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 2. Genetics (Chromosome and Cell cycle) 3. Enzyme	DS DS MD	12 12 12	Interactive, Learner-centric methods
CC1P PRACTICAL	30	1. Study of stages of meiosis from grasshopper testis 2. Cell viability study by Trypan blue staining 3. Osmotic fragility test of goat blood R.B.C 4. 4. Staining of adipose tissue using Sudan III or IV.	SD SD SD SD	06 06 06 06	Experiential learning (hands -on training)
				Total =60	
CC2TH	50	1. Biophysical principles 2. Instrumentation 3. Biochemistry (Carbohydrate) 4. Biochemistry (Lipid) 5. Biochemistry (Protein) 6. Biochemistry (Nucleic acid)	AA AA MD MD SD SD	08 04 08 04 06 06	Interactive, Learner-centric methods with ICT tools.
CC2P PRACTICAL	30	1. Qualitative tests for the identification of physiologically important substances. 2. Preparation of Buffer and Ph measurement.	MD MD	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 2. Blood volume 3. Hemostasis 4. Body fluid and lymph	MD MD MD MD	20 04 06 06	Interactive, Learner-centric methods
CC5P PRACTICAL	30	1. Peripheral blood smear by Leishman stain 2. TC, DC of blood 3. Hemoglobin estimation 4. Bone marrow and megakaryocyte staining 5. Haemin crystal preparation 6. Reticulocyte staining	MD MD MD MD MD MD	06 08 02 04 02 02	Experiential learning (hands -on training)
				TOTAL = 60	
CC6TH	50	1. Cardiovascular physiology 2. ECG 3. Hemodynamics & pulse 4. Blood pressure	SD SD AA AA	12 06 12 06	Interactive, Learner-centric methods
CC6P PRACTICAL	30	1. Determination of Blood pressure 2. Perfusion experiment- effect of adrenaline, excess K+ 3. ECG.	AA AA AA	04 10 10	Experiential learning (hands -on training)
				TOTAL = 60	
CC7TH	50	1. Respiratory physiology 2. Gas transport 3. Pulmonary disorders	DS DS DS	18 10 08	Interactive, Learner-centric methods
CC7P PRACTICAL	30	1. Pneumographic recording 2. Spirometry(manual) and analysis of the results. 3. Peak flowmetry	AA AA AA	12 08 04	Experiential learning
				TOTAL= 60	
SEC-A1	80	1. Blood group & transfusion 2. Abnormal hemoglobins (Up to Leptin) 3. Haematological indexes and counts 4. Disorders-anemia to purpura 5. Bone-marrow suppression and transplantation	MD MD MD MD MD	10 08 10 04 04	Experiential learning (Skill development)
				Total=36	

SEMESTER-V

PAPER	FULL MARKS	TOPIC	TEACHER	CLASS HOUR	TEACHING METHOD
CC11TH	50	1. Special sense-Vision 2. Audition 3. Olfaction 4. Gustation	DS DS MD MD	12 12 06 06	Interactive, Learner-centric 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.	MD MD MD MD AA	04 04 04 08 04	Experiential learning (hands -on training)
				TOTAL= 60	
CC12TH	50	1. Endocrinology (Hypothalamus, pineal & thyroid) 2. Endocrinology (Adrenal, pancreas, heart & GIH)	SD AA	18 18	Interactive, Learner-centric methods
CC12P PRACTICAL	30	1. PAS staining of liver section 2. Identification of stained sections of different mammalian tissues	AA AA	08 16	Experiential learning
				TOTAL=60	
DSEA1TH	50	1. Biostatistics-basic concepts 2. Statistics of location 3. Testing of hypothesis 4. Correlation & regression 5. ANOVA	MD MD MD MD MD	04 10 08 08 06	Interactive, Learner-centric methods
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	MD MD MD MD MD	08 04 04 04 04	Experiential learning (hands -on training)
				TOTAL=60	
DSEB1TH	50	1. Fundamental concepts of work 2. Physiological basis of work 3. Work-load assessment 4. Work organization 5. Exercise and physical fitness 6. Physical working capacity 7. Bioenergetics 8. Training principles 9. Body composition	DS DS DS DS SD SD SD SD SD	04 06 04 04 04 04 04 04 02	Interactive, Learner-centric methods
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 5. Recording of HR & BP during static and dynamic work 6. Determination of workload from heart rate and cardiac indices	SD SD SD SD SD SD	04 04 04 04 04 04	Experiential learning (hands -on training)
				TOTAL=60	

TEACHING PLAN
PHYSIOLOGY GENERAL(PHYG)
SEMESTER-I

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

SEMESTER-III

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

SEMESTER-V

PAPER	FULL MARKS	TOPIC	TEACHER	CLASS HOUR	TEACHING METHOD
DSEA2 TH	50	1. Blood group 2. Abnormal hemoglobins 3. Haematological count and indexes 4. Disorders	MD MD MD MD	04 04 04 04	Interactive, Learner-centric methods
DSEA2 P PRACTICAL	30	1. DC of WBC 2. Estimation of hemoglobin 3. Blood group determination, 4. Bleeding time and Clotting time.	AA AA AA AA	04 04 02 04	Experiential learning (hands -on training)
				TOTAL=30	
SECA1	80	4. Microbiology-Virus 5. Microbiology-Bacteria 6. Immunology	DS DS DS	04 08 06	Experiential learning (Skill development)
				TOTAL= 18	