



Late Mrs. Housabai Homoeopathic Medical College & Hospital, Nimshirgaon.

Sangli-Kolhapur Highway, Ichalkaranji Phata, Near Dharmnagar,
Tal-Shirol, Dist-Kolhapur.- 416 101 (Maharashtra) E-Mail: hhmc20@gmail.com
Office No. 02322-295503 Mobile No.: 9422582621, 9422421294

(Approved by Ayush New Delhi, NCH New Delhi, Maharashtra State Govt. & Affiliated to MUHS Nashik)

DEPARTMENT OF HUMAN HUMAN PHYSIOLOGY & BIOCHEMISTRY.

SYLLABUS DISTRIBUTION

<u>2023 – 2024</u>

01	Dr. Arun T. Chougule		 a) Body Fluid & Immune Mechanism b) Cardio vascular system c) Endocrinology d) Renal Physiology e) Special Senses
		Practical	a) Hematology, Clinical & Biochemistry
02	Dr. Omkar A. Katage		a) General Physiology b) Skin &The Integumentary System c) Nerve Muscular Physiology d) Vitamins e) Reproductive system f) Digestive System
		Practical	a) Clinical, OPD
03	Dr. Prerana Y. Chougule		a) Bio-Physical Sciences b) Respiratory System c) CNS d) Biochemistry
		Practical	a) Hematology, Clinical & Biochemistry

H. O. D.
Physiology Dept.

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Late Mrs. Housebal Homoeopathic
Medical Culinge and Hospital



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DEPARTMENT OF HUMAN PHYSIOLOGY & BIOCHEMISTRY

Subject Code: Hom UG - PB I B.H.M.S. (2023)

A/Y: 2023 - 2024

Advance Teaching Plan - Dr. Arun T. Chougule

(No. of lectures 3 per week = 12 per month)

Sr. No	Month	Name of Topic	Distribution of Subtopics of Lectures	No. of Lectures Required for each
1	November 2023	Foundation course		1
2	December	Foundation		1
	2023	course	Describe the composition and functions of blood components	3
		Body fluids & immune mechanism	Describe the origin, Forms, Variations and functions of plasma Protein	2
		(35) (Semester 1)	Describe and discuss the synthesis and functions of Haemoglobin	3
3	January 2024	Body fluids & immune	Describe RBC formation (erythropoiesis & its regulation) and its functions	3
		mechanism	Describe different types of anemia & Jaundice	4
		(35)	Describe WBC formation (granulopoiesis) and its regulation	4
			Describe the formation of platelets, functions and variations.	1
4	February	Body fluids &	First Periodical Assessment 1 st week (PA-I)	5 days
	2024	immune mechanism	Describe the physiological basis of haemostasis	2
		(35)	Describe the clinical importance of blood coagulation	2
			Discuss the clinical importance of blood grouping	2
			Describe blood transfusion	1
	-		Explain the role of lymphoid tissues in immune responses	1
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5	March 2024	Body fluids & immune	Explain the role of lymphoid tissues in immune responses	3
	2024	mechanism	Define and classify different types of immunity.	2
		(35)	Describe the development of immunity and its regulation	2
		Cardiovascular System	Describe the functional anatomy of heart including chambers, Sounds	2
		(20)	Describe Pacemaker tissue and conducting system.	2
		(Semester 2)	Describe the properties of cardiac muscle including its morphology, electrical, mechanical and metabolic functions	1
6	April 2024	Cardiovascular	First Term Test – 3 rd week (TT-I)	10 days
		System (20)	Describe the properties of cardiac muscle including its morphology, electrical, mechanical and metabolic functions	1
			Discuss the events occurring during the cardiac cycle	2
			Discuss heart sounds	2
7	May 2024	Cardiovascular	Commencement of 2 nd Term	
		System (20)	Describe the physiology of electrocardiogram (E.C.G)	2
		Summer	Discuss arrhythmia, heart block and myocardial Infarction	1
		vacation	Describe haemodynamics of circulatory system	1
8	June 2024	Cardiovascular System	Describe the factors affecting heart rate	2
		(20)	Describe the regulation of cardiac output	2
			Understand the blood pressure regulation	2
	/i		Describe coronary, cerebral, capillary, pulmonary & splenic circulation	1
			Describe the mechanism of shock, syncope & Hypertension	1
		Endocrinology (30)	Describe the mechanism of action of steroid, protein And amine hormones	2
			Describe the regulation of secretion of hormones by hypothalamus	2
	July 2024	Endocrinology	Second Periodical Assessment 1 st week (PA-II)	5 days
9		(30)	Discuss the synthesis, secretion, Transport, Physiological action, regulation & effect of altered secretion of Pituitary gland	6
			Describe the synthesis, secretion, Transport, Physiological action, regulation & effect of altered secretion of Thyroid gland	5
10	August 2024	Endocrinology (30)	Explain the synthesis, secretion, Transport, Physiological action, regulation & effect of altered secretion of Para Thyroid gland	4
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			Explain the synthesis, secretion, Transport, Physiological action, regulation & effect of altered secretion of Adrenal gland	4
			Explain the synthesis, secretion, Transport, Physiological action, regulation & effect of altered secretion of Pancreatic Gland	4
	September	Endocrinology	Describe the physiology of Thymus & Pineal Gland	2
11	2024	(30)	Describe the Physiology of Local hormones	1
		Renal	Describe structure & functions of the kidneys.	4
		Physiology (20)	Explain the role of renin – angiotensin system	2
		(Semester 3)	Describe the mechanism of urine formation	3
12	October	Renal	Second Term Test – 3 rd week (TT-II)	10 day:
	2024	Physiology (20)	Describe the process of filtration, secretion & reabsorption in kidney	2
			Describe the concentration and diluting mechanism in the kidney	2
		Winter Vacation	Describe the renal regulation of acid – base balance	2
	November	Renal	Describe the physiology of micturition	3
13	2024	Physiology (20) Winter Vacation	Describe the Kidney function test	2
14	December	Special Senses	Describe the perception of smell sensation	4
	2024	(20)	Describe perception of taste sensation	3
			Describe the functional anatomy of ear & auditory pathways	5
	January	Special Senses	Third Periodical Assessment 1 st week (PA-III)	5 days
1 5	2025	(20)	Describe the functional anatomy of eye	3
15	9		Describe the physiology of image formation	1
		П	Describe the physiology of vision including colour vision	2
			Describe the refractive errors and colour blindness	2
16	February 2025		Revision	12
17	March 2025	and the second	Revision	12
18	April 2025		University exam	

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DEPARTMENT OF HUMAN PHYSIOLOGY & BIOCHEMISTRY

Subject Code: Hom UG - PB I B.H.M.S. (2023)

A/Y: 2023 - 2024

Advance Teaching Plan - Dr. Omkar A. Katage

(No. of lectures 2 per week = 8 per month)

Sr. No	Month	Name of Topic	Distribution of Subtopics of Lectures	No. of Lectures Required for each
1	November 2023	Foundation course		
2	December 2023	Foundation course		2
	2023	General	Definition & general introduction	3
		Physiology (20) (Semester 1)	Describe and discuss the principles of homeostasis	3
3	January	General	Describe the structure & functions of cell	3
	2024	Physiology	List the organelles present in cell	1
		(20)	Enumerate the functions of organelles	2
			List the name of intracellular junction	1
			Discuss the importance of intracellular Junction	1
4	February	General	First Periodical Assessment 1 st week (PA-I)	5 days
	2024	Physiology	Explain Passive transportation	2
		(20)	Explain Active Transportation	2
			Explain Vesicular Transportation	2
5	March	Skin &The	Discuss layers of skin with their functions	4
	2024	Integumentary	Relate the structure of hair with its function	2
9		System (15)	Relate the structure of nail with its function	2
6	April 2024	Skin &The	First Term Test – 3 rd week (TT-I)	10 days
		Integumentary System	Relate the structure of different glands of skin with their functions	1
	-	(15)	Describe the glands of skin	2
			Explain the regulation of Body temperature through skin	3

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7	May 2024	Skin &The	Commencement of 2 nd Term	1
		Integumentary	Explain the regulation of Body temperature	1
		System	through skin	
		(15)	Nerve fiber- Definition, types, classification,	2
		Nerve Muscle	function, Degeneration and regeneration of	
		Physiology	peripheral nerves	
		(15)		
		Summer		
		vacation		
8	June 2024	Nerve Muscle	Nerve fiber- Definition, types, classification,	1
		Physiology	function, Degeneration and regeneration of	
		(15)	peripheral nerves	
			Explain structure and function of neuroglia	1
	-		To understand the physiological properties of	2
			nerve fibers	
			To understand the degeneration & regeneration	2
			of neuron	_
			To describe Neuromuscular Junction	2
9	July 2024	Nerve Muscle	Second Periodical Assessment 1 st week (PA-II)	5 days
	,	Physiology	To understand the physiological properties of	2
		(15)	Skeletal Muscle	_
			To understand the physiological properties of	2
			Smooth Muscle	_
			To understand the physiological properties of	1
			Cardiac Muscle	_
10	August	Bio-Chemistry -	Vitamins	5
	2024	Vitamins	Define puberty & Discuss the role of LH & FSH in	1
		(5)	development of puberty	
		D =	Explain puberty for its onset, and stages. Describe	1
		Reproductive	the causes for delayed &precocious puberty.	
		System	Describe the structure & Function of male	1
		(15)	reproductive system	
11	September	Reproductive	Describe the structure & Function of male	1
	2024	System	reproductive system	
		(15)	Describe the physiological effects of male sex	1
			hormone	_
			Discuss the process of spermatogenesis & factors	1
		ļ	affecting spermatogenesis	
			Describe female reproductive system & functions	2
			of ovary and its Control.	
			Describe menstrual cycle with hormonal, uterine	3
			and ovarian changes	-
12	October	Reproductive	Second Term Test – 3 rd week (TT-II)	10 days
	2024	System	Describe the physiological effects of female sex	1
		(15)	hormones	•
			Discuss the contraceptive methods for male and	1
			female.	-
			Discuss the physiology of pregnancy, parturition &	2
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13	November 2024	Winter Vacation Digestive	Describe the structure, Function & Innervation of Digestive system	3
	2024	System & Nutrition	Describe the composition, mechanism of	3
		(35)	secretion, function & regulation of saliva	
14	December 2024	Digestive System &	Describe the composition, mechanism of secretion, function & regulation of Gastric Juice	4
		Nutrition (35)	Describe the composition, mechanism of secretion, function & regulation of Pancreatic Juice	5
15	January	Digestive	Third Periodical Assessment 1st week (PA-III)	5 days
	2025	System & Nutrition	Describe the structure & function of liver & Gall Bladder	3
		(35)	Describe the composition, mechanism of secretion, function & regulation of Bile	3
16	February 2025	Digestive System &	Describe the composition, mechanism of secretion, function & regulation of Small intestine	4
		Nutrition (35)	Describe the movement of gastrointestinal tract, it's regulation & function.	5
17	March 2025	Digestive System &	Describe the movement of large intestine & defecation as a process.	2
		Nutrition (35)	Describe the physiology of digestion and absorption of nutrients	3
			Revision	3
18	April 2025		University exam	

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A/Y: 2023 - 2024

Advance Teaching Plan - Dr. Prerna Y. Chougule

(No. of lectures 2 per week = 8 per month)

Sr. No	Month	Name of Topic	Distribution of Subtopics of Lectures	No. of Lectures Required for each
1	November 2023	Foundation course	Ecotares	1
2	December 2023	Bio-Physical Sciences (15)	Filtration & Ultra-filtration Osmosis	3
		(13)	Diffusion	2
			Adsorption & Hydrotropy	1
			Colloid, Donnan Equilibrium,	2
3	January	anuary 2024 Bio-Physical Sciences (15)	Tracer elements & Dialysis	1
	2024		Atomic structures	2
			Absorption & Assimilation	1
			Acid base balance & Buffer	1
			Surface tension	1
			Membrane potential	2
4	February 2024	Respiratory System And	First Periodical Assessment 1 st week (PA-I)	5 days
	11	Environmental Physiology	Physiological anatomy of respiratory tract	3
		(25)	Mechanism of respiration	3
5	March 2024	Respiratory System And	Ventilation	3
	2024	Environmental	Diffusion of gases	1
		Physiology	Transport of respiratory gases	3
		(25)	Regulation of respiration	1

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б	April	Respiratory	First Term Test – 3 rd week (TT-I)	10 days
	2024	System And	Pulmonary Function Test	3
		Environmental		
		Physiology (25)	High altitude and space physiology	1
7	May	Summer	Deep sea physiology	1
	2024	vacation Respiratory	Artificial respiration	1
		System And Environmental Physiology (25)	Effects of exercise on respiration	2
8	June	Respiratory	Effects of exercise on respiration	2
	2024	System And Environmental	Introduction to nervous system &	1
		Physiology (25)	Receptors	1
	X	Central Nervous System (35)	Synapse	2
9	July 2024	Central Nervous System	Second Periodical Assessment 1 st week (PA-II)	5 days
		(35)	Neurotransmitters	1
			Reflex activity	2
			Spinal cord	3
10	August 2024	Central Nervous System	Spinal cord	5
		(35)	Somato-sensory system and somato- motor system	2
			Physiology of pain	1
11	September 2024	Central Nervous System	Physiology of pain	1
	2024	(35)	Brain stem	1
		(00)	Vestibular apparatus	1
			Cerebral cortex	2
			Hypothalamus	1
			Internal capsule	1
			Thalamus	1
12	October	Central Nervous	Second Term Test – 3rd week (TT-II)	10 days
	2024	System (35)	Basal ganglia	1
		(33)	Limbic system	1
		Winter vacation	Cerebellum – Posture and equilibrium	2
13	November	Winter vacation	Reticular formation	1
	2024	Central Nervous	Proprioceptors	1
		System (35)	Higher intellectual function &	2

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14	December	Central Nervous	Electroencephalogram (EEG)	1
	2024	System	Physiology of sleep	1
		(35)	Cerebro-spinal fluid (CSF)	1
			Autonomic Nervous System (ANS)	2
		Bio-Chemistry (20)	Carbohydrates	3
15	January 2025	Bio-Chemistry (20)	Third Periodical Assessment 1 st week (PA-III)	5 days
			Carbohydrates	3
			Lipids	3
16	February	Bio-Chemistry	Lipids	1
	2025	(20)	Proteins	4
			Enzymes	2
			Minerals	1
17	March	Bio-Chemistry	Minerals	2
	2025	(20)	Organ function tests	2
			Revision	4
18	April 2025		University exam	

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Subject Code: Hom UG - PB

I B.H.M.S. (2023) A/Y: 2023 - 2024

Advance Teaching Plan - Dr. Arun T. Chougule / Dr. Prerana Y. Chougule

PRACTICAL (Haematology, Clinical, Biochemistry)

(No. of Practical 2 hrs per week = 8 hrs per month)

Sr. No	Month	Name of Topic	Distribution of Subtopics of Lectures	No. of Lectures Required for each
1	November 2023	Foundation course		
2	December	Haematology	Study of the Compound Microscope	5
	2023		Collection of blood sample	3
3	January		Collection of blood sample	2
	2024		Estimation of Haemoglobin concentration	5
	.*		Determination of hematocrit	1
4	February 2024		First Periodical Assessment 1 st week (PA-I)	5 days
			Determination of hematocrit	4
	21 11		Hemocytometry	2
5	March		Hemocytometry	3
j	2024		Total RBC count	5
6	April		First Term Test – 3 rd week (TT-I)	10 days
	2024		Total RBC count	5
	-2		Determination of RBC indices	1
7	May 2024	Summer vacation	Determination of RBC indices	4
8	June 2024		Total leucocyte count	4
	2024		Nervous System- Clinical Examination	4
9	July 2024		Second Periodical Assessment 1 st week (PA-II)	5 days
			Total leucocyte count	3
			Nervous System- Clinical Examination	3
10	August 2024		Total leucocyte count	3
			Nervous System- Clinical Examination	5



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11	September		Preparation and examination of	4
	2024	11	blood smear	
			Nervous System- Clinical Examination	3
12	October	Winter vacation	Second Term Test – 3rd week (TT-II)	10 days
	2024		Preparation and examination of	3
			blood smear	
			Demonstration of Uses Of	2
			Instruments Or Equipment .	
			Qualitative Analysis of	1
):		Carbohydrates, Proteins And Lipids	
13	November	Winter vacation	Preparation and examination of	3
	2024		blood smear	
	×		Qualitative Analysis of	2
			Carbohydrates, Proteins And Lipids	
14	December		Differential Leucocyte Count (DLC)	4
	2024		Qualitative Analysis of	4
			Carbohydrates, Proteins And Lipids	
1 5	January		Third Periodical Assessment 1st week	5 days
	2025		(PA-III)	
			Differential Leucocyte Count (DLC)	3
			Qualitative Analysis of	3
			Carbohydrates, Proteins And Lipids	
16	February		Differential Leucocyte Count (DLC)	4
	2025		Normal Characteristics of Urine	4
17	March		ESR, Blood Group, BT&CT	4
	2025		Abnormal Constituents of Urine	4
	D2		Revision	4
18	April 2025		University exam	

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I B.H.M.S. (2023)

A/Y: 2023 - 2024

Advance Teaching Plan – Dr. Omkar A. Katage

PRACTICAL (Clinical, OPD)

(No. of Practical 2 hrs per week = 8 hrs per month)

Sr. No	Month	Name of Topic	Distribution of Subtopics of Lectures	No. of Lectures Required for each
1	November 2023	Foundation course		
2	December	Clinical	Case Taking & Approach to pt	5
	2023	Physiology	General Concept of Examination	3
3	January 2024	Clinical Physiology	General Concept of Examination	8
4	February 2024	Clinical Physiology	First Periodical Assessment 1 st week (PA-I)	5 days
			Examination of muscles, joints	6
5	March	Clinical	Examination of muscles, joints	4
	2024	Physiology	Cardio-Vascular System – Radial Pulse	4
6	April	April Clinical 2024 Physiology	First Term Test – 3 rd week (TT-I)	10 days
	2024		Cardio-Vascular System – Blood Pressure Recording	4
7	May 2024	Summer vacation	Cardio-Vascular System – Blood Pressure Recording & ECG	4
8			Cardio-Vascular System – Clinical Examination	4
			OPD	4
9	July 2024	Clinical Physiology	Second Periodical Assessment 1 st week (PA-II)	5 days
			Respiratory System- Clinical Examination	6
10	August 2024	Clinical Physiology	Respiratory System- Clinical Examination	5
			Respiratory System- Spirometry, Stethography	3

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11	September	Clinical	OPD	8
	2024	Physiology		
12	October	Winter vacation	Second Term Test – 3rd week (TT-II)	10 days
	2024		Reproductive System- Diagnosis of Pregnancy	5
],		Special Senses- Clinical Examination	2
13	November 2024	Winter vacation	Special Senses- Clinical Examination	5
14	December 2024	Clinical Physiology	Special Senses- Clinical Examination	8
15	January 2025	Clinical Physiology	Third Periodical Assessment 1 st week (PA-III)	5 days
			Gastrointestinal System- Clinical Examination	6
16	February 2025	Clinical Physiology	Gastrointestinal System- Clinical Examination	4
			OPD	4
17	March 2025		Revision	8
18	April 2025		University exam	

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SYLLABUS DISTRIBUTION

<u>2022 – 2023</u> (Revised)

01	Dr. Arun T. Chougule	Theory	a) Body Fluid & Immune Mechanism
			b) Cardio vascular system
			c) Endocrinology
			d) Special Senses
			e) Renal Physiology
		Practical	a) Hematology, Clinical &
			Biochemistry
02	Dr. Omkar A. Katage	Theory	a) General Physiology
			b) Skin &The Integumentary
			System
			c) Nerve Muscular Physiology
	- 4		d) Vitamins
			e) Reproductive system
			f) Digestive System
	34	Practical	a) Clinical, OPD
03	Dr. Prerana B. Patil	Theory	a) Bio-Physical Sciences
			b) Respiratory System
	140		c) CNS
			d) Biochemistry
	× 1 = +	Practical	a) Hematology, Clinical &
	He I		Biochemistry

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(No. of lectures 3 per week = 12 per month)

Sr.	Month	Name of Topic	Distribution of Subtopics of	No. of Lectures
No			Lectures	Required for each
1	February	Foundation		2
	2023	course		
		Body fluids &	Blood	2
		immune	Plasma proteins	2
		mechanism	Red blood cells	2
			erythropoiesis	4
	a.		Hemoglobin & iron metabolism	2
2	March	Body fluids &	ESR	2
	2023	immune	PCV & blood indices	2
		mechanism	Haemolysis & fragility of RBC	2
		2	White Blood Cells	2
			Immunity	3
		(9	Platelets	1
3	April 2023	Body fluids &	Hemostasis	1
		immune	Coagulation of Blood	2
		mechanism	Blood Groups	2
			Blood Transfusion	1
		(40)	Blood Volume	1
			Reticuloendothelial Systemand Tissue Macrophage	3
		, "	Spleen	2
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4	May 2023	Body fluids &	Lymphatic System and Lymph	1
		immune	Tissue Fluid and Edema	1
		mechanism		
		Cardiovascular	Introduction to Cardiovascular	4
		System	System	
			Properties of cardiac muscle	
		Summer vacation		
5.	June 2023	4th Month – 5 days PA		
		Cardiovascular	Cardiac Cycle	2
		System	General Principal of circulation	1
			Heart Sounds	2
	i		Regulation of cardiovascular system	2
6	July 2023	Cardiovascular	Normal and abnormal	2
	i n'	System	Electrocardiogram (ECG)	_
			Heart Rate	3
			Arterial Blood Pressure	3
			Radial Pulse	2
			Regional circulation – Cerebral,	2
			Splanchnic, Capillary, Cutaneous &	
			Skeletal muscle circulation	
7.	August	Cardiovascular	Cardiovascular adjustments during	1
	2023	System	exercise	
		Endocrinology	Introduction to Endocrinology	3
			Hormones and hypothalamo –	3
			hypophyseal axis	
		-	Pituitary Gland	5
8	September			
	2023	days TT – including Viva		
		Voce		#i
		Endocrinology	Thyroid Gland	6
			Parathyroid Glands	2
9	October	Endocrinology	Endocrine Functions of Pancreas	5
	2023		Adrenal Cortex	4
		5c 1	Adrenal Medulla	2
			Endocrine Functions of Other	. 4 1 7
	-	1	Organs	
10	November	9th Month – 5		
10	2023	days PA	(4)	
		Winter Vacation		



	¥		Physiological Anatomy of Kidney, and Urinary tract	4	
11	December 2023		Fluid & electrolyte with acid base balance need to be include	2	
			Renal circulation	2	
			Urine formation: Renal clearance, glomerular filtration, tubular reabsorption, selective secretion, concentration of urine, acidification of urine	8	
12	January	Renal Physiology	Renal Function Tests	2	
	2024		Micturition	4	
		Special Senses	Eye: Photochemistry of vision, Visual pathway, Pupillary reflexes, Colour vision, Errors of refraction	6	
13	February 2024	12th Month – 10 days TT – including Viva Voce			
		Special Senses	Eye: Photochemistry of vision, Visual pathway, Pupillary reflexes, Colour vision, Errors of refraction	2	
				Ear: Auditory pathway, Mechanism of hearing, Auditory defects	6
14	March	Special Senses	Sensation of taste: Taste receptors,	4	
	2024	2024		Taste pathways	
		12	Sensation of smell: Olfactory	4	
		14	receptors, olfactory, pathways		
			Sensation of touch		
15	April 2024	14th Month – 5 days PA	Revision	6	
16	May 2024		Revision	6	
17	June 2024		Revision	8	
18	July 2024				

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Sangli-Kolhapur Highway, Ichalkaranji Phata, Near Dharmnagar, Tal-Shirol, Dist-Kolhapur.- 416 101 (Maharashtra) E-Mail: hhmc20@gmail.com
Office No. 02322-295503 Mobile No.: 9422582621, 9422421294

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DEPARTMENT OF PHYSIOLOGY & BIOCHEMISTRY

Subject Code: Hom UG – PB I B.H.M.S. (2022)

A/Y: 2022 - 2023

Advance Teaching Plan - Dr. Omkar A. Katage

(No. of lectures 2 per week = 8 per month)

Sr. No	Month	Name of Topic	Distribution of Subtopics of Lectures	No. of Lectures Required for each
1	February 2023	Foundation course		2
	8	General Physiology	Introduction to cellular physiology	2
2	March 2023	General Physiology	Introduction to cellular physiology	4
	2023	Filysiology	Cell Junctions	4
3	April 2023	General	Cell Junctions	2
	Phy	Physiology	Transport through cell membrane and resting membrane potential Body fluids compartments	5
			Homeostasis	1
4	May 2023		Homeostasis	2
		Physiology	Skin & Integumentary System	2
		Skin &The Integumentary System		
		Summer vacation	Ĭ	390
5.	June 2023	4th Month – 5 days PA	w (c)	2.5 (1)
		Skin &The	Skin & Integumentary System	1
		Integumentary	Layers of Skin	3
		System	Function of Skin	• 3
6	July 2023	Skin &The Integumentary	Sweat	3
		System	Body temperature and its regulation	3

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		Nerve Muscle Physiology	Physiological properties of nerve fibres	2
7.	August 2023	Nerve Muscle Physiology	Nerve fibre- types, classification, function, Degeneration and regeneration of peripheral nerves	4
			Neuro-Muscular junction	2
			Physiology of Skeletal muscle	2
8	September 2023	6th Month – 10 days TT – including Viva Voce		
		Nerve Muscle	Physiology of Cardiac muscle	2
		Physiology	Physiology of Smooth muscle	2
			EMG	1
9	October	Vitamins	Vitamins	5
	2023	Reproductive System	Male reproductive system-testis and its hormones; seminal vesicles, prostate gland, semen	3
10	November 2023	9th Month – 5 days PA		
	.#1	Winter Vacation		
		Reproductive System	Introduction to female reproductive system	2
			Menstrual cycle	1
11	December	Reproductive	Menstrual cycle	2
	2023	System	Ovulation	1
			Menopause & Infertility	1
			Pregnancy and parturition	1
			Placenta	1
			Pregnancy tests	1
			Mammary glands and lactation Fertility	1
12	January 2024	Reproductive System	Foetal circulation	1
		Digestive System	Introduction to digestive system	3
		& Nutrition	Composition and functions of digestive juices	4
13	February 2024	12th Month – 10 days TT – including Viva Voce		2. 9. 0
		Digestive System & Nutrition	Composition and functions of digestive juices	2
		***	Physiological anatomy of Stomach, Pancreas, Liver and Gall bladder, Small intestine, Large intestine	` 3
	<u>.</u>		and intestine, targe intestine	



14	March	Digestive System	Physiological anatomy of Stomach,	5
	2024	& Nutrition	Pancreas, Liver and Gall bladder,	
	(8)		Small intestine, Large intestine	
			Movements of gastrointestinal tract	3
15	April 2024	14th Month – 5		
		days PA		
		Digestive System	Movements of gastrointestinal tract	2
	×	& Nutrition	Physiological anatomy of Stomach,	4
			Pancreas, Liver and Gall bladder,	
			Small intestine, Large intestine	
16	May 2024	Summer vacation		
		Digestive System	Physiological anatomy of Stomach,	4
		& Nutrition	Pancreas, Liver and Gall bladder,	
		Î	Small intestine, Large intestine	
17	June 2024	une 2024 Digestive System & Nutrition	Gastrointestinal hormones	2
		& Nutrition	Digestion and absorption of	4
			carbohydrates, proteins and lipids	
			Revision	2
18	July 2024	18th Month – 12		
		days TT –		
	50	including Viva		
		Voce – University		
		exam		

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Sangli-Kolhapur Highway, Ichalkaranji Phata, Near Dharmnagar,
Tal-Shirol, Dist-Kolhapur.- 416 101 (Maharashtra) E-Mail: hhmc20@gmail.com
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DEPARTMENT OF PHYSIOLOGY & BIOCHEMISTRY

Subject Code: Hom UG – PB I B.H.M.S. (2022)

A/Y: 2022 - 2023

Advance Teaching Plan - Dr. Prerna Y. Chougule

(No. of lectures 2 per week = 8 per month)

Sr. No	Month	Name of Topic	Distribution of Subtopics of Lectures	No. of Lectures Required for each
1	February 2023	Foundation course		1
		Bio-Physical Sciences	Filtration & Ultra-filtration	1
2	March	Bio-Physical	Osmosis	2
	2023	Sciences	Diffusion	2
			Adsorption & Hydrotropy	1
			Colloid	2
			Donnan Equilibrium	1
3	April 2023	Bio-Physical	Tracer elements & Dialysis	1
3		Sciences	Atomic structures	2
			Absorption & Assimilation	1
			Acid base balance & Buffer	1
		0	Surface tension	1
		5	Membrane potential	2
4	May 2023	Summer vacation		
		Respiratory System And Environmental	Physiological anatomy of respiratory tract	2
	17	Physiology	Mechanism of respiration	3
5.	June 2023	4th Month – 5 days PA	- L 	i i
	92	Respiratory System And	Ventilation	3

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	Environmental	Diffusion of gases	1
	Physiology	Transport of respiratory gases	3
		Regulation of respiration	1
July 2023	Respiratory	Regulation of respiration	2
R	System And	Pulmonary Function Test	3
	Physiology	High altitude and space physiology	1
		Deep sea physiology	1
		Artificial respiration	1
August 2023	Respiratory System And Environmental Physiology	Effects of exercise on respiration	4
	Central Nervous System	Introduction to nervous system & Neuron	2
		Neuroglia	2
September 2023	6th Month – 10 days TT – including Viva Voce		
	Central Nervous	Receptors	2
20	System	Synapse	2
		Neurotransmitters	1
i		_	2
	- 7	Spinal cord	6
November 2023	9th Month – 5 days PA		
	Winter Vacation		
	Central Nervous System	Spinal cord	2
December 2023	Central Nervous System	Somato-sensory system and somato-motor system	2
		Physiology of pain	2
	9	Brain stem	1
		Vestibular apparatus	1
		Cerebral cortex	2
January	Central Nervous	Thalamus	1
2024	System	Hypothalamus	1
48		Internal capsule	1
		Basal ganglia	· 1
	- 4	Limbic system	1
		Limbic system Cerebellum – Posture and equilibrium	2
	September 2023 October 2023 November 2023 December 2023	July 2023 Respiratory System And Environmental Physiology Respiratory System And Environmental Physiology Central Nervous System September 2023 Gth Month – 10 days TT – including Viva Voce Central Nervous System October 2023 November 2023 Ph Month – 5 days PA Winter Vacation Central Nervous System December 2023 Central Nervous System Central Nervous System	Physiology Transport of respiratory gases Regulation of respiration Respiratory System And Environmental Physiology Deep sea physiology Artificial respiration



13	February 2024	12th Month – 10 days TT – including Viva Voce Central Nervous System	Proprioceptors Higher intellectual function & Electroencephalogram (EEG) Physiology of sleep	1 3
14	March	Central Nervous	Cerebro-spinal fluid (CSF)	1
	2024	System	Autonomic Nervous System (ANS)	2
		Bio-Chemistry	Carbohydrates	5
15	April 2024	14th Month – 5 days PA		
		Bio-Chemistry	Lipids	4
		1	Proteins	2
16	May 2024	Summer vacation		
		Bio-Chemistry	Proteins	2
			Enzymes	2
17	June 2024	Bio-Chemistry	Minerals	3
			Organ function tests	2
			Revision	3
18	July 2024	18th Month – 12 days TT – including Viva Voce – University exam		

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DEPARTMENT OF PHYSIOLOGY & BIOCHEMISTRY

Subject Code: Hom UG – PB I B.H.M.S. (2022)

A/Y: 2022 - 2023

<u>Advance Teaching Plan – Dr. Arun T. Chougule</u> <u>PRACTICAL (Haematology, Clinical, Biochemistry)</u>

(No. of Practical 2 hrs per week = 8 hrs per month)

Sr. No	Month	Name of Topic	Distribution of Subtopics of Practical	No. of Practical 2 hrs per Practical
1	February 2023	Introduction	Introduction to Haematology Practical	2
2	March 2023	HAEMATOLOGY	Study of the Compound Microscope	6
	2020		Estimation of Haemoglobin Concentration	2
3	April 2023	HAEMATOLOGY	Estimation of Haemoglobin Concentration	4
			Total RBC Count	4
4	May 2023	HAEMATOLOGY	Total RBC Count	4
		Summer vacation		
5.	June 2023	4th Month – 5 days PA	Total RBC Count	2
		HAEMATOLOGY	Total Leucocytes Count (TLC)	4
6	July 2023	HAEMATOLOGY	Total Leucocytes Count (TLC)	6
			Preparation And Examination Of Blood Smear	2
7.	August 2023	HAEMATOLOGY	Preparation And Examination Of Blood Smear	8
8	September 2023	6th Month – 10 days TT – including Viva	Determination of Erythrocyte Sedimentation Rate	6
		Voce HAEMATOLOGY		Tomodo Tomodo
9	October 2023	HAEMATOLOGY	Determination of Blood Groups	6
	(E)		Determination of Bleeding Time and Coagulation Time	2

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10	November 2023	9th Month – 5 days PA Winter Vacation HAEMATOLOGY	Determination of Bleeding Time and Coagulation Time	4
11	December -2023	Cardio-Vascular System	Blood Pressure Recording	4
			Radial Pulse	4
12	January 2024	Cardio-Vascular System	ECG	2
		8	Clinical Examination	6
13	February 2024	12th Month – 10 days TT – including Viva Voce		
		Special Senses	Special Senses- Clinical Examination	6
14	March 2024	Special Senses	Special Senses- Clinical Examination	8
15	April 2024	14th Month – 5	Liver Function Tests	4
		days PA	Kidney Function Tests	2
	~	BIOCHEMISTRY		
16	May 2024	- 7	Kidney Function Tests	2
17	June 2024	BIOCHEMISTRY	Lipid Profile	4
18	July 2024	18th Month – 12 days TT – including Viva Voce – University exam		

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Subject Code: Hom UG – PB I B.H.M.S. (2022)

A/Y: 2022 - 2023

<u>Advance Teaching Plan – Dr. Omkar A. Katage</u> <u>PRACTICAL (Clinical, OPD)</u>

(No. of Practical 2 hrs per week = 8 hrs per month)

Sr.	Month	Name of Topic	Distribution of Subtopics of	No. of Practical
No			Practical	2 hrs per Practical
1	February 2023	Introduction	Introduction to Clinical Physiology	2
2	March 2023	CLINICAL PHYSIOLOGY	Case Taking & Approach to pt	6
			General Concept Of Examination	2
3	April 2023	CLINICAL PHYSIOLOGY	General Concept Of Examination	8
4	May 2023	CLINICAL PHYSIOLOGY	Examination of muscles, joints	4
		Summer vacation		
5.	June 2023	4th Month – 5 days PA	Examination of muscles, joints	6
		CLINICAL PHYSIOLOGY		
6	July 2023	CLINICAL PHYSIOLOGY	OPD	8
7,:::	August 2023	CLINICAL PHYSIOLOGY	OPD	8
8	September 2023	6th Month – 10 days TT – including Viva Voce	OPD	6
		OPD		9NN =1
9	October 2023	OPD	OPD	8
10	November 2023	9th Month – 5 days PA Winter Vacation	OPD	2

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			1.0.00	The state of the s
		OPD		
11	December 2023	OPD	OPD	8
12	January 2024	OPD	OPD	8
13	February 2024	12th Month – 10 days TT – including Viva Voce	OPD	2
		OPD CLINICAL PHYSIOLOGY	Reproductive System- Diagnosis of Pregnancy	4
14	March 2024	CLINICAL PHYSIOLOGY	Reproductive System- Diagnosis of Pregnancy	2
		CLINICAL PHYSIOLOGY	Gastrointestinal System- Clinical Examination	6
15	April 2024	14th Month – 5 days PA	Gastrointestinal System- Clinical Examination	4
		CLINICAL PHYSIOLOGY OPD	OPD	2
16	May 2024	OPD	OPD	4
17	June 2024	OPD	OPD	8
18	July 2024	18th Month – 12 days TT – including Viva Voce – University exam		

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Subject Code: Hom UG – PB I B.H.M.S. (2022)

A/Y: 2022 - 2023

<u>Advance Teaching Plan – Dr. Prerna Y. Chougule</u> <u>PRACTICAL (Haematology, Clinical, Biochemistry)</u>

(No. of Practical 2 hrs per week = 8 hrs per month)

Sr.	Month	Name of Topic	Distribution of Subtopics of	No. of Practical
No			Practical	2 hrs per Practical
1	February 2023	Introduction	Introduction to Haematology Practical	2
2	March 2023	HAEMATOLOGY	Collection of Blood Samples	6
			Determination of Haematocrit	2
3	April 2023	HAEMATOLOGY	Determination of Haematocrit	4
		10 - 3	Hemocytometry	4
4	May 2023	HAEMATOLOGY	Hemocytometry	2
			Determination of RBC Indices	2
		Summer vacation	1.0	
5.	June 2023	4th Month – 5 days PA	Determination of RBC Indices	4
		HAEMATOLOGY	Differential Leucocyte Count (DLC)	2
6	July 2023	HAEMATOLOGY	Differential Leucocyte Count (DLC)	8
7.	August 2023	HAEMATOLOGY	Absolute Eosinophil Count	6
		Clinical	Respiratory System- Clinical Examination	2
8	September 2023	6th Month – 10 days TT – including Viva Voce Clinical	Respiratory System- Clinical Examination	6

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9	October	Clinical	Respiratory System- Clinical	4
	2023		Examination	7
			Respiratory System- Spirometry, Stethography	4
10	November	9th Month - 5	Demonstration of Uses Of	4
1	2023	days PA	Instruments Or Equipment	
		Winter Vacation BIOCHEMISTRY		
11	December	BIOCHEMISTRY	Demonstration of Uses Of	2
	2023		Instruments Or Equipment	
			Qualitative Analysis of	4
			Carbohydrates	
12	January	BIOCHEMISTRY	Qualitative Analysis of	4
	2024		Proteins	
	ė:		Qualitative Analysis of Lipids	2
			Normal Characteristics of Urine	2
13	February 2024	12th Month – 10 days TT –	Normal Characteristics of Urine	2
		including Viva Voce BIOCHEMISTRY	Abnormal Constituents of Urine	4
14	March	BIOCHEMISTRY	Abnormal Constituents of Urine	4
	2024		Quantitative Estimation of Glucose,	4
		8	Total Proteins, Uric Acid in Blood	
15	April 2024	14th Month – 5 days PA	Quantitative Estimation of Glucose, Total Proteins, Uric Acid in Blood	2
		BIOCHEMISTRY	OPD	4
16	May 2024		OPD	4
17	June 2024	BIOCHEMISTRY	OPD	8
18	July 2024	18th Month – 12 days TT – including Viva Voce – University exam		

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