

Pathology 2nd Year B.P.T. Lesson Plan (2026-27)

Month	Week	Topic	Detailed Subtopics	Duration
Feb	4	Cell Injury I	Introduction to Pathology; Etiology of Cell Injury.	2 hrs
Mar	1	Cell Injury II	Reversible injury (Cellular swelling, Fatty change).	2 hrs
	2	Cell Injury III	Irreversible injury: Necrosis (Types) and Gangrene.	2 hrs
	3	Inflammation I	Acute Inflammation: Vascular events & Triple Response.	2 hrs
	4	Inflammation II	Acute Inflammation: Cellular events & Phagocytosis.	2 hrs
Apr	1	Inflammation III	Chemical Mediators of Inflammation.	2 hrs
	2	Inflammation IV	Chronic Inflammation & Granulomatous diseases.	2 hrs
	3	Healing I	Regeneration and Repair; Primary Intention Healing.	2 hrs
	4	Healing II	Secondary Intention; Factors affecting wound healing.	2 hrs
May	1	Hemodynamics I	Edema (Pathogenesis & Types); Congestion.	2 hrs
	2	Hemodynamics II	Thrombosis & (DVT focus).	2 hrs

	3-4	Summer Vacation		-
June	1	Hemodynamics III	Ischemia, Infarction, and Shock.	2 hrs
	2	Immunology I	Hypersensitivity Types I & II.	2 hrs
	3	Immunology II	Hypersensitivity Types III & IV; Autoimmunity.	2 hrs
	4	Neoplasia I	Nomenclature; Benign vs. Malignant characteristics.	2 hrs
July	1	Neoplasia II	Spread of Tumors (Metastasis); TNM Staging.	2 hrs
	2	Neoplasia III	Laboratory diagnosis of Cancer & Carcinogenesis.	2 hrs
	3-4	Midterms		-
Aug	1	Hematology I	Introduction to Anemias; Iron Deficiency Anemia.	2 hrs
	2	Hematology II	Megaloblastic & Hemolytic Anemias.	2 hrs
	3	Hematology III	Leukemias and Lymphomas (Basics).	2 hrs
	4	C.V.S. I	Atherosclerosis & Hypertension.	2 hrs
Sept	1	C.V.S. II	Ischemic Heart Disease (Myocardial Infarction).	2 hrs
	2	Respiratory I	Pneumonia and Lung Abscess.	2 hrs
	3	Respiratory II	(COPD).	2 hrs

	4	Bone/Joint I	Osteomyelitis (Acute & Chronic).	2 hrs
Oct	1	Bone/Joint II	Rheumatoid Arthritis & Osteoarthritis Pathology.	2 hrs
	2	Bone/Joint III	Bone Tumors (Osteosarcoma, Ewing's).	2 hrs
	3-4	Prefinals		-
Nov	1	Nervous Sys.	CVA (Stroke); Meningitis; Nerve Injuries.	2 hrs
	2	Muscle/Skin	Muscular Dystrophies & Myopathies.	2 hrs
	3	Revision	Clinico-Pathological Correlation & SAQ Prep.	2 hrs
	4	Diwali Vac.		-
Total				50 hrs

Microbiology 2nd Year B.P.T. Lesson Plan (2026-27)

Schedule: 1 Lecture Weekly

Month	Week	Topic	Subtopics & Clinical Focus	Duration
Feb	4	General Micro I	Introduction; Morphology and Classification of Bacteria.	1 hr
Mar	1	General Micro II	Growth, Nutrition, and Culture Media.	1 hr
	2	Sterilization I	Physical agents: Autoclave, Hot air oven, Radiation.	1 hr
	3	Sterilization II	Chemical agents & Hospital Disinfectants.	1 hr
	4	Demo 1	Practical: Microscopy & Gram Staining techniques.	2 hrs
Apr	1	Immunology I	Innate vs. Acquired Immunity; Immune components.	1 hr
	2	Immunology II	Antigens and Antibodies (Structure/Function).	1 hr
	3	Immunology III	Antigen-Antibody Reactions & Complement.	2 hrs
	4	Immunology IV	Hypersensitivity and Autoimmunity.	2 hrs
May	1	Immunology V	Vaccines and Immunization schedules.	1 hr
	2	Revision	Review of Immunology and General	2 hrs

Month	Week	Topic	Subtopics & Clinical Focus	Duration
			Microbiology.	
	3-4	Summer Vac.	No Classes (Summer Holidays).	-

June	1	Lab Diagnosis	Specimen collection, transport, and processing.	1 hr
	2	Systemic I	Staphylococci and Streptococci (Soft tissue infections).	1 hrs
	3	Demo 2	Practical: Culture media identification.	2 hrs
	4	Systemic II	Pneumococci & Respiratory Pathogens.	1 hr
July	1	Systemic III	Mycobacterium Tuberculosis (Pott's Spine focus).	1 hrs
	2	Systemic IV	Mycobacterium Lepae (Nerve involvement focus).	1 hr
	3-4	Midterm		-
Aug	1	Systemic V	Enteric Bacilli (Typhoid) & Vibrio Cholerae.	1 hr
	2	Systemic VI	Anaerobic: Tetanus & Gas Gangrene (Wound care).	1 hr
	3	Virology I	General properties; Antiviral agents; HIV.	1 hr
	4	Virology II	Hepatitis viruses & Clinical implications for PTs.	1 hrs
Sept	1	Virology III	Poliovirus, Rabies & SARS-CoV-2.	1 hrs

Month	Week	Topic	Subtopics & Clinical Focus	Duration
	2	Revision	Systemic Bacteriology and Virology Review.	1 hr

	3	Demo 3	Practical: Serological tests (Widal, ELISA).	1 hrs
	4	Mycology	Superficial/Deep Mycoses; Candidiasis.	1 hr
Oct	1	Parasitology I	Protozoology: Amoebiasis and Malaria.	1 hr
	2	Parasitology II	Helminthology: Hookworm and Roundworm.	1 hr
	3-4	Prefinals		-
Nov	1	Applied Micro I	Nosocomial infections & Waste Management.	1 hrs
	2	Applied Micro II	Infections of Skin, Soft Tissue, and Bone.	1 hr
	3	Demo 4 / Viva	Final Demo & Mock Viva Revision.	1 hrs
	4	Diwali Vac.	No Classes (Diwali Holidays).	-
Total				35 hrs

Pharmacology 2nd Year B.P.T. Lesson Plan (2026-27)

Month	Week	Topic	Subtopics & Clinical Relevance	Duration
Feb	4	General Pharmacology I	Intro; Routes of administration; Pharmacokinetics.	2 hrs
Mar	1	General Pharmacology II	Pharmacodynamics; Adverse drug reactions.	2 hrs
	2	Autonomic Nervous Sys I	Cholinergic and Anticholinergic drugs.	2 hrs
	3	Autonomic Nervous Sys II	Adrenergic and Anti-adrenergic drugs.	2 hrs
	4	CNS I: General	General & Local Anesthetics (Relevant for post-op PT).	2 hrs
Apr	1	CNS II: Sedatives	Sedative-hypnotics and Antiepileptics.	2 hrs
	2	CNS III: Psychotropics	Antipsychotics, Antidepressants, and Lithium.	2 hrs
	3	CNS IV: Parkinson's	Drugs for Parkinsonism and CNS stimulants.	2 hrs
	4	CNS V: Alcohol	Alcohol and treatment of dependence.	2 hrs
May	1	Skeletal Muscle Relaxants	Peripheral and Central relaxants (High PT relevance).	2 hrs
	2	Revision	Review of CNS and General Pharmacology.	2 hrs
	3-4	Summer Vac.		-

Month	Week	Topic	Subtopics & Clinical Relevance	Duration
June	1	NSAIDs I	Aspirin and Non-selective COX inhibitors.	2 hrs
	2	NSAIDs II	Selective COX-2 inhibitors and Paracetamol.	2 hrs
	3	Opioid Analgesics	Morphine and related Narcotic analgesics.	2 hrs
	4	C.V.S. I	Drugs for Heart Failure (Cardiac Glycosides).	2 hrs
July	1	C.V.S. II	Anti-hypertensives (Diuretics, ACEi, Beta-blockers).	2 hrs
	2	C.V.S. III	Anti-anginals and Hypolipidemic drugs.	2 hrs
	3-4	Midterms		-
Aug	1	Hematology	Hematinics (Iron/B12); Anticoagulants (Heparin/Warfarin).	2 hrs
	2	Respiratory	Drugs for Bronchial Asthma and COPD.	2 hrs
	3	Endocrine I	Insulin and Oral Anti-diabetic drugs.	2 hrs
	4	Endocrine II	Steroids (Corticosteroids and Anabolic steroids).	2 hrs
Sept	1	Endocrine III	Thyroid drugs; Drugs for Osteoporosis (Calcium/Vit D).	2 hrs
	2	Chemotherapy I	Penicillins, Cephalosporins, and Aminoglycosides.	2 hrs
	3	Chemotherapy II	Fluoroquinolones, Macrolides, and	2 hrs

Month	Week	Topic	Subtopics & Clinical Relevance	Duration
			Sulfonamides.	
	4	Chemotherapy III	Anti-TB and Anti-Leprosy drugs (Link to Micro).	2 hrs
Oct	1	G.I. Tract	Drugs for Peptic Ulcer, Diarrhea, and Constipation.	2 hrs
	2	Special Topics	Iontophoresis and Phonophoresis drugs in detail.	2 hrs
	3-4	Prefinals		-
Nov	1	Vitamins/Minerals	Water-soluble and Fat-soluble vitamins.	2 hrs
	2	Emergency Drugs	Management of Anaphylaxis and Cardiac arrest.	2 hrs
	3	Final Revision	Drug-Physiotherapy interaction review.	2 hrs
	4	Diwali Vac.		-
Total				50 hrs

I. Psychology Detailed Lesson Plan (10 Hours)

Schedule: 1 Lectures Weekly

Month	Week	Topic	Subtopics & Syllabus Requirements	Hrs
Feb	3	Introduction	Definition and scope of psychology	1
	4		Psychology importance in health delivery system	1
March	1	Development	Psychological maturatuion during human development and growth	1
	2		Psychological maturation during human development and growth;	1
	3		alterations during the aging process.	1

	4		alterations during the aging process	1
April	1	Psychological Status	Importance of status in health and disease;	1
	2		environmental and emotional influences on mind and personality	1
	3	Communication	Knowledge and skills required for effective interpersonal communication.	1
	4		Knowledge and skills required for effective interpersonal communication	1

II. Psychiatry Detailed Lesson Plan (40 Hours)

Schedule:

Month	Week	Topic	Subtopics & Clinical Focus	Hrs (D+C)
Mar	3	Foundations	Definitions; History taking; Mental Status Examination (MSE).	2

Month	Week	Topic	Subtopics & Clinical Focus	Hrs (D+C)
	4	Formative 1	Assessment 1 (Psychology & MSE basics).	-

Apr	1-2	Psychosis	Schizophrenia: Types, clinical features, and management.	2
	3-4	Affective Disorders	Mania, Depression, and Bipolar Mood Disorders (BPAD).	2
May	1	Anxiety Disorders	Panic disorder, Phobias, and OCD.	2
	2-3	Summer Vacation	No Classes (Summer Holidays).	-
	4	Somatoform	Hypochondriasis, Conversion disorder, and Dissociative disorders.	2
June	1-2	Organic Disorders	Delirium, Dementia, and Organic Amnestic Syndrome.	4
	3	Formative 2	Formative Assessment 2 (Psychosis & Mood Disorders).	-
	4	Personality	Types and clinical presentation of Personality Disorders.	2
July	1-2	Substance Use	Alcohol and substance-related disorders; withdrawal and rehab.	4
	3-4	Midterm	Midterm Examination (Full syllabus to date).	-
Aug	1-2	Childhood (I)	ADHD, Mental Retardation, and Conduct disorders.	4

Month	Week	Topic	Subtopics & Clinical Focus	Hrs (D+C)
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	3-4	Childhood (II)	Pervasive developmental disorders; Enuresis; Speech disorders.	4
Sept	1-2	Geriatric/Eating	Psychiatric issues in the elderly; Sleep and Eating disorders.	4
	3	Formative 3	Formative Assessment 3 (Childhood & Geriatric Psychiatry).	-
	4	Management (I)	Biological therapies: ECT and Pharmacotherapy.	2
Oct	1	Management (II)	Group therapy; Psychotherapy; Principles of CBT and RET.	2
	2	Clinical Skills	Practice of Mindfulness; Seminar on Communication Skills.	2
	3-4	Prefinals	Prefinal Examination (Full Syllabus).	-
Nov	1	Final Review	Clinical case presentations and MSE practical check.	2
	2	Diwali Vacation	Diwali Holidays (Starting ~Nov 6).	-

2nd Year B.P.T. Kinesiology Lesson Plan (2026-2027)

Month	Week	Topic	Subtopics & Syllabus Requirements	Hrs
Feb	4	Regional Kinesiology: Elbow	Anatomy recall; joint of elbow	6
			biomechanics; kinematics and kinetics of the elbow complex.	6
Mar	1	Wrist Complex	Kinetic kinematic of wrist joint	6
	2	Hand complex	Kinematics and kinetics of the hand.	6
	3		Functional application: Prehensile functions (grips and pinches).	6
Apr	1	Knee Complex	Anatomy of Tibio-femoral and Patello-femoral joints.	6
	2	Knee Complex	Joint biomechanics; kinematics and kinetics of the knee.	6
	3	Formative 1	Formative Assessment 1 (Internal Evaluation).	-

May	1	Ankle & Foot Complex	Anatomy and basic joint Biomechanics of ankle	6
	2-3	Summer Vacation	Summer Holidays	-

			(2nd & 3rd Week)	
	4	Ankle & Foot Complex	Kinematics, kinetics, and functional application of the arches of the foot.	6
June	1	Vertebral Column	Anatomy of Cervical, Thoracic, Lumbar, and Sacral spine; discs and ligaments.	6
	2	Vertebral Column	Kinematics and kinetics of the vertebral column and rib cage.	6
	3	Formative 2	Formative Assessment 2 (Internal Evaluation).	-
July	1	Vertebral Column	Biomechanics of Sacroiliac joint and Pubic Symphysis.	6
	2	TMJ	Anatomy of skull and mandible; kinematics and kinetics of the TM joint.	6
	3-4	Midterm	Midterm Examination (Full syllabus to date).	-
Aug	1	Kinesiology of Posture	Definition; development of human posture; bipedal vs. quadruped changes.	6
	2	Kinesiology of Posture	Postural patterns and mechanisms; ideal postural alignment in all 3 planes.	6

	3	Posture (Practical)	Physiological deviations; analysis of all	6
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Sept	1	Kinesiology of Gait	Characteristics of human locomotion; Gait cycle phases (Traditional & RLA).	6
	2	Kinesiology of Gait	Kinematics, kinetics, variables, and determinants of gait.	6
	3	Formative 3	Formative Assessment 3 (Internal Evaluation).	-
Oct	1	Gait (Practical)	Subjective and objective evaluation of Gait (Practical assessment).	6
	2	Activities of Daily Living	Biomechanics of ADLs: Supine to sitting, Sitting to standing.	6
	3	Activities of Daily Living	Biomechanics of Squatting (up/down) and Staircase climbing (up/down).	6
Nov	1	Activities of Daily Living	Lifting, pulling, pushing, overhead activities, running, and jogging.	6
	2-4	Prefinals/Diwali	Prefinal Examination & Diwali Vacation.	-

Total Teaching Hours: 130 (95 Didactic, 35 Practical/Lab)

Electrotherapy-II Academic Plan (2026-2027)

Month	Week	Topic	Subtopics & Syllabus Requirements	Hrs
Feb	4	Pain Physiology	Physiology of pain, pain pathways, and methods of pain modulation.	6
Mar	1	Faradic Currents	Definition; Physiological/Therapeutic effects of Faradic & Sinusoidal currents.	6
	2	Motor Points (Prac)	Identification of motor points in face, upper limb, lower limb, and scapula.	6
	3	Faradism Techniques	Faradism under pressure, foot bath, and Functional Electrical Stimulation (FES).	6
	4	Galvanic Currents Interrupted Galvanic Current (practical)	Definition of Continuous and Interrupted DC; properties of accommodation. Methods of application	6
Apr	1	Iontophoresis	Theory of medical ionisation; effects/uses of various ions and precautions.	6

	2	Special Currents	Introduction to High Voltage, Micro currents, and Diadynamic currents.	6
	3	Formative 1	Formative Assessment 1 (Faradic, Galvanic, and Special Currents).	-
	4	T.E.N.S. (Part 1)	Definition, types of TENS, and physiological effects on pain relief.	6
May	1	T.E.N.S. (Prac)	Electrode placement and clinical application for different pain types.	6
	2-3	Summer Vacation		-
	4	S-D Curve (Part 1)	Principles of Strength-Duration curve; defining Rheobase and Chronaxie.	6
June	1	S-D Curve (Prac)	Techniques of plotting curves; differentiating innervated vs. denervated muscle.	6
	2	Interferential (IFT)	Definition, types, and physiological/therapeutic effects of IFT.	6
	3	Formative 2	Formative Assessment 2 (TENS, S-D Curve, and IFT).	-

	4	IFT Application	Electrode types (including vacuum) and dosage parameters for clinical results.	6
July	1	Russian Currents	Definition, pulse	6

			duration, frequencies, and therapeutic uses.	
	2	High Freq: SWD	Introduction to Short Wave Diathermy; continuous vs. pulsed modes.	6
	3-4	Midterm	Midterm Examination (Full syllabus to date).	-
Aug	1	SWD Techniques	Capacitor vs. Inductor methods; tuning and dosage for various tissues.	6
	2	Microwave Diathermy	Principles, physiological effects, and precautions of MWD.	6
	3	Ultrasound (Part 1)	Physics of ultrasound; thermal and non-thermal (cavitation) effects.	6
	4	Ultrasound (Prac)	Methods of application (coupling media); Phonophoresis techniques.	6
Sept	1	Actinotherapy: UVR	Physics of UVR; physiological effects; E1-E4 dosage testing.	6
	2	LASER Therapy	Principles of LASER; types (Low level/Cold LASER); indications for wound healing.	6

	3	Formative 3	Formative Assessment 3 (High Frequency & Actinotherapy).	-
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	4	Wound Care	Role of Electrotherapy in wound management; selection of modalities for ulcers.	6
Oct	1	Advanced Electro	Intro to TECAR therapy and Shockwave Therapy (ESWT) principles.	6
	2	Modality Selection	Clinical reasoning: Selecting tissue-specific and area-specific modalities.	6
	3	Clinical Integration	Combined therapy (e.g., Ultrasound + TENS) and safety protocols.	6
	4	Revision (Prac)	Comprehensive practical review of all machines and safety testing.	6
Nov	1	Exam Prep	Final practical assessments and viva voce preparation.	6
	2-4	Prefinals/Diwali	Prefinal Examination and Diwali Vacation.	-

Kinesiotherapy II Updated Academic Plan (2026-2027)

Month	Week	Topic	Subtopics & Syllabus Requirements	Hrs
Feb	4	Soft Tissue Properties	Biophysical properties of connective/non-connective tissues; stress-strain curves.	8
Mar	1	Stretching Principles	Definition and types of stretching; assessment of muscle and fascia length.	8
	2	Stretching Techniques (Practical)	Demonstration for all joints and polyarticular muscles.	6+4
	3	Stretching (Practical)	Practical skills for stretching individual muscles and fascia.	6+4
	4	MMT Principles	Definition, principles, and concepts of group vs. individual muscle testing.	8
Apr	1	MMT Grading	Methods of grading muscle strength (0-5 scale) and therapeutic applications.	8
	2	MMT: Upper Extremity	Practical demonstration of MMT for all upper limb muscle groups.	8

Month	Week	Topic	Subtopics & Syllabus Requirements	Hrs
	3	Formative 1	Formative Assessment 1 (Soft Tissue & Upper Limb MMT).	-

	4	MMT: Lower Extremity	Practical demonstration of MMT for all lower limb muscle groups.	8
May	1	MMT: Trunk & Face	MMT techniques for the trunk and facial muscles.	8
	2-3	Summer Vacation	Summer Holidays (2nd & 3rd Week)	-
	4	Vicarious Movements	Definition, types, and identifying them during MMT.	8
June	1	Strengthening Intro	Concepts of Strength, Power, and Endurance; factors influencing hypertrophy.	8
	2	Training Types	Isometric, isotonic, and isokinetic training; recruitment of motor units.	8
	3	Formative 2	Formative Assessment 2 (MMT Completion & Strengthening Intro).	-
	4	Principles of Strength	Intensity, Overload, Specificity, and Reversibility principles.	8
July	1	Strengthening Regimes	De-Lorme, Oxford, and MacQueen protocols; 1RM and 10RM concepts.	8
	2	Strengthening (Prac)	Designing exercises for the	6+4
			spine and limbs; using gymnasium equipment.	

	3-4	Midterm	Midterm Examination (Syllabus from February to July).	-
Aug	1	Bronchial Hygiene	Humidification and Nebulisation; types of breathing exercises.	8
	2	Breathing Techniques (Practical)	Diaphragmatic, Pursed lip, Huffing, and Coughing techniques.	6+2
	3	ACBT & Drainage (Practical)	Active Cycle of Breathing (ACBT) and Autogenic Drainage techniques.	6+2
	4	Postural Drainage (Practical)	Positions for lung segments; percussion, vibration, and cupping.	6+2
Sept	1	Coordination & Balance (theory and practical)	Physiology of balance; principles and technique of Frenkel's exercises.	6+2
	2	Motor Control	Theories of motor control; sensory organization and motor strategies.	8
	3	Formative 3	Formative Assessment 3 (Bronchial Hygiene & Coordination).	-
	4	Functional Rehab (theory and practical)	Principles of re-education; Mat exercises (supine to walking progression).	6+2
Oct	1	Hydrotherapy	Physical properties of water and strengthening in a pool environment	6

	2	Therapeutic Traction (Practical)	Cervical and Lumbar traction; intermittent and continuous techniques.	6+4
	3	Home Programs	Planning home exercise programs and ergonomic advice for ADLs.	6
	4	Revision (Practical)	Practical review of MMT, Strengthening, and Chest PT skills.	6+4
Nov	1	Final Prep	Mock practicals and pre-final theory review.	6
	2-4	Prefinals/Diwali	Prefinal Examination and Diwali Vacation.	-