

LESSON PLAN					
Name of the faculty: Ms. Kavita Rani					
Semester : 1st					
Subject : Basic Chemistry					
Lesson Plan duration : 30-07-2026 to 23-11-2026					
Work Load Per Week : 02 HOURS (Theory) + 02 HOURS (PRACTICAL)					
Week	Date	Theory		Practical	
		Lecture day	Topic (including assignment/ test)	Practical day	Topic
1st	30-07-2026 to 31-07-2026	1	Biologically important elements	1	Glassware Identification - different types, cleaning and preparation of cleaning solution.
		2	Study of atomic number, mass number, atomic mass, equivalent weight & molecular weight.		
2nd	03-08-2026 to 07-08-2026	3	Importance of Water quality and glasswares in clinical laboratory	2	Standardization, rechecking of volumetric glasswares.
		4	different types of glassware's, use, cleaning, standardization of volumetric glassware Importance of Water quality and glasswares in clinical		
3rd	10-08-2026 to 14-08-2026	5	different types of glassware's, use	3	Determination of pH of different solutions.
		6	cleaning and standardization volumetric glassware maintenance		
4th	17-08-2026 to 21-08-2026	7	various types of pipetting techniques and Biochemical importance of distilled water	4	Performing confirmatory tests for a. Carbohydrate – Molisch, Protein- Biuret
		8	clinical analysis in deionised water		
5th	24-08-2026 to 28-08-2026	9	Solution & colloids	5	Performing confirmatory tests for a. Carbohydrate – Molisch, b. Protein- Biuret
		10	importance of colloids in biological system		
6th	31-08-2026 to	11	surface tension	6	Identification of Parts of Colorimeter

6th	04-09-2026	12	osmosis & viscosity	6	& Spectrophotometer.
7th	07-09-2026 to 11-09-2026	13	Importance of organic compounds – in Biological system.	7	Identification of Parts of Colorimeter
		14	Physiological importance of Acid & Bases		
8th	14-09-2026 to 18-09-2026	15	Assignment no. 1 , revision	8	Preparation of different types of standards solution.
		16	1st Sessional Test		
9th	21-09-2026 to 25-09-2026	17	Oxidation Definition. Preparation of various standard	9	Preparation of different types of standards solution.
		18	Reduction reactions – Definition. Preparation of various standard solutions definition of primary & secondary standards		
10th	28-09-2026 to 02-10-2026	19	SI units and their uses	10	Determination of Absorption maximum of a coloured solution.
		20	Principles of photometry, Laws of photometry,		
11th	05-10-2026 to 09-10-2026	21	quantification of biomolecules in micro concentration.	11	viva voce
		22	Principles used in determining concentration		
12th	12-10-2026 to 16-10-2026	23	Assignment No. 2,Revision	12	viva voce
		24	2nd Sessional Test		
13th	19-10-2026 to 23-10-2026	25	molecules with no known weight, preparation of standard graph	13	viva voce
		26	Blood collection for biochemical analysis,		
14th	26-10-2026 to 30-10-2026	27	changes occurring in blood after collection	14	revision
		28	Management of its disposal biological hazard		
15th	02-11-2026 to 06-11-2026	29	chemical hazard , fire apparatus	15	revision
		30	Safety measures needed in Basic chemistry		
16th	09-11-2026 to 13-11-2026	31	clinical biochemistry laboratory.	16	file checking
		32	Good Laboratory "Practices (GLP) in Basic Practices (GLP) in Basic		
17th	16-11-2026 to 20-11-2026	34	Assignment No. 3,Revision	17	file checking
		35	3rd Sessional test		

LESSON PLAN					
Name of the Faculty : MS. Navneet Kaur					
Semester : 1st					
Subject : ANATOMY AND PHYSIOLOGY					
Lesson Plan duration : 30-07-2026 to 23-11-2026					
Work Load Per Week : 03 HOURS (Theory) + 02 HOURS (PRACTICAL) Group A+ Group B					
Week	Date	Theory		Practical	
		Lecture day	Topic (including assignment/ test)	Practical day	Topic
1st	30-07-2026 to 31-07-2026	1	Introduction Anatomy & Physiology	1	Study of various parts of body
		2	Levels of organization, parts of human body Structure and functions of animal cell.		
		3	Major body division and sectional divisions		
2nd	03-08-2026 to 07-08-2026	4	Various definitions related to anatomy and physiology	2	Cranial cavity (Brain)
		5	test		
		6	Basic tissue of the body (Gross structure and functions).		
3rd	10-08-2026 to 14-08-2026	7	Epithelial tissue, structure and function	3	Abdominal cavity (Liver,
		8	Connective tissue, structure and function		
		9	Muscular tissue, structure and function		
4th	17-08-2026 to 21-08-2026	10	Nervous tissue, structure and function	4	of "Epithelial tissue Connective tissue Muscular tissue Nervous tissue Connective tissue
		11	Gross structure, function and		
		12	Bones of appendicular and axial skeleton		
5th	24-08-2026 to 28-08-2026	13	Bones of Pectoral girdle and upper limbs	5	Demonstration of various parts of bones "Bones of upper limb - Humerus, radius, ulna, fibula and articulated hand - Scapula and clavicle"
		14	Bones of Pelvic girdle and lower limbs		
		15	Joints & Articulations: Types of joints (Structural and functional classification).		
6th	31-08-2026 to 04-09-2026	16	Bones forming major synovial joints (Shoulder, Elbow, wrist, hip, knee, ankle and intervertebral knee, joints).	6	Bones of lower limb - Pelvic/hip bone and femur, "tibia, fibula and articulated foot. Bones of Skull and mandible Sternum and ribs Bones of vertebral column" of the body
		17	Properties of muscular tissue. Classification, structure and functions of muscles		
		18	Skeletal muscle		
7th	07-09-2026 to 11-09-2026	19	Smooth muscle	7	"Joints of upper limb - Shoulder joint - Elbow joint - Wrist
		20	Cardiac muscle		
		21	Assignment and test		
8th	14-09-2026 to 18-09-2026	22	Assignment No. 1, Revision	8	Joints of lower limb - Hip (pelvic) joint - Knee joint - Ankle joint intervertebral joints
		23	1st Sessional Test		
		24	Anatomy of heart: External& Internal features of heart, Chambers of heart		
	21-09-2026	25	External& Internal features of heart		Demonstration of structural differences between - Skeletal
		26	Chambers of heart		

9th	to 25-09-2026	27	Blood vessels attached to various chambers of heart, Coronary vessels & Major arteries and Veins of body	9	differences between. - Skeletal muscle - Smooth muscle and - cardiac muscles
10th	28-09-2026 to 02-10-2026	28	Circulation of Blood	10	Demonstration of heart
		29	Pulmonary, Coronary and Portal circulation.		
		30	Blood Pressure: Definition of blood pressure, various terms used in Blood pressure, Factors affecting & controlling		
11th	05-10-2026 to 09-10-2026	31	test	11	Demonstration of Radial pulse examination
		32	methods and apparatus for recording blood pressure		
		33	Introduction to ECG		
12th	12-10-2026 to 16-10-2026	34	Assignment	12	Demonstration of Blood pressure estimation
		35	2nd Sessional Test		
		36	Basic principles, normal electrocardiogram & grids of ECG paper, electrographic leads, cardiac cycle and Junctional tissues.		
13th	19-10-2026 to 23-10-2026	37	Patient preparation for ECG recording & care and maintenance of ECG machine.	13	Demonstration of ECG recording
		38	test		
		39	Introduction to Respiratory system and Organs of respiration: Upper and lower respiratory tract		
14th	26-10-2026 to 30-10-2026	40	Nose and Paranasal sinuses	14	Demonstration of various parts of respiratory system
		41	Nasopharynx and larynx		
		42	Trachea, bronchi and lungs		
15th	02-11-2026 to 06-11-2026	43		15	Revision of practicals.
		44	Functions and mechanism of respiratory system		
		45	Gas exchange in lungs.		
16th	09-11-2026 to 13-11-2026	46	Control of respiration.	16	Revision of practicals.
		47	Respirometry: Procedure		
		48	clinical applications & Importance		
17th	16-11-2026 to 20-11-2026	49	Assignment No. 3, Revision	17	VIVA
		50	3rd Sessional test		
		51	Solving of previous question papers		

LESSON PLAN					
Name of the Faculty : Dr. Ashwini Bhartwaj					
Semester : 1st					
Subject : Introduction to Hematology					
Lesson Plan duration : 30-07-2026 to 23-11-2026					
Work Load Per Week : 03 HOURS (Theory) + 04 HOURS (PRACTICAL)					
Week	Date	Theory		Practical	
		Lecture day	Topic (including assignment/ test)	Practical day	Topic
1 st	30-07-2026 to 31-07-2026	1	Introduction to haematology	1	Parts of microscope (Monocular & Binocular): Its function and care)
		2	Various glassware used in haematology labs		
		3	Various plasticware used in haematology labs		
2 nd	03-08-2026 to 07-08-2026	4	Hb tube, Hb pipette, RBC pipette, WBC pipette)	2	Parts of centrifuge: Its function and care
		5	Definition & Composition Cells-WBC (Granulocytes-		
		6	Neutrophils, Eosinophils & Basophils)		
3 rd	10-08-2026 to 14-08-2026	7	(Agranulocytes-Lymphocytes & Monocytes)	3	Parts of Blood Mixer: Its function and care
		8	RBC, Platelets, Plasma & its components		
		9	Function-cell functions & plasma functions		
4 th	17-08-2026 to 21-08-2026	10	Formation of blood (Erythropoiesis)	4	Cleaning and drying of glassware
		11	Formation of blood (Leukopoiesis)		
		12	Formation of blood (Thrombopoiesis)		
5 th	24-08-2026 to 28-08-2026	13	Definition and various types of anticoagulants	5	Estimation of Differential Leukocyte count
		14	Mode of action and preparation of Anticoagulants		
		15	Revision		
6 th	31-08-2026 to 04-09-2026	16	Merits and demerits of anticoagulants	6	Preparation of various anticoagulants
		17	Define Plasma, Serum		
		18	Difference between Plasma and serum		
7 th	07-09-2026 to 11-09-2026	19	Vein puncture: materials and equipment	7	Collection of blood sample by venipuncture
		20	Venipuncture materials and equipments		
		21	Required equipment for vein puncture		
8 th	14-09-2026 to 18-09-2026	22	Assignment No. 1, Revision	8	Collection of blood sample by capillary puncture
		23	1 st Sessional Test		
		24	Discussion on sessional test		
9 th	21-09-2026 to 25-09-2026	25	Agranulocytes - lymphocytes & Monocytes)	9	Preparation of Thin Smear and Thick Smear
		26	Function- cell function & plasma function		
		27	Formation of blood (leukopoiesis)		
10 th	28-09-2026 to 02-10-2026	28	Preparation of patients for venipuncture	10	Practical Viva
		29	Applying tourniquet, Selection and preparing the puncture site		
		30	Collection of blood; by venous method		
11 th	05-10-2026 to 09-10-2026	31	Safety measures at the time of sampling and collection	11	Preparation of peripheral blood film (PBF)
		32	Disposal of blood, syringes, needle and lancets		
		33	Various equipment used for collection		
12 th	12-10-2026 to 16-10-2026	34	Assignment No. 2, Revision	12	Preparation of different stains: Giemsa stain
		35	2 nd Sessional		
		36	Discussion on sessional test		
13 th	19-10-2026 to 23-10-2026	37	Selecting and preparing the puncture site	13	Preparation of leishman stain
		38	Techniques performing the puncture site		
		39	Collection of blood by capillary method		
14 th	26-10-2026 to 30-10-2026	40	Care of the capillary puncture site	14	Preparation of Wright stain
		41	Vacutainer system for blood collection		
		42	Introduction to Romanowsky stains		

15 th	02-11-2026 to 06-11-2026	43	Theory and preparation of leishman stain	15	Revision of Microscope, Centrifuge , Blood Mixer
		44	Theory and preparation of Giemsa stain		
		45	Theory and preparation of Wright stain		
16 th	09-11-2026 to 13-11-2026	46	Choice of slide and spreader and preparation of blood film	16	Estimation of Differential Leukocyt count
		47	Characteristics of good film preparation		
		48	Staining procedure of Romanwasky stains		
17 th	16-11-2026 to 20-11-2026 and 23-11-2026	49	Examination of blood smear, Identification of blood cell	17	Practical Viva
		50	Assignment No. 3,Revision		
		51	3rd Sessional test		

LESSON PLAN

Name of the Faculty : Nisha Rani

Semester : 1st

Subject : Basic Microbiology

Lesson Plan duration : 30-07-2026 to 23-11-2026

Work Load Per Week : 03 HOURS (Theory) + 04 HOURS (PRACTICAL G1+G2)

Week	Date	Theory		Practical	
		Lecture day	Topic (including assignment/ test)	Practical day	Topic
1 st	30-07-2026 to 31-07-2026	1	Definition, history, relationship of microorganisms to man.	1	1. Demonstration of safety rules (Universal precautions) in a microbiology laboratory. 2. Preparation of cleaning agents and techniques of cleaning glasswares.
2 nd	03-08-2026 to 07-08-2026	2	Safety guideline in a microbiology laboratory. Universal precautions.		
		3	Bio-safety cabinets: principle,		
		4	Types of bio-safety cabinets and their applications		
3 rd	10-08-2026 to 14-08-2026	5	Classification of micro-organisms	2	1. Preparation of materials for sterilization in an autoclave and hot air oven. 2. Sterilization in autoclave and hot air oven and placing
		6	Morphology of Bacteria, Bacterial cell wall		
		7	Physiology of bacteria, Cell wall structures		
4 th	17-08-2026 to 21-08-2026	8	Bacterial growth and nutrition	3	1. Sterilization by filtration by membrane method. 2. Handling and care of different types of microscopes.
		9	Revision		
		10	Physical methods of sterilization: autoclave and hot air oven,		
5 th	24-08-2026 to 28-08-2026	11	sterilization control and sterilization indicators.	4	1. Staining techniques: Gram, Albert's staining, 2. Ziehl Neelson staining, Capsule and
		12	Sterilization by radiation and filtration (membrane)		
		13	Chemical methods of Sterilization: Antiseptics and disinfectants-		
	31-08-2026 to 04-09-2026	14	propertie of common Antiseptics and disinfectants (e.g. Formaldehyde, Ethylene oxide, phenol compounds,		1. Bacterial spore staining.

6 th		15	Uses of common Antiseptics and disinfectants (e.g. Formaldehyde, Ethylene oxide, phenol compounds,	5	2. Demonstration of bacterial motility by hanging drop technique
		16	Definition of Phenol coefficient and determination Phenol coefficient by		
7 th	07-09-2026 to 11-09-2026	17	Handling of a compound microscope	6	Preparation of culture media: 1. Nutrient agar, 2. Blood agar,
		18	Care and maintenance of different parts of a compound microscope		
		19	Principle of working of fluorescent microscope.		
8 th	14-09-2026 to 18-09-2026	20	Assignment No. 1,Revision	7	Preparation of culture media: 1. Chocolate agar, 2. MacConkey agar,.
		21	1st Sessional Test		
		22	Discussion on sessional test		
9 th	21-09-2026 to 25-09-2026	23	Staining techniques: Method of smear preparation.	8	Preparation of culture media: 1. DCA 2. XLD and Peptone water.
		24	staining of capsule.		
		25	Differential staining methods: Gram staining		
10 th	28-09-2026 to 02-10-2026	26	Albert's staining	9	1. Isolation of organisms in pure culture 2. Study of colony characteristics
		27	AFB staining		
		28	Preparation of staining solutions and their storage.		
11 th	05-10-2026 to 09-10-2026	29	Definition, synthetic media.,	10	1. Demonstration of haemolysis on blood agar 2. Preparation of cleaning agents and techniques of cleaning glasswares.
		30	Definitionnon-synthetic media.,		
		31	Types of culture media: liquid media		
12 th	12-10-2026 to 16-10-2026	32	Assignment No. 2,Revision	11	1. Preparation of materials for sterilization in an autoclave and hot air oven. 2. Sterilization in autoclave and hot air oven and placing
		33	2nd Sessional Test		
		34	Discussion on sessional test		
13 th	19-10-2026 to 23-10-2026	35	Types of culture media: solid media	12	1. Sterilization by filtration by membrane method. 2. Handling and care of different types of microscopes.
		36	routine laboratory media (Basal.Enriched, selective, enrichment, indicator, transport, and storage) with two examples of each type		
		37	Different types of inoculating loops		

14 th	26-10-2026 to 30-10-2026	38	Different types of swabs and their uses.	13	1.Staining techniques: Gram, Albert's staining, 2.Ziehl Neelson staining, Capsule and
		39	Types of bacterial culture: broth culture,		
		40	stab culture, slant culture.		
15 th	02-11-2026 to 06-11-2026	41	Culture techniques: streak plate, pour plate	14	Preparation of culture media: 1. Nutrient agar 2. Blood agar
		42	spreading/ lawn culture		
		43	Aerobic and anaerobic culture,		
16 th	09-11-2026 to 13-11-2026	44	Isolation of pure cultures and disposal of cultures.	15	Preparation of culture media: 1. Chocolate agar, 2. MacConkey agar
		45	Staining Techniques		
		46	Revision		
17 th	16-11-2026 to 20-11-2026 and 23-11-2026	47	Assignment No. 3,Revision	16	1. Viva Voice
		48	3rd Sessional test		
		49	Discussion on sessional test		

LESSON PLAN					
Name of the Faculty : Nisha Rani					
Semester : 1st					
Subject : FOMLT					
Lesson Plan duration : 30-07-2026 to 23-11-2026					
Work Load Per Week : 03 HOURS (Theory) + 02 HOURS (PRACTICAL G1+G2)					
Week	Date	Theory		Practical	
		Lecture day	Topic (including assignment/ test)	Practical day	Topic
1 st	30-07-2026 to 31-07-2026	1	Basic ethics of Medical laboratory Technology	1	The Principal and procedure of autoclave
2 nd	03-08-2026 to 07-08-2026	2	Training of clinical laboratory technicians		
		3	Medical laboratory professional - professionalism in laboratory workers		
		4	Code of conduct and communication between physician and lab technician		
3 rd	10-08-2026 to 14-08-2026	5	First aid in the clinical laboratory	2	The Principal and procedure of Hot air oven identify their parts– hot airoven
		6	Storage and handling of dangerous chemicals		
		7	Common Laboratory hazards		
4 th	17-08-2026 to 21-08-2026	8	Color coding of various Waste disposal containers in the labs	3	The Principal and procedure of autoclave and identify their parts– incubator
		9	Introduction to Basic Equipments in MLT		
		10	Different types of syringes used for blood collection		
5 th	24-08-2026 to 28-08-2026	11	Basic requirements of blood collection	4	Viva
		12	Revision		
		13	Principle, Care, Procedure and Application of the Basic Instruments Part-I (Centrifuge (routine - low and high speed -table top)		
6 th	31-08-2026 to 04-09-2026	14	Water Bath	5	To demonstrate basic internal organization identifies their parts.
		15	Hot Air Oven		
		16	Incubator		
7 th	07-09-2026 to 11-09-2026	17	Colorimeter	6	To demonstrate basic internal organization identifies their parts. colorimeter
		18	Compound Microscope (Monocular and Binocular)		
		19	Revision / Assignment		
8 th	14-09-2026 to 18-09-2026	20	Assignment No. 1,Revision	7	To demonstrate basic internal organization of compound microscope
		21	1st Sessional Test		
		22	Discussion on sessional test		
9 th	21-09-2026 to 25-09-2026	23	Principle, Care & Safe Operating Procedure and Application of the Basic InstrumentsPart-II (pH Meter)	8	To demonstrate basic internal organization of compound microscope identify their parts
		24	Distillation unit		
		25	Balance (Physical and chemical		
10 th	28-09-2026 to 02-10-2026	26	Microtome	9	Viva
		27	Microbe filters (Seitz, Glass Scintered & Membrane)		
		28	Principle, Care, Procedure and Application of the Advanced Instruments (Refrigerated Centrifuge)		
11 th	05-10-2026 to 09-10-2026	29	Ultra Centrifuge	10	To demonstrate basic internal organization of identify their parts pH
		30	Specialised Incubator		
		31	B.O.D. Incubator		
12 th	12-10-2026 to 16-10-2026	32	Assignment No. 2,Revision	11	To demonstrate basic internal organization of identify their parts
		33	2nd Sessional Test		
		34	Discussion on sessional test		
13 th	19-10-2026 to 23-10-2026	35	Special Microscopes	12	viva
		36	Dark Field Microscope		
		37	Phase Contrast Microscope		
14 th	26-10-2026 to 30-10-2026	38	Florescence Microscope	13	To demonstrate basic internal organization & identify their parts.
		39	Electron Microscope		
		40	Tissue Processing Unit		
15 th	02-11-2026 to 06-11-2026	41	Biochemistry Analyzer	14	To demonstrate basic internal organization & identify their parts.
		42	Laminar Air Flow Hood& their Different Types		

		43	Haematology Cell Counter		TissueProcessing Unit
16 th	09-11-2026 to 13-11-2026	44	Haematology Cell Counter	15	Hematology Cell
		45	Laminar Air Flow Hood& their Different Types		
		46	Assignment No. 3,Revision		
		47	3rd Sessional test		
17 th	16-11-2026 to 20-11-2026 and 23-11-2026	48	Discussion on sessional test	16	Revision
		49	Discussion on Important questions		

LESSON PLAN					
Name of the Faculty : MS. Navneet Kaur					
Semester : 3rd					
Subject : Clinical Haematology-I					
Lesson Plan duration : 30-07-2026 to 23-11-2026					
Work Load Per Week : 03 HOURS (Theory) + 02 HOURS (PRACTICAL) Group A+ Group B					
Week	Date	Theory		Practical	
		Lecture day	Topic (including assignment/ test)	Practical day	Topic
1st	30-07-2026 to 31-07-2026	1	Introduction to Erythrocyte sedimentation rate (ESR)	1	ESR estimations by wintrobe method in blood sample
		2	Westergren's method of ESR estimation		
		3	Wintrob's method of ESR estimation		
2nd	03-08-2026 to 07-08-2026	4	Introduction to packed cell volume (PCV)	2	ESR estimations by westergren method in blood sample
		5	Macrohaematocrite method of PCV estimation		
		6	Microhaematocrite method of PCV estimation		
3rd	10-08-2026 to 14-08-2026	7	Merits and Demerits of ESR&PCV estimation	3	Determination of PCV in blood by MacroMethods
		8	Factors involved in ESR & Interpretation of results		
		9	Clinical Significance of ESR & PCV estimation		
4th	17-08-2026 to 21-08-2026	10	Assignment	4	Determination of PCV in blood MicroMethods
		11	Test		
		12	Introduction to Red Cell Indices		
5th	24-08-2026 to 28-08-2026	13	Definition, reference range of MCV	5	Counting of Reticulocytes in blood
		14	Calculation of MCV		
		15	interpretation of MCV		
6th	31-08-2026 to 04-09-2026	16	Definition, reference range of MCH	6	To perform red cell fragility test on blood by osmotic fragility method
		17	Calculation of MCH		
		18	interpretation of MCH		

7th	07-09-2026 to 11-09-2026	19	Definition, reference range of MCHC	7	To perform red cell fragility test on blood by mechanical fragility method
		20	Calculation of MCHC		
		21	interpretation of MCHC		
8th	14-09-2026 to 18-09-2026	22	Assignment No. 1,Revision	8	To perform sickling test on blood by solubility test
		23	1st Sessional Test		
		24	Discussion on sessional test		
9th	21-09-2026 to 25-09-2026	25	Introduction to Supra vital stain and Reticulocytes counting	9	To perform sickling test on blood by peripheral blood film
		26	Principle and procedure of staining		
		27	Calculation, Reference values and interpretation of Reticulocytes count		
10th	28-09-2026 to 02-10-2026	28	Physiological Values of Hb	10	Estimation of foetalhaemoglobin by alkali denaturation test
		29	Physiological Values of PCV		
		30	Physiological Values of TLC		
11th	05-10-2026 to 09-10-2026	31	Physiological Values of Platelet count	11	Estimation of plasmahaemoglobin by Sahli's method
		32	Definition & Symptoms of Anaemias		
		33	Introduction to etiological classification of Anemia		
12th	12-10-2026 to 16-10-2026	34	Assignment No. 2,Revision	12	Estimation of plasmahaemoglobin by Cyanmethemoglobin method
		35	2nd Sessional Test		
		36	Introduction to morphological classification of Anemia		
13th	19-10-2026 to 23-10-2026	37	Haemorrhagic & Dyshaemorrhagicaemia in detail	13	Estimation of plasmahaemoglobin by Oxyhemoglobin method
		38	Microcytic anemia & Megaloblastic anemia		
		39	Haemolytic Anaemia in Detail		
14th	26-10-2026 to 30-10-2026	40	Aplastic anemia in Detail	14	Estimation of plasmahaemoglobin by Alkaline hematin method
		41	Laboratory diagnosis of: Iron deficiency anaemia and Megaloblastic anaemia		
		42	Laboratory diagnosis of Haemolytic anaemias, sickle cell anaemia & thalasseamia		
	02-11-	43	Laboratory diagnosis of Aplastic anaemia		Estimation of and G6PD by

15th	2026 to 06-11-2026	44	Assignment	15	Estimation of and G6PD by MethyleneBlueReductionTest
		45	Introduction to Red cell fragility		
16th	09-11-2026 to 13-11-2026	46	Mechanical erythrocyte fragility test and Osmotic erythrocyte fragility test	16	Revision of practicals.
		47	Interpretation of Red Cell Fragility		
		48	Significance of Red Cell Fragility		
17th	16-11-2026 to 20-11-2026	49	Assignment No. 3,Revision	17	Revision of practicals.
		50	3rd Sessional test		
		51	Discussion on Important questions		

LESSON PLAN

Name of the Faculty : Dr. Ashwani Bhardwaj

Semester : 3rd Sem

Sub : HISTO PATHOLOGY

Lesson Plan duration : 30-07-2026 to 23-11-2026

Work Load Per Week : 03 HOURS (Theory) + 04 HOURS (PRACTICAL)

Week	Date	Theory		Practical	
		Lecture day	Topic (including assignment/ test)	Practical day	Topic
1 st	30-07-2026 to 31-07-2026	1	Introduction and definition of :Histology, Histopathology Biopsy, Autopsy, Autolysis, Putrefaction	1	L1 Reception of specimen, labeling and preserving the specimen
		2	Tissue Preparation method Unfixed Tissue preparations: Imprint methods, Teased preparation		
		3	Unfixed Tissue preparations: Squashed preparation, Frozen section		
2 nd	03-08-2026 to 07-08-2026	4	Fixed Tissue preparations: Paraffin embedding, Celloidine mbedding, Gelatin	2	Preparation of different fixatives with special emphasis on preparation of formaline based fixatives
		5	Reception of Specimen :Reception, recording, labeling and preservation of histological specimen		
		6	Advantages and disadvantages of fixative		
3 rd	10-08-2026 to 14-08-2026	7	Different steps of tissue processing: Dehydration Clearing /De alcoholization	3	Preparation of paraffin blocks from various tissue pieces and labeling with emphasis on orientation
		8	Infiltration and impregnation Paraffin embedding		
		9	Introduction about automatic tissue processor		
4 th	17-08-2026 to 21-08-2026	10	automatic tissue processor types	4	Handling of microtome
		11	automatic tissue processor working, care and maintenance		
		12	Introduction about Microtomy and Microtome		
5 th	24-08-2026 to 28-08-2026	13	Types of microtome (sliding, bases ledge, rocking)	5	Sharpening of microtome knives
		14	Types of microtome (rotary, freezing, cryostat, ultra)		
		15	Advantages and disadvantages of microtome care and maintenance of microtome		
6 th	31-08-2026 to 04-09-2026	16	Microtome Knives (plano concave, wedge, bioconcave, edge)	6	Preparation of blocks for fine cutting-Rough cutting Trimming
		17	Sharpening of knives -Honing technique-Stropping technique		
		18	Automatic knife sharpener—uses, care and maintenance—Uses of abrasives and lubricants		

7 th	07-09-2026 to 11-09-2026	19	Introduction to disposable blades-their advantages and disadvantages.	7	Practice of fine section cutting
		20	Section Cutting 1 Rough cutting		
		21	Use of tissue floatation bath		
8 th	14-09-2026 to 18-09-2026	22	Assignment No. 1,Revision	8	Practice of lifting of sections on the slides
		23	1st Sessional Test		
		24	Use of various adhesive media in lifting of sections to the slide		
9 th	21-09-2026 to 25-09-2026	25	Introduction about staining: Principle and mechanism of routine stain	9	Performing H&E staining on sections and mounting tissue sections
		26	Various steps of staining((Haematoxylin and Eosin)-Deparaffinization-Hydration-Nuclear Staining-Differentiation		
		27	Blueing , Counterstaining ,Dehydration, Clearing and Mounting, Results		
10 th	28-09-2026 to 02-10-2026	28	Use of automatic stainer and cover slip	10	Demonstration of cell using buccal smear / urine sample
		29	Introduction about Mountants Various types of mounting media 1 Aqueous		
		30	2 Resinous mounting media Advantages and Disadvantages mounting media		
11 th	05-10-2026 to 09-10-2026	31	Terms associated with staining (04hrs) Solvents Mordants	11	Processing of urine samples for malignant cells
		32	Meta chromasia Accelerators		
		33	Progressive and regressive staining		
12 th	12-10-2026 to 16-10-2026	34	Assignment No. 2,Revision	12	Processing of sputum sample for malignant cytology
		35	2nd Sessional		
		36	Use of controls in staining and their significance		
13 th	19-10-2026 to 23-10-2026	37	Introduction about Cell (02hrs) Definition and function of cell	13	To perform PAP stain on given smear
		38	Cell Structure and Multiplication (Mitosis and Meiosis)		
		39	Introduction about Exfoliative Cytology		
14 th	26-10-2026 to 30-10-2026	40	Preparation of vaginal & cervical smears	14	To perform MGG & H&E stain on given smear
		41	Urine Collection and Processing of specimen for		
		42	Sputum Collection and Processing of specimen for cytology		
15 th	02-11-2026 to 06-11-2026	43	CSF(Cerebrospinal Fluid) Collection and Processing of specimen for cytology	15	To demonstrate various automation by use of brochures, charts etc.
		44	Introduction about Cytological Specimen Fixation Various types of Cytological fixatives		
		45	Introduction about Cytological Staining		
16 th	09-11-2026 to 13-11-2026	46	Principle, Technique and interpretation of results in Papanicolaou staining	16	Performing H&E staining on
		47	Principle, Technique and interpretation of results		
		48	Principle, Technique and interpretation of results		

17 th	16-11-2026 to 20-11-2026	49	Role of Laminar air flow in cytology Role of cyto technicianin cytology		
	and 23-11-2026	50	Assignment No. 3,Revision	17	Viva Practical
		51	3rd Sessional test		

LESSON PLAN					
Name of the Faculty : NISHA RANI					
Semester : 3rd					
Subject : Transfusion Medicine					
Lesson Plan duration : 30-07-2026 to 23-11-2026					
Work Load Per Week : 03 HOURS (Theory) + 02 HOURS (PRACTICAL)					
Week	Date	Theory		Practical	
		Lecture day	Topic (including assignment/ test)	Practical day	Topic
1 st	30-07-2026 to 31-07-2026	1	Historical introduction to Transfusion medicine (blood banking	1	Performing ABO blood grouping by Slide & Tube Test
		2	Definition of antigen and antibody		
		3	Classification of antigens		
2 nd	03-08-2026 to 07-08-2026	4	Classification of antibodies.	2	Performing-Rh grouping by Slide & Tube technique
		5	Introduction to ABO blood grouping		
		6	Antigens and antibodies involved in ABO blood grouping		
3 rd	10-08-2026 to 14-08-2026	7	Principle and procedure of ABO blood grouping Slide method	3	Performance of Coombs Test by Direct method
		8	Principle and procedure of ABO blood grouping Tube method		
		9	Various blood sub groups (A ₁ ,A ₂ , A ₁ B, A ₂ B)		
4 th	17-08-2026 to 21-08-2026	10	Introduction to Rh Blood Group System	4	Performance of Coombs Test by Indirect method
		11	Antigen and antibody involved in Rh blood grouping		
		12	Principle and procedure of Rh grouping		
5 th	24-08-2026 to 28-08-2026	13	Variant of D antigen	5	Cross Matching (compatibility testing) by Major testing
		14	Types and composition of various anticoagulants		
		15	Advantages and disadvantages of various anticoagulants		
6 th	31-08-2026 to 04-09-2026	16	Criteria for selection of Donor	6	Cross Matching (compatibility testing) by Minor testing
		17	Screening of blood donor for Blood Collection and storage		
		18	Characteristics of ideal blood donor.		
7 th	07-09-2026 to 11-09-2026	19	Blood collection procedure	7	Preparation of anticoagulants – ACD (Acid Citrate Dextrose) –
		20	Transportation and storage		CPD (Citrate Phosphate Dextrose) - CPDA (Citrate Phosphate Dextrose
		21	Screening of blood donors for MP		
8 th	14-09-2026 to 18-09-2026	22	Assignment No. 1,Revision	8	Malarial Parasite test by Thick smear preparation
		23	1st Sessional Test		
		24	Discussion on sessional test		
9 th	21-09-2026 to 25-09-2026	25	Staining of blood film for MP	9	Malarial Parasite test by Thin smear preparation
		26	Slide test for VDRL		
		27	VDRL Buffer Saline test		
10 th	28-09-2026 to 02-10-2026	28	ELISA based HIV test	10	VDRL Test
		29	Western Blot test for HIV		
		30	Screening of blood donors for HbsAg & HCV		
	05-10-	31	Introduction to Cross Matching		HIV Test

11 th	2026 to 09-10-2026	32	Major Cross Matching	11	
		33	Minor Cross Matching		
12 th	2026 to 16-10-2026	34	Assignment No. 2,Revision	12	HbsAg Test
		35	2nd Sessional Test		
		36	Discussion on sessional test		
13 th	19-10-2026 to 23-10-2026	37	Saline method for cross matching	13	HCV Test
		38	Albumin& Albumin globulin test method for cross matching		
		39	Assignment		
14 th	26-10-2026 to 30-10-2026	40	Introduction to Coombs Test	14	Preparation of platelet rich plasma
		41	Principle, procedure of Indirect coombs test		
		42	Importance and application of Indirect coombs test		
15 th	02-11-2026 to 06-11-2026	43	Principle, procedure of Direct coombs test	15	Preparation of platelet poor plasma
		44	Importance and application of Direct coombs test		
		45	Preparation,Preservation&Uses of Packed cells		
16 th	09-11-2026 to 13-11-2026	46	Preparation,Preservation&Uses of Fresh frozen plasma	16	VIVA
		47	Preparation,Preservation&Uses of Cryoprecipitate &PRP		
		48	Immediate Immune mediated Transfusion Reaction and Delayed Immune mediated Transfusion Reaction		
17 th	16-11-2026 to 20-11-2026 & 23-11-2026	49	Assignment No. 3,Revision	17	VIVA
		50	3rd Sessional test		
		51	Discussion on sessional test, Discussion on Important questions		

LESSON PLAN					
Name of faculty: Shubham Saini					
Semester: 3 rd					
Subject: Applied Clinical Biochemistry					
Lesson Plan duration: 30-07-2026 to 23-11-2026					
Workload per Week: 03 Hours (Theory) + 02 Hours (Practical)					
Week	Date	Theory		Practical	
		Lecture day	Topic (Including assignment/ test)	Practical day	Topic
1.	30-07-2026 to 31-07-2026	1	Formation and excretion of bilirubin	1	Serum total bilirubin estimation
		2	Conjugated and unconjugated bilirubin		
		3	Principle of serum bilirubin estimation – Direct method		
2.	03-08-2026 to 07-08-2026	4	Procedure of serum bilirubin estimation – Direct method	2	Serum bilirubin estimation (Direct)
		5	Procedure of serum bilirubin estimation – Indirect method		
		6	Clinical significance of serum bilirubin estimation		
3.	10-08-2026 to 14-08-2026	7	Principle and procedure of estimation of SGOT	3	SGOT estimation
		8	Principle and procedure of estimation of SGPT		
		9	Clinical significance of SGOT/SGPT estimation		
4.	17-08-2026 to 21-08-2026	10	Principle and procedure of estimation of serum amylase	4	SGPT estimation
		11	Clinical significance of serum amylase estimation		
		12	Principle of estimation of ALP		
5.	24-08-2026 to 28-08-2026	13	Procedure of estimation of ALP	5	Serum amylase estimation
		14	Principle and procedure of estimation of ACP		
		15	Clinical significance of ALP/ACP estimation		
6.	31-08-2026 to 04-09-2026	16	Principle of estimation of serum calcium	6	Serum total bilirubin estimation (Repeat)
		17	Procedure of estimation of serum calcium		
		18	Principle of estimation of serum potassium		
7.	07-09-2026 to 11-09-2026	19	Procedure of estimation of serum potassium	7	VIVA
		20	Clinical significance of calcium/potassium estimation		
		21	Formation of cholesterol		
8.	14-09-2026 to 18-09-2026	22	Assignment No. 1, Revision	8	Serum ALP estimation
		23	1st Sessional Test		
		24	Discussion on sessional test		
9.	21-09-2026 to 25-09-2026	25	High-density cholesterol (HDL)	9	Serum ACP estimation
		26	Low-density cholesterol (LDL)		
		27	Principles of estimation of HDL		
10.	28-09-2026 to 02-10-2026	28	Procedure of estimation of HDL	10	Serum calcium estimation
		29	Principles of estimation of LDL		
		30	Procedure of estimation of LDL		
11.	05-10-2026 to 09-10-2026	31	Triglycerides	11	VIVA
		32	Principle of estimation of triglycerides		
		33	Procedure of estimation of triglycerides		
12.	12-10-2026 to 16-10-2026	34	Assignment No. 2, Revision	12	Serum potassium estimation
		35	2nd Sessional Test		
		36	Discussion on sessional test		
13.	19-10-2026 to 23-10-2026	37	Estimation of HDL, LDL, TG	13	Serum total cholesterol estimation
		38	Clinical significance of HDL estimation		
		39	Clinical significance of LDL estimation		
14.	26-10-2026 to 30-10-2026	40	Clinical significance of triglycerides estimation	14	Serum triglyceride estimation
		41	Importance of HDL ratios		
		42	Importance of LDL ratios		
15.	02-11-2026 to 06-11-2026	43	Importance of VLDL ratios	15	Estimation of HDL
		44	Integrated understanding: Serum bilirubin and its clinical interpretation		
		45	Integrated understanding: SGOT/SGPT and clinical interpretation		
16.	09-11-2026 to 13-11-2026	46	Integrated understanding: Serum amylase, ALP and ACP	16	Estimation of LDL and VLDL
		47	Integrated understanding: Serum calcium and potassium		
		48	Integrated understanding: Lipid profile and clinical interpretation		
17.	16-11-2026 to 20-11-2026 & 23-11-2026	49	Assignment No. 2, Revision	17	VIVA
		50	2nd Sessional Test		
		51	Discussion on Important Questions		

LESSON PLAN					
Name of the Faculty : NISHA RANI					
Semester : 3rd					
Subject : PARASITOLOGY AND VIROLOGY					
Lesson Plan duration : 30-07-2026 to 23-11-2026					
Work Load Per Week : 03 HOURS (Theory) + 04 HOURS (PRACTICAL)					
Week	Date	Theory		Practical	
		Lecture day	Topic (including assignment/ test)	Practical day	Topic
1 st	30-07-2026 to 31-07-	1	Introduction to Parasitology	1	Collection and routine stool examination for detection of intestinal parasites by Saline preparation
		2	General characteristics, morphology of		
		3	Classification of Protozoa		
2 nd	03-08-2026 to 07-08-2026	4	General characteristics, morphology of Helminthes	2	Collection and routine stool examination for detection of intestinal parasites by Iodine preparation
		5	classification of Helminthes		
		6	Collection, transportation, processing and preservation of blood sample for routine investigations		
3 rd	10-08-2026 to 14-08-2026	7	Collection, transportation, processing and preservation of stool sample for routine investigations	3	Collection and routine stool examination for detection of intestinal parasites by Floatation method (saturated salt solution/zinc sulphate)
		8	Introduction about Concentration techniques		
		9	- Principle and application of concentration techniques(floating techniques)		
4 th	17-08-2026 to 21-08-	10	Simple floating technique	4	Collection and routine stool examination for detection of intestinal parasites by Centrifugation method (formal ether)
		11	DCF technique		
		12	Sedimentation techniques(simple)		
5 th	24-08-2026 to 28-08-2026	13	Sedimentation techniques(formalin ether	5	Identification of Tapeworm from preserved specimen/slides
		14	Introduction about Giardia and Morphology of Giardia		
		15	Life cycle and Lab diagnosis of Giardia		
6 th	31-08-2026 to 04-09-2026	16	Morphology and Life cycle of Entamoeba histolytica	6	Identification of Roundworm from preserved specimen/slides
		17	Lab diagnosis of Entamoeba histolytica		
		18	Morphology and Life cycle of Ancylostoma		
7 th	07-09-2026 to 11-09-2026	19	Life cycle and Lab diagnosis of Ancylostoma	7	Identification of Hookworm from preserved specimen/slides
		20	Morphology of Ascaris lumbricoides		
		21	Life cycle and Lab diagnosis of Ascaris lumbricoides		
8 th	14-09-2026 to 18-09-	22	Assignment No. 1,Revision	8	Identification of Pinworm from preserved specimen/slides
		23	1st Sessional Test		
		24	Discussion on sessional test		
9 th	21-09-2026 to 25-09-	25	Morphology and life cycle of T. solium,	9	Identification of Trichomonas vaginalis from preserved specimen/slides
		26	Lab diagnosis T. solium,		
		27	Morphology and life cycle of T. saginata		
10 th	28-09-2026 to 02-10-	28	Lab diagnosis T. saginata	10	Preparation of stains (Leishman, Giemsa, Field)
		29	Introduction about Malarial Parasite		
		30	Morphology of P. Vivax		
11 th	05-10-2026 to 09-10-	31	Life cycle of P. Vivax	11	Preparation of thin and thick smears
		32	Lab diagnosis of P. Vivax		
		33	Morphology of P. Falciparum		
12 th	12-10-2026 to 16-10-	34	Assignment No. 2,Revision	12	Staining of smears by Leishman, Giemsa, Field
		35	2nd Sessional Test		
		36	Discussion on sessional test		
13 th	19-10-2026 to 23-10-	37	Life cycle of P. Falciparum	13	Examination of smears for malarial parasite (P. vivax)
		38	Lab diagnosis of P. Falciparum		
		39	Introduction about Virology		
14 th	26-10-2026 to 30-10-	40	General Characteristics of virus	14	Examination of smears for malarial parasite(P. falciparum)
		41	Structure of viruses.		
		42	Classification of virus		
15 th	02-11-2026 to 06-11-2026	43	Lab diagnosis and prevention of – - Corona - HBC - HBA	15	Demonstration of various stages of malarial parasite from stained slides
		44	Lab diagnosis and prevention of – HIV - HBV (Hepatitis 'B' virus)		
		45	Introduction about Virological Samples		
16 th	09-11-2026 to 13-11-2026	46	- Collection of Virological Samples - Transportation - Storage	16	VIVA
		47	Transportation of virological samples		
		48	Storage of virological samples		
17 th	16-11-2026 to 20-11-2026	49	Assignment No. 3,Revision	17	VIVA
		50	3rd Sessional test		
		51	Discussion on sessional test, Discussion on Important questions		