



JHARKHAND
Rai University

UGC RECOGNISED UNIVERSITY

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JHARKHAND RAI UNIVERSITY



Bachelor of Physiotherapy (BPT)

SECOND SEMESTER SYLLABUS

Raja Ulatu | Namkum | Ranchi | Jharkhand
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DEPARTMENT OF PHYSIOTHERAPY (BPT)

Duration: Four years Six months

Academic Year: 2023 – 2027

Syllabus

COURSE SCHEME											
BATCH 2023-2027											
BACHELOR OF PHYSIOTHERAPY											
CHOICE BASED CREDIT SYSTEM											
SEMESTER II											
S.No	CODE	COURSE TITLE	Periods			Evaluation Scheme				Subject Total	Credit
			L	T	P	Assignment	TA	Total	ESE		
1	23A201	Anatomy - II	5	0	0	20	10	30	70	100	5
2	23A202	Physiology - II	4	0	0	20	10	30	70	100	4
3	23A203	Sociology	4	0	0	20	10	30	70	100	4
4	23A204	Fundamentals of Biomechanics & Exercise Therapy	4	0	0	20	10	30	70	100	4
5	23A205	Biochemistry	4	0	0	20	10	30	70	100	4
6	23AVAC101	Character Building and Holistic Development of Personality I (Spiritual & Mental Health)	2	0	0	20	10	30	70	100	2
PRACTICAL/SESSIONAL											
1	23A201P	Anatomy - II	0	0	2			30	20	50	1
2	23A202P	Physiology - II	0	0	2			30	20	50	1
3	23A204P	Fundamentals of Biomechanics & Exercise Therapy	0	0	2			30	20	50	1
									TOTAL	750	26



Program: Bachelor of Physiotherapy (BPT)
Semester: Second
Course: Anatomy - II
Course Code: 23A201

L	T	P	Credits
5	0	0	5

COURSE LEARNING OBJECTIVE

- CLO1:** To learn about basic anatomy of thorax and abdomen.
- CLO2:** To gain knowledge about Brain and Spinal Cord.
- CLO3:** To give impact knowledge, so that utilize same in future practice.

COURSE OUTCOME

At the end of course, candidate will able to

- CO1: Describe the source & course of spinal nerve.
- CO2: Identify and describe various parts of spine, thoracic and pelvic bony.
- CO3: Identify and describe various organs of thoracic and abdominal content.
- CO4: Describe parts of central nervous system (CNS) – Fore brain, Mid Brain and Hind Brain.
Brain stem, course of cranial nerve – special emphasis on V, VII, X, XI and XII.
- CO5: An idea of embryology and neuromuscular development.
- CO6: Have knowledge of Special senses like eye, skin, ear.
- CO7: Have an idea of brain circulation and knowledge of tracts.

Unit 1: Spine: Back muscles - Superficial layer, Deep muscles of back, their origin, insertion, action and nerve supply, Vertebral column – Structure & Development, Structure & Joints of vertebra, Radiographic identification of bone and joints **Thorax:** Thoracic cage, Pleural cavities & pleura, Lungs and respiratory tree , Diaphragm.

Unit 2: Head and neck: Cranium, Facial Muscles, Central nervous system – disposition, parts and functions, Cerebrum, Cerebellum, Midbrain & brain stem, Blood supply & anatomy of strokes, Spinal cord- anatomy, blood supply, nerve pathways, Pyramidal, extra pyramidal system, Thalamus, hypothalamus.

Unit 3: Head and neck: Ventricles of brain, CSF Circulation Development of nervous system & defects (Brief Description), Cranial nerves – special emphasis on V, VII, X, XI, XII (course, distribution and palsies), Sympathetic nervous system, its parts and components (Brief Description), Parasympathetic nervous system (Brief Description).

Unit 4: Miscellaneous: Embryology in brief covering neuromuscular developmental aspects, **Endocrine system** – Pituitary, Thyroid, parathyroid (Brief Description).

Unit 5: Special senses (Brief Description): Nerve receptors, Eye, Ear, Labyrinth, **Abdomen and pelvis** (Brief descriptions only): Abdominal cavity – divisions, Muscles of abdominal wall, pelvic floor, innervations, Bony Pelvis.

Unit 6: Digestive system (Liver & pancreas, Alimentary canal), **Urinary system** – Kidney, Ureter, bladder, urethra. **Genital system** – male and female.



Suggested Readings:

Text Books:

1. B.D. Chaurasia, Human Anatomy- Volume 1, 2, 3, CBS Publishers & Distributors.
2. Inderbir Singh, Textbook of Anatomy with colour Atlas – Vol. 1, 2, 3. Jaypee Brothers.

Reference Books:

1. Snell, Richard S, Clinical Anatomy By Regions-, Wolters Kluwer, New Delhi.
2. Cunningham Manual of Practical Anatomy Vol. I, II, III, Churchill Livingstone.

Note: Latest editions of all the suggested books are recommended.



Program: Bachelor of Physiotherapy (BPT)

Semester: Second

Course: Physiology - II

Course Code: 23A202

L	T	P	Credits
4	0	0	4

COURSE LEARNING OBJECTIVE

CLO1: To acquire the knowledge of special senses physiology.

CLO2: To learn about nervous system, Digestive system, Reproductive system, Excretory System, Endocrine physiology.

CLO3: To contribution of each organ system in maintenance of Homeostasis.

COURSE OUTCOME

At the end of course, candidate will able to

CO1: Describe and explain mechanism of muscle contraction, action potential, nerve physiology and principle, neuromuscular junction.

CO2: To be able to describe physiological function of various system like digestive system, renal system, reproductive system, nervous system.

CO3: Acquire the skill of basic clinical examination with emphasis to peripheral and central nervous system.

Unit 1: Nerve - Muscle and Synaptic & Junction Transmission: Nerve – General Concept, Nerve cell – structure , Genesis of resting membrane potential & Action potential, Their ionic basis, All or None phenomenon, Ionic basis of nerve conduction, Classification & types of nerve fibre, Mixed nerves & compound action potential ,Concept of nerve injury & Wallerian degeneration, Muscle properties and functions, Electric & Mechanical responses & their basis, Concept of isometric & isotonic muscle contraction, Electrical events in postsynaptic neurons, Inhibition & facilitation at synapses, Chemical transmission of synaptic activity, Principal neurotransmitter system, Neuromuscular junction, structure & events occurring during excitation.

Unit 2: Digestive System: Digestion & absorption of nutrients, Gastrointestinal secretions & their regulation, Liver & Exocrine Pancreas **Renal System:** Glomerular filtration rate, clearance, Tubular function, Water excretion, concentration of urine-regulation of Na, Cl, K excretion, Physiology of urinary bladder.

Unit 3: Functions of Nervous system (descriptive): Reflexes, monosynaptic, polysynaptic, withdrawal reflex, Properties of reflexes , Sense organ, receptors, electrical & chemical events in receptors, Ionic basis of excitation, Sensory pathways for touch, temperature, pain, proprioception, others, Control of tone & posture: Integration at spinal, brain stem, cerebellar, basal ganglion levels, along with their functions & clinical aspects, Autonomic nervous system & Hypothalamus, Higher functions of nervous system : Learning & memory, neocortex, Limbic functions, sexual behaviour, fear & range, motivation.

Unit 4: Miscellaneous: Special senses, Endocrinology, Male & female reproductive system.



Suggested Readings:

Text Books:

1. Jain, A K, Textbook of Physiology: Volume 1 & 2, Avichal.
2. Sembulingam, K, Essentials of Medical Physiology, Jaypee New Delhi.

Reference Books:

1. Ghai, Text book of Practical Physiology, Jaypee, New Delhi.
2. Guyton Arthur, Text book of Medical Physiology Mosby.

Note: Latest editions of all the suggested books are recommended.



Program: Bachelor of Physiotherapy (BPT)

Semester: Second

Course: Sociology

Course Code: 23A203

L	T	P	Credits
4	0	0	4

COURSE LEARNING OBJECTIVE

CLO1: This course will enable the student to understand specific sociological factors and effects in physical illness.

CLO2: Student will learn about Sociological factors and effects in physical illness.

CLO3: This will help them to have a holistic approach in their dealings with patients during admission, treatment, rehabilitation and discharge.

COURSE OUTCOME

At the end of course, candidate will able to

CO1: Identify and apply sociological concepts and theories to understand social phenomena.

CO2: Critically evaluate explanations human behavior, social phenomena and social processes locally and globally.

CO3: Apply social scientific principles to understand the social world.

CO4: Evaluate the quality of social scientific data.

CO5: Communicate in a clear and coherent manner in both written and oral communication.

CO6: Use sociological knowledge to inform public understanding and policy database.

Unit 1: Introduction 1. Meaning-Definition and scope of Sociology 2. Its relation with Anthropology, Psychology, Social Psychology and Ethics. 3. Methods of Sociology-case study, Social Survey, Questionnaire, Interview and opinion poll methods. 4. Importance of its study with special reference to health care professionals. **Social Factors in Health and Disease:** 1.The meaning of Social Factors. 2. The role of Social factors and illness.

Unit 2: Socialization: 1. Meaning and nature of Socialization. 2. Primary, Secondary, and Anticipatory Socialization. 3. Agencies of Socialization. **Social Groups:** 1. Concepts of social groups. 2. Influence of formal and informal groups on health and sickness. 3. The roll of primary groups and secondary groups in the hospital and rehabilitation settings.

Unit 3: Family: 1. The family - Meaning and definition, Functions 2. Changing family Patterns 3. Influence of family on the individual health, family, and nutrition. 4. The effects of sickness on family and psychosomatic disease and their importance to Physiotherapy. **Community:** 1. Rural Community – Meaning and features – Health hazards of rural population 2. Urban community – Meaning and features – Health hazards of urban population.

Unit 4: Culture and Health: 1. Concept of culture 2. Cultures and Behaviour 3. Cultural meaning of sickness. Culture and health disorders **Social change:** 1. Meaning of social changes & Factors of social change. 2. Human adaptation and social change. 3. Social change and stress. 4. Social and



deviance. 5. Social change and health Program. 6. The role of social planning in the improvement of health and in rehabilitation.

Unit 5: Social problems of disabled: Consequences of the following social problems in relation to sickness and Disability, remedies to prevent these problems 1. Population explosion. 2. Poverty and unemployment. 3. Beggary. 4. Juvenile delinquency. 5. Prostitution. 6. Alcoholism. 7. Problems of women in employment.

Unit 6: Social security: Social security and social legislation in relation to the Disabled. **Social worker:** Meaning of social work; the role of a medical social worker.

Suggested Readings:

Text Books:

1. Bhusan, Vidya and Sachdeva, D.R.; Introduction to Sociology Kitab Mahal, New Delhi.

References Books

1. Anand Kumar Indian Society and Culture Vivek, New Delhi.
2. Turner, J. H.; Structure of Sociological Theory, Jaipur Publication.

Note: Latest editions of all the suggested books are recommended.



L	T	P	Credits
4	0	0	4

Program: Bachelor of Physiotherapy (BPT)

Semester: Second

Course: Fundamentals of Biomechanics & Exercise Therapy

Course Code: 23A204

COURSE LEARNING OBJECTIVE

CLO1: The primary purpose of this paper is to describe basic biomechanics related to exercise therapy.

CLO2: To make student aware of different model and category of patients.

CLO3: Student will acquire the skill of use of various concepts & techniques related to the core of physiotherapy.

COURSE OUTCOME

At the end of course, candidate will able to

CO1: Define various terms used in biomechanics and exercise therapy.

CO2: Have knowledge of basic principles of Physics related to mechanics of movement/ motion & able to understand the application of such principles to the simple equipment designs and their efficacy in therapeutic gymnasium and various starting positions used in therapeutics.

CO3: To able to describe and also acquire the skill of use of various tools of the therapeutics gymnasium.

CO4: To demonstrate passive movements in terms of various anatomical planes.

CO5: To demonstrate various starting and derived positions.

CO6: Acquire the skill of application of various massage manipulation and able to describe the physiological effects, therapeutical use merits /demerits of the same.

CO7: Acquire the skill of assessment of sensations, superficial and deep reflexes.

CO8: To able describe different types of goniometer, merits and demerits of it. Acquire the skills measure of ROM of different joints.

CO9: Will have a knowledge of limb length measurement, girth measurement.

Unit 1: Introduction to exercise therapy: Mechanical principle applied in human body- gravity, center of gravity, line of gravity, base of support, equilibrium, axis and planes **Machines: Levers-** Definition, function, classification and application of levers in Physiotherapy& order of levers with example of lever in human body.

Unit 2: Pulleys - System of pulleys, types and application. **Springs-** Properties of springs, springs in parallel and series, elastic materials in us. **Elasticity-** Definition, stress, strain, Hooke's law. **Biomechanical Modalities:** Aims and scope of various - shoulder wheel, shoulder ladder, shoulder pulleys, pronator supinator instrument, static cycle, ankle exerciser, balancing board, springs, weights.

Unit 3: Disability Models: ICIDH model of disability, Nagi model of disability, ICF model **Passive movements in exercise therapy:** Definition, classification, indications, contra indications, advantages, limitations, techniques - emphasize PROM to upper, lower, neck and trunk muscles.

Unit 4: Active movements in exercise therapy: Definition, classification, indications, contra indications, advantages, limitations, techniques - emphasize active movements to upper, lower, and neck and trunk muscles.

Unit 5: Concepts in exercise therapy - I: Starting positions – Muscle work, effect and uses and derived positions, **Relaxation** – Definition, types of relaxation, relaxation techniques, **Suspension** – Definition, types, uses and therapeutic applications – **II: Balance** – Static and dynamic balance, mechanism of balance control, balancing exercises.

Unit 6: Concepts in exercise therapy - III: Joint range measurement – Goniometer, types and techniques of measuring joint ROM. **IV Limb length & Girth:** Measurement, its importance in physiotherapy **Soft tissue manipulation (Massage):** History, types, techniques, physiological effects, therapeutic uses, contraindications of therapeutic massage.

Suggested Readings:

Text Books:

1. Gardiner, M Dena, The principles of exercise therapy, CBS Publishers.
2. Norkin, Cynthia C & White, D Joyce Measurement of joint motion: A Guide To Goniometry, Jaypee, New Delhi.

Reference Books:

1. Narayanan, S Lakshmi, Textbook of Therapeutic Exercises, Jaypee New Delhi.
2. Kisner, Carolyn, Colby, Lynn Allen and borstad, John Therapeutic exercise: Foundations and Techniques, Jaypee New Delhi.

Note: Latest editions of all the suggested books are recommended.



Program: Bachelor of Physiotherapy (BPT)
Semester: Second
Course: Biochemistry
Course Code: 23A205

L	T	P	Credits
4	0	0	4

COURSE LEARNING OBJECTIVE

CLO1: The primary purpose of this paper is to impart basic knowledge and understanding of the biochemical changes in human body.

CLO2: To learn about interpretation of common biochemistry investigations related to different organs of human body.

CLO3: To give knowledge about different enzyme, Carbohydrate, Protein, Fat, minerals and vitamins.

COURSE OUTCOME

At the end of course, candidate will able to

- CO1: To able to describe physiochemical phenomena of Osmosis, Diffusion, Donnan Membrane equilibrium. Describe the physiology of the carbohydrate Digestion in humans.
- CO2: Illustrate the metabolism of carbohydrates through various anabolic and catabolic pathways like glycolysis, Kreb's cycle, Glycogen metabolism, glucuronic acid cycle etc.
- CO3: Relate the structure of DNA with its function in Replication and gene expression that include both transcription and translation.
- CO4: Have a chemistry knowledge of connective tissue, bone and teeth.
- CO5: Have knowledge of vitamins, minerals, carbohydrates, protein, fats and balance diet.
- CO6: Have a knowledge of biochemical like enzymes, endocrinology.

Unit 1: Basis of Biochemistry: Cell & Sub cellular organelles: Structure & function , Biochemical characteristics of living matter, Physiochemical Phenomena & their significance(Osmosis Diffusion, Donnan Membrane equilibrium), Structure organization of plasma membrane & transport systems.
Tissue Chemistry: Chemistry of connective tissue, bone and teeth. Composition function and chemical mediators of nerve structure of muscle tissue. General Biochemistry of muscle contraction and relaxation. **Nutrition:** Basic principles of nutrition; Carbohydrates, Proteins and Lipid caloric requirement and balance diet.

Unit 2: Biological Macromolecules-I: Carbohydrates: Definition, classification with examples and general functions. Metabolism – Glycolysis, T.C.A Glycogen metabolism, Blood Sugar regulation, Diabetes and diabetic keto-acidosis. **Lipids:** Definition, classifications and general functions. Essential fatty acids, cholesterol, Blood, Brief review of lipoproteins. Metabolism- Oxidation of fatty acids, cholesterol synthesis, and fatty liver. **Biological Macromolecules-II: Proteins:** Definition, classification, and Bio-medical Importance. **Nucleic acid** - Definition of DNA, structure of DNA, Watson & Crick model of DNA, Types of RNA. Synthesis & catabolism of

purines & pyrimidines gout, Nucleosides, Nucleotides & Biologically important nucleotides, Replication, Transcription, Translation & inhibitors of protein synthesis.

Unit 3: Plasma Proteins: Functions, Metabolism, General reactions of amino acids. Formation and fate of ammonia - Urea cycle. Study of hemoglobin and immunoglobulins with functions. **Nutrition & Dietetics:** Proximate principles of food & their physiological importance, Caloric requirements & Computation of diet, Balance diet, BMR & factors affecting BMR, SDA & its significance, RQ, Nitrogen balance, Malnutrition (Kwashiorkor & Marasmus), Obesity, diet in health & disease, Role of dietary fiber, Metabolism in exercise. **Essentials of Biochemistry: Enzymes:** Definition, classification with examples. Factors affecting enzyme action. Brief study of enzyme inhibition. Clinical importance of enzymes.

Unit 4: Vitamins: Definition, classification and functions. Dietary source, Daily requirement and deficiency disorders. **Water and Electrolyte Balance:** Concepts of buffers, Ph & Body buffers, General outline of fluid compartments of the body with their water and electrolyte content and balance, Dehydration. **Biochemical Endocrinology & Interpretations:** General characteristics & Classification of hormones, Mechanism of action and metabolic effects of hormone of Pituitary, **Biochemical Endocrinology & Interpretations:** Thyroid, Parathyroid, Adrenal & Pancreas. Interpretation of common clinical biochemistry investigations: Sugar, Urea, Creatinine, Protein, Bilirubin, Uric acid, Cholesterol.

Suggested Readings:

Text Books:

1. V K Malhotra, Biochemistry for Students, Jaypee, New Delhi.

Reference Books:

1. Vasudeval D.M, Textbook of Biochemistry for Medical Students, Jaypee Brothers.
2. Chatterjee M.N, Textbook of Biochemistry, Jaypee Brothers.

Note: Latest editions of all the suggested books are recommended.



L	T	P	Credits
2	0	0	2

Program: Bachelor of Physiotherapy (BPT)

Semester: Second

Course: Character Building and Holistic Development of Personality I (Spiritual & Mental Health)

Course Code: 23AVAC101

COURSE LEARNING OBJECTIVE:

CLO1: To prepare the student to develop Manomaya Kosha (Development of mind).

CLO2: To enable the students to develop Vijnanamaya Kosha (Intellectual Development).

CLO3: To develop an understanding of Anandamaya Kosha (Spiritual Development).

CLO4: To help the students in understanding the virtue of Vasudhaiva-Kutumbakam (the whole world is one family) and also to transform students into ideal personalities by inculcating sanskaaras.

COURSE OUTCOME:

On completion of the Course, the students will be able to:

CO1: Develop a good understanding of Manomaya Kosha.

CO2: Adapt the concept of constructive roles.

CO3: Analyze the understanding of spiritual development.

CO4: Correlate the importance of world as a family and enable them to develop Manomaya Kosha, Vijnanamaya Kosha, Anandmaya Kosha.

Course Content:

Topics	Hours
Unit I: Cognitive Intellectual Development (Manomaya Kosha)	4
<ul style="list-style-type: none"> Character Building: Meaning, Concept, Constituent elements of character and means/ways of character building. Manomaya Kosha: General Introduction, Meaning and Concept. Manomaya Kosha: Objectives, Characteristics and Significance. Benefits of developed Manomaya Kosha and deficiencies due to underdeveloped Manomaya Kosha. Means, Activities and Programmes to develop Manomaya Kosha. 	
Unit II: Cognitive Intellectual Development (Vijnanamaya Kosha)	



<ul style="list-style-type: none">• Vijnanamaya Kosha : General Introduction, Meaning and Concept.• Objectives, Characteristics and Significance.• Benefits of developed Vijnanamaya Kosha and deficiencies due to underdeveloped Vijnanamaya Kosha.• Means, Activities and Programmes to develop Vijnanamaya Kosha.	4
Unit III: Cognitive Intellectual Development (Anandamaya Kosha)	
<ul style="list-style-type: none">• Anandamaya Kosha: General Introduction, Meaning and Concept.• Objectives, Characteristics and Significance.• Benefits of developed Anandamaya Kosha and deficiencies due to underdeveloped Anandamaya Kosha.• Means, Activities and Programmes to develop Anandamaya Kosha.	8
Unit IV: Moral Spiritual Development (To draw inspiration from important events of the lives of great men of India to serve the society and nation).	
<ul style="list-style-type: none">• Social and National Awakening : Chanakya, Birsa Munda, Lala Lajpat Rai, Jyotiba Phule, Adi Shankaracharya, Veer Savarkar,• Women from other countries dedicated to India : Annie Besant, Emily Shankle Bose, Mary Reed.• Leading Scientists: Acharya Sushruta, Acharya Charak, Aryabhatta, Jagdish Chandra Basu, Homi Jahangir Bhabha, A.P.J Abdul Kalam• Women's Awakening : Lakshmi Bai, Rani Durgavati, Rani Chenamma, Rani Ahilya Bai Holkar• Those who sacrificed all: Bhagat Singh, Khudiram Bose, Chandrashekhar Azad, Mahatma Gandhi.• Seekers of Self-reliant India: Vinoba Bhave, Jai Prakash Narayan, Verghese Kurian, M.S.Swaminathan.• Unique Personality of India : Dr.Rajendra Prasad, Sardar Ballabh Bhai Patel.	8

Suggested Reading:

- My Idea of Education, Swami Vivekanand, Advaita Ashram, Kolkata
- Rabindranath Tagore : An Interpretation, Sabyasachi Bhattacharya, Penguin Delhi
- Women Who Created History, NCERT, New Delhi



Program: Bachelor of Physiotherapy (BPT)
Semester: Second
Course: Anatomy - II
Course Code: 23A201P

L	T	P	Credits
0	0	2	1

COURSE LEARNING OBJECTIVE

CLO1: To gain Knowledge about surface anatomy.

CLO2: To learn palpation of different anatomical structure.

CLO3: To makes student ready for future to practice as a qualified Physiotherapist.

COURSE OUTCOME

At the end of course, candidate will able to

CO1: Localize various surface land-marks in spine, pelvis, skull and thorax and abdomen.

CO2: Identify bone like pelvis, face, skull, spine, ribs and sternum.

CO3: Identify various organs of abdomen, chest and brain.

CO4: Describe the circulation of brain, spine and circulatory system.

- Surface anatomy:-surface land mark-bony, muscular and ligamentous.-surface anatomy of major nerves, arteries of the limbs.
- Points of palpation of nerves and arteries.
- Demonstration of dissected parts (spine, thoracic & abdominal viscera, face and brain).



Program: Bachelor of Physiotherapy (BPT)
Semester: Second
Course: Physiology - II
Course Code: 23A202P

L	T	P	Credits
0	0	2	1

COURSE LEARNING OBJECTIVE

CLO1: To learn cranial nerve examination process.

CLO2: To learn process of auscultation and blood pressure measurement.

CLO3: To learn about palpation and observation and study heart rate, respiratory rate etc.

COURSE OUTCOME

At the end of course, candidate will able to

CO1: Able to examine cranial nerves individually.

CO2: Have a knowledge of ECG.

CO3: Able to examine Heart rate, Pulse rate, Blood Pressure, Respiratory rate.

CO4: Have knowledge of stethoscope, BP machine and other examination tools.

- ECG.
- Cranial Nerve Examination.
- Sensory Examination.
- Motor Examination.
- Pulse rate, Heart rate and measurement of Blood Pressure.
- Respiratory rate and Auscultation.



Program: Bachelor of Physiotherapy (BPT)
Semester: Second
Course: Fundamentals of Biomechanics & Exercise Therapy
Course Code: 23A204P

L	T	P	Credits
0	0	2	1

COURSE LEARNING OBJECTIVE

CLO1: To acquire skills & techniques like Goniometer measurement, Soft tissue manipulation, suspension therapy etc.

CLO2: To make student aware of different position and body relaxation method.

CLO3: Student will acquire the skill of use of various concepts.

COURSE OUTCOME

At the end of the course candidate will able to

CO1: Demonstrate Starting positions and derived positions.

CO2: Measure Range of motion (PROM, AROM, AAROM) exercises to all joints using goniometer.

CO3: Demonstrate Relaxation techniques of different muscles.

CO4: Apply Suspension therapy to all major joints.

CO5: Apply skillful technique of Massage (Soft Tissue Manipulation) – upper limb, lower limb, back, face.

- Starting positions and derived positions.
- Range of motion (PROM, AROM, AAROM) exercises to all joints.
- Measurement of joint range using goniometer.
- General and local Relaxation techniques.
- Suspension exercise to all major joints.
- Massage – upper limb, lower limb, back, face.