL= 60	
SEC-A1	8 0	1. Blood group & transfusion	AS	10	Experiential
		2. Abnormal hemoglobins (Up to Leptin)	AS	08	learning (Skill
		3. Haematological indexes and counts	SM	10	developme nt)
		4. Disorders-anemia to purpura	SM	04	
		5. Bone-marrow suppression and transplantation	AD	04	
				Total=36	

PAPER	FULL MARKS	TOPIC	TEACHER	CLASS HOUR	TEACHING METHOD
CC11TH	50	1. Special sense-Vision	AC	12	Interactive,
		2. Audition	SD	12	Learner-
		3. Olfaction	PS	06	centric
		4. Gustation	AP	06	methods
CC11P PRACTICAL	30	1. Determination of Visual Acuity by Snellen's Chart 2. Determination of Colour Blindness by Ishihara Chart. 3. Determination of Deafness by Tuning Fork Tests. 4. identification of stained sections of different mammalian tissues and organs: 5. Silver nitrate preparation of corneal cell space.	MMS,AP AS,RM SD,AC	04	Experiential
				04	learning
				04	(hands - on
				08	training)
				04	
				TOTAL= 60	
CC12TH	50	1. Endocrinology (Hypothalamus, pineal & thyroid)	SM,MMS	18	Interactive,
		2. Endocrinology (Adrenal, pancreas, heart & GIH)	SD	18	Learner- centric methods
CC12P PRACTICAL	30	1. PAS staining of liver section 2. Identification of stained sections of different mammalian tissues	RM,SD MMS,AS	08	Experiential
				16	learning
				TOTAL= 60	
DSEA1TH	50	1. Biostatistics-basic concepts	AC	04	Interactive,
		2. Statistics of location	AP	10	Learner-
		3. Testing of hypothesis	AP	08	centric
		4. Correlation & regression	AC	08	methods
		5. ANOVA	AC	06	
DSEA1P PRACTICAL	30	1. Computation of mean, median, mode, SD & SE. 2. Graphical representation of data in frequency polygon and histogram. 3. Student's t test 4. Determination of correlation coefficient (r) and computation of linear regression equation. 5. Statistical analysis with computer using One way ANOVA	AC	08	Experiential
			AP	04	learning
					(hands - on
			AP	04	training)
			AC	04	
			AC,AP	04	
				TOTAL= 60	
DSEB1TH	50	1. Fundamental concepts of work	PS	04	Interactive,
		2. Physiological basis of work	PS	06	Learner-
		3. Work-load assessment	PS	04	centric
		4. Work organization	AD	04	methods
		5. Exercise and physical fitness	AD	04	
		6. Physical working capacity	AP	04	
		7. Bioenergetics	AP	04	
		8. Training principles	AS	04	
		9. Body composition	AS	02	
DSEB1P PRACTICAL	30	1. Determination of anthropometric parameters 2. Determination of VO2max by Queen's College Test 3. PFI by modified Harvard step test 4. Determination of agility, flexibility and anaerobic power	AP,AS,AD,PS	04	Experiential
				04	learning
				04	(hands - on

		5. Recording of HR & BP during static and dynamicwork 6. Determination of workload from heart rate and cardiac indices		04	training)
				04	
				04	
				TOTAL= 60	

TEACHING PLAN
PHYSIOLOGY GENERAL(PHYG)
SEMESTER-I

PAPER	FULL MARKS	TOPIC	TEACHER	CLASS HOUR	TEACHING METHOD
CC1 TH/	50	1. Cellular basis of Physiology	AP	04	Interactive,
GEN1TH		2. Biophysics	PS	04	Learner-
		3. Enzyme	RM	04	centric
		4. Biochemistry (carbohydrate, protein, lipid & N. acid)	AP	12	methods
		5. Digestion & metabolism	AD	12	
CC1P/	30	1. Qualitative tests for identification (Unknown)	MMS, AC,SM	12	Experiential
GEN1P		2. Examination and staining of fresh tissues.		06	learning
PRACTI CAL		3. Quantitative estimation of (%) of amino nitrogen by Sorensen's formol titration method		06	(hands -on training)
				TOTAL= 60	

SEMESTER-III

PAPER	FULL MARKS	TOPIC	TEACHER	CLASS HOUR	TEACHING METHOD
CC3TH /	50	1. Nerve-muscle physiology	AP	12	Interactive,
GEN3TH		2. Nervous system	MMS	12	Learner-
		3. Special sense	AP,AS	12	centric methods
CC3P/	30	4. Silver Nitrate preparation of nodes of Ranvier.	RM,MMS,AS,AP	02	Experiential
GEN3P		5. Silver nitrate preparation of corneal cell space.		04	learning
PRACTI CAL		6. Skeletal and cardiac muscles by Methylene Blue		04	(hands -on training)
		7. Simple muscle curve -demonstration		02	
		8. Determination of visual acuity by Snellen's chart		04	
		9. Determination of colour blindness by Ishihara chart.		04	
		10. Exploration of conductive and perceptive deafnessby tuning fork method.		04	
				TOTAL=60	
SECA1	80	1. Microbiology-Virus	RM	04	Experiential
		2. Microbiology-Bacteria	RM	08	learning (Skill
		3. Immunology	RM	06	development)
				TOTAL= 18	

SEMESTER-V

PAPER	FULL MARKS	TOPIC	TEACHER	CLASS HOUR	TEACHING METHOD
DSEA2 TH	50	1. Blood group	AS	04	Interactive,
		2. Abnormal hemoglobins	SM	04	Learner-
		3. Haematological count and indexes	AP	04	centric
		4. Disorders	PS	04	methods

DSEA2P PRACTICAL	30	1. DC of WBC	AS	04	Experiential
		2. Estimation of hemoglobin	AP	04	learning
		3. Blood group determination,	SM	02	(hands -on
		4. Bleeding time and Clotting time.	AD	04	training)
				TOTAL=30	
SECA1	80	4. Microbiology-Virus	RM	04	Experiential
		5. Microbiology-Bacteria	RM	08	learning (Skill
		6. Immunology	RM	06	development)
				TOTAL= 18	