STUDY & EVALUATION SCHEME OF BACHELOR OF PHYSIOTHERAPY

(BPT - I YEAR/ I SEMESTER)

[Applicable w.e.f. Academic Session 2020-21 till revised]



INTEGRAL UNIVERSITY, LUCKNOW DASAULI, P.O. BAS-HA KURSI ROAD, LUCKNOW – 226026

Website: www.iul.ac.in

Approved by

Syllabus approved by Board of Study, Faculty Board, Academic Council, Executive Council of the Integral University, Lucknow



DEPARTMENT OF PHYSIOTHERAPY INTEGRAL UNIVERSITY, LUCKNOW

STUDY & EVALUATION SCHEME

PROGRAM: BACHELOR OF PHYSIOTHERAPY (BPT)

| | I – Yea | r | | | _ | | | | _ | | I-Sem | ester | | | | |
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| | | | | | Periods | | | Credits | | Eva | luation | Schem | e | | | |
| S. No | Course Category | Code No. | Code No. | | | Name | of the Course | | | | | Sessional | | (CA) | | Subject |
| NO | | | | L | т | Р | с | СТ | ТА | Total | ESE | Total | | | | |
| | | | | I - | Sem | este | r | | | | | | | | | |
| 1. | DC | PT101 | Human | Anatomy-I | 3 | 1 | 0 | 4 | 40 | 20 | 60 | 40* | 100 | | | |
| 2. | DC | PT102 | Human | Physiology-I | 3 | 1 | 0 | 4 | 40 | 20 | 60 | 40 | 100 | | | |
| 3 | DC | PT103 | Biochem | iistry | 3 | 1 | 0 | 4 | 40 | 20 | 60 | 40 | 100 | | | |
| 4. | DC | PT104 | Basic of | Electrotherapy | 3 | 1 | 0 | 4 | 40 | 20 | 60 | 40 | 100 | | | |
| 5. | DC | CS107 | Comput Physioth | 2 | 1 | 2 | 3 | 40 | 20 | 60 | 40 | 100 | | | | |
| 6. | DC | LN101 | | Basic Professional communication | | 1 | 0 | 3 | 40 | 20 | 60 | 40 | 100 | | | |
| 7. | DC | PT105 | Human | Anatomy -I Lab | 0 | 0 | 2 | 1 | 40 | 20 | 60 | 40 | 100 | | | |
| 8. | DC | PT106 | Human | Physiology -I Lab | 0 | 0 | 2 | 1 | 40 | 20 | 60 | 40 | 100 | | | |
| 9. | DC | PT107 | Biochem | nistry-Lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 | | 100 | | | |
| 10. | DC | PT108 | Basic of Lab | Basic of Electrotherapy- Lab | | | 2 | 1 | 40 | 20 | 60 | 40 | 100 | | | |
| Total | | | | | 16 | 06 | 08 | 26 | 410 | 230 | 640 | 360 | 1000 | | | |
| L: Lecture T: Tutorials P: Practical | | | | | c | Cred | it | CT: Class | Test TA: Teacher Assessm | | ssment | | | | | |
| Sest | sional (CA) | : Class Te | st + Teach | er Assessment | 1025 | ubjec ESE) | t Tol | tal: Sessio | hal (CA | 4) + Ei | nd Seme | ester Ex | caminatio | | | |
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Approved by the Academic Council on:

AIMS AND OBJECTIVES OF BPT DEGREE COURSE

On completion of the course of study having successfully passed the examination, the candidate would be able to achieve a satisfactory level of efficiency:-

- 1. To Detect and evaluate the anatomical, patho-physiological impairments, resulting in dysfunction of various age groups & occupation; as well as epidemiological sectors in the population & arrive at appropriate diagnosis.
- To understand the rationale & basic investigative approach to the medical system and surgical intervention regimens & accordingly plan & implement specific Physio-Therapy measures effectively.
- 3. To be able to select strategies for cure and care; adopt restorative & rehabilitative measures for maximum possible independence of a client at home, work place & in the community.
- **4.** To maintain healthy relationship & Co-partnership with various professionals in the health delivery system in the primary interest of a client.
- **5.** To ensure quality assurance & motivate the client & her/his family for a desirable client compliance.
- 6. To develop communication skills for the purpose of transfer of suitable technique to be used creatively at various stages of treatment, compatible with psychological status of the beneficiary.
- 7. To promote health in general in Geriatrics, Women's health, Industrial medicine as well as at competitive level, such as sports, keeping in mind National Health Policies.
- **8.** To practice professional autonomy & ethical principles with referral as well as first contact clients in conformity with ethical code for physiotherapists.

SYLLABI

OF

BACHELOR OF PHYSIOTHERAPY

(BPT - I YEAR/ I SEMESTER)

GOAL:

The broad goal of the teaching of undergraduate students in Anatomy aims at providing comprehensive knowledge of the gross anatomy, microscopic structures, development of human body and principles of genetics to provide a basis for understanding the clinical correlation of organs or structure involved and the skills to practice as a qualified Physiotherapist.

OBJECTIVES:

A – Knowledge: At the end of the course, the student should be able to:

- 1. Comprehend the normal disposition, inter-relationships, gross, functional and applied anatomy of the musculoskeletal system, locomotion, posture, gait and various organs in the body.
- Comprehend the basic structure and connections between the various parts of the central nervous system so as to analyze the integrative and regulative functions of the organs and systems. He/she should be able to locate the site of gross lesions according to the deficits encountered.
- 3. Identify the microscopic structures of various tissues and organs in the human body and correlate the structure with the functions.
- 4. To understand the basic principles of embryology including genetic inheritance and stages involved in development of the organs and systems from the time of conceptions till birth.
- 5. To study the basic principles of radiology and for comprehending deeper structures in the human body.

B. Skills: At the end of the course the students shall be able to:

- 1. Identify and locate all the structures of the body and mark the topography of the living anatomy.
- 2. Identify the organs and tissues under the microscope.
- 3. Understand principles of karyotyping and identify the gross congenital anomalies.
- 4. Understand the principles of imaging techniques and interpretation of anatomical structures on plane radiographs of the body.

C. Integration

From the integrated teaching of other basic sciences, students shall be able to comprehend the functions of the organs and systems in the body and thus interpret the anatomical basis of disease processes.

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| S. No. OS | TEOLOG | Y & ART | HROLOG | | | | | 05 Hours |
| 1. Intro strue | OSTEOLOGY & ARTHROLOGY: 05 Hours Introduction , axial & appendicular skeleton, classification of bone based on shape and structure, structure of growing and adult long bone, ossification of bone, Types of cartilage, their characteristics features with example. | | | | | | | |
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| | | ANATOM essification | | as and its | charactoric | stics features | | 05 Hours ires of skeleta |
| mus | ••• | | | | | | | ture, action o |
| 2. Neu | | Subdivision | of nervou | us system, | structural | organization o | f nervous sy | stem including |

| | type: syste | s of neurons, ganglion, introduction to spinal nerves, cranial nerves an em. | d autonomic nervous |
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| 3. | - | liovascular System: Components of CVS, types of anastomoses, | types of circulation |
| | com | ponents of lymphatic systems and its functions. | |
| | | UNIT-IV | |
| S. No. | SUF | PERIOR EXTREMITY: | 12 Hours |
| 1. | | ace landmarks and Introduction to superior extremity. | |
| 2. | Mus | cles and fascia: | |
| | а. | Pectoral region: Pectoral muscles, origin, insertion, action and nerve of clavipectoral fascia. | |
| | b. | Scapular region and Back: Muscles of Scapular region and back action and nerve supply. Details of Deltoid, Trapezius and latissimus | - |
| | C. | Muscles of Arm: Origin, insertion, action and nerve supply. | |
| | d. | Forearm and Hand: Origin, insertion, action and nerve supply of mulhand. | scles of forearm and |
| 3. | Axilla | a: Boundaries and contents, details of Brachial plexus | |
| 4. | Cubi | tal fossa: Boundaries and contents. | |
| 5. | | ts of superior extremity: Details of shoulder joint, brief account of elbow pulnar joint . | joint & wrist joint and |
| 6. | radia | re and vessels: Important relations, branches and distribution of axillar al, ulnar & median nerve and nerve injuries. Axillary artery and Brachia | • |
| | distri | ibution. | |
| | distri | UNIT-IV | |
| S. No. | | | 12 Hours |
| S. No. 1. | INFI | UNIT-IV | 12 Hours |
| | INFI Intro | UNIT-IV ERIOR EXTREMITY: | 12 Hours |
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| 1. | INFI Intro Auso a. b. C. Bour | UNIT-IV ERIOR EXTREMITY: duction and surface landmarks of lower extremity. cles and fascia: Thigh: Brief account of fascia lata & compartments of thigh. Enumerate muscles of anterior, posterior and medial compartment insertion, nerve supply and action, details of Qudriceps femoris. Gluteal region: Muscles of gluteal region, their origin, insertion, nerve Compartment of leg, name of the muscles of leg, their action and nerve | of thigh, their origin ve supply and action ve supply, |
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| | REFERENCE BOOKS: |
|-------|---|
| 1. | Principles of anatomy and physiology by Tortora; 8th edition; Harper & Row Publications. |
| 2. | Clinical Anatomy for Medical Students by Richard Snell, 7th edition, Lippin Cott, Williams & Wilkins. |
| 3. | Clinical Anatomy for Medical Students by Richard Snell, 7th edition, Lippin Cott, Williams & Wilkins. |
| 4. | Anatomy & Physiology by Ross & Wilson's, 8th edition, Churchill Livingston. |
| 5. | Grant's atlas of anatomy, Anne MR; 10th edition |
| 6. | Gray's Anatomy. |
| 7. | Primary castes Anatomy by Basmajian (Williams and Willkins Co. Batlimore). |
| 8. | Anatomy and Physiology by Smout and McDowall (Edwad Arnold). |
| | STUDENT LEARNING OUTCOMES/OBJECTIVES: |
| At th | ne end of the semester the student will be able to: |
| 1. | General Anatomy: To understand the level of organization of the human body & its application in practice or physiotherapy. |
| 2. | Osteology & Arthrology : To understand the muscles, bones and joints of the various regions & its application in practice of physiotherapy. |
| 3. | Systemic Anatomy: To understand the level of organization of the human different system of the body & its application in practice of physiotherapy. |
| 4. | Superior Extremity: To understand the topographical and functional anatomy of the upper limb & its application in practice of physiotherapy. |
| 5. | Inferior Extremity: To understand the topographical and functional anatomy of the limbs and thorax. |

| | SU | BJECT N | IAME: | | | HUN | IAN F | PHYSIOL | .OGY-I | | |
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| | SU | BJECT (| CODE: | | | PT 102 | | | | | |
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| | Hrs. / Wk. | | | Credits | | | ٦ | Total Marks | 5 | | |
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| UNIT-II | | Physiology | v & Muscle | es Physiolo | gy: | | | 08 Hours | | | |
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| UNIT-V | Cardi | ovascular S | • | zxercise Pr | iysiology: | | | 08 Hours 40 Hours | | | |
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| S. No. | GENERAL P | HYSIOLOG | SY: | U.I.I | • | | | 0 | 8 Hours | | |
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return, Normal ECG, circulatory shock. Cardiovascular & respiratory adjustment during exercise, effect of exercise training (fatigue).

BOOKS RECOMMENDED:

TEXTBOOKS:

1. Concise Medical Physiology by Chaudhuri, 4th Edition; New Central Book Agency.

2. Human Physiology, Sembulingam; 4th ed, Jaypee Brothers.

- 3. A Textbook of Practical Physiology, Ghai C L, Jaypee Brothers.
- 4. Practical physiology by Vijaya Joshi; Vora Medical Publication.

5. Human Physiology, Chatterjee. Vol: 1&2; 10th Edition; Medical & Allied Agency.

REFERENCE BOOKS:

1. Textbook of Medical Physiology by Guyton & Hall, 11th Edition; Elsevier Publication

2. Principles of Anatomy & Physiology, Tortora, 8th Edition; Harper & Row Publication.

- **3.** Samson Wright's Applied Physiology 13th ed, Keele CA, Neil E & Joels N, Oxford Medical Pub.
- 4. Textbook of Physiology : Ganong

STUDENT LEARNING OUTCOMES/OBJECTIVES:

At the end of the semester the student will be able to:

- 1. **General Physiology:** Understand the basis of normal human physiology with special emphasis on the functioning of the cardiovascular, musculo-skeletal and nervous systems & its application in practice of physiotherapy.
- 2. Nerve Physiology & Muscles Physiology: To know about detail anatomical knowledge of nervous system and outline of muscular anatomy system & its application in practice of physiotherapy.
- **3. Bloods:** Detail knowledge of different type and function of blood cells. Brief outline of cardiovascular and respiratory system & its application in practice of physiotherapy.
- 4. **Respiration:** To learn and understand the skills of assessment of Breath sound, Blood pressure, Respiratory rate, Heart rate and Pulmonary Function Tests, & its application in practice of physiotherapy.
- 5. Cardiovascular System & Exercise Physiology: How the activities of organs are integrated for maximum efficiency in Physical Activity and exercise & its application in practice of physiotherapy.

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| UNIT-II | Carbohydrate: | - | | | | | | 08 Hou | rs | |
| UNIT-III | Nucleic Acid: | | | | | | | 08 Hou | rs | |
| UNIT-IV | Vitamins (Fat & | & Water S | Soluble) 8 | & Enzymes | & Hormone | es: | | 08 Hou | rs | |
| UNIT-V | Nutrition & Spe | | | • | | | | 08 Hou | rs | |
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Metabolism rate (BMR). Water electrolyte balance & acid base balance.

BOOKS RECOMMENDED: TEXTBOOKS:

- **1.** Fundamentals of Biochemistry-by Dr. Deb Jyoti Das,
- 2. Essentials of Bio-chemistry by U. Satyanarayan, 1st Edition, Books and Allied Publications.
- 3. Textbook of Biochemistry Chatterje and Shinde

REFERENCE BOOKS:

- 1. Text book of Medical Bio-Chemistry Dr. M.N.Chettergee, 5th Edition, Jaypee Publication.
- 2. Fundamental of Bio-Chemistry Dr.Dr.A.C.Deb, 5th Edition, Central Publication.
- 3. Bio-Chemistry introduction Mekee, 2nd Edition, McGraw-Hill Publication.

STUDENT LEARNING OUTCOMES/OBJECTIVES:

At the end of the semester the student will be able to:

1. Acquire the knowledge of functions of various systems of human body

2. Understand the role of hormones, enzymes and other different types of cells of human body.

| 3. | To acquire knowledge about chemical composition of nutrients and various metabolic reactions in |
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| | the body. |

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| UNITS | | | e of the | | | MINIMU | | R OF HOURS | | |
| UNIT-I | Physical Pr | | | | | | 08 Hours | | | |
| UNIT-II | Effects of C | | ectricity: | | | | 08 Hours | | | |
| UNIT-III | Electrical S | | | | | | 08 Hours | - | | |
| UNIT-IV | Electrical S | | | | | | 08 Hours | | | |
| UNIT-V | Circuit Diagr | | | wledge of E | quipments: | | 08 Hours | | | |
| | | Total (N | /linimal) | | | | 40 Hour | S | | |
| | | | | UNIT | -1 | | | | | |
| S.No. | PHYSICAL F | PRINCIPL | ES: | | | | | 08 Hours | | |
| 1. | Structure and | properties | s of matte | er – solids, | liquids and | d gasses, adl | hesion, sur | face tension | | |
| | viscosity, den | sity and ela | asticity. | | | | | | | |
| 2. | Structure of at | tom, molec | ules, eler | nents and c | compounds | | | | | |
| 3. | Electron thera | py static a | nd curren | t electricity. | | | | | | |
| 4. | Conductors, In | | | | | and intensity | | | | |
| 5. | Ohm's Law – | •• | | | | | | | | |
| 6. | Rectifying De and Oscillator | | mionic Va | alves, Semi | conductors | , Transistors | , Amplifiers | , Transduce | | |
| 7. | Capacitance of | condensers | s and in D | C and AC o | circuits. | | | | | |
| 8. | Display device | es and indi | cators – a | nalogue ar | d digital. | | | | | |
| | | | | UNIT- | 11 | | | | | |
| S.No. | EFFECTS O | F CURRE | | | | | | 08 Hours | | |
| 1. | Chemical effe | ects- ions | and elec | ctrolytes, ic | nization, F | Production of | an EMF | by chemica | | |
| 2. | Magnetic effe | cts, Molecu | ular theory | / of magnet | ism, Magne | etic fields Elec | ctromagnet | ic Induction. | | |
| 3. | Mili Ammeter | and voltme | eter transf | ormers and | choke coil | | - | | | |
| 4. | Electromagne | tic spectru | m. | | | | | | | |
| | | | | UNIT- | | | | | | |
| S.No. | ELECTRICA | L SUPPL | Y: | | | | | 08 Hours | | |
| 1. | Brief outline o | f main sup | ply of elec | ctric current | | | I | | | |
| 2. | Dangers- sho | | | | | | | | | |
| | Dressution | | | ing fuene e | to | | | | | |
| 3. | Precaution – s | safety devi | ces, eartn | ing luses e | iC. | | | | | |

| | UNIT-IV | |
|-------|---|-----------|
| S.No. | VARIOUS AGENTS: | 08 Hours |
| 1. | Electro physical Agents. | 1 |
| 2. | Thermal agents, Superficial and deep heat. | |
| 3. | Cryotherapy, Physical Principles of cold, | |
| 4. | Electro-magnetic Radiation Physical Principles and their Relevance to Physi | otherapy. |
| 5. | Electric Currents: Physical Principles and their Relevance to Physiotherapy I | Practice. |
| | UNIT-V | |
| S.No. | CIRCUIT DIAGRAMS AND BASIC KNOWLEDGE OF EQUIPMENTS: | 08 Hours |
| 1. | Shortwave Diathermy (SWD) | 1 |
| 2. | Ultrasound (US) | |
| 3. | Microwave Diathermy (MWD) | |
| 4. | "Light Amplification by Stimulated Emission of Radiation" (LASER) | |

BOOKS RECOMMENDED:

TEXTBOOKS:

2. Electrotherapy Explained by John Low and Reed, 3rd edition, B & H Publications.

3. Practical in Electrotherapy by Joseph Kahn, Churchill livingstone.

REFERENCE BOOKS:

1. Electrotherapy: Evidence Based Practice by Kitchen Sheild, 11th ed.

2. Physical Agents in Rehabilitation: From Research to Practice by Cameron.

STUDENT LEARNING OUTCOMES/OBJECTIVES:

At the end of the semester the student will be able to:

1. Describe the fundamentals of general physics and relate its application in physiotherapy.

- 2. Demonstrate the mechanics related to human body function.
- **3.** Describe all the physical agents and their use in electrotherapy modalities.

4. Understand basic concepts of electricity and electronics and its application in physiotherapy.

| | BJECT NA | | COMPUTER APPLICATION IN PHYSIOTHERAPY | | | | | | | |
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| UNITS | | | | - | | | | | | |
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| UNIT-II | Generation | | | | | | | 06 Hours | | |
| UNIT-III | Software C | | | | | | | 06 Hours | | |
| UNIT-IV | Software C | | | | | | (| 06 Hours | | |
| UNIT-V | IT Technolo | | | | | | | 06 Hours | | |
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| S.No. | INTRODUCT | | | | | | | | Hours | |
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| | Ware, Motherboard, Tapes Printers- it types Monitor, Networks types and topology. | | | | | | | | | |
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| | | f Compute | • | - | | | • | • | | |
| | Application of | f Compute | • | - | handling o | | • | • | | |
| S.No. | Application of | f Compute etc. | ers. Mainter | nance and UNIT | handling o | | • | d storage | | |
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| 1. S.No. 1. S.No. 1. S.No. | Application of CD, Floppy e GENERATIO Features of trends and c SOFTWARE Definition of viruses' antiv BASIC KNC | f Compute etc. ONS OF compute configurat E CONCE S/W type irus uses a DWLEDG DWLEDG S, Internet | THE COM THE COM ers, Data, ion of Com ETT: es and class and its use. E OF UTII t, Search I | nance and UNIT- PUTERS: information puters. UNIT- ssification MS Office UNIT- LITY OF M UNIT- Engine, W | handling o -II on, and k III operating – Excel, V IV IV IV IV IV IV V ebsites, E | ther machine knowledge- system def Vord, power DIA: mail creatio | Data | d storage 06 process 06 , types, access. 06 06 0 | Hours Hours installation Hours 6 Hours | |
| 1. S.No. 1. S.No. 1. S.No. | Application of CD, Floppy e GENERATION Features of trends and controls SOFTWARE Definition of viruses' antive BASIC KNO IT TECHNO Defines use | f Compute etc. ONS OF compute configurat E CONCE S/W type irus uses a DWLEDG DWLEDG S, Internet | THE COM ers, Data, ion of Com PT: s and class and its use. E OF UTII | nance and UNIT- PUTERS: information puters. UNIT- ssification MS Office UNIT- LITY OF M | handling o -II on, and k III operating – Excel, V IV IV MULTIME -V ebsites, E MMENDI | ther machine knowledge- system def Vord, power DIA: mail creatio | Data | d storage 06 process 06 , types, access. 06 06 0 | Hours Hours installation Hours 6 Hours | |
| 1. S.No. 1. S.No. 1. S.No. 1. | Application of CD, Floppy e GENERATION Features of trends and controls SOFTWARE Definition of viruses' antive BASIC KNO IT TECHNO Defines use | f Compute etc. ONS OF ⁻ compute configurat E CONCE S/W type irus uses a DWLEDG DUOGY: s, Internet A, and ASF | THE COM THE COM Prs, Data, ion of Com PT: es and class and its use. E OF UTII t, Search I BOOKS | Nance and UNIT- PUTERS: information puters. UNIT- ssification MS Office UNIT- LITY OF M UNIT- Engine, W S RECOM TEXTBOO | handling o -II on, and k III operating – Excel, V IV NULTIME -V ebsites, E MMENDI DKS: | ther machine knowledge- system def Vord, power DIA: mail creatio | Data | d storage 06 process 06 , types, access. 06 06 0 | Hours Hours installation Hours 6 Hours | |
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| 1. S.No. 1. S.No. 1. 1. 1. 1. 2. Fu | Application of CD, Floppy e GENERATIO Features of trends and o SOFTWARE Definition of viruses' antiv BASIC KNO IT TECHNO Defines use HTML, JAVA | f Compute etc. ONS OF compute configurat E CONCE S/W type irus uses a DWLEDG DUOGY: s, Internet A, and ASF | THE COM THE COM ers, Data, ion of Com PT: es and class and its use. E OF UTII t, Search I BOOKS r science - n Technolo REF | Nance and UNIT- PUTERS: information puters. UNIT- ssification MS Office UNIT- LITY OF M UNIT- Engine, W S RECOM TEXTBOO M. Afshar gy by 'D. S ERENCE | handling o -II on, and k III operating – Excel, V IV MULTIME -V ebsites, E MMENDI DKS: Alam 5. Yadav- N BOOKS: | ther machine knowledge- system def Vord, power DIA: mail creatio ED: lew age Inte | Data Data inition point a | d storage 06 process 06 06 06 06 06 06 06 06 06 06 06 06 06 | Hours Hours ing, lates Hours installation Hours 6 Hours oduction to | |
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2. MS Office by Pierce, Prentice Hall of India, New Delhi, 2007 9. MS Office: Plain & Simple, Jerry Joyce, and Marianne Moon, Prentice Hall of India, New Delhi, 2007.

| | STUDENT LEARNING OUTCOMES/OBJECTIVES: |
|-------|---|
| At th | e end of the semester the student will be able to: |
| 1. | To have a good understanding of the basic concepts of computer and basic software useful in |
| | physiotherapy. |
| 2. | To gain knowledge of the appropriate operating procedure of computer. |
| 3. | To use the internet for study and research purposes. |

| 30 | JBJECT NA | ME: | BASIC PROFESSIONAL COMMUNICATION | | | | | |
|----------------------------------|---|--|--|---|---|--|---|---------------------|
| SL | JBJECT CO | DE: | LN 101 | | | | | |
| | | | (W | .e.f. July 2 | 2015) | | | |
| | Hrs. / Wk. | | Credits | | | Тс | otal Marks | _ |
| L | Т | Р | L | Т | Р | TA | СТ | ESE |
| 2 | 1 | 0 | 2 | 1 | 0 | 15 | 25 | 60 |
| | 3 3 40 | | | | | | | 60 |
| ا مناطع | aubiaat tha atu | | | ES OF TI | HE COUI | RSE: | | |
| in this s | subject, the stu | dent will lea | | ne NE OF THE | COURSE: | | | |
| UNITS | 3 | TITLE | OF THE | UNIT | | MINIMUM N | UMBER OF | HOURS |
| UNIT-I | Profession | nal Commu | inication | | | | 06 Hours | |
| UNIT-II | Language | through L | iterature | | | | 06 Hours | |
| UNIT-III | Basic Voc | abulary | | | | | 06 Hours | |
| UNIT-IV | Basic Gra | mmar | | | | | 06 Hours | |
| UNIT-V | Basic Con | nposition | | | | | 06 Hours | |
| | | Total (M | inimal) | | | : | 30 Hours | |
| | | | | UNIT-I | | | | |
| S.No. | PROFESSIO | ONAL CO | MMUNIC | | | | 06 | lours |
| 1. | Professional | Communi | cation: I | ts meaning | g & impo | ortance, Esse | entials of | Effective |
| | Communicati | on, Barriers | to Effect | ive Commur | ication. | | | |
| | T | | | UNIT-I | | | | |
| S.No. | LANGUAGE | E THROUG | SH LITEF | RATURE | | | 06 I | lours |
| 1. | Essays: | | с. т | N.A | | | | |
| | "The Effect of "The Aims of | | | | | | | |
| 2. | Short Stories | | ununun | | | | | |
| | "The Meeting | - | uskin Bor | nd | | | | |
| | "The Portrait | of a Lady" k | by Khushv | 0 | | | | |
| | | | | UNIT-II | | | | |
| S.No. | BASIC VOCABULARY | | | | | | | |
| 5.NO. | Euphemism, One-word Substitution, Synonyms, Antonyms, Homophones, Idioms and | | | | | | 07 | Hours |
| | | One-word S | Substitutio | | s, Antonym | | | |
| | Euphemism, Phrases, Cor | One-word S | Substitutio | fusable word | s, Antonym Is and expre | | | |
| 1. | Phrases, Cor | One-word S nmon mista | Substitutio | | s, Antonym Is and expre | | es, Idioms a | and |
| 1. S.No. | Phrases, Cor | One-word S nmon mista | Substitutio kes, Conf | fusable word UNIT-IV | s, Antonym Is and expr / | essions. | es, Idioms a | and Hours |
| | Phrases, Cor BASIC GR/ Articles, Prep | One-word S nmon mista AMMAR positions, Te | Substitutio kes, Conf | fusable word UNIT-IV | s, Antonym Is and expr / | | es, Idioms a | and Hours |
| 1. S.No. | Phrases, Cor | One-word S nmon mista AMMAR positions, Te | Substitutio kes, Conf | fusable word UNIT-IN oncord (Subj | s, Antonym Is and expro / ect-Verb ag | essions. | es, Idioms a | and Hours |
| 1. <u>S.No.</u> 1. | Phrases, Cor BASIC GR/ Articles, Prep Uses, Degree | One-word S nmon mista AMMAR positions, To es of Comp | Substitutio kes, Conf enses, Co arison. | fusable word UNIT-IV | s, Antonym Is and expro / ect-Verb ag | essions. | es, Idioms a | and Hours & |
| 1. S.No. | Phrases, Cor BASIC GRA Articles, Prep Uses, Degree BASIC CON | One-word S nmon mista AMMAR positions, To es of Comp | Substitutic ikes, Conf enses, Cc arison. N | iusable word UNIT-IV oncord (Subj UNIT-V | s, Antonym Is and expro / ect-Verb ag | reement, Verb | es, Idioms a 07 os: its Kind o 06 | and Hours |
| 1. S.No. 1. S.No. | Phrases, Cor BASIC GR/ Articles, Prep Uses, Degree BASIC CON Report writin | One-word S nmon mista AMMAR positions, To es of Comp MPOSITIO g: What is a | Substitutio ikes, Conf enses, Co arison. N a report? | fusable word UNIT-IN oncord (Subj UNIT-V Kinds and o | s, Antonym Is and expr ect-Verb ag bjectives of | essions. | es, Idioms a 07 05: its Kind 06 06 09 09 09 09 09 09 09 00 00 00 00 00 00 | Hours & Hours |
| 1. S.No. 1. S.No. | Phrases, Cor BASIC GR/ Articles, Prep Uses, Degree BASIC CON Report writin | One-word S nmon mista AMMAR Dositions, To es of Comp MPOSITIO g: What is a tter writing: etters, Lette | Substitutio ikes, Conf enses, Co arison. N a report? Introducti er of Enqu | fusable word UNIT-IN oncord (Subj UNIT-V Kinds and o ion to busin uiry / Compla | s, Antonym Is and expro ect-Verb ag bjectives of ess letters, aint | reement, Vert | es, Idioms a 07 05: its Kind 06 06 09 09 09 09 09 09 09 00 00 00 00 00 00 | Hours & Hours |
| 1. S.No. 1. S.No. | Phrases, Cor BASIC GR/ Articles, Prep Uses, Degree BASIC CON Report writin Business Let | One-word S nmon mista AMMAR Dositions, To es of Comp MPOSITIO g: What is a tter writing: etters, Lette | Substitutio ikes, Conf enses, Co arison. N a report? Introducti er of Enqu BOOKS | UNIT-IN ONCORD (Subj UNIT-V Kinds and o ion to busin uiry / Compla S RECOM | s, Antonym Is and expr ect-Verb ag bjectives of ess letters, aint MENDEI | reement, Vert | es, Idioms a 07 05: its Kind 06 06 09 09 09 09 09 09 09 00 00 00 00 00 00 | Hours & Hours |
| 1. S.No. 1. S.No. 1. | Phrases, Cor BASIC GR/ Articles, Prep Uses, Degree BASIC CON Report writin Business Let | One-word S nmon mista AMMAR positions, To es of Comp MPOSITIO g: What is a tter writing: etters, Letto | enses, Con enses, Co arison. N a report? Introducti er of Enqu BOOKS | INIT-IN INIT-IN INIT-IN INIT-IN INIT-V Kinds and o INIT-V Kinds and o INIT-V Kinds and o INIT-V Kinds and o INIT-V Kinds and o INIT-V Kinds and o INIT-V Kinds and o INIT-V INIT-V | s, Antonym Is and expre ect-Verb ag bjectives of ess letters, aint MENDEI KS: | reement, Verk reports, writir types of bus | es, Idioms a 07 05: its Kind o 06 ng reports. iness letter | Hours & Hours |

| 2. | Quintanilla ,Kelly M. & Wahl ,Shawn T.Business and Professional Communication, Sage |
|-----|---|
| | Publications India Pvt. Ltd-2011 |
| | REFERENCE BOOKS: |
| 1. | Juneja, Om P & Mujumdar, Aarati .Business Communication :Techniques and Methods, Orient |
| | Black Swan-2010. |
| 2. | Arora, V. N. & Chandra, Lakshmi . Improve Your Writing: From Comprehensive to Effective |
| | Writing, Oxford University Press-2010 (For the prescribed essays- "The Effect of the Scientific |
| | Temper on Man" by Bertrand Russell & "The Aims of Science and Humanities" by Moody E. |
| | Prior). |
| 3. | Mukherjee, Meenakshi .Let's Go Home and Other Stories, Orient Black Swan-2009 (For the |
| | prescribed short stories-"The Meeting Pool" by Ruskin Bond, "The Portrait of a Lady" by |
| | Khushwant Singh). |
| 4. | Quirk, Randolph & Greenbaum, Sidney. A University Grammar of English, Pearson-2013. |
| 5. | Bolton, David & Goodey, Noel .English Grammar in Steps, Orient Black Swan. |
| 6. | Sethi, J. Standard English And Indian Usage: Vocabulary and Grammar, PHI Learning Pvt. Ltd . |
| | -2011 |
| 7. | Bhaskaran, M. P. & Horsburgh, D. Strengthen Your English, Oxford University -1973 |
| 8. | Greenbaum, Sidney . The Oxford English Grammar ,Oxford University Press, New York-1996. |
| 9. | Bovee, Courtland L. & Thill, John V.Business Communication Essentials, Pearson. |
| 10. | Board of Editors. Written and Spoken Communication in English, University Press-2007. |
| 11. | Gairns, R. & Radman, S. Working with Words: A Guide to Teaching and Learning Vocabulary |
| | Building. Cambridge: Cambridge University Press-1986 |
| 12. | Lewis, M. H. Words Power Made Easy, Goyal Publishers and Distributors Pvt. Ltd-1979 |
| 13. | McCarthy, M. Vocabulary, Oxford University Press-1990. |

At the end of the semester the student will be able to:

- 1. To sharpen basic Communication Skills (LSRW) by revealing the key communication techniques.
- **2.** To expose themselves to the modern modes of communication.

SUBJECT NAME: SUBJECT CODE:

HUMAN ANATOMY-I LAB

PT 105

(w.e.f. July 2017)

| | Hrs./V | Nk. | Credits | | | Total Marks | | |
|---|--------|-----|---------|---|---|-------------|----|-----|
| L | Т | Р | L | Т | Р | ТА | СТ | ESE |
| 0 | 0 | 4 | 0 | 0 | 4 | 30 | 30 | 40 |
| 4 | | | 2 | | | 60 | | 40 |
| | | | | | | DSE. | | |

In this subject, the student will learn about the identification of all gross anatomical structures. Particular emphasis will be placed on description of musculoskeletal anatomy which includes bones, joints, muscles, cardiovascular system and nervous system, as these are related to the application

of physiotherapy in patients.

OUTLINE OF THE COURSE:

| S.No. | TITLE OF THE UNIT | Hours |
|-------|---|-------|
| 1. | Demonstration of Anatomical position and movements. | |
| 2. | Demonstration of articulated skeleton. Identification and orientation of bones and joints in an articulated skeleton. Classification of bones according to shape. | |
| 3. | Demonstration of bones of superior extremity - Clavicle, Scapula, Humerus, Radius, Ulna and Skeleton of hand | |
| 4. | Identification of muscles nerves and blood vessels on prosections of Superior extremity: Pectoral region, Scapular region and Back, Axilla, Arm, Forearm and Hand | |
| 5. | Surface landmarks of superior extremity. | |
| 6. | X rays and models of superior extremity. | |
| 7. | Demonstration of bones of inferior extremity. Hip bone, Femur, Patella, Tibia, Fibula and Skeleton of foot. | |
| 8. | Identification of muscles nerves and blood vessels on prosections of Inferior extremity: Gluteal and hip region, Thigh, Leg and foot. | |
| 9. | Surface landmarks of inferior extremity. | |
| 10. | X rays and models of inferior extremity. | |
| | Total (Minimal) | 60 |

BOOKS RECOMMENDED:

| | TEXTBOOKS: |
|----|--|
| 1. | Human Anatomy by B.D. Chaurasia, Vol. 1,2nd edition; CBS publications. |
| 2. | Textbook of Anatomy by Inderbir Singh; 4th edition; Jaypee Publications. |
| 3. | Handbook of Osteology by Poddar; 11th edition; Scientific Book Company. |
| 4. | Limbs of Dr. Kadasana-All 3 volumes. |
| | REFERENCE BOOKS: |
| 1. | Principles of anatomy and physiology by Tortora; 8th edition; Harper & Row Publications. |
| 2. | Clinical Anatomy for Medical Students by Richard Snell, 7th edition, Lippin Cott, Williams & |
| | Wilkins. |
| 3. | Clinical Anatomy for Medical Students by Richard Snell, 7th edition, Lippin Cott, Williams & |
| | Wilkins. |
| 4. | Anatomy & Physiology by Ross & Wilson's, 8th edition, Churchill Livingston. |
| 5. | Grant's atlas of anatomy, Anne MR; 10th edition |
| | |

| At th | ne end of the semester the student will be able to: |
|-------|---|
| 1. | To understand the level of organization of the human body. |
| 2. | To understand the topographical and functional anatomy of the limbs and thorax. |
| 3. | To understand the muscles, bones and joints of the various regions. |
| 4. | To understand its application in practice of physiotherapy. |

| | 306 | SUBJECT NAME: | | | | | | HUMAN PHYSIOLOGY-I LAB | | |
|-------------|-----------------|---------------|------------|--------------|------------|------------------|--------------|------------------------|--|--|
| | SUE | BJECT C | ODE: | | | I | PT 106 | | | |
| | | | (W | .e.f. July | 2015) | | | | | |
| | Hrs. / Wk. | | | Credits | | | Total Marks | | | |
| L | Т | Р | L | Т | Р | TA | СТ | ESE | | |
| 0 | 0 | 2 | 0 | 0 | 2 | 30 | 30 | 40 | | |
| | 2 | | 1 | | | 60 40 | | | | |
| | | OB | JECTIV | 'ES OF T | HE CO | DURSE: | | | | |
| In this sub | oject, the stu | udent will | learn abo | out the bas | sics of n | normal human | physiology v | vith specia | | |
| emphasis d | on the function | oning of the | e cardiova | scular, resp | biratory a | and other system | ns. | - | | |
| | | C | UTLIN | E OF TH | E COU | IRSE: | | | | |

| S.No. | TITLE OF THE UNIT | Hours |
|-------|--|-------|
| 1. | Introduction of Microscope. | |
| 2. | Preparations of Peripheral Blood smear. | |
| 3. | Identification of Blood cell. | |
| 4. | D.L.C Differential Leucocytes count. | |
| 5. | T.L.C Total Leukocytes Count. | |
| 6. | R.B.C. Count. | |
| 7. | Estimation of Haemoglobin. | |
| 8. | Estimation of bleeding time & clotting time. | |
| | Total (Minimal) | 30 |

| | BOOKS RECOMMENDED: | | | | | |
|----|---|--|--|--|--|--|
| | TEXTBOOKS: | | | | | |
| 1. | Concise Medical Physiology by Chaudhuri, 4th Edition; New Central Book Agency. | | | | | |
| 2. | Human Physiology, Sembulingam; 4th ed, Jaypee Brothers. | | | | | |
| 3. | A Textbook of Practical Physiology, Ghai C L, Jaypee Brothers. | | | | | |
| 4. | Practical physiology by Vijaya Joshi; Vora Medical Publication. | | | | | |
| 5. | Human Physiology, Chatterjee. Vol: 1&2; 10th Edition; Medical & Allied Agency. | | | | | |
| | REFERENCE BOOKS: | | | | | |
| 1. | Textbook of Medical Physiology by Guyton & Hall, 11th Edition; Elsevier Publication | | | | | |
| 2. | Principles of Anatomy & Physiology, Tortora, 8th Edition; Harper & Row Publication. | | | | | |
| 3. | Samson Wright's Applied Physiology 13th ed, Keele CA, Neil E & Joels N, Oxford Medical Pub. | | | | | |
| 4. | Textbook of Physiology : Ganong | | | | | |

| At th | e end of the semester the student will be able to: |
|-------|--|
| 1. | Acquire the knowledge of functions of various systems of human body |
| 2. | Understand the role of hormones, enzymes and other different types of cells of human body. |
| 3. | To demonstrate the skills of assessment of Breath sound, Blood pressure, Respiratory rate, |
| | Heart rate and Pulmonary Function Tests. |

| | SUBJECT NAME: | | | | | BIOCHEMI | STRY-LA | В |
|--------------------|------------------------------|--------------------|---------------|-------------|---------------|---------------|----------------|-------------|
| | SUBJECT CODE: | | | | PT 107 | | | |
| Hrs. / Wk. Credits | | | | | | | | |
| L | T | Р | L | T | Р | ТА | СТ | ESE |
| 0 | 0 | 2 | 0 | 0 | 2 | 50 | 50 | 00 |
| | 2 | | | 1 | | 10 | 00 | 00 |
| | | OE | SJECTI | VES OF ' | THE COL | JRSE: | | |
| In this reactio | subject, the stu ns. | dent will le | arn abou | t the essen | tials of biod | hemistry in n | utrition and b | biochemical |
| | | (| OUTLIN | IE OF TH | IE COUR | SE: | | |
| S.No. | TITLE OF TH | | | | | | | Hours |
| 1. | Quantitative of | | | | | | | |
| | a. Lowry | | | | | | | |
| | b. Bradfo | | | | | | | |
| 2. | Quantitative Estimation of | | | | | | | |
| | a. Glucos | | | | | | | |
| | b. Urea c | Urea concentration | | | | | | |
| | c. Cholesterol Concentration | | | | | | | |
| 3. | Chromatogra | phy | | | | | | |
| | a. TLC (T | hin layer c | hromatog | raphy) & Pa | aper chroma | atography | | |
| | I I I | - | Total | (Minimal) | | - | | |

| | BOOKS RECOMMENDED: | | | | | |
|----|---|--|--|--|--|--|
| | TEXTBOOKS: | | | | | |
| 1. | Fundamentals of Biochemistry-by Dr. Deb Jyoti Das, | | | | | |
| 2. | Essentials of Bio-chemistry by U. Satyanarayan, 1st Edition, Books and Allied Publications. | | | | | |
| 3. | Textbook of Biochemistry –Chatterje and Shinde | | | | | |
| | REFERENCE BOOKS: | | | | | |
| 1. | Text book of Medical Bio-Chemistry – Dr. M.N.Chettergee, 5th Edition, Jaypee Publication. | | | | | |
| 2. | Fundamental of Bio-Chemistry – Dr.Dr.A.C.Deb, 5th Edition, Central Publication. | | | | | |
| 3. | Bio-Chemistry introduction – Mekee, 2nd Edition, McGraw-Hill Publication. | | | | | |
| | | | | | | |

At the end of the semester the student will be able to:

| 1. | Acquire the knowledge of functions of various systems of human body |
|----|---|
| 2. | Understand the role of hormones, enzymes and other different types of cells of human body. |
| 3. | To acquire knowledge about chemical composition of nutrients and various metabolic reactions in |
| | the body. |

| | | SUBJE | CT NAM | E: | | BASIC OF | ELECTR | OTHERAP | Y-LAB | |
|-------------|----------|-------------------------|---------------|-----------|----------|-------------------|----------------|---------------|----------------|--|
| | | SUBJE | CT COD | E: | | | PT 1 | 08 | | |
| | | | | (| w.e.f. J | uly 2015) | | | | |
| | H | 's./Wk. | | | Crea | dits | Total Marks | | | |
| L | | T P | | L | Т | Р | TA | СТ | ESE | |
| 0 | | 0 | 2 | 0 | 0 | 2 | 30 | 30 | 40 | |
| | | 2 | | | 1 | | 6 | 0 | 40 | |
| | | | | | | F THE COL | | | | |
| | | nvolves a eutic moda | | ion of so | me bas | ic physical prine | ciples as they | relate to the | application of | |
| electio | linerape | | | ΟΠΤΠ | | THE COURSE | | | | |
| | | | | UUIL | | | • | | | |
| S.No. | | E OF THE | | | | | | | Hours | |
| 1. | Demo | | of following | - | | | | | | |
| | а. | Diode a | nd Triode v | alves, | | | | | | |
| | b. | Transist | | | | | | | | |
| | C. | Ammete | | | | | | | | |
| | d. | Voltmete | | | | | | | | |
| | е. | Galvano | , | | | | | | | |
| | f. | Rheosta | , | | | | | | | |
| | g. | Resistar | , | | | | | | | |
| | h. | Transfor | - | | | | | | | |
| 2. | Demo | | of Electroth | erapy uni | ts like | | | | | |
| | а. | Stimulate | | | | | | | | |
| | b. | | ave Diatheri | | | | | | | |
| | C. | | ave Diather | my, | | | | | | |
| | d. | LASER a | | | | | | | | |
| | е. | Ultrasou | , | | | | | | | |
| 3. | Clinic | al observa | ation of equi | | | | | | | |
| | | | | Tot | al (Mini | mal) | | | 30 | |

| BOOKS RECOMMENDED: | | | | | | | |
|---|--|--|--|--|--|--|--|
| TEXTBOOKS: | | | | | | | |
| Clayton's Electrotherapy (theory and practice) – Clayton's AIBS publications. | | | | | | | |
| Electrotherapy Explained by John Low and Reed, 3rd edition, B & H Publications. | | | | | | | |
| Practical in Electrotherapy by Joseph Kahn, Churchill livingstone. | | | | | | | |
| REFERENCE BOOKS: | | | | | | | |
| Electrotherapy: Evidence Based Practice by Kitchen Sheild, 11th ed. | | | | | | | |
| Physical Agents in Rehabilitation: From Research to Practice by Cameron. | | | | | | | |
| | | | | | | | |

| At th | ne end of the semester the student will be able to: |
|-------|---|
| 1. | Describe the fundamentals of general physics and relate its application in physiotherapy. |
| 2. | The student should be able to explain the physical rationale for the use of physical agent modalities |
| 3. | Describe all the physical agents and their use in electrotherapy modalities. |
| 4. | Understand basic concepts of electricity and electronics and its application in physiotherapy. |

& MODELS OF QUESTION PAPER OF BACHELOR OF PHYSIOTHERAPY (BPT)

SCHEME OF EXAMINATION

| | | | SCH | EME O | F EXA | MINA | | N | | | | |
|-------------|-----------|-----------|---------------|-----------|----------|------------------|---------|------|------------|----------------|---------------|--|
| | | | | Tł | HEORY | ' : | | | | | | |
| | | | INTE | | SSES | SMEN | T (IA) | | | | | |
| | | | | | 0 Marks | | () | | | | | |
| CI | LASS 1 | EST (CT |) | | TEA | CHER | ASSE | ESSM | ENT (| TA) | | |
| MSE-1 | MS | E- 2 Ma | keup ST-1 | ST-2 | Q-1 | Q-2 | A-1 | A-2 | A-3 | A-4 | Attendance | |
| 25 | 2 | 25 | 25 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | |
| | | | END SE | EMESTER | | | DN (ES | SE) | | | | |
| | | | | 6 | 0 Marks | | | | | | | |
| | | | | | | | | | | | | |
| | | | INTE | ERNAL A | | | T (IA) | | | | | |
| | | | | | s Test (| СТ) | | | | <u></u> | | |
| | 1: 25 Ma | arks | PM | : 13 (50% | | | | lim | ne: 1:3 | 0 Hou | | |
| Q.No. | M143- | Noo Chair | | Models | - | | | | | | Marks | |
| 1. | wuitip | nes choic | e Questions | e Questi | | oach | Unit | | | | 1.5X5=7.5 | |
| | a. | i) | | ii) | - | iii) | | iv) | | | 1.5 | |
| | a. b. | i) | | ii) | | iii) | | iv) | | | 1.5 | |
| | C. i) | | | ii) | | iii) | | iv) | | | 1.5 | |
| | d. i) | | | ii) | | iii) | | iv) | | | 1.5 | |
| | е. | | | , ii) | | iii) | | iv) | | 1.5 | | |
| 2. | Short | | s (any three) |) | | , | | , | | 2 | 2.5X3=7.5 | |
| | a. | | | · | | | | | | 2.5 | | |
| | b. | | | | | | | | | | 2.5 | |
| | с. | | | | | | | | | | 2.5 | |
| | d. | | | | | | | | | | 2.5 | |
| | e. | | | | | | | | | | 2.5 | |
| 3. | Long | Question | s (any two) | | | | | | | | 5X2=10 | |
| | а. | | | | | | | | | | 5 | |
| | b. | | | | | | | | | | 5 | |
| | с. | | | | | | <u></u> | | | | 5 | |
| | N/11/- 0 | O Manla | End | Semeste | | | (ESE) | | T!. | | Heurs | |
| Q.No. | IVIIVI: 6 | 0 Marks | | Model | : 21 (35 | 70) | | | ime | : 3:00 Mark | Hours | |
| Q.NO. 1. | Multir | Ne Choice | Questions | wodel | 3 | | | | | | .s 1X12=12 | |
| •• | mann | | | o Questi | on from | each | Unit | | | | | |
| | a. | i) | | ii) | | iii) | | iv) | | | 1 | |
| | b. | i) | | ii) | | <i>)</i> iii) | | iv) | | | 1 | |
| | с. | i) | | ii) | | <i>,</i> iii) | | iv) | | | 1 | |
| | d. | i) | | ii) | | iii) | | iv) | | | 1 | |
| | e. | i) | | ii) | | iii) | | iv) | | | 1 | |
| | f. | i) | | ii) | | iii) | | iv) | | | 1 | |
| | g. | i) | | ii) | | iii) | | iv) | | | 1 | |
| | h. | i) | | ii) | | iii) | | iv) | | | 1 | |
| | i. | i) | | ii) | | iii) | | iv) | | | 1 | |

| | j. | i) | ii) | iii) | iv) | 1 |
|----|---------|---------------|-------|------|-----|--------|
| | k. | i) | ii) | iii) | iv) | 1 |
| | l. | i) | ii) | iii) | iv) | 1 |
| 2. | Short Q | uestions (any | Four) | | | 3X4=12 |
| | a. | | | | | 3 |
| | b. | | | | | 3 |
| | C. | | | | | 3 |
| | d. | | | | | 3 |
| | е. | | | | | 3 |
| | f. | | | | | 3 |
| 3. | Short Q | uestions (any | Two) | | | 3X4=12 |
| | a. | | | | | 3 |
| | b. | | | | | 3 |
| | C. | | | | | 3 |
| | d. | | | | | 3 |
| | е. | | | | | 3 |
| | f. | | | | | 3 |
| 4. | Long Qu | uestions (any | Two) | | | 6X2=12 |
| | а | | | | | 6 |
| | b. | | | | | 6 |
| | С. | | | | | 6 |
| 4. | Long Qu | uestions (any | Two) | | | 6X2=12 |
| | а. | | | | | 6 |
| | b. | | | | | 6 |
| | С. | | | | | 6 |

STUDY & EVALUATION SCHEME OF BACHELOR OF PHYSIOTHERAPY

(BPT - I YEAR/ II SEMESTER)

[Applicable w.e.f. Academic Session 2020-21 till revised]



INTEGRAL UNIVERSITY, LUCKNOW DASAULI, P.O. BAS-HA KURSI ROAD, LUCKNOW – 226026

Website: www.iul.ac.in

Approved by

Syllabus approved by Board of Study, Faculty Board, Academic Council, Executive Council of the Integral University, Lucknow

DEPARTMENT OF PHYSIOTHERAPY INTEGRAL UNIVERSITY, LUCKNOW

STUDY & EVALUATION SCHEME

PROGRAM: BACHELOR OF PHYSIOTHERAPY (BPT)

I - Year

| - | | | | | 1 | Period | ds | Credits | | Eva | luation | Schem | e | |
|----------|--------------------------|-------------|-----------------|------------------|-----|---------------|-------|-------------|---------|--------|----------|---------|---------|-------|
| S. No | Course Category | Code No. | Name | e of the Course | | | | | See | ssiona | I (CA) | 1202 | Subject | |
| | | | | | | L | т | P | С | СТ | TA | Total | ESE | Total |
| | | | | II - | Ser | nest | ter | | | | | | | |
| 1. | DC | PT109 | Human / | Anatomy-II | 3 | 1 | 0 | 4 | 40 | 20 | 60 | 40 | 100 | |
| 2. | DC | PT110 | Human I | 3 | 1 | 0 | 4 | 40 | 20 | 60 | 40 - | 100 | | |
| 3. | DC | PT111 | Basic of | 3 | 1 | 0 | 4 | 40 | 20 | 60 | 40 | 100 | | |
| 4. | DC | PT112 | Sociolog | 2 | 1 | 0 | 3 | 40 | 20 | 60 | 40 | 100 | | |
| 5. | DC | ES101 | Environn | 2 | 1 | 0 | 3 | 40 | 20 | 60 | 40 | 100 | | |
| 6. | DC | LN202 | Advance | 2 | 1 | 0 | 3 | 40 | 20 | 60 | 40 | 100 | | |
| 7. | DC | PT113 | Human A | Anatomy-II Lab | 0 | 0 | 2 | 1 | 40 | 20 | 60 | 40 | 100 | |
| 8. | DC | PT114 | Human P | hysiology-II Lab | 0 | 0 | 2 | 1 | 40 | 20 | 60 | 40 | 100 | |
| 9 | DC | PT115 | Basic of Lab | Exercisetherapy- | 0 | 0 | 2 | 1 | 40 | 20 | 60 | 40 | 100 | |
| | | т | otal | | 15 | 06 | 06 | 24 | 360 | 180 | 540 | 360 | 900 | |
| : Lec | ture | T: T | utorials | P: Practical | c | : Crec | dit | CT: Class | Test | TA | A: Teach | er Asse | ssment | |
| essi | onal (CA): | Class Tes | t + Teache | er Assessment | | ubjec ESE) | t Tot | al: Session | nal (C/ | | | | | |
| | Department Department | | , | | | | | | | | | | | |

AIMS AND OBJECTIVES OF BPT DEGREE COURSE

On completion of the course of study having successfully passed the examination, the candidate would be able to achieve a satisfactory level of efficiency:-

- To Detect and evaluate the anatomical, patho-physiological impairments, resulting in dysfunction of various age groups & occupation; as well as epidemiological sectors in the population & arrive at appropriate diagnosis.
- To understand the rationale & basic investigative approach to the medical system and surgical intervention regimens & accordingly plan & implement specific Physio-Therapy measures effectively.
- 3. To be able to select strategies for cure and care; adopt restorative & rehabilitative measures for maximum possible independence of a client at home, work place & in the community.
- **4.** To maintain healthy relationship & Co-partnership with various professionals in the health delivery system in the primary interest of a client.
- To ensure quality assurance & motivate the client & her/his family for a desirable client compliance.
- **6.** To develop communication skills for the purpose of transfer of suitable technique to be used creatively at various stages of treatment, compatible with psychological status of the beneficiary.
- 7. To promote health in general in Geriatrics, Women's health, Industrial medicine as well as at competitive level, such as sports, keeping in mind National Health Policies.
- **8.** To practice professional autonomy & ethical principles with referral as well as first contact clients in conformity with ethical code for physiotherapists.

SYLLABI OF BACHELOR OF PHYSIOTHERAPY (BPT - I YEAR/ II SEMESTER)

GOAL:

The broad goal of the teaching of undergraduate students in Anatomy aims at providing comprehensive knowledge of the gross anatomy, microscopic structures, development of human body and principles of genetics to provide a basis for understanding the clinical correlation of organs or structure involved and the skills to practice as a qualified Physiotherapist.

OBJECTIVES:

A – Knowledge: At the end of the course, the student should be able to:

- 1. Comprehend the normal disposition, inter-relationships, gross, functional and applied anatomy of the musculoskeletal system, locomotion, posture, gait and various organs in the body.
- Comprehend the basic structure and connections between the various parts of the central nervous system so as to analyze the integrative and regulative functions of the organs and systems. He/she should be able to locate the site of gross lesions according to the deficits encountered.
- 3. Identify the microscopic structures of various tissues and organs in the human body and correlate the structure with the functions.
- 4. To understand the basic principles of embryology including genetic inheritance and stages involved in development of the organs and systems from the time of conceptions till birth.
- 5. To study the basic principles of radiology and for comprehending deeper structures in the human body.

B. Skills: At the end of the course the students shall be able to:

- 1. Identify and locate all the structures of the body and mark the topography of the living anatomy.
- 2. Identify the organs and tissues under the microscope.
- 3. Understand principles of karyotyping and identify the gross congenital anomalies.
- 4. Understand the principles of imaging techniques and interpretation of anatomical structures on plane radiographs of the body.

C. Integration

From the integrated teaching of other basic sciences, students shall be able to comprehend the functions of the organs and systems in the body and thus interpret the anatomical basis of disease processes.

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| | | | | | (w.e.f. Ju | ly 2017) | | | | |
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| | | 4 | | | 4 | | | 40 | 60 | |
| | | | 0 | BJECT | IVES OF | THE CO | OURSE: | | | |
| | | | | | | | | | | |
| | | | | OUTL | NE OF T | HE COU | IRSE: | | | |
| UNITS | TI | TLE OF T | HE UNIT | | | | MINIMUM | I NUMBER OF | HOURS | |
| UNIT-I | TH | HORAX | | | | | | 08 Hours | 5 | |
| UNIT-II | AE | BDOMEN 8 | & PELVIS | | | | | 08 Hours | 5 | |
| UNIT-III | | EAD AND I | NECK | | | | | 09 Hours | | |
| UNIT-IV | | RAIN | | | | | | 08 Hours | | |
| UNIT-V | NE | EUROANA | | .: | | | | 07 Hours | | |
| | | | Total (Mii | nimai) | | | | 40 Hours | 5 | |
| | | | | | UNI | T-I | | | | |
| S.No. | тно | DRAX: | | | •••• | | | | 08 Hours | |
| 1. | _ | racic wall | | | | | | | | |
| | a. | Thoracio | inlet: Bour | ndaries a | nd structure | passing th | rough it. | | | |
| | b. | ••• | | • | | present, a | action and | nerve supply | of intercostals | |
| | | | , details of | | | | ly of diank | roam Dotoila | of Despiratory | |
| | C. | moveme | - | ments, a | iction and r | ierve supp | by of diapr | iragm. Details | of Respiratory | |
| 2. | Pleu | ra & Lung | | | | | | | | |
| | а. | | of pleura an | d its nerv | e supply. | | | | | |
| | b. | | | ssures ar | nd lobes and | d structure i | in the hilum | of lung. | | |
| 3. | Peri | cardium & | | | | | | | | |
| | a. | Layers of pericardium Introduction to heart, external features and blood supply. | | | | | | | | |
| 4. | b. | | tion to hear | | | | uppiy. | | | |
| ٦. | a . | | | | cending arc | h of aorta a | and descen | ding aorta. | | |
| | b. | | | | rachiocepha | | | - | | |
| | C. | | system of v | | | | | | | |
| | | | | | UNI | Г-II | | | | |
| S.No. | AB | | & PELVIS: | | | | | | 08 Hours | |
| 1. | | | | its regior | ns and quad | rants. | | | | |
| 2. | Abde | ominal wa | | | | | | | | |
| | а. | Enumer | ate of the la | ayers of a | anterior abdo | ominal wall | | | | |
| | | | | | | | | | | |

| | b. | Muscles of anterior and posterior abdominal wall their origin insertion | , action and nerv |
|---|---|--|---|
| | | supply. | |
| <u> </u> | C. | Rectus sheath. | provincel acquisite Drive |
| 3. | | ponents of gastrointestinal tract, their location and orientation in abdo ount of liver and stomach. | ominai cavity. Brie |
| 4. | Urina | ary system: Components of urinary system, their location and orientation | in abdomino-pelvi |
| | cavit | y. Brief account of kidneys. | |
| 5. | Repr | roductive system: Components of male & female reproductive system and | their location. |
| | | UNIT-III | |
| S.No. | HEA | AD AND NECK | 09 Hours |
| 1. | Muse | cles and fascia | |
| | (a) | Scalp and muscles of facial expression | |
| | • | Layers of scalp, nerve and blood supply. | |
| | • | Enumerate muscles of facial expression, their nerve supply and action supply of face. | ion, sensory nerv |
| | (b) | Muscles of mastication, their origin, insertion action and nerve supply | |
| | (c) | Neck: Layers of deep cervical fascia, extent and attachment o | f investing lave |
| | (0) | Sternocleidomastoid, diagastric and strap muscles of neck. | invooting layo |
| 2. | Triar | ngles of neck: Subdivision of anterior and posterior triangle and their | contents. Commo |
| | | tid & external carotid artery & Internal Jugular vein. | |
| 3. | | s: Details of temporomandibular joint, atlantoaxial and atlanto-occipital joir | nt |
| J. | JUIII | | π. |
| J. | 30111 | · · · · · · · · · · · · · · · · · · · | |
| | | UNIT-IV | |
| S.No. | BRA | UNIT-IV | 08 Hours |
| S.No. 1. | BRA Intro | UNIT-IV AIN duction and regional organization of brain including its coverings. | 08 Hours |
| S.No. | BRA Intro Cere and | UNIT-IV AIN duction and regional organization of brain including its coverings. ebral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au | 08 Hours ere. Important suld iditory areas. Whit |
| S.No. 1. | BRA Intro Cere and matte | UNIT-IV AIN duction and regional organization of brain including its coverings. ebral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum | 08 Hours ere. Important suld iditory areas. Whit |
| S.No. 1. | BRA Intro Cere and matte caps | UNIT-IV AIN duction and regional organization of brain including its coverings. ebral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum | 08 Hours ere. Important suld iditory areas. Whit |
| S.No. 1. 2. | BRA Intro Cere and matte caps Cere | UNIT-IV AIN duction and regional organization of brain including its coverings. ebral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum, sule. ebellum: External features, function of cerebellum. | 08 Hours ere. Important suld iditory areas. Whit , details of interna |
| S.No. 1. 2. 3. 4. | BRA Intro Cere and matte caps Cere Mid I | UNIT-IV AIN duction and regional organization of brain including its coverings. ebral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum, sule. ebellum: External features, function of cerebellum. Brain, pons and medulla: External features and cranial nerves attached to | 08 Hours ere. Important suld iditory areas. Whit , details of interna |
| S.No. 1. 2. 3. 4. 5. | BRA Intro Cere and matte caps Cere Mid I Spin | UNIT-IV AIN duction and regional organization of brain including its coverings. ebral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum sule. ebellum: External features, function of cerebellum. Brain, pons and medulla: External features and cranial nerves attached to al cord: External features and internal features. | 08 Hours ere. Important suld iditory areas. Whit , details of interna |
| S.No. 1. 2. 3. 4. 5. | BRA Intro Cere and matte caps Cere Mid I Spin | UNIT-IV AIN duction and regional organization of brain including its coverings. ebral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum, sule. ebellum: External features, function of cerebellum. Brain, pons and medulla: External features and cranial nerves attached to al cord: External features and internal features. – Formation, absorption and circulation in the ventricular system. | 08 Hours ere. Important suld iditory areas. Whit , details of interna |
| S.No. 1. 2. 3. 4. 5. 6. | BRA Intro Cere and matte caps Cere Mid I Spin CSF | UNIT-IV AIN duction and regional organization of brain including its coverings. abral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum, sule. abellum: External features, function of cerebellum. Brain, pons and medulla: External features and cranial nerves attached to al cord: External features and internal features. – Formation, absorption and circulation in the ventricular system. UNIT-IV | 08 Hours ere. Important suld iditory areas. Whit , details of interna them. |
| S.No. 1. 2. 3. 4. 5. 6. S.No. | BRA Intro Cere and matte caps Cere Mid I Spin CSF | UNIT-IV AIN duction and regional organization of brain including its coverings. ebral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum, sule. ebellum: External features, function of cerebellum. Brain, pons and medulla: External features and cranial nerves attached to al cord: External features and internal features. – Formation, absorption and circulation in the ventricular system. UNIT-IV IROANATOMY | 08 Hours ere. Important suld iditory areas. Whit , details of interna |
| S.No. 1. 2. 3. 4. 5. 6. S.No. 1. | BRA Intro Cere and matte caps Cere Mid I Spin CSF | UNIT-IV AIN duction and regional organization of brain including its coverings. ebral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum, sule. ebellum: External features, function of cerebellum. Brain, pons and medulla: External features and cranial nerves attached to al cord: External features and internal features. – Formation, absorption and circulation in the ventricular system. UNIT-IV IROANATOMY ortant ascending and descending tracts. | 08 Hours ere. Important suld iditory areas. Whit , details of interna them. 07 Hours |
| S.No. 1. 2. 3. 4. 5. 6. | BRA Intro Cere and matte caps Cere Mid I Spin CSF | UNIT-IV AIN duction and regional organization of brain including its coverings. ebral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum, sule. ebellum: External features, function of cerebellum. Brain, pons and medulla: External features and cranial nerves attached to al cord: External features and internal features Formation, absorption and circulation in the ventricular system. UNIT-IV IROANATOMY ortant ascending and descending tracts. iial nerves: Enumerate the cranial nerves, their site of attachment and inner | 08 Hours ere. Important suld iditory areas. Whit , details of interna them. 07 Hours |
| S.No. 1. 2. 3. 4. 5. 6. 5. 6. 5. No. 1. 2. | BRA Intro Cere and matte caps Cere Mid I Spin CSF | UNIT-IV AIN duction and regional organization of brain including its coverings. ebral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum, sule. ebellum: External features, function of cerebellum. Brain, pons and medulla: External features and cranial nerves attached to al cord: External features and internal features. – Formation, absorption and circulation in the ventricular system. UNIT-IV IROANATOMY ortant ascending and descending tracts. ial nerves: Enumerate the cranial nerves, their site of attachment and inner and trigeminal nerve. | 08 Hours ere. Important suld iditory areas. Whit , details of interna them. 07 Hours |
| S.No. 1. 2. 3. 4. 5. 6. S.No. 1. | BRA Intro Cere and matte caps Cere Mid I Spin CSF | UNIT-IV AIN duction and regional organization of brain including its coverings. ebral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum, sule. ebellum: External features, function of cerebellum. Brain, pons and medulla: External features and cranial nerves attached to al cord: External features and internal features Formation, absorption and circulation in the ventricular system. UNIT-IV IROANATOMY ortant ascending and descending tracts. iial nerves: Enumerate the cranial nerves, their site of attachment and inner | 08 Hours ere. Important suld iditory areas. Whit , details of interna them. 07 Hours |
| S.No. 1. 2. 3. 4. 5. 6. S.No. 1. 2. | BRA Intro Cere and matte caps Cere Mid I Spin CSF | UNIT-IV AIN duction and regional organization of brain including its coverings. ebral hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum, sule. ebellum: External features, function of cerebellum. Brain, pons and medulla: External features and cranial nerves attached to al cord: External features and internal features. – Formation, absorption and circulation in the ventricular system. UNIT-IV IROANATOMY Dertant ascending and descending tracts. nial nerves: Enumerate the cranial nerves, their site of attachment and inner a account of visual and auditory path way. BOOKS RECOMMENDED: | 08 Hours ere. Important suld iditory areas. Whit , details of interna them. 07 Hours |
| S.No. 1. 2. 3. 4. 5. 6. S.No. 1. 2. 3. 3. | BRA Intro Cere and matte caps Cere Mid I Spin CSF NEL Impo Cran facia Brief | UNIT-IV AIN duction and regional organization of brain including its coverings. brai hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum, sule. bellum: External features, function of cerebellum. Brain, pons and medulla: External features and cranial nerves attached to al cord: External features and internal features Formation, absorption and circulation in the ventricular system. UNIT-IV IROANATOMY ortant ascending and descending tracts. ial nerves: Enumerate the cranial nerves, their site of attachment and innul and trigeminal nerve. BOOKS RECOMMENDED: TEXTBOOKS: | 08 Hours ere. Important suld iditory areas. Whit , details of interna them. 07 Hours |
| S.No. 1. 2. 3. 4. 5. 6. 5. 6. 1. 2. 3. 1. 1. 1. | BRA Intro Cere and matte caps Cere Mid I Spin CSF NEL Impo Cran facia Brief | UNIT-IV AIN duction and regional organization of brain including its coverings. brai hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum, sule. bellum: External features, function of cerebellum. Brain, pons and medulla: External features and cranial nerves attached to al cord: External features and internal features Formation, absorption and circulation in the ventricular system. UNIT-IV JROANATOMY ortant ascending and descending tracts. ial nerves: Enumerate the cranial nerves, their site of attachment and innel and trigeminal nerve. account of visual and auditory path way. BOOKS RECOMMENDED: TEXTBOOKS: Singh'S Textbook of Anatomy 7 th edition Vol.1, 2, 3 | 08 Hours ere. Important suld iditory areas. Whit , details of interna them. 07 Hours |
| S.No. 1. 2. 3. 4. 5. 6. S.No. 1. 2. 3. 1. 1. 2. C | BRA Intro Cere and matte caps Cere Mid I Spin CSF NEL Impo Cran facia Brief | UNIT-IV AIN duction and regional organization of brain including its coverings. brai hemisphere: Lobes, poles, surface and borders of cerebral hemisph gyri on superolateral and medial surface. Sensory, motor, visual and au er of cerebrum, types of fibers, parts and location of corpus callosum, sule. bellum: External features, function of cerebellum. Brain, pons and medulla: External features and cranial nerves attached to al cord: External features and internal features Formation, absorption and circulation in the ventricular system. UNIT-IV IROANATOMY ortant ascending and descending tracts. ial nerves: Enumerate the cranial nerves, their site of attachment and innul and trigeminal nerve. BOOKS RECOMMENDED: TEXTBOOKS: | 08 Hours ere. Important suld iditory areas. Whit , details of interna them. 07 Hours |

| 4. | Surface and Radiological Anatomy 3 rd edition by A. Halim |
|----------|--|
| 5. | B.D. Chaurasia Human Anatomy : Regional and Applied Dissection & Clinical 7 th Edition Vol. 1., 2, 3 |
| 6. | General Anatomy by Vishram Singh 2 nd Edition |
| 7. | Clinical Anatomy by Regions - Richard S. Snell |
| 8. | Human Osteology- A Clinical Orientation - Nafis Ahmad Faruqi 3rd Edition |
| 9. | Grant's Atlas of Anatomy - Anne M. R. Agur, Arthur F. Dalley |
| 10. | Gray's Anatomy: The Anatomical Basis of Clinical Practice - Susan Standring 41 st edition |
| 11. | McMinn and Abrahams' Clinical Atlas of Human Anatomy - Peter H. Abrahams |
| | REFERENCE BOOKS: |
| 1. | Principles of anatomy and physiology by Tortora; 8th edition; Harper & Row Publications. |
| 2. | Clinical Anatomy for Medical Students by Richard Snell, 7th edition, Lippin Cott, Williams & Wilkins. |
| 3. | Clinical Anatomy for Medical Students by Richard Snell, 7th edition, Lippin Cott, Williams & Wilkins. |
| 4. | Anatomy & Physiology by Ross & Wilson's, 8th edition, Churchill Livingston. |
| 5. | Grant's atlas of anatomy, Anne MR; 10th edition |
| 6. | Gray's Anatomy. |
| 7. | Primary castes Anatomy by Basmajian (Williams and Willkins Co. Batlimore). |
| 8. | Anatomy and Physiology by Smout and McDowall (Edwad Arnold). |
| | STUDENT LEARNING OUTCOMES/OBJECTIVES: |
| At the | e end of the semester the student will be able to: |
| 1. | General Anatomy: To understand the level of organization of the human body & its application in practice of |
| | physiotherapy. |
| 2. | Osteology & Arthrology : To understand the muscles, bones and joints of the various regions & its application |
| | in practice of physiotherapy. |
| 3. | Systemic Anatomy: To understand the level of organization of the human different system of the body & its |
| 4 | application in practice of physiotherapy. |
| 4. | |
| 5. | |
| 4. 5. | Superior Extremity: To understand the topographical and functional anatomy of the upper limb & its appli in practice of physiotherapy. Inferior Extremity: To understand the topographical and functional anatomy of the limbs and thorax. |

| | | SUE | | IAME: | | | HUN | IAN | PHYSIOL | OGY-II |
|---|---|-------------------------------------|--|--|--|--|-------------------------------------|-----------------------------|---|--|
| | | SUE | BJECT (| CODE: | | | | | PT 110 | |
| | | | | (| w.e.f. Jul | y 2015) | | | | |
| | Hrs. / | | | | Credits | | | | Total Marks | |
| L | Т | | Р | L | Т 1 | Р | | Α | СТ | ESE |
| 3 | 1 | 0 | 3 | 0 | 1 | 5 | 25 | 60 | | |
| | 4 | | 0 | | | | | | 40 | 60 |
| | | | | JECH | VES OF | | JUKSE | | | |
| | | | (| OUTLIN | IE OF TI | HE COU | IRSE: | | | |
| | JNITS ⁻ | TITLE | OF THE U | NIT | | | Μ | INIMU | M NUMBER | OF HOURS |
| UNIT-I | | Excrete | ory Functio | n | | | | | 08 Hours | 6 |
| UNIT-II | | | Intestinal | | / | | | | 08 Hours | |
| UNIT-III | | | us System | | Senses | | | | 08 Hours | |
| UNIT-IV | | | rine Systen | | | | | | 08 Hours | |
| UNIT-V | | Reproc | ductive Sys | | | | | | 08 Hours | |
| | | | i otal (N | linimal) | | | | | 40 Hours | • |
| | 1 | | | | UNI | Г-І | | | | |
| S. No. | | | Y FUNCT | | | | | | | lours |
| 1. | Kidney structure and function, Urine formation, Glomerular filtration | | | | | | | | | |
| Tubular absorption, Regulation of Na, K, Ca, and H ₂ O. Acidification of balance, micturition reflex neuron control, neurogenic bladder, diuretics | | | | | | | | e, Acia das | | |
| | Dalalice | , 111011 | | | | | | | 00 | |
| S. No. | GAST | | TESTINA | | | •• | | | 08 | Hours |
| <u>0. 110.</u> 1. | | | | | | compositio | on, secre | etarv | function of s | |
| - | juices, | HCL s | ecretion, p | ancreas g | gall bladde | | | | gestion and a | |
| | food, de | efecation | on and swa | allowing re | | | | | | |
| | =- | | | | UNIT | | | | | |
| <u>S. No.</u> | | | | | AL SENS | | | | | Hours |
| 1. | propred tracts, i hypotha memory | oceptio motor alamus / and | n, labyrinth function of , thalamus condition i | n, functio ⁻ spinal c s, basal eflex, po | n of senso ord and re ganglia, c | ory and m eflexes, sp erebellum ilibrium ar | otor cort pinal cord , limbic | ex, as d trans syster | ch, pain, temp scending and saction and s m, RAI syste oral blood flo | l descending spinal shock em, learning |
| | | | | | UNIT | -IV | | | | |
| S. No. | _ | - | ESYSTEM | | | | | | | Hours |
| 1. | parathy | roid, p | | Tempera | ture Regu | | | | thyroid, adre amus and v | |
| | | | | U | UNIT | -IV | | | | |
| | | | | | | | | | | |
| S. No. | REPRO | ODUC | | | | | | | | Hours |

BOOKS RECOMMENDED:

TEXTBOOKS:

- Textbook of Physiology: Guyton 1.
- 2.

Textbook of Physiology: Ganong Human Physiology: 1. Chaudhary 2. Bijlani Essentials of Medical Physiology: K.Semubulingam. 3. 4.

REFERENCE BOOKS:

1. 2. 3.

4.

STUDENT LEARNING OUTCOMES/OBJECTIVES:

| A + +1 | |
|--------|---|
| At th | ne end of the semester the student will be able to: |
| 1. | |
| 2. | |
| 3. | |
| 4. | |
| 5. | |

| | <u>2001</u> | ECT NA | ME: | BASIC OF EXERCISE THERAPY | | | | | |
|----------------------------|--|--|--|---|---|---|---|--|---|
| | SUBJI | ECT CO | DE: | | PT 111 | | | | |
| | Hrs. / Wk. | | | Credits | | | Total Marl | ks | |
| L | T | Р | L | Т | Р | TA | СТ | | ESE |
| 3 | 1 | 0 | 3 | 1 | 0 | 15 | 25 | | 60 |
| | 4 | | | 4 | | | 40 | | 60 |
| | | OE | BJECTI | VES OF | THE COU | JRSE: | | | |
| | | (| OUTLIN | IE OF TH | | SE: | | | |
| JNITS | TITLE OF T | HE UNIT | | | | Minir | num Numb | er of H | ours |
| JNIT-I | | | | | | | 08 Ho | urs | |
| JNIT-II | | | | | | | 08 Ho | urs | |
| JNIT-III | | | | | | | 08 Ho | urs | |
| JNIT-IV | | | | | | | 08 Ho | urs | |
| JNIT-V | | | | | | | 08 Ho | urs | |
| | | Total | (Minimal) | | | | 40 Ho | urs | |
| | | | | UNIT | -1 | | | | |
| 5. No. | | | | | | | | 08 H | lours |
| | of Movement | | | om, Bones a | nd their Cla | | Classification | n, Clas | sificati |
| 3. No. | of Movement Musculoske Tension, Mus Gravity: Effe and Movemen | , Degrees letal Basi scle Fibre (cts, Centre nt. | of Freedo s of Mov Group Act e of gravi | vement: Str tion of Musc ty, Line of G | nd their Cla II ructure of les, Torque Fravity and | Assification. Muscle and & angle of their Alterat | its Classific | 08 H cation, | lours Muscl |
| S. No. | of Movement Musculoske Tension, Mus Gravity: Effe | , Degrees letal Basi scle Fibre (cts, Centre nt. | of Freedo s of Mov Group Act e of gravi | vement: Str tion of Musc ty, Line of G | nd their Cla II ructure of les, Torque Fravity and in Human N | Assification. Muscle and & angle of their Alterat | its Classific | 08 H cation, | lours Muscl |
| | of Movement Musculoske Tension, Mus Gravity: Effe and Movemen | , Degrees letal Basi scle Fibre (cts, Centre nt. | of Freedo s of Mov Group Act e of gravi | vement: Str tion of Musc ty, Line of G | nd their Cla II ructure of les, Torque Fravity and in Human N | Assification. Muscle and & angle of their Alterat | its Classific | 08 H cation, n Huma | lours Muscl an Bod |
| | of Movement Musculoskel Tension, Mus Gravity: Effe and Movement Equilibrium: Simple Mach and classific | , Degrees | of Freedo s of Mov Group Act e of gravi upporting | vement: Str tion of Musc ty, Line of G Base, role UNIT- | Ind their Cla II ructure of les, Torque Gravity and in Human N III III | Assification. Muscle and & angle of their Alterat Movement. | its Classifio pull. ions, Role ir Pulleys and t | 08 H cation, n Huma 08 H their Fu | Hours Muscl an Bod An Bod |
| | of Movement Musculoskel Tension, Mus Gravity: Effe and Movemen Equilibrium: Simple Mach | , Degrees letal Basi scle Fibre (cts, Centre nt. Effects, S hines: Lev ration, Inc | of Freedo s of Mov Group Act e of gravi upporting vers and t | vement: Str tion of Musc ty, Line of G Base, role UNIT- heir Functio anes and t | Ind their Cla II ructure of les, Torque Fravity and in Human M III Ins and class their Func | Assification. Muscle and & angle of their Alterat Movement. Ssification, F tions, class | its Classifio pull. ions, Role ir Pulleys and t ification & | 08 H cation, n Huma 08 H their Fu theirs | lours Muscl an Bod an Bod |
| | of Movement Musculoskel Tension, Mus Gravity: Effe and Moveme Equilibrium: Simple Mach and classific relevance. Elasticity: S | , Degrees letal Basi scle Fibre (cts, Centre nt. Effects, S hines: Lev ration, Inc | of Freedo s of Mov Group Act e of gravi upporting vers and t | om, Bones a UNIT- vement: Str tion of Musc ty, Line of G Base, role UNIT- heir Functio anes and to oke's Law | Ind their Cla II ructure of les, Torque Fravity and in Human N III Ins and class their Func Springs a | Assification. Muscle and & angle of their Alterat Movement. Ssification, F tions, class | its Classifio pull. ions, Role ir Pulleys and t ification & | 08 H cation, n Huma 08 H their Fu theirs | lours Muscl an Bod an Bod |
| 5. No. | of Movement Musculoskel Tension, Mus Gravity: Effe and Moveme Equilibrium: Simple Mach and classific relevance. Elasticity: S | , Degrees letal Basi scle Fibre (cts, Centre nt. Effects, S hines: Lev ration, Inc | of Freedo s of Mov Group Act e of gravi upporting vers and t | vement: Str tion of Musc ty, Line of G Base, role UNIT- heir Functio anes and t | Ind their Cla II ructure of les, Torque Fravity and in Human N III Ins and class their Func Springs a | Assification. Muscle and & angle of their Alterat Movement. Ssification, F tions, class | its Classifio pull. ions, Role ir Pulleys and t ification & | 08 H cation, n Huma n Huma 08 H their Fu theirs theirs | lours Muscl an Bod lours unction clinica |
| 5. No. | of Movement Musculoskel Tension, Mus Gravity: Effe and Movement Equilibrium: Simple Mach and classific relevance. Elasticity: S relevance. | , Degrees | of Freedo s of Mov Group Act e of gravi upporting vers and t lined Pla | om, Bones a UNIT- vement: Str tion of Musc ty, Line of G Base, role UNIT- heir Functio anes and t oke's Law UNIT- | Ind their Cla II ructure of les, Torque Fravity and in Human N III Ins and class their Funct Springs and IV | Assification. Muscle and a & angle of their Alterat Movement. Ssification, F tions, class nd their pro | its Classific pull. ions, Role ir Pulleys and t ification & | 08 H cation, n Huma n Huma 08 H their Fu theirs theirs | lours Muscl an Bod an Bod |
| 5. No. | of Movement Musculoskel Tension, Mus Gravity: Effe and Movement Equilibrium: Simple Mach and classific relevance. Elasticity: S relevance. Hydrostatics | , Degrees letal Basi scle Fibre (cts, Centre nt. Effects, S nines: Lev ation, Inc Stress, Str s and Hydr | of Freedo s of Mov Group Act e of gravir upporting rers and t lined Pla rain, Hoo | m, Bones a UNIT- vement: Str tion of Musc ty, Line of G Base, role UNIT- heir Functio anes and t oke's Law UNIT- ics: Princip | Ind their Cla II ructure of les, Torque Fravity and in Human N III Ins and class their Funct Springs and IV Ies & its Ap | Assification. Muscle and & angle of their Alterat Movement. Ssification, F tions, class nd their pro- | its Classific pull. ions, Role ir Pulleys and t ification & operties & | 08 H cation, n Huma n Huma 08 H their Fu theirs theirs | lours Muscl an Bod lours unction clinica |
| 5. No. | of Movement Musculoskel Tension, Mus Gravity: Effe and Movement Equilibrium: Simple Mach and classific relevance. Elasticity: S relevance. | , Degrees letal Basi scle Fibre (cts, Centre nt. Effects, S nines: Lev ation, Inc Stress, Str s and Hydr | of Freedo s of Mov Group Act e of gravir upporting rers and t lined Pla rain, Hoo | om, Bones a UNIT- vement: Str tion of Musc ty, Line of G Base, role UNIT- heir Function anes and to oke's Law UNIT- ics: Principl ation, contra | Ind their Cla II ructure of les, Torque Fravity and in Human N III Ins and class their Functor Springs and IV les & its Ap- indication, | Assification. Muscle and & angle of their Alterat Movement. Ssification, F tions, class nd their pro- | its Classific pull. ions, Role ir Pulleys and t ification & operties & | 08 H cation, n Huma n Huma 08 H their Fu theirs theirs | lours Muscl an Bod lours unction clinica |
| S. No. S. No. S. No. | of Movement Musculoskel Tension, Mus Gravity: Effe and Movement Equilibrium: Simple Mach and classific relevance. Elasticity: S relevance. Hydrostatics | , Degrees letal Basi scle Fibre (cts, Centre nt. Effects, S nines: Lev ation, Inc Stress, Str s and Hydr | of Freedo s of Mov Group Act e of gravir upporting rers and t lined Pla rain, Hoo | m, Bones a UNIT- vement: Str tion of Musc ty, Line of G Base, role UNIT- heir Functio anes and t oke's Law UNIT- ics: Princip | Ind their Cla II ructure of les, Torque Fravity and in Human N III Ins and class their Functor Springs and IV les & its Ap- indication, | Assification. Muscle and & angle of their Alterat Movement. Ssification, F tions, class nd their pro- | its Classific pull. ions, Role ir Pulleys and t ification & operties & | 08 H cation, n Huma 08 H their Fu theirs theirs 08 H | lours Muscl an Bod lours unction clinica |

| | BOOKS RECOMMENDED: | | | | | | |
|----|--|--|--|--|--|--|--|
| | TEXTBOOKS: | | | | | | |
| 1. | Practical Exercise Therapy- Hollis and Cook | | | | | | |
| 2. | Principles of Exercise Therapy- Deena Gardiner | | | | | | |
| 3. | Joint structure and function–Norkin | | | | | | |
| 4. | Exercise Therapy–Carolyn Kisner | | | | | | |
| | REFERENCE BOOKS: | | | | | | |
| 1. | | | | | | | |
| 2. | | | | | | | |
| 3. | | | | | | | |

STUDENT LEARNING OUTCOMES/OBJECTIVES: At the end of the semester the student will be able to:

At the end of the semester the student will be able to: 1. 2. 3.

| | SUBJ | ECT NA | ME: | SOCIOLOGY | | | | | | |
|---------------------|--|--|-------------------------|----------------------------|-----------------------------|------------------|----------------------|-------------|--|--|
| | SUBJI | ECT CO | DE: | | PT 112 | | | | | |
| | | | () | w.e.f. July | / 2015) | | | | | |
| | Hrs. / Wk. | | | Credits | 5 | | Total Marks | S | | |
| L | Т | P | L | T | Р | TA | СТ | ESE | | |
| 2 | | 0 | 2 | 1 | 0 | 15 | 25 | 60 | | |
| | 3 | | | | THE COU | | 40 | 60 | | |
| They wi | ubject, the stud Il also learn the ons of various | dent will le e principle | earn abou es, produc | t the high tion, applic | frequency o cation, para | currents utilize | | | | |
| | | | OUTL | INE OF TH | IE COURS | E: | | | | |
| UNITS | | TITL | E OF THE | E UNIT | | MINIMU | M NUMBER | OF HOURS | | |
| UNIT-I | | | | | | | 08 Hours | | | |
| UNIT-II | | | | | | | 08 Hours | | | |
| UNIT-III UNIT-IV | | | | | | | 08 Hours 08 Hours | | | |
| UNIT-IV | | | | | | | 08 Hours | | | |
| | | Total (I | Minimal) | | | | 40 Hours | | | |
| | | · · · · · | / | | • • | | | | | |
| S.No. | | | | UNIT | -1 | | | 08 Hours | | |
| 3.NO. | | | vitiona of | <u>anaiology</u> | Sociology | | | | | |
| | INTRODUCTION: Definitions of sociology, Sociology as a science of society, uses of the study of sociology, application of knowledge of sociology in physiotherapy. | | | | | | | | | |
| | - | study of sociology, application of knowledge of sociology in physiotherapy. SOCIOLOGY AND HEALTH: Social Factors affecting health status, social consciousness | | | | | | | | |
| | and perceptio | | | | 0 | | | | | |
| | taking treatmo | | | | | • | | • | | |
| | people. | | | | | | | | | |
| | | | | UNIT | -11 | | | | | |
| S.No. | | | | | | | | 08 Hours | | |
| | SOCIALIZATION: Meaning of socialization, influence of social factor on personality | | | | | | | | | |
| | socialization in | • | | | | | | | | |
| | SOCIAL GRO | | • | • | • | | | • . | | |
| | health and sid | - | | the primar | y groups ar | nd secondary | groups in t | ne hospital | | |
| | and rehabilitat | uon settin(| js. | 1 16117 | | | | | | |
| <u>0 N</u> - | | | | | -111 | | | 00 11 | | |
| S.No. | | | | ((| | | | 08 Hours | | |
| | FAMILY & COMMUNITY: Influence of family on human personality, discussion of chares in the functions of a family on the individuals' health family and nutrition the effects of sickness on family and psychosomatic disease. Concept of community, role of rural and urban communities in public health, role of community, in determining beliefs, practices and home remedies in treatment. | | | | | | | | | |
| | CULTURE: C of sickness, | • | | • | | | | | | |

| | UNIT-IV | | | | | | |
|-------|--|--|------------------|--|--|--|--|
| S.No. | | | 08 Hours | | | | |
| | Soc | cial Change: Factor of Social change, human adaptation and social | change, socia | | | | |
| | cha | nge and stress, social change and deviance, social change and health pr | ograms the role | | | | |
| | of s | ocial planning in the improvement of health and in rehabilitation. | | | | | |
| | Org | ganization: Goals and functions, organization as systems, organization | tional impact - | | | | |
| | indi | vidual, family community, social structure, power and control in organiz | zations, feminis | | | | |
| | perspectives on organizations. | | | | | | |
| | | UNIT-V | | | | | |
| S.No. | | | 08 Hours | | | | |
| | Social Problems of the Disabled: Consequences of the following social problems in | | | | | | |
| | relation to sickness and disability remedies, to prevent these problems. | | | | | | |
| | a. Population explosion | | | | | | |
| | b. Poverty and unemployment | | | | | | |
| | C. | Beggary | | | | | |
| | d. | Juvenile delinquency | | | | | |
| | е. | Prostitution | | | | | |
| | f. Alcoholism | | | | | | |
| | g. Problems of women in employment | | | | | | |
| | h. Social of the health profession | | | | | | |
| | i. Various perspectives, power and autonomy in professions, women and professions. | | | | | | |

| | BOOKS RECOMMENDED: | | | | | | |
|----|--|--|--|--|--|--|--|
| | TEXTBOOKS: | | | | | | |
| 1. | 1. Sociology – Sachdeva | | | | | | |
| 2. | Sociology for Physiotherapist / Dibyendunarayan Bid | | | | | | |
| 3. | Textbook of Sociology for Physiotherapy- K.P. Neerya | | | | | | |
| | REFERENCE BOOKS: | | | | | | |
| 1. | | | | | | | |
| 2. | | | | | | | |

| At th | At the end of the semester the student will be able to: | | | | | | | |
|-------|---|--|--|--|--|--|--|--|
| 1. | | | | | | | | |
| 2. | | | | | | | | |
| 3. | | | | | | | | |
| 4. | | | | | | | | |

| | | 208 | JECT NA | ME: | ENVIRONMENTAL STUDIES | | | | | |
|-------------------------------------|---|---|---|---|--|--|---|--|-----------------------------|---|
| | | SUB | JECT CC | DE: | | ES 101 | | | | |
| | | | | (| w.e.f. July | 2015) | | | | |
| | Н | lrs. / Wk | • | ``` | Credits | , | | Total N | Marks | |
| L | | Т | Р | L | Т | Р | TA | C | T | ESE |
| 2 | | 1 | 0 | 2 | 1 | 0 | 15 | 2 | :5 | 60 |
| | | 3 | | | 3 | | | 40 | | 60 |
| | | | | | VES OF T | HE COU | JRSE: | | | |
| In this s | subje | ct, the st | udent will le | arn about | the | | | | | |
| | | | | OUTL | INE OF TH | E COURS | E: | | | |
| UNITS | 5 | | TITL | E OF TH | E UNIT | | MINIMU | | BER C | F HOUR |
| UNIT-I | | | | | | | | | | |
| UNIT-II | | | | | | | | | | |
| UNIT-III | | | | | | | | | | |
| UNIT-IV | | | | | | | | | | |
| UNIT-V | | | T = (= 1 (| | | | | | | |
| | | | l otal (| Minimal) | | | | | | |
| | | | | | UNIT- | | | | | |
| S.No. | | TURAL | | | RENEW | ABLE | AND N | ON- | | |
| | RENEWABLE RESOURCES: | | | | | | | | | |
| | | | | | | | | | | |
| | | tural reso | ources and a | associated | • | | | | | |
| | | tural reso Water | ources and a Resources : | ssociated Use and | over utilizati | | ace and grou | | r, | |
| | Nat a. | tural reso Water floods | ources and a Resources: drought, co | associated Use and nflicts ove | over utilizati r water, dan | ns- benefit | s and probler | ns. | | |
| | Nat | tural reso Water floods Minera | ources and a Resources: drought, co I Resource | associated Use and nflicts ove s: Use and | over utilizati r water, dan d exploitatio | ns- benefit | 0 | ns. | | and usin |
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| b. | Bio-Geographical classification of India. | | | | | | |
|----------|---|--|--|--|--|--|--|
| с. | Value of Bio-diversity: Consumptive use, productive use, Social, ethical, aesthetic and option | | | | | | |
| | values | | | | | | |
| d. | Biodiversity at Global, National & Local levels. | | | | | | |
| е. | Hotspots of Biodiversity | | | | | | |
| f. | Threats to Biodiversity: Habitat Loss, Poaching of Wildlife, Man-Wildlife Conflicts | | | | | | |
| | UNIT-IV | | | | | | |
| S.No | D. ENVIRONMENTAL POLLUTION: | | | | | | |
| a. | Definition, Causes, effects and control measures of-Air Pollution, Water Pollution, Soil | | | | | | |
| | Pollution, Marine Pollution, Noise Pollution, Thermal Pollution, Nuclear Hazards | | | | | | |
| b. | Solid Waste Management: Causes, effects and control measures of urban and Industrial | | | | | | |
| | Wastes. | | | | | | |
| С. | Role of an Individual in prevention of pollution. | | | | | | |
| d. | Pollution case studies | | | | | | |
| е. | Disaster Management: floods, earthquake, cyclones and landslides. | | | | | | |
| | UNIT-V | | | | | | |
| S.No | | | | | | | |
| а. | Resettlement and Rehabilitation of people; its problems and concerns, case studies. | | | | | | |
| b. | Environmental ethics: issues and possible solutions | | | | | | |
| C. | Green house effect and global Warming, effects of acid Rain and their remedial measures | | | | | | |
| | and ozone Layer depletion. | | | | | | |
| | HUMAN POPULATION AND THE ENVIRONMENT: | | | | | | |
| a. b. | Population growth variation among nations, Population Explosion, Family welfare programme Environment and Human Health | | | | | | |
| - | Human Rights | | | | | | |
| c. d. | HIV/AIDS, Women and Child welfare | | | | | | |
| и. е. | Role of Information Technology in Environment and Human Health, Case studies | | | | | | |
| с. | BOOKS RECOMMENDED: | | | | | | |
| | TEXTBOOKS: | | | | | | |
| 1. | Agarwal, K.C. 2001 Environmental; Biology, Nidi Pub. Ltd.Bikaner. | | | | | | |
| 2. | Bharaucha Erach, The Biodiversity of India, Mappin Pub. Pvt. Ltd., Ahemdabad- 380, India. | | | | | | |
| 3. | Brunner R.C. 1989. Hazardous waste incineration, Mc Graw Hill. | | | | | | |
| 4. | Clark R.S. Marine Pollution, Clanderon Press Oxford (TB). | | | | | | |
| 5. | Cunningham W.P.2001.Cooper, T.H. Gorhani, E&Hepworth, Environmental encyclopedia, Jaicol | | | | | | |
| 6. | Publication House, Mumbai. De . A.K. Environmental chemistry Willey Eastern Limited. | | | | | | |
| | REFERENCE BOOKS: | | | | | | |
| 1. | | | | | | | |
| 2. | | | | | | | |

At the end of the semester the student will be able to:

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| SU | BJECT NA | ME: | ADVANCE PROFESSIONAL COMMUNICATION | | | | | |
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| SU | BJECT CO | DE: | LN 202 | | | | | |
| - | | | (v | v.e.f. July 2 | 2015) | | | |
| | Hrs. / Wk. | | | Credits | | Тс | otal Marks | |
| L | Т | Р | L | Т | Р | ТА | СТ | ESE |
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| | 3 | 00 | | 3 | | 40 |) | 60 |
| In this s | ubject, the stu | | | /ES OF T the | | KSE : | | |
| | | | OUTLI | NE OF THE | COURSE: | | | |
| UNITS | | TITLI | E OF THE | UNIT | | MINIMUM N | UMBER OF | HOURS |
| UNIT-I | | | | | | | 07 Hours | |
| UNIT-II | WRITING S | | | | | | 07 Hours | |
| UNIT-II | | | | TERVIEW S | KILLS | | 07 Hours | |
| UNIT-I UNIT-V | | | LLS | | | | 07 Hours 04 Hours | |
| | TROJECT | Total (N | linimal) | | | | B2 Hours | |
| | | | , | | | | | |
| <u></u> | | | | UNIT-I | | | | |
| S.No. | READING 8 | | | | | | | lours |
| | Ways to impr Skills & Featu | | | | | ortance of Ski | m Reading, | Listening |
| | | | | UNIT-I | | ve Listerning | | |
| S.No. | WRITING S | KILLS | | ••••• | | | 07 H | lours |
| | C V & Resum | | | | Covering let | ter, | | |
| | Precis: Princi | | | | | | | |
| | Paragraph wr | riting, Deve | opment c | * . | | | | |
| 0.11 | | | | | | | 07.1 | |
| S.No. | GROUP DIS | | | | | | | lours |
| | Pitfalls in a G | | aning & Sig | gnificance, I | How to pre | pare & praction | ce for GD, | Common |
| | | | skille & T | Techniques | Proparatio | n, Negative | Intorviow F | actors & |
| | Interview Tips | | | coninques, | Перагано | n, negative | | |
| | | | | UNIT-I\ | / | | | |
| S.No. | PRESENTA | TION SK | ILLS | | | | 07 | Hours |
| | | | | | | Organizing C | ontents, Au | dio-Visual |
| | Aids, Nuance | es of Delive | ery, Body l | | | nics. | | |
| | | | | UNIT-V | | | | |
| S.No. | PROJECT | | | | | | | Hours |
| | Teacher/Inst | ructor. The | y will rese | earch it & sul | | vould be assi documented r | • | • |
| | pages by the | | | RECOM | MENDE |). | | |
| | | | | TEXTBOO | | - | | |
| | aman, Meenak kford University | | arma, Sar | | | munication: P | rinciples ar | nd Practice |
| 1.07 | | , | | | | | | |

| 2. | Konar, Nira. Communication Skills For Professionals, PHI Learning Pvt. Ltd – 2011 | | | | | |
|----|--|--|--|--|--|--|
| 3. | Board of Editors. Written and Spoken Communication in English, University Press-2007 | | | | | |
| 4. | Lata, Pushp & Kumar, Sanjay. Communicate or Collapse: A Handbook of Effective Public Speaking, Group Discussions and Interviews, PHI Learning Pvt. Ltd -2011 | | | | | |
| 5. | Duck, Steve & McMahan, David T. <i>The Basics of Communication : A Relational Perspective</i> , Sage Publication-2012 | | | | | |
| 6. | Laws, Anne- Presentations, Orient Black Swan-2011 | | | | | |
| 7. | O'Connor, J. D. Better English Pronunciation, Universal Books Stall-1991 | | | | | |
| 8. | Anderson, Marilyn, Nayar, Pramod K. & Sen, Madhuchhanda . <i>Critical Thinking, Academic Writing and Presentation Skills</i> , Pearson-2009 | | | | | |
| | REFERENCE BOOKS: | | | | | |
| 1. | | | | | | |
| 2. | | | | | | |

| At th | At the end of the semester the student will be able to: | | | | | | | |
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| | SUBJ | ECT NA | ME: | | HUMAN ANATOMY-II LAB | | | |
|-------|---|--------------|------------|-------------|----------------------|----------------|--------------|-------|
| | SUBJECT CODE: | | | | | PT 1 | 13 | |
| | | | () | v.e.f. July | 2017) | | | |
| | Hrs. / V | Vk. | | Credits | | Т | otal Marks | |
| L | Т | Р | L | Т | Р | ТА | СТ | ESE |
| 0 | 0 | 2 | 0 | 0 | 2 | 30 | 30 | 40 |
| | 4 | | | 1 | | 6 | 0 | 40 |
| | | OB | JECTI | /ES OF 1 | THE COU | IRSE: | | |
| | | | | | | | | |
| | | C | DUTLIN | E OF TH | E COUR | SE: | | |
| S.No. | TITLE OF T | HE UNIT | | | | | | Hours |
| 1. | 1. Demonstration of bones of Thorax, abdomen & pelvis and Head & Neck region. | | | | | | | |
| 2. | Identification, | side dete | erminatior | n and exte | rnal featur | es of viscera | a of Thorax, | |
| | abdomen and | d pelvis. | | | | | | |
| 3. | Identification | of structure | e on prose | ected parts | of Head and | d neck region. | | |

4. Demonstration of parts and external features of brain and spinal cord.5. Surface landmarks of Thorax, abdomen & pelvis and Head and Neck region.

4.

6. Demonstration of models of organs and viscera of genitourinary system.

Total (Minimal)

| | BOOKS RECOMMENDED: |
|----------|--|
| | TEXTBOOKS: |
| 1. | Anatomy and physiology by Smout and McDowall (Edwad Arnold). |
| 2. | Primary castes anatomy by Basmajian (Williams and Willkins Co. Batlimore). |
| 3. | An Introduction of fundamental Anatomy by David Sinclair. |
| 4. | Human Anatomy by B D Chaurasia's - All 3 volumes. |
| 5. | Limbs of Dr. Kadasana - All 3 volumes. |
| 6. | Anatomy of Grant |
| 7. | Human Embryology by Hamilton Body and Mossaman. |
| 8. | Neuro-Anatomy – Inderbir Singh. |
| | REFERENCE BOOKS: |
| 1. | |
| 2. | |
| 3. | |
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| 5. | |
| | STUDENT LEARNING OUTCOMES/OBJECTIVES: |
| | e end of the semester the student will be able to: |
| 1. | |
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| | | | BJECT N | | | | HU | JMAN PH | YSIOLOGY | '-II LAB |
| | | SU | BJECT (| CODE: | | | | F | PT 114 | |
| | | | | () | w.e.f. July | 2015) | | | | |
| | | Hrs. / Wk. | | | Credits | - | | | Total Marks | |
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| | | | C | DUILIN | E OF TH | E CO | UK | SE: | | |
| | | | | | | | | | | |
| S.No |). | TITLE OF TH | IE UNIT | | | | | | | Hours |
| 1. | | Recording of I | CVS, Pulse | Examina | ition | | | | | |
| 2. | | Blood Pressur | e Measure | ment | | | | | | |
| 3. | | Effect of postu | ire on SBP | and DBP |) | | | | | |
| 4. | | Effect of exerc | ise on SBF | ond DB | Р | | | | | |
| 5. | | ECG | | | | | | | | |
| 6. | (| Cranial Nerve | Examinatio | on | | | | | | |
| 7. | | Sensory Exam | nination | | | | | | | |
| 8. | | Motor Examin | ation | | | | | | | |
| 9. | 1 | Vitalography | | | | | | | | |
| | | | | Tot | al (Minimal) | | | | | 30 |
| | | | | POOK | S RECO | | | <u>.</u> | | |
| | | | | BUUN | TEXTBO | | NDE | D. | | |
| 1. | ΤΔ | xtbook of Phys | siology: Gu | vton | IEAIDU | JNJ. | | | | |
| 2. | | xtbook of Phys | | | | | | | | |
| 3. | | man Physiolog | | | | | | | | |
| 4. | Ess | sentials of Me | dical Physic | ology: K.S | Semubuling | am, | | | | |
| 5. | | | - | | | | | | | |
| ļ | | | | REF | ERENCE | BOOK | (S: | | | |
| 1. | | | | | | | | | | |
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| At th | he end of the semester the student will be able to: |
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| | SUBJE | CT NAM | E: | | BASIC OF | EXERCIS | ETHERAP | LAB |
|--------|---------------------|---------------|-------------|-----------|------------------|-----------------|-----------------|-------|
| | SUBJE | CT COD | E: | PT 115 | | | | |
| | | | () | w.e.f. J | uly 2015) | | | |
| | Hrs. / Wk. | | | Crea | lits | Fotal Marks | | |
| L | Т | Р | L | Т | Р | TA | СТ | ESE |
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| | | OE | SJECII | VES O | F THE COL | JRSE: | | |
| | | | | | | _ | | |
| | | | OUIL | NE OF | THE COURSE | | | |
| S.No | . TITLE OF TH | | | | | | | Hours |
| 1. | Mechanical Pr | inciples ap | plied in F | hysioth | erapy like force | , Torque, Cer | tre of Gravity, | |
| | etc. | | | | | | | |
| 2. | Demonstration | n of differer | nt types of | fleavers | s in the human | body. | | |
| 3. | Demonstration | n of differer | nt types of | f pulleys | and strings us | ed in Physioth | nerapy. | |
| 4. | Demonstration | n of Archir | nedes' P | rinciple | of floatation a | and Bernoulli's | s Theorem in | |
| | Hydrotherapy. | | | | | | | |
| 5. | Demonstration | n of axial a | nd pendul | ar susp | ension. | | | |
| | | | Tot | al (Minir | nal) | | | 30 |
| | | | BOOK | S REC | OMMENDE | D: | | |
| | | | | TEXTE | BOOKS: | | | |
| | Practical Exercise | | | | | | | |
| | Principles of Exer | | | Gardine | r | | | |
| 3. | Joint structure and | d function—I | Norkin | | | | | |
| 4. | Exercise Therapy | –Carolyn K | isner | | | | | |
| | | | REF | EREN | CE BOOKS: | | | |
| 1. | | | | | | | | |
| 2. | | | | | | | | |
| | STL | JDENT L | EARN | NG O | UTCOMES/ | OBJECTI | /ES: | |
| At the | end of the seme | ster the stu | udent will | be able | to: | | | |
| 1. | | | | | | | | |
| 2. | | | | | | | | |
| 3. | | | | | | | | |

4.

SCHEME OF EXAMINATION & MODELS OF QUESTION PAPER OF BACHELOR OF PHYSIOTHERAPY (BPT)

| | | | S | SCHEN | | F EXA | MINA | | N | | | |
|-------|--------------------------|------------|---------|-------------|----------|--------------|--------------|--------|------------|---------|--------|---------------|
| | | | | | TH | IEORY | ′ : | | | | | |
| | | | | INTER | NAL A | SSES | SMEN | T (IA) | | | | |
| | | | | | |) Marks | | () | | | | |
| CI | LASS 1 | EST (CT |) | | | TEA | CHER | ASSE | SSM | ENT (| TA) | |
| MSE-1 | | | | | | | A-3 | A-4 | Attendance | | | |
| 25 | 2 | 25 | 25 | 5 5 | | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | | | EN | | ESTER | EXAM | INATIO | DN (ES | SE) | | | |
| | | | | | 60 |) Marks | 5 | | | | | |
| | | | | | | | | | | | | |
| | | | | INTER | | | | T (IA) | | | | |
| | | | | | | s Test (| CT) | | | | | |
| | 1: 25 Ma | arks | | | 3 (50%) | | | | Tim | ne: 1:3 | 0 Hou | - |
| Q.No. | | | | | Models | | | | | | | Marks |
| 1. | Multip | oles Choid | ce Ques | | - | - | | 11 | | | 1 | .5X5=7.5 |
| | | | | | Juestic | on from | | Unit | 1> | | | 4 5 |
| | a. i) | | | ii) ii) | | | iii) iii) | | iv) iv) | | | 1.5 1.5 |
| | b. i) | | | (II) ii) | | | | | iv) | | | 1.5 |
| | c. i) d. i) | | | ii) | | iii) iii) | | | iv) | | | 1.5 |
| | e. i) | | | ii) | | iii) | | | iv) | | | 1.5 |
| 2. | | | | , | | | , | | ••) | | 2 | 2.5X3=7.5 |
| | a. | | | | | | | | | - | 2.5 | |
| | b. | | | | | | | | | 2.5 | | |
| | С. | | | | | | | | | | | 2.5 |
| | d. | | | | | | | | | | | 2.5 |
| | е. | | | | | | | | | | | 2.5 |
| 3. | Long Questions (any two) | | | | | | | | | | 5X2=10 | |
| | a. | a. | | | | | | | | | | 5 |
| | b. | | | | | | | | | | | 5 |
| | C. | | | | | | | | | | | 5 |
| | | | | End Se | | | | (ESE) | | | | |
| | MM: 6 | 0 Marks | | | | 21 (35 | %) | | | Time | | Hours |
| Q.No. | | | | | Models | 6 | | | | | Mark | |
| 1. | Multip | ole Choice | e Quest | | <u>)</u> | | | 1 1 | | | | 1X12=12 |
| | | | | | JUESTIC | on from | | Unit | | | | 4 |
| | a. b. | i) i) | | ii) ii) | | | iii) iii) | | iv) iv) | | | <u>1</u> 1 |
| | D. C. | i) | | (II) ii) | | | iii) | | iv) | | | 1 |
| | с. d. | i) | | (ii) iii | | | iii) | | iv) | | | 1 |
| | и. е. | | | ii) | | | iii) | | iv) | | | 1 |
| | f. | i) | | | | | iii) | | iv) | | | 1 |
| | g. | | | | | | iii) | | iv) | | | 1 |
| | h. | i) | | ii) | | | iii) | | iv) | | | 1 |
| | i. | i) | | ii) | | | iii) | | iv) | | | 1 |
| | I | , | L | , | | 1 | • | | | | I | |

| | j. | i) | ii) | iii) | iv) | 1 | | | |
|----|---------|--------------------------|------|------|-----|-------------|--|--|--|
| | k. | i) | ii) | iii) | iv) | 1 | | | |
| | l. | i) | ii) | iii) | iv) | 1 | | | |
| 2. | Short Q | 3X4=12 | | | | | | | |
| | a. | | | | | 3 | | | |
| | b. | | | | | 3 | | | |
| | C. | | | | | 3 | | | |
| | d. | | | | | 3 | | | |
| | е. | | | | | 3 | | | |
| | f. | | | | | 3 | | | |
| 3. | Short Q | uestions (any | Two) | | | 3X4=12 | | | |
| | a. | | | | | 3 | | | |
| | b. | | | | | 3 | | | |
| | C. | | | | | 3 | | | |
| | d. | | | | | 3 | | | |
| | е. | | | | | 3 | | | |
| | f. | | | | | 3 | | | |
| 4. | Long Qu | uestions (any | Two) | | | 6X2=12 | | | |
| | а | | | | | 6 | | | |
| | b. | | | | | 6 | | | |
| | С. | | | | | 6 6X2=12 | | | |
| 4. | Long Qu | Long Questions (any Two) | | | | | | | |
| | а. | | | | | 6 | | | |
| | b. | | | | | 6 | | | |
| | С. | | | | | 6 | | | |

STUDY & EVALUATION SCHEME OF BACHELOR OF PHYSIOTHERAPY

(BPT - II YEAR/ III SEMESTER)

[Applicable w.e.f. Academic Session 2020-21 till revised]



INTEGRAL UNIVERSITY, LUCKNOW DASAULI, P.O. BAS-HA KURSI ROAD, LUCKNOW – 226026

Website: www.iul.ac.in

Approved by

Syllabus approved by Board of Study, Faculty Board, Academic Council, Executive Council of the Integral University, Lucknow

STUDY & EVALUATION SCHEME BACHELOR OF PHYSIOTHERAPY (BPT)

(w.e.f. July 2020)

II-Year

III-Semester

| S. | Code | Name of the Subject | F | Period | s | Total | E | valuati | on Sche | eme | Subject |
|-----|--------|---|----|--------|----|---------|-----|---------|---------|------|---------|
| No. | No. | | - | _ | | Credits | 5 | Session | nal | Exam | Total |
| | | | L | т | P | | CT | TA | Total | ESE | |
| 1. | PT 201 | Pathology | 2 | 1 | 0 | 3 | 40 | 20 | 60 | 40 | 100 |
| 2. | PT 202 | Microbiology | 2 | 1 | 0 | 3 | 40 | 20 | 60 | 40 | 100 |
| 3. | PT 203 | Exercise therapy | 3 | 1 | 0 | 4 | 40 | 20 | 60 | 40 | 100 |
| 4 | PT 204 | Electrotherapy | 3 | 1 | 0 | 4 | 40 | 20 | 60 | 40 | 100 |
| 5. | PT 205 | Surface Anatomy & Palpation Skills | 2 | 1 | 0 | 3 | 40 | 20 | 60 | 40 | 100 |
| 6. | PT 206 | Psychology & Experimental Psychology | 2 | 1 | 0 | 3 | 40 | 20 | 60 | 40 | 100 |
| 7. | PT 207 | Exercise therapy-Lab | 0 | 0 | 4 | 2 | 40 | 20 | 60 | 40 | 100 |
| 8. | PT 208 | Electrotherapy-Lab | 0 | 0 | 4 | 2 | 40 | 20 | 60 | 40 | 100 |
| 9. | PT 209 | Surface Anatomy & Palpation Skills-Lab | 0 | 0 | 2 | 1 | 40 | 20 | 60 | 40 | 100 |
| | | Total | 14 | 06 | 10 | 25 | 360 | 180 | 540 | 360 | 900 |

| L: Lecture | T: Tutorials | P: Practical | C: Credit | CT: Class Test |
|----------------------------------|---------------------|--------------|---|----------------------|
| TA: Teacher Assess | ment | | ESE: End Semester Examin | ation |
| Sessional Total: C Assessment | lass Test + Teacher | | Subject Total: Sessional Examination (ESE) | Total + End Semester |

AIMS AND OBJECTIVES OF BPT DEGREE COURSE

On completion of the course of study having successfully passed the examination, the candidate would be able to achieve a satisfactory level of efficiency:-

- To Detect and evaluate the anatomical, patho-physiological impairments, resulting in dysfunction of various age groups & occupation; as well as epidemiological sectors in the population & arrive at appropriate diagnosis.
- To understand the rationale & basic investigative approach to the medical system and surgical intervention regimens & accordingly plan & implement specific Physio-Therapy measures effectively.
- 3. To be able to select strategies for cure and care; adopt restorative & rehabilitative measures for maximum possible independence of a client at home, work place & in the community.
- **4.** To maintain healthy relationship & Co-partnership with various professionals in the health delivery system in the primary interest of a client.
- To ensure quality assurance & motivate the client & her/his family for a desirable client compliance.
- **6.** To develop communication skills for the purpose of transfer of suitable technique to be used creatively at various stages of treatment, compatible with psychological status of the beneficiary.
- 7. To promote health in general in Geriatrics, Women's health, Industrial medicine as well as at competitive level, such as sports, keeping in mind National Health Policies.
- **8.** To practice professional autonomy & ethical principles with referral as well as first contact clients in conformity with ethical code for physiotherapists.

SYLLABI OF BACHELOR OF PHYSIOTHERAPY (BPT - II YEAR/ III SEMESTER)

GOAL:

The broad goal of the teaching of undergraduate students in Anatomy aims at providing comprehensive knowledge of the gross anatomy, microscopic structures, development of human body and principles of genetics to provide a basis for understanding the clinical correlation of organs or structure involved and the skills to practice as a qualified Physiotherapist.

OBJECTIVES:

A – Knowledge: At the end of the course, the student should be able to:

- 1. Comprehend the normal disposition, inter-relationships, gross, functional and applied anatomy of the musculoskeletal system, locomotion, posture, gait and various organs in the body.
- Comprehend the basic structure and connections between the various parts of the central nervous system so as to analyze the integrative and regulative functions of the organs and systems. He/she should be able to locate the site of gross lesions according to the deficits encountered.
- 3. Identify the microscopic structures of various tissues and organs in the human body and correlate the structure with the functions.
- 4. To understand the basic principles of embryology including genetic inheritance and stages involved in development of the organs and systems from the time of conceptions till birth.
- 5. To study the basic principles of radiology and for comprehending deeper structures in the human body.

B. Skills: At the end of the course the students shall be able to:

- 1. Identify and locate all the structures of the body and mark the topography of the living anatomy.
- 2. Identify the organs and tissues under the microscope.
- 3. Understand principles of karyotyping and identify the gross congenital anomalies.
- 4. Understand the principles of imaging techniques and interpretation of anatomical structures on plane radiographs of the body.

C. Integration

From the integrated teaching of other basic sciences, students shall be able to comprehend the functions of the organs and systems in the body and thus interpret the anatomical basis of disease processes.

| | | | | | - | | | | | |
|----------|---|-------------|-------------------------|--------------------------|--------------|-----------------------------|----------------|--|--|--|
| | SUBJ | ECT NAI | ME: | | | PATH | HOLOGY | | | |
| | SUBJ | ECT CO | DE: | | PT 201 | | | | | |
| | | | | (w.e.f. Ju | ly 2017) | | | | | |
| | Hrs. / Wk. | | | Credits | | | Total Marks | | | |
| L | Т | Р | L | Т | Р | ТА | СТ | ESE | | |
| 2 | 1 | 0 | 2 | 1 | 0 | 15 | 25 | 60 | | |
| | 3 | | | 3 | | 4 | 0 | 60 | | |
| | | 0 | BJECT | IVES OF | THE CO | URSE: | | | | |
| emphasi | is will be place scular system | ed on descr | ption of r ous syste | nusculoske m, as thes | letal anator | ny which inclued to the app | udes bones, j | ures. Particular pints, muscles, hysiotherapy in | | |
| UNITS | TITLE OF 1 | | UUTE | | | | | | | |
| UNIT-I | CELL INJUR | - | | | 15 | | 08 Hours | | | |
| UNIT-II | VASCULAR | | | | | | 08 Hours | | | |
| UNIT-III | | | | | | 08 Hours | | | | |
| UNIT-IV | BONES, JOINTS & MUSCULAR SYSTEM 08 Hours HEPATO-BILIARY, ENDOCRINE & INTEGUMENTARY 08 Hours SYSTEM 08 Hours | | | | | | | | | |
| UNIT-V | CENTRAL N | ERVOUS S | /STEM | | | | 08 Hours | | | |
| | | Total (Mi | nimal) | | | | 40 Hours | | | |
| | | | | UNI | T-I | | | | | |
| S. No. | CELL INJU | RY, INFLA | MMATI | ON & NEO | PLASMS: | 1 | (|)8 Hours | | |
| 1. | Cells: Brief gangrene. | out line | of cell i | njury, hyp | ertrophy, | atrophy, de | generation, | necrosis and | | |
| 2. | Inflammatio exudates, gra | | n, vascula | ar and cellu | ılar phenon | nena, differen | ice between t | ransudate and | | |
| 3. | Neoplasm: cancer pain s | | character | | | and maligna | nt tumor, spi | read of tumor, | | |
| | | | | UNI | | | | | | |
| S. No. | VASCULAF | | | | | | | Hours | | |
| 1. | Volkmann's i | | | | rrnage, En | idolism, I hro | omposis, Infra | action, Shock, | | |
| 2. | | | | | ding disorde | er- Hemophilia | Э. | | | |
| 3. | | | • | - | 0 | • | | therosclerosis, | | |
| . | coronary hea | - | - | | - | | | | | |
| 4. | - | | | | | chiectasis, Ei | mphysema. | | | |
| | | | | UNI | Γ-ΙΙΙ | | | | | |
| S. No. | BONES, JC | INTS & M | USCUL | | | | 08 | Hours | | |
| | <u> </u> | | | | | | 1 | | | |

| 1. | Bones: Etiopathogenesis and gross pathology of fallowing conditions: Rickets/Osteomalacia |
|----------------------|---|
| | Osteoporosis, Osteomyelitis, Hyperparathyroidism. |
| 2. | Joint: Osteoarthritis, Rheumatoid Arthritis, Gout, Spondyloarthopathy (including Ankylosing |
| | Spondylitis), Osteonecrosis, Paget's disease. |
| 3. | Muscles: Myositis ossificans, Myofascial Pain syndrome, Septic arthritis. |
| | UNIT-IV |
| S. N | o. HEPATO-BILIARY, ENDOCRINE & INTEGUMENTARY 08 Hours SYSTEM: |
| 1. | Hepato-Biliary System: Jaundice Types, etiopathogenesis and diagnosis. |
| 2. | Endocrine: Diabetes Mellitus, Non Neoplastic lesion of thyroid-Thyrotoxicosis, Myxedema. |
| 3. | Skin: Brief outline of Scleroderma, Psoriasis, Pressure Ulcer, and Burn. |
| | UNIT-V |
| S. N | · · · · · · · · · · · · · · · · · · · |
| <u>3. N</u> 1. | CNS: Etiopathogenesis and gross pathology of fallowing conditions- Meningitis, Encephalitis |
| 1. | |
| | Parkinson's, Amyotrophic lateral sclerosis, Ataxias, Multiple sclerosis, Neuropathies (Carcoa |
| | Marie Tooth disease, Compression and Entrapments, diabetics G.B. Syndrome), malformation |
| | CVA, Extredural and Intra Dural Hematoma. |
| 2. | Muscle Neuropathies: Poliomyelitis, Myopathies, Myasthenia gravis, Muscular dystrophy. |
| | BOOKS RECOMMENDED: |
| | TEXTBOOKS: |
| 1. | Basic Patho – Kumar and Clark |
| 2. | Text book of Pathology - by Harsh Mohan |
| 3. | Textbook of Pathology By Boyd |
| 4. | Pathologic basis of deseases by Cotran, Kumar, Robbins |
| т . 5. | General Pathology – by Bhende |
| 5. | REFERENCE BOOKS: |
| 1. | REI ERENGE BOORG. |
| 2. | |
| 3. | |
| 4. | |
| 5. | |
| 6. | |
| 7. | |
| 8. | |
| | STUDENT LEARNING OUTCOMES/OBJECTIVES: |
| At the | e end of the semester the student will be able to: |
| 1. | |
| 2. | |
| | |
| 3. | |
| 3. 4. | |

| | | BJECT N | | | | MIC | ROBIOLO | GY | | |
|---|--|--|---|---|---|---|--|---|--|--|
| | SU | BJECT C | ODE: | | | | PT 202 | | | |
| | | | (| w.e.f. July | / 2015) | | | | | |
| | Hrs. / Wk. | | | Credits | | | Total Marks | S | | |
| L | Т | Р | L | Т | Р | TA | СТ | ESE | | |
| 2 | 1 | 0 | 2 | 1 | 0 | 15 | 25 | 60 | | |
| | 3 | | | 3 | | | 40 | 60 | | |
| | | OB | JECTI | VES OF | THE CO | URSE: | | | | |
| human Microbio infection underst | nd of the cours infections, pology involves as and precaut anding of Micr | ertaining to the study ionary mea obiology of o the patien | o Immu of con sures to disease | nology, Vi nmon orga protect on s is essen | rology, Ba nisms ca e from ac tial to inst | acteriology, using diseas quiring infect tute appropri | & misleniou es including ions. The kno | s condition. nosocomial owledge and | | |
| | | C | DUTLIN | IE OF TH | | RSE: | | | | |
| UNITS | TITLE OF | THE UNIT | | | | MINIMU | M NUMBER | OF HOURS | | |
| UNIT-I | JNIT-I GENERAL MICROBIOLOGY | | | | | | | 5 | | |
| UNIT-II | JNIT-II IMMUNOLOGY | | | | | | | 5 | | |
| UNIT-II | JNIT-III BACTERIOLOGY | | | | | | 08 Hours | 6 | | |
| UNIT-IV VIROLOGY 08 H | | | | | | | 08 Hours | 5 | | |
| UNIT-V | MISLANE | OUS | | | | | | 08 Hours | | |
| | | Total (M | inimal) | | | | 40 Hours | | | |
| | | | | | • • | | | | | |
| | | | | UNIT | -1 | | | | | |
| S. No. | GENERAL | | | | | | 0 | 8 Hours | | |
| <u>1.</u> | Introduction a | | | | | Orrestla | | | | |
| 2. | Morphology, identification | Nutritional | Req | uirements,I | vietabolism | n, Growth, | Classific | cation and | | |
| 3. | Sterilizations | | ction. | | | | | | | |
| 0. | Otomizationio | | | UNIT | _11 | | | | | |
| S. No. | IMMUNOLO | CV. | | | | | 08 | Hours | | |
| <u>1.</u> | | | ens anti | body antig | en-Antiboo | ly Reaction | | 08 Hours | | |
| 2. | Structure and | | | | | | | eyetein. | | |
| 3. | Immunodefici | | | | | | | | | |
| <u>.</u> | | <u></u> | <u>, , , , , , , , , , , , , , , , , , , </u> | UNIT | | | | | | |
| S. No. | BACTERIO | OGY | | | | | 08 | Hours | | |
| <u>3. No.</u> 1. | Staphylococc | | COCCUS F | neumococ | cus. Neiss | eria | | | | |
| 2. | Cornybacteriu | | - | | | | | | | |
| 3. | Enterobacteri | | | | | | | | | |
| <u>4.</u> | Mycobacteria | | | | | | | | | |
| | , | | | UNIT- | IV | | | | | |
| S. No. | VIROLOGY | 1 | | | | | 80 | Hours | | |
| <u>3. No.</u> 1. | General Char | | nd Class | sification of | Virus | | | | | |
| 2. | Virus-Host Int | | | | | | | | | |
| <u>2.</u> 3. | DNA and RN | | | | | | | | | |
| <u>4.</u> | Measles, Mur | | a, Polio | Influenza. F | Rabies. De | ngue. Hepatit | is. HIV | | | |
| - | ····· | , , | ,, | , • | , = • | J , , , , , , , , , , , , , , , , , , , | , | | | |

| | UNIT-IV | |
|--------------|--|----------|
| S. No. | MISLANEOUS: | 08 Hours |
| 1. | Medical Mycology | |
| 2. | Parasitology | |
| 3. | Normal Microbial Flora of The Human Body | |
| 4. | Hospital Acquired Infection | |
| 5. | Universal Precautions | |
| | BOOKS RECOMMENDED: | |
| | TEXTBOOKS: | |
| 1 . T | extbook of Parasitology- K. D. Chatterjee (12 th Ed.) | |
| | ext Book of Microbiology - Paniker (9 th Ed.) | |
| 3. E | ssentials of Medical Microbiology- Sastry Apurba Shankar (1 st Ed.) | |
| 4. T | extbook of Microbiology - P.Chakraboty | |
| 5. T | extbook of Microbiology – Anantnarayan | |
| | REFERENCE BOOKS: | |
| 1. | | |
| 2. | | |
| 3. | | |
| 4. | | |

| At th | e end of the semester the student will be able to: |
|-------|--|
| 1. | |
| 2. | |
| 3. | |
| 4. | |
| 5. | |

| | SUBJE | ECT NAM | ME: | | E | EXERCISE | THERA | PY |
|---|---|---|--|---|--|--|--|--|
| | SUBJE | ECT COI | DE: | | | PT | 203 | |
| | Hrs. / Wk. | | | Credits | | - | otal Mark | S |
| L | T | Р | L | T | Р | ТА | СТ | ESE |
| 3 | 1 | 0 | 3 | 1 | 0 | 15 | 25 | 60 |
| | 4 | | | 4 | | 4 |) | 60 |
| | | OB | JECTI | VES OF 1 | THE COL | JRSE: | | |
| positions acquire t skill of a therapeu exercise. measure motion & & their ef UNIT-I UNIT-I UNIT-II UNIT-III UNIT-III | THERAPEU | rate move of various arious mar / demerits ill of asses els. Recall o understar peutic gym C HE UNIT TION TO E MOTION & JSCLE TES TIC GYMN | ments in tools of nual music of the sa ssment o the basic nd the ap nasium, 8 DUTLIN <u>XERCISE</u> GONION STING (M ASIUM A | terms of v the Goniom cle testing p me and also f Gait, Pos plication of a suspension IE OF TH THERAPY METRY METRY MMT) & STR ND SUSPE | various Ana netry and morocedures of know abo ture and us of Physics such princion therapy u E COUR | atomical plane heasure range & describe th ut various too ses of Ambul related to me ples to the sin used in therap SE: | es. To des of motion le Physiolo ls used in s atory devic chanics of nple equip eutics. | Scribe & also begical effects strengthening ces and the f movement ment design Minimum ber of Hours 08 Hours 08 Hours 08 Hours 08 Hours |
| UNIT-V | POSTURE, O | | AMBULA Total (Mir | | INING | | | 08 Hours 40 Hours |
| | | | TOtal (IVIII | iiiiaij | | | | 40 110015 |
| | | | | UNIT | -1 | | | |
| S. No. | INTRODUC | TION TO I | EXERCI | SE THERA | PY: | | 08 | Hours |
| 1. | starting pos effects & use | ition & de | erived po iotherap | osition incl y. | luding join | n: Brief desc it positions, otion & Class | muscle w | /ork, stabili |
| 2. | | f applicatic ements sted mover ovement | on, indicat | tion, contrai | | effects & uses | of the follo | |
| 2. | Techniques o 1. Active mov 2. Active assi 3. Passive mo | f applicatic ements sted mover ovement | on, indicat | tion, contrai | ndication, e | effects & uses | of the follo | |
| | Techniques o 1. Active mov 2. Active assi 3. Passive mo | f applicatic ements sted mover ovement ovement | n, indicat | UNIT- | ndication, e | effects & uses | of the follo | |
| <u>S. No.</u> 1. | Techniques o 1. Active mov 2. Active assi 3. Passive mo 4. Resisted m RANGE OF Range of Mo End feels of t | f applicatic ements sted mover ovement ovement MOTION tion: Defir he Joints. | n, indicat ment & GONI hition of R | UNIT- OMETRY: Range of Mc | ndication, e | al range of mc | tion, norm | wing- 08 Hours al & abnorm |
| <u>S. No.</u> 1. | Techniques o 1. Active mov 2. Active assi 3. Passive mo 4. Resisted m RANGE OF Range of Mo End feels of ti Goniometry: | f application ements sted movement ovement ovement MOTION tion: Definition Definition Festing po | ment & GONI nition of R of Gonio sition, pr | UNIT- OMETRY: Range of Mo metry and i ocedure an | ndication, e | | tion, norm | wing- 08 Hours al & abnorm application |
| S. No. | Techniques o 1. Active mov 2. Active assi 3. Passive mo 4. Resisted m RANGE OF Range of Mo End feels of th Goniometry : goniometry. | f application ements sted movement ovement ovement MOTION tion: Definition Definition Festing po | on, indicat ment & GONI nition of R of Gonio sition, pro- runk. | UNIT- OMETRY: Range of Mo metry and i ocedure an UNIT- | ndication, e | al range of mo | tion, norm nique and 1 of the jo | wing- 08 Hours al & abnorm application |

| | | Indication, Contraindication, Precaution, Testing position, procedure and grad | ing of muscles |
|------|------|--|--------------------|
| | | of the upper limb, lower limb trunk, face and neck. | |
| 2. | | Strengthening Exercise: Definition of Strengthening Exercise. Principles, dif | |
| | | Strengthening Exercise, Indication, Contraindication, Precaution, techniques o | f application of |
| | | Strengthening Exercises. | |
| | | UNIT-IV | |
| S.N | lo. | THERAPEUTIC GYMNASIUM AND SUSPENSION THERAPY: | 08 Hours |
| 1. | | Therapeutic Gymnasium: Set-up of gymnasium & its importance, various eq | uipment in the |
| | | gymnasium. Operational skills, effects, & uses of each equipment. | |
| 2. | | Suspension Therapy: Definition, types, principles, technique of applicati | on, indication, |
| | | contraindication, precaution, effects & uses of suspension therapy. | |
| | _ | UNIT-V | |
| S. N | lo. | POSTURE, GAIT AND AMBULATORY TRAINING: | 08 Hours |
| 1. | | Posture: Posture overview: Mechanism of the normal posture. Abno | rmal posture: |
| | | assessment, types, aetiogenesis management including therapeutic exercises. | in a star of a sit |
| 2. | | Gait: Definition of Gait, Gait cycle. Time-distance Parameters of Gait, detern Gait deviations. | linants of gait, |
| 3. | | Ambulatory Training: Walking aids and its types, indications, contraindica | tion effects & |
| 5. | | uses in various training techniques. | |
| | | BOOKS RECOMMENDED: | |
| | | TEXTBOOKS: | |
| 1. | Kisı | ner and Colby. F.A. Davis, Therapeutic Exercises Foundations and Techniques | |
| 2. | | rdiner, Principle of Exercise Therapy, C.B.S. Delhi. | |
| 3. | | kins & White F.A. Davis, Measurement of Joint Motion: A Guide to Goniometry. | |
| 4. | | od - W.B. Saunders, Beard's Massage. | |
| 5. | | ndal, Muscle testing and functions, Williams & Wilkins. | |
| 6. | Bat | es and Hanson, Aquatic Exercise Therapy | |
| 7. | Mai | rgarett Hollis, Massage for therapist: Margarett Hollis | |
| 8. | Hol | lis, Lab Exercise Therapy, Blackwell Scientific Publications. | |
| | | REFERENCE BOOKS: | |
| 1. | | | |
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| 3. | | | |

| At the end of the semester the student will be able to: | |
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| | SUBJECT N | NAME: | | | ELECTRO | OTHERAF | γ |
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| | | (| w.e.f. July | 2015) | | | |
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| UNITS | | TITLE OF | THE UNIT | | | MINIMUM | NUMBER |
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| UNIT-I | BASIC OF CURRE | NTS & LOW | FREQUEN | CY CURRE | NTS | 08 H | Hours |
| UNIT-II | MEDIUM FREQUE | NCY CURRE | ENTS | | | 08 H | Hours |
| UNIT-III | HIGH FREQUENC | Y CURRENT | ſS-I | | | 08 H | Hours |
| UNIT-IV | HIGH FREQUENC | Y CURRENT | ſS-II | | | 08 H | Hours |
| UNIT-V | ELECTRO PHYSIC | CAL AGENTS | S -I | | | 08 H | Hours |
| | | Total (Minin | nal) | | | 40 H | lours |
| | | | UNIT | -1 | | | |
| S.No. | BASIC OF CURREN | ITS & LOW | - | | NTS: | | 08 Hours |
| 1. | Basic of Currents: | Introduction | to History | of currents. | Production, | Physiologic | al effects or |
| | Nerve and Muscle tis | | • | | | | |
| 2. | Transcutaaneous E | | - | | | | |
| | Nerve Stimulation (7 | ENS). Type | s of low fre | equency, pu | lse widths, | frequencies | & intensities |
| | used as TENS app | olications. P | rinciple of | clinical app | lication effe | ects & uses | indications |
| | contraindications, pr | ecautions, a | and operation | onal skills o | of equipmer | nt & patient | preparation |
| | Theories of pain relie | of by TENS. | | | | | |
| 3. | Muscle Stimulators | s (MS): Mu | scle Stimul | ators (MS) | Types of f | requency, p | ulse widths |
| | frequencies & intens | sities used a | s MS applic | ations. Prin | nciple of clin | ical applicati | on effects & |
| | uses indications, cor | ntraindication | is, precautio | ons, and ope | erational skil | Is of equipme | ent & patien |
| | preparation. | | | | | | |
| 4. | Iontophoresis: Def | inition, Phys | siological & | Therapeuti | ics effects, | Principle of | application |
| | Methods of Application | on, indicatior | ns, contraind | dications, pr | ecautions. | | |
| | | | | -11 | | | |
| S.No. | MEDIUM FREQUE | | RENTS: | | | | 08 Hours |
| | Interferential Thera | apy (IFT): I | History of | Interferentia | I therapy (| IFT), Types | of medium |
| 1. | f | مادامه فسم مراده | naina 0 int | | ad as IET | annlications | Dringinla o |
| | frequency, pulse wi | atns, treque | ncies & int | ensities use | של משודו מ | applications. | Principle 0 |
| | clinical application, e | • | | | | | • |

| | Russian Currents (RC): Russian Currents (RC), Types of frequency, pulse width |
|-------------------------------|---|
| | frequencies & intensities used as RC applications. Principle of clinical application effect |
| | uses, indications, contraindications, precautions, and operational skills of equipment |
| | patient preparation. |
| | UNIT-III |
| S.No. | HIGH FREQUENCY CURRENTS-I: 08 Hours |
| 1. | Ultrasound Therapy Unit (UST): Ultrasound therapy Unit (UST), Production, Physiologic |
| | & Therapeutics effects, Principle of application of Ultrasound therapy, Methods of Application |
| | of UST, phonophorosis, effects, indications, contraindications, precautions, and patie |
| | preparation. |
| 2. | Long Wave Diathermy (LWD): Long Wave Diathermy (LWD), Production, Physiological |
| | Therapeutics effects, Principle of application of Long Wave Diathermy, Methods |
| | Application of LWD, effects, indications, contraindications, precautions, and patie preparation. |
| 3. | Extracorporeal Shock Wave Therapy (ECSWT): Brief overview |
| | |
| S.No. | HIGH FREQUENCY CURRENTS-II: 08 Hour |
| 1. | Shortwave Diathermy (SWD): Shortwave Diathermy (SWD), Production, Physiological |
| | Therapeutics effects, Principle of application of Shortwave Diathermy, Methods |
| | Application of SWD, types of electrodes, effects, indications, contraindications, precaution |
| | dangers and patient preparation. |
| 2. | Micro Wave Diathermy (MWD): Micro Wave Diathermy (MWD), Production, Physiological |
| | Therapeutics effects, Principle of application of Microwave Diathermy, Methods |
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| | Application of MWD, effects, indications, contraindications, precautions, dangers and patie |
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| | Application of MWD, effects, indications, contraindications, precautions, dangers and patie |
| S.No. | Application of MWD, effects, indications, contraindications, precautions, dangers and patie preparation. |
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| | Application of MWD, effects, indications, contraindications, precautions, dangers and patie preparation. UNIT-V ELECTRO PHYSICAL AGENTS -I: 08 Hours Cryotherapy: Cryotherapy (CT), Principle of Cryotherapy, Physiological effects, Methods |
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| 3. | Clinical Electrotherapy- Nelson and Currier |
|----|--|
| 4. | Electrotherapy Explained- Low and Reed |
| 5. | Electrotherapy in Rehabilitation-Meryl Roth Gersh |
| 6. | Therapeutic modalities in rehabilitation-William E. Prentice |
| | REFERENCE BOOKS: |
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| At th | e end of the semester the student will be able to: |
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| SU | BJECT NA | ME: | SU | RFACE A | NATOM | Y & PALPA | | SKILLS |
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| and sol elbow a palpate palpatic and ma | it tissue landn and wrist/hanc the landmark on skill to prepa | nark relatin d) and all r s, and prop are the stud | g to maj regions o minent a dents for | or extremity of the spine rea of the b more advan | joints, (foo (cervical, th ody for exa iced instruct | t/ ankle, knee horacic, lumbe mination. Ess ion concerning | e, hip, s er, pelv ential c g physi | cating osseous shoulder girdle ric). Be able to observation and cal examination I its importance |
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| UNIT-I | INTRODUC SKILLS | CTION OF | SURFAC | E ANATOM | Y & PALPA1 | TION | | 04 Hours |
| UNIT-II | | | - | PALPATION | | - | | 04 Hours |
| UNIT-III | | | | PALPATION | | | | 04 Hours |
| UNIT-IV | | | | PALPATION | | _/E | | 04 Hours |
| UNIT-V | BASIC PO | | | TIONAL SK | ILL | | | 04 Hours |
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| 0.11 | | | | UNIT | | | | 0411- |
| S.No. | SKILLS: | TION OF | SURF | ACE ANA | ATOMY & | PALPATIO | | 04 Hours |
| 1. | Terminology | | | • | | on skill. | | |
| 2. | Principle of | surface m | arking a | nd palpatio | า | | | |
| 3. | Types of pa | lpation and | d its use | s in assess | ment. | | | |
| 4. | Ethical and | legal issue | es regard | ding palpati | on techniqu | les. | | |
| | | | | | ·II | | | |
| S.No. | LANDMAR | K LOCATI | ON ANI | D PALPATI | ON SKILL | OF SPINE: | | 04 Hours |
| 1. | Landmark loo | cation and | alpation | skill of Lum | bopelvic regi | ion. | | |
| 2. | Landmark loo | cation and | alpation | skill of Thor | acic Spine. | | | |
| 3. | Landmark loo | cation and | calpation | skill of Cerv | ical and Occ | cipital region. | | |
| | • | | | UNIT- | | | | |
| S.No. | LANDMAR | K LOCATI | ON ANI |) PALPATI | ON SKILL | OF U/E: | | 04 Hours |
| 1. | Landmark loo | cation and | calpation | skill of Shou | ulder Girdle. | | | |
| 2. | Landmark loo | cation and | palpation | skill of Elbo | w. | | | |
| 3. | Landmark loo | cation and | calpation | skill of Wris | t & Hand | | | |
| | | | | UNIT- | IV | | | |
| 0.11. | LANDMAR | KIOCAT | ION AN | | | OF L/F | | 04 Hours |
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| 2. | Landmark location and palpation skill of Knee. |
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| 3. | Landmark location and palpation skill of Hip. |
| | UNIT-V |
| S.N | o. BASIC POSTURAL OBSERVATIONAL SKILL: 04 Hours |
| 1. | Normal body alignment, symmetry and plumb line. |
| 2. | Observation of static and dynamic posture in various positions (sitting, standing & walking) |
| | and gait. |
| | BOOKS RECOMMENDED: |
| | TEXTBOOKS: |
| 1. | A Manual Therapist Guide to Surface anatomy and Palpation Skills by David Byfield & Stua |
| | Kinsinger. |
| 2. | Orthopaedics Physical Assessment. By D Magee. |
| 3. | An Introduction of fundamental Anatomy by David Sinclair. |
| 4. | Human Anatomy by B.D. Chaurasiya- All 3 volumes. |
| 5. | Surface anatomy By John S.P. Lumley |
| 6. | Surface and Radiological Anatomy By A. Halim |
| | REFERENCE BOOKS: |
| 1. | |
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| At th | he end of the semester the student will be able to: |
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| | JBJECT NA | ME: | | PSYCHO | | & EXPER IOLOGY | IMENTAL | |
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| UNIT-III | | | | | | | 06 Hours | |
| UNIT-IV | / | | | | | | 06 Hours | |
| UNIT-V | | | | | | | 06 Hours | |
| | | Total (N | linimal) | | | | 30 Hours | |
| | | | | UNIT-I | | | | |
| S.No. | | | | | | | 06 | Hours |
| 1. | Definition, an | nlication a | nd mothe | ds in psycho | lamy Dialag | w of Rehav | ior, Sensory | |
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| S.No. | and perception | on, Princip | les of lea | arning, Class | ical and In ories, forget | strumental | Conditioning, ia. | processe Cognitive |
| | and perception | on, Princip nory, long : Language king and la | les of lea and short , Concep inguage of of motive | ts, thinking pr communications, motives to otions, physic | ical and In pries, forget rocess, prol on, Motivati know and plogy and a | strumental ting, amnes olem- solvin on, Biologic be effective | Conditioning, ia. 06 g and decisic al and Socia e, Emotion a | Cognitive Hours on making al motives |
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BOOKS RECOMMENDED:

TEXTBOOKS: Morgan C.T., King R. A., Weijz J. R. Schopler J. 1. Introduction to Psychology, 7th edn. (Tata McGraw-Hill Publishing Co. Ltd.) 2. Human Development, 5th. (Tata McGraw Hill Publishing Co. Ltd 3. Munn N.L. Introduction to Psychology-(Premium Oxford, I.B.P. Publishing Co.) 4. 5. Parameshwaran E. G. & Ravichandra K. - Experimental Psychology: A Laboratory Manual (1st edn.) (Seema Publications, Delhi) Munn Julia (ed.) **REFERENCE BOOKS:** 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13.

STUDENT LEARNING OUTCOMES/OBJECTIVES: At the end of the semester the student will be able to: 1. 2.

| | | SUBJ | | ME: | EXERCISE THERAPY LAB | | | | |
|------------------|---|---|---------------|--------------|----------------------|----------------|--------------|------------------|----------|
| | | | ECT CO | | PT 207 | | | | |
| | | | | | v.e.f. July | 2017) | | | |
| | Hrs. / Wk. Credits Total Marks | | | | | | | | |
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| 0 | | 0 | 4 | 0 | 0 | 4 | 30 | 30 | 40 |
| | | 4 | | | 2 | | | 60 | 40 |
| | | | OB | JECTI | /ES OF 1 | HE COL | JRSE: | | |
| | | | | | | | | ion techniques, | effects, |
| indic | catio | ons, and contra | | | | | | herapy. | |
| | | | C | DUILIN | E OF TH | ECOUR | 5E: | | |
| S.N | | TITLE OF TH | | | | | | | Hours |
| 1. | | | ints, muscl | e work, a | and stability | of various | s fundamen | tal and derived | |
| 2. | | positions. Different type | s of muscl | e contrac | tion musc | e work an | oun action (| of muscles and | |
| ۷. | | coordinated m | | | | o work, gr | | | |
| 3. | | Measurement | | | | | | | |
| 4. | | | ne grading | of muscle | e strength r | egion wise | upper limb | and lower limb | |
| 5 | | and trunk. | iques of pr | arossivo | strongthon | ing overeig | | es region wise. | |
| <u>5.</u> 6. | | | | | | | | is part of body- | |
| 0. | | region wise. | o or susperi | | apy and its | application | | is part of body- | |
| 7. | | | d functions | s along | with appl | ication of | various e | quipment in a | |
| | | gymnasium. | | | | | | | |
| 8. | Use of various ambulation aids in gait training. Evaluate ADLs and practice various training techniques. | | | | | | | | |
| <u>9.</u> 10. | | Normal and al | | | <u>v</u> | | ve techniqui | 25 | |
| 10. | | | | | al (Minimal) | | | | 60 |
| | | | | BOOK | | |)• | | - |
| | | | | | TEXTBO | | ′ • | | |
| 1. | Kis | Kisner and Colby. F.A. Davis, Therapeutic Exercises Foundations and Techniques | | | | | | | |
| 2. | Ga | Gardiner, Principle of Exercise Therapy, C.B.S. Delhi. | | | | | | | |
| 3. | | Norkins & White F.A. Davis, Measurement of Joint Motion: A Guide to Goniometry. | | | | | | | |
| 4. | | Nood - W.B. Saunders, Beard's Massage. Kendal, Muscle testing and functions, Williams & Wilkins. | | | | | | | |
| 5. | | | - | | | | | | |
| 6. | | argarett Hollis, | | | | | 200 | | |
| 7. | | ollis, Lab Exerc | use i nerap | | ERENCE | | JIIS. | | |
| 1. | | | | | | DOOKS . | | | |
| 2. | | | | | | | | | |
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| | | | | | | COMES/O | BJECTIVE | S: | |
| | e en | d of the semest | ter the stude | nt will be a | able to: | | | | |
| <u>1.</u> | | | | | | | | | |
| 2. | | | | | | | | | |

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| SUBJECT CODE: | | | | | | PT 208 | | | | |
| | | | | v.e.f. July | 2015) | | 11200 | | | |
| | Hrs. / Wk. Credits | | | | | | Total Marks | | | |
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| | 4 | | | 2 | | | 60 | 40 | | |
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| | course involves | | | | | | | | | |
| Indica | ations, and contra | | | E OF TH | | | used in Physio | inerapy. | | |
| | | Ľ | | | | JKJE: | | | | |
| | | | | | | | | r | | |
| S.No | | | | | | explain the r | ationale for th | ne Hours | | |
| 1. | prescription of Basic operation | | | | | ities. I safety device. | | | | |
| <u>1.</u> 2. | • | | | | | by various type | s of low | | | |
| ۷. | - | | | Grees and I | 1030163 | | | | | |
| 3. | | frequency currents on self. Locate and stimulate different motor points region wise, including the upper and lower | | | | | | | | |
| э. | limb, trunk & fa | | | | | | | | | |
| 4. | , | | ifferent lov | w frequency | / current | s faradic foot b | ath, faradism | | | |
| | | Therapeutic application different low frequency currents faradic foot bath, faradism under pressure, lontophoresis. | | | | | | | | |
| 5. | | | | | | | | | | |
| 6. | | • | | • • | | | | | | |
| 7. | | | | | | | | | | |
| 8. Hydrocollatar bath unit, its operation and different method of application- region wise. | | | | | | |). | | | |
| 9. | | | | | | od of applicatio | • | | | |
| 10. | | Various forms of therapeutic cold application region wise including ice, cold packs, | | | | | | | | |
| | vapocoolant sp | | | | - | | - | | | |
| 11. | | | | | | hod of applicat | |). | | |
| 12. | | Ultrasound unit, its operation and methods of application - regionwise. | | | | | | | | |
| 13. | Short wave diathermy unit, its operation and different methods of application - regionwise. | | | | | | | | | |
| 14. | Microwave diathermy unit, its operation and different methods of application - | | | | | | | | | |
| 1 -TI | regionwise. | | | | | | | | | |
| | · | | Tota | al (Minimal) | | | | 60 | | |
| | | | POOK | S RECON | | | | | | |
| | | | | TEXTBO | | | | | | |
| 1. | Clayton's Electroth | nerapy | | | | | | | | |
| 2. | Electrotherapy Explained- Sheela & Kicthen | | | | | | | | | |
| 3. | Clinical Electrotherapy- Nelson and Currier | | | | | | | | | |
| 4. | Electrotherapy Explained- Low and Reed | | | | | | | | | |
| 5. | Electrotherapy in Rehabilitation-Meryl Roth Gerth | | | | | | | | | |
| 6. | Therapeutic modalities in rehabilitation-William E. Prentice | | | | | | | | | |
| | | | REF | ERENCE | BOOK | S: | | | | |
| 1. | | | | | | | | | | |
| 2. | | | | | | | | | | |
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4.

STUDENT LEARNING OUTCOMES/OBJECTIVES:

At the end of the semester the student will be able to:

| 1. | |
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| 2. | |
| 3. | |

| | SUBJI | ECT NA | ME: | SURFACE ANATOMY & PALPATION SKILLS LAB PT 209 | | | | | |
|----------|--|------------|-----------|---|-------------|-----------------|-------------|----------------|--|
| | SUBJ | ECT CO | DE: | | | | | | |
| | Hrs. / Wk. | | | Credits | Total Marks | | | | |
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| | | OE | BJECTI | VES OF | | URSE: | | | |
| | rse involves a | | | | | | | l, indications | |
| and cont | ra-indications, | | | | | | siotherapy. | | |
| | | | | IE OF TH | | | | | |
| S.No. | | | | | | in the rational | e for the | Hours | |
| | prescription of safe and effective knowledge of surface anatomy and | | | | | | | | |
| 4 | Palpation Skill. | | | | | | | | |
| 1. | Terminology related to surface anatomy, and palpation skill. | | | | | | | | |
| 2. | Principle of surface marking and palpation, Types of palpation and uses. | | | | | | | | |
| 3. | Normal body alignment and symmetry. | | | | | | | | |
| 4. | Observation of static and dynamic posture in various positions (sitting, | | | | | | | | |
| | standing & w | | | | | | | | |
| 5. | Landmark location and palpation skill of Lumbopelvic region. | | | | | | | | |
| 6. | Landmark location and palpation skill of Thoracic Spine. | | | | | | | | |
| 7. | Landmark location and palpation skill of Cervical and Occipital region. | | | | | | | | |
| 8. | Landmark location and palpation skill of Shoulder Girdle. | | | | | | | | |
| 9. | Landmark location and palpation skill of Elbow. | | | | | | | | |
| 10. | Landmark location and palpation skill of Wrist & Hand | | | | | | | | |
| 11. | Landmark location and palpation skill of Food & Ankle. | | | | | | | | |
| 12. | Landmark lo | cation and | palpatior | n skill of Kne | е. | | | | |
| 13. | Landmark location and palpation skill of Hip. | | | | | | | | |
| | 1 | | Total | (Minimal) | | | | | |

| | BOOKS RECOMMENDED: | | | | | | |
|----|--|--|--|--|--|--|--|
| | TEXTBOOKS: | | | | | | |
| 1. | A Manual Therapist Guide to Surface anatomy and Palpation Skills by David Byfield & Stuart | | | | | | |
| | Kinsinger. | | | | | | |
| 2. | Orthopaedics Physical Assessment. By D Magee. | | | | | | |
| 3. | An Introduction of fundamental Anatomy by David Sinclair. | | | | | | |
| 4. | Anatomy of Chaurasiya- All 3 volumes. | | | | | | |
| 5. | Surface anatomy By John S.P. Lumley | | | | | | |
| 6. | Surface and Radiological Anatomy By A. Halim | | | | | | |
| | REFERENCE BOOKS: | | | | | | |
| 1. | | | | | | | |
| 2. | | | | | | | |
| 3. | | | | | | | |

STUDENT LEARNING OUTCOMES/OBJECTIVES: At the end of the semester the student will be able to:

1. 2. 3.

SCHEME OF EXAMINATION & MODELS OF QUESTION PAPER OF BACHELOR OF PHYSIOTHERAPY (BPT)

| | | | S | CHEN | 1E OF | F EXA | MINA | | N | | | | |
|-------|----------|------------|-----------|-------------|---------|--------------|--------------|--------|------------|---------|-------|------------|--|
| | | | | | TH | IEORY | : | | | | | | |
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| MSE-1 | MS | E-2 Ma | akeup | ST-1 | ST-2 | Q-1 | Q-2 | A-1 | A-2 | A-3 | A-4 | Attendance | |
| 25 | 2 | 25 | 25 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | |
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| | | | | | | s Test (| CT) | | | | | | |
| | 1: 25 Ma | arks | | PM: 13 | • • | | | | Tim | ne: 1:3 | 0 Hou | - | |
| Q.No. | | · • · | _ | | Nodels | | | | | | | Marks | |
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| | | | I | | uestic | on from | | Unit | 1> | | | 4 5 | |
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| | b. | i) i) | | ii) ii) | | | iii) | | iv) iv) | | | 1.5 | |
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| | e. i) | | | ii) | | | iii) | | | iv) | | 1.5 | |
| 2. | | Question | ns (anv t | , | | | ··· <i>)</i> | | 17) | | 2 | 2.5X3=7.5 | |
| 2. | a. | Question | | meej | | | | | | | - | 2.5 | |
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| | d. | | | | | | | | | | | 2.5 | |
| | e. | | | | | | | | | | | 2.5 | |
| 3. | Long | Question | s (any ty | wo) | | | | | | | | 5X2=10 | |
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| | | | | End Ser | | | | (ESE) | | | | | |
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| Q.No. | | | | | Nodels | 6 | | | | | Mark | | |
| 1. | Multip | ole Choice | e Questi | | | _ | <u> </u> | | | | | 1X12=12 | |
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| | j. | i) | ii) | iii) | iv) | 1 |
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| | k. | i) | ii) | iii) | iv) | 1 |
| | l. | i) | ii) | iii) | iv) | 1 |
| 2. | Short Q | 3X4=12 | | | | |
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| | C. | | | | | 3 |
| | d. | | | | | 3 |
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| 3. | Short Q | | 3X4=12 | | | |
| | a. | | | | | 3 |
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| 4. | Long Qu | | 6X2=12 | | | |
| | а | | | | | 6 |
| | b. | | | | | 6 |
| | С. | | | | | 6 |
| 4. | Long Qu | uestions (any | Two) | | | 6X2=12 |
| | а. | | | | | 6 |
| | b. | | | | | 6 |
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STUDY & EVALUATION SCHEME OF BACHELOR OF PHYSIOTHERAPY

(BPT - II YEAR/ IV SEMESTER)

[Applicable w.e.f. Academic Session 2020-21 till revised]



INTEGRAL UNIVERSITY, LUCKNOW DASAULI, P.O. BAS-HA KURSI ROAD, LUCKNOW – 226026

Website: www.iul.ac.in

Approved by

Syllabus approved by Board of Study, Faculty Board, Academic Council, Executive Council of the Integral University, Lucknow

STUDY & EVALUATION SCHEME BACHELOR OF PHYSIOTHERAPY (BPT)

(w.e.f. July 2020)

II-Year

IV-Semester

| S. | Code | Name of the Subject | P | eriods | 1 | Total | Ev | aluatio | on Sche | me | Subject |
|-----|--------|--|----|--------|----|---------|-----|---------|---------|------|---------|
| No. | No. | interior or the seafers | | | | Credits | S | ession | al | Exam | Total |
| 100 | annes. | | L | T | P | | CT | TA | Total | ESE | |
| 1. | PT 210 | General Medicine | 2 | 1 | 0 | 3 | 40 | 20 | 60 | 40 | 100 |
| 2 | PT 211 | Pharmacology | 2 | 1 | 0 | 3 | 40 | 20 | 60 | 40 | 100 |
| 3. | PT 212 | Therapeutic Techniques | 3 | 1 | 0 | 4 | 40 | 20 | 60 | 40 | 100 |
| 4. | PT 213 | Electrotherapy & Electrodiagnosis | 3 | 1 | 0 | 4 | 40 | 20 | 60 | 40 | 100 |
| 5. | PT 214 | Basic of Biomechanics | 3 | 1 | 0 | 4 | 40 | 20 | 60 | 40 | 100 |
| 6. | PT 215 | Ethics in Physiotherapy | 2 | 0 | 0 | 2 | 40 | 20 | 60 | 40 | 100 |
| 7. | PT 216 | Therapeutic Techniques-Lab | 0 | 0 | 4 | 2 | 40 | 20 | 60 | 40 | 100 |
| 8. | PT 217 | Electrotherapy & Electrodiagnosis-Lab | 0 | 0 | 4 | 2 | 40 | 20 | 60 | 40 | 100 |
| 9. | PT 218 | Basic of Biomechanics-Lab | 0 | 0 | 2 | 1 | 40 | 20 | 60 | 40 | 100 |
| | - | Total | 15 | 05 | 10 | 25 | 360 | 180 | 540 | 360 | 900 |

| L: Lecture | T: Tutorials | P: Practical | C: Credit | CT: Class Test |
|---|--------------|--------------|--|------------------------|
| TA: Teacher Assessment | | | ESE: End Semester Exam | ination |
| Sessional Total: Class Test + Teacher Assessment | | | Subject Total: Sessiona Examination (ESE) | I Total + End Semester |

AIMS AND OBJECTIVES OF BPT DEGREE COURSE

On completion of the course of study having successfully passed the examination, the candidate would be able to achieve a satisfactory level of efficiency:-

- To Detect and evaluate the anatomical, patho-physiological impairments, resulting in dysfunction of various age groups & occupation; as well as epidemiological sectors in the population & arrive at appropriate diagnosis.
- To understand the rationale & basic investigative approach to the medical system and surgical intervention regimens & accordingly plan & implement specific Physio-Therapy measures effectively.
- 3. To be able to select strategies for cure and care; adopt restorative & rehabilitative measures for maximum possible independence of a client at home, work place & in the community.
- **4.** To maintain healthy relationship & Co-partnership with various professionals in the health delivery system in the primary interest of a client.
- To ensure quality assurance & motivate the client & her/his family for a desirable client compliance.
- **6.** To develop communication skills for the purpose of transfer of suitable technique to be used creatively at various stages of treatment, compatible with psychological status of the beneficiary.
- 7. To promote health in general in Geriatrics, Women's health, Industrial medicine as well as at competitive level, such as sports, keeping in mind National Health Policies.
- **8.** To practice professional autonomy & ethical principles with referral as well as first contact clients in conformity with ethical code for physiotherapists.

SYLLABI OF BACHELOR OF PHYSIOTHERAPY (BPT - II YEAR/ IV SEMESTER)

GOAL:

The broad goal of the teaching of undergraduate students in Anatomy aims at providing comprehensive knowledge of the gross anatomy, microscopic structures, development of human body and principles of genetics to provide a basis for understanding the clinical correlation of organs or structure involved and the skills to practice as a qualified Physiotherapist.

OBJECTIVES:

A – Knowledge: At the end of the course, the student should be able to:

- 1. Comprehend the normal disposition, inter-relationships, gross, functional and applied anatomy of the musculoskeletal system, locomotion, posture, gait and various organs in the body.
- Comprehend the basic structure and connections between the various parts of the central nervous system so as to analyze the integrative and regulative functions of the organs and systems. He/she should be able to locate the site of gross lesions according to the deficits encountered.
- 3. Identify the microscopic structures of various tissues and organs in the human body and correlate the structure with the functions.
- 4. To understand the basic principles of embryology including genetic inheritance and stages involved in development of the organs and systems from the time of conceptions till birth.
- 5. To study the basic principles of radiology and for comprehending deeper structures in the human body.

B. Skills: At the end of the course the students shall be able to:

- 1. Identify and locate all the structures of the body and mark the topography of the living anatomy.
- 2. Identify the organs and tissues under the microscope.
- 3. Understand principles of karyotyping and identify the gross congenital anomalies.
- 4. Understand the principles of imaging techniques and interpretation of anatomical structures on plane radiographs of the body.

C. Integration

From the integrated teaching of other basic sciences, students shall be able to comprehend the functions of the organs and systems in the body and thus interpret the anatomical basis of disease processes.

| | SUBJ | ECT NA | ME: | | | PATH | IOLOGY | | |
|----------|-----------------------------------|-------------|-------------------------|--------------------------|--------------|-----------------------------|----------------|--|--|
| | SUBJ | ECT CO | DE: | | PT 201 | | | | |
| | | | | (w.e.f. Ju | ly 2017) | | | | |
| | Hrs. / Wk. | | | Credits | | | Total Mark | S | |
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| 2 | 1 | 0 | 2 | 1 | 0 | 15 | 25 | 60 | |
| | 3 | | | 3 | | 4 | 0 | 60 | |
| | | 0 | BJECT | IVES OF | THE CO | URSE: | | | |
| emphasi | is will be place scular system | ed on descr | ption of r ous syste | nusculoske m, as thes | letal anator | ny which inclued to the app | udes bones, j | ures. Particular pints, muscles, hysiotherapy in | |
| UNITS | TITLE OF 1 | | OUTE | | | | | | |
| UNIT-I | CELL INJUR | - | | | 19 | | 08 Hours | HOUKS | |
| UNIT-II | VASCULAR | | | | | | 08 Hours | | |
| UNIT-III | BONES, JOI | | | | | 08 Hours | | | |
| UNIT-IV | HEPATO-BII SYSTEM | | | IMENTARY | 08 Hours | | | | |
| UNIT-V | CENTRAL NERVOUS SYSTEM | | | | | | 08 Hours | | |
| | | Total (Mi | nimal) | | | | 40 Hours | | |
| | | | | UNI | T-I | | | | |
| S. No. | CELL INJU | RY, INFLA | MMATI | ON & NEO | PLASMS: | | (|)8 Hours | |
| 1. | Cells: Brief gangrene. | out line | of cell i | njury, hyp | ertrophy, | atrophy, de | generation, | necrosis and | |
| 2. | Inflammatio exudates, gra | | n, vascula | ar and cellu | ılar phenon | nena, differen | ice between t | ransudate and | |
| 3. | Neoplasm: cancer pain s | | character | | | and maligna | nt tumor, spi | read of tumor, | |
| | | | | UNI | | | | | |
| S. No. | VASCULAF | | | | | | | Hours | |
| 1. | Volkmann's i | | | | rrhage, Err | nbolism, I hro | ombosis, Infra | action, Shock, | |
| 2. | | | | | dina disorde | er- Hemophilia | 9 | | |
| 3. | | | • | - | 0 | • | | therosclerosis, | |
| J. | coronary hea | - | - | | - | | | | |
| 4. | - | | | | | chiectasis, Ei | mphysema. | | |
| | | | | UNI | Г-Ш | | | | |
| S. No. | BONES, JC | INTS & M | USCUL | | | | 08 | Hours | |
| | | | | | | | | | |

| 1. | Bones: Etiopathogenesis and gross pathology of fallowing conditions: | Rickets/Osteomalacia, |
|-----------|--|------------------------|
| | Osteoporosis, Osteomyelitis, Hyperparathyroidism. | |
| 2. | Joint: Osteoarthritis, Rheumatoid Arthritis, Gout, Spondyloarthopathy | (including Ankylosing |
| | Spondylitis), Osteonecrosis, Paget's disease. | |
| 3. | Muscles: Myositis ossificans, Myofascial Pain syndrome, Septic arthritis. | |
| | UNIT-IV | |
| S. No. | HEPATO-BILIARY, ENDOCRINE & INTEGUMENTARY SYSTEM: | 08 Hours |
| 1. | Hepato-Biliary System: Jaundice Types, etiopathogenesis and diagnosis | δ. |
| 2. | Endocrine: Diabetes Mellitus, Non Neoplastic lesion of thyroid-Thyrotoxic | |
| 3. | Skin: Brief outline of Scleroderma, Psoriasis, Pressure Ulcer, and Burn. | • • |
| | UNIT-V | |
| S. No. | - | 08 Hours |
| 1. | CNS: Etiopathogenesis and gross pathology of fallowing conditions- N | |
| 1. | | • • • |
| | Parkinson's, Amyotrophic lateral sclerosis, Ataxias, Multiple sclerosis, | 1 (|
| | Marie Tooth disease, Compression and Entrapments, diabetics G.B. Sy | ndrome), malformation, |
| | CVA, Extredural and Intra Dural Hematoma. | |
| 2. | Muscle Neuropathies: Poliomyelitis, Myopathies, Myasthenia gravis, Mu | scular dystrophy. |
| | BOOKS RECOMMENDED: | |
| | TEXTBOOKS: | |
| 1. B | asic Patho – Kumar and Clark | |
| | ext book of Pathology - by Harsh Mohan | |
| | extbook of Pathology By Boyd | |
| | athologic basis of deseases by Cotran, Kumar, Robbins | |
| | eneral Pathology – by Bhende | |
| J. G | REFERENCE BOOKS: | |
| 1. | REFERENCE BOORS. | |
| 2. | | |
| 3. | | |
| 4. | | |
| 5. | | |
| 6. | | |
| 7. | | |
| 8. | | |
| | STUDENT LEARNING OUTCOMES/OBJECTIVES: | |
| At the e | and of the semester the student will be able to: | |
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| 5. | | |
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| | SU | BJECT N | AMF | | | MICE | ROBIOLOC | θY | | |
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| | | BJECT C | | | | | PT 202 | | | |
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| | | | (| w.e.f. July | / 2015) | | T () N | | | |
| | Hrs./Wk. | D | | Credits | _ | TA | Total Marks | | | |
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| | 3 | | IECTI | VES OF | | | ŧU | 60 | | |
| human Microbic infection understa | nd of the cours infections, pology involves is and precaut anding of Microve measures to | e, the cand ertaining to the study ionary mea obiology of o the patien | idate will o Immu of con sures to disease t. | have soun nology, Vi nmon orga protect on s is essen | id knowled rology, Ba inisms ca ie from ac tial to inst | ge of the ager acteriology, a using disease quiring infecti itute appropria | & mislenious es including ons. The knc | condition. nosocomial wledge and | | |
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| UNITS | _ | THE UNIT | | | | MINIMU | M NUMBER (| OF HOURS | | |
| UNIT-I | | | DLOGY | | | | 08 Hours | | | |
| UNIT-II | IMMUNOL | | | | | | 08 Hours | | | |
| UNIT-III | BACTERI | | | | | | 08 Hours | | | |
| UNIT-IV | | | | | | | 08 Hours | | | |
| UNIT-V | | | | | | | | 08 Hours | | |
| | | Total (M | inimal) | | | | 40 Hours | | | |
| | | | | UNIT | - | | | | | |
| S. No. | GENERAL | | | | | | 30 | B Hours | | |
| 1. | Introduction a | | | | | | | | | |
| 2. | identification | | | uirements,I | Metabolism | n, Growth, | Classific | ation and | | |
| 3. | Sterilizations | and Disinfe | ction. | | | | | | | |
| | | | | UNIT | -11 | | 1 | | | |
| S. No. | IMMUNOLO | | | | | | | Hours | | |
| 1. | Infection, Imn | | | | | | Complement S | System. | | |
| 2. | Structure and | | | | | • | | | | |
| 3. | Immunodefici | ency Diseas | ses, Hype | | | unity. | | | | |
| | | | | UNIT | -111 | | | | | |
| S. No. | BACTERIO | | | | | | 08 | Hours | | |
| 1. | Staphylococc | | | | cus, Neiss | eria | | | | |
| 2. | Cornybacteriu | | | | | | | | | |
| 3. | Enterobacteri | • | | as, Vibrio. | | | | | | |
| 4. | Mycobacteria | , Treponem | a. | | | | | | | |
| | | | | UNIT- | ·IV | | | | | |
| S. No. | VIROLOGY | | | | | | 08 | Hours | | |
| 1. | General Char | acteristics a | nd Class | sification of | Virus | | | | | |
| 2. | Virus-Host Int | | | | | | | | | |
| 3. | DNA and RN | A Virus | | | | | | | | |
| 4. | Measles, Mur | nps, Rubella | a, Polio, | Influenza, F | Rabies, De | ngue, Hepatiti | s, HIV | | | |
| | | | | UNIT- | ·IV | | | | | |
| | | | | | | | | | | |

| S. No. | MISLANEOUS: | 08 Hours |
|---------------|--|----------|
| 1. | Medical Mycology | |
| 2. | Parasitology | |
| 3. | Normal Microbial Flora of The Human Body | |
| 4. | Hospital Acquired Infection | |
| 5. | Universal Precautions | |
| | BOOKS RECOMMENDED: | |
| | TEXTBOOKS: | |
| 1. T | extbook of Parasitology- K. D. Chatterjee (12 th Ed.) | |
| 2. To | ext Book of Microbiology - Paniker (9 th Ed.) | |
| 3. E | ssentials of Medical Microbiology- Sastry Apurba Shankar (1 st Ed.) | |
| 4. To | extbook of Microbiology - P.Chakraboty | |
| 5 . To | extbook of Microbiology – Anantnarayan | |
| | REFERENCE BOOKS: | |
| 1. | | |
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| At th | ne end of the semester the student will be able to: |
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| | SUBJ | | ME: | | | EXERCISE | THE | ERAP | Y |
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| | Hrs. / Wk. | | | Credits | | | | Marks | |
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| 3 | 1 | 0 | 3 | 1 | 0 | 15 | | 25 | 60 |
| | 4 | | | 4 | | 4 | 0 | | 60 |
| | | OB | JECTI | VES OF ⁻ | | JRSE: | | | |
| positions acquire t skill of a therapeu exercise. measure motion & & their ef | . To demons he skill of use oplication of v tic use, merits Acquire a sl ment on Mod will be able t ficacy in thera TITLE OF T INTRODUC | trate move e of various various man s / demerits kill of asse els. Recall o understan o understan peutic gym (HE UNIT | ments in s tools of nual muse of the sa ssment o the basic nd the ap nasium, o DUTLIN | terms of v the Gonion cle testing p me and also of Gait, Pos principles plication of & suspension IE OF TH | various Ana netry and r procedures to know abc ture and u of Physics such princ on therapy | nonstrate var atomical plan neasure range & describe th out various too ises of Ambu related to me iples to the sin used in therap | es. To e of m he Phy ols use latory echan mple e | o descr notion. A ysiologi ed in stru- devices ics of n equipme s. Min Numbe 08 | ibe & also Acquire the cal effects, engthening s and their novement / ent designs nimum er of Hours 3 Hours |
| UNIT-II | RANGE OF | MOTION 8 | | METRY | | | | 08 | Hours |
| UNIT-III | MANUAL M | USCLE TE | STING (N | /MT) & STF | RENGTHER | NING EXERC | ISE | 80 | Hours |
| UNIT-IV | THERAPEU | TIC GYMN | IASIUM A | ND SUSPE | NSION TH | ERAPY | | 08 | Hours |
| UNIT-V | POSTURE, | GAIT AND | AMBULA | TORY TRA | INING | | | | Hours |
| | | | Total (Mi | nimal) | | | | 40 | Hours |
| | | | | UNIT | 1 | | | | |
| S. No. | INTRODUC | | EXERCI | | | | | 08 H | ours |
| 1. | | | | | | n: Brief des | criptic | | |
| | | sition & d | erived p | osition inc | | nt positions, | | | |
| 2. | Movements: Definition of Movements, Brief description & Classification of movements. Techniques of application, indication, contraindication, effects & uses of the following- 1. Active movements 2. Active assisted movement 3. Passive movement 4. Resisted movement | | | | | | | | |
| | | | | UNIT- | ·II | | | | |
| S. No. | RANGE OF | | | | | | | | 08 Hours |
| 1. | End feels of | the Joints. | | | · | al range of mo | | | |
| 2. | | Testing po | sition, pr | ocedure ar | id measure | Principles, tech ement of ROI | | | |
| | | | | | | | | | |
| S. No. | MANUAL EXERCISE | MUSCLE | TEST | ring (Mi | MT) & | STRENGT | IENI | NG (| 08 Hours |
| 1. | Manual Mus | cle Testin | g (MMT) | : Definition, | Principle, | Grading and | applic | cations | techniques. |
| | Indication, C | ontraindica | tion, Pred | caution, Tes | sting position | on, procedure | and g | grading | of muscles |
| | | | | | | | | | |

| | | of the upper limb, lower limb trunk, face and neck. | |
|----------|------|--|-------------------|
| 2. | | Strengthening Exercise: Definition of Strengthening Exercise. Principles, di | fferent mode of |
| | | Strengthening Exercise, Indication, Contraindication, Precaution, techniques of | of application of |
| | | Strengthening Exercises. | |
| | | UNIT-IV | |
| S. N | lo. | THERAPEUTIC GYMNASIUM AND SUSPENSION THERAPY: | 08 Hours |
| 1. | | Therapeutic Gymnasium: Set-up of gymnasium & its importance, various ed | quipment in the |
| | | gymnasium. Operational skills, effects, & uses of each equipment. | |
| 2. | | Suspension Therapy: Definition, types, principles, technique of applicat | ion, indication, |
| | | contraindication, precaution, effects & uses of suspension therapy. | |
| | | UNIT-V | I |
| S. N | lo. | POSTURE, GAIT AND AMBULATORY TRAINING: | 08 Hours |
| 1. | | Posture: Posture overview: Mechanism of the normal posture. Abno | |
| <u> </u> | | assessment, types, aetiogenesis management including therapeutic exercises. | |
| 2. | | Gait: Definition of Gait, Gait cycle. Time-distance Parameters of Gait, detern Gait deviations. | minants of gait, |
| 3. | | Ambulatory Training: Walking aids and its types, indications, contraindications | ation, effects & |
| 0. | | uses in various training techniques. | |
| | | BOOKS RECOMMENDED: | |
| | | TEXTBOOKS: | |
| 1. | Kisr | ner and Colby. F.A. Davis, Therapeutic Exercises Foundations and Techniques | |
| 2. | Ga | rdiner, Principle of Exercise Therapy, C.B.S. Delhi. | |
| 3. | | kins & White F.A. Davis, Measurement of Joint Motion: A Guide to Goniometry. | |
| 4. | Wo | od - W.B. Saunders, Beard's Massage. | |
| 5. | Ker | idal, Muscle testing and functions, Williams & Wilkins. | |
| 6. | Bat | es and Hanson, Aquatic Exercise Therapy | |
| 7. | Mar | garett Hollis, Massage for therapist: Margarett Hollis | |
| 8. | Hol | lis, Lab Exercise Therapy, Blackwell Scientific Publications. | |
| | 1 | REFERENCE BOOKS: | |
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| At the | e end of the semester the student will be able to: |
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| Hrs. / Wk. Credits T P TA 3 1 0 3 1 0 15 4 4 4 4 4 44 OBJECTIVES OF THE COURSE: Describe the Production & Physiological effects, Therapeutic uses, merits, contraindications of various low, medium & high frequency modes of contraindications of various low, medium & high frequency modes of contraindication of the Electro therapy modes on models, for the purpose of Ass Acquire an ability to select the appropriate mode as per the tissue specific & arc UNITS UNITS ITTLE OF THE UNIT UNIT-I BASIC OF CURRENTS & LOW FREQUENCY CURRENTS UNIT-II MEDIUM FREQUENCY CURRENTS-I UNIT-II MEDIUM FREQUENCY CURRENTS-I UNIT-IV HIGH FREQUENCY CURRENTS-I UNIT-V ELECTRO PHYSICAL AGENTS -I UNIT-I Basic of Currents: Introduction to History of currents, Production, F Nerve and Muscle tissue and therapeutic effects to AC, DC and Modifi 2. Transcutaaneous Electric Nerve Stimulation (TENS): History of Tr Nerve Stimulation (TENS). Types of low frequency, pulse widths, fr used as TENS applications. Principle of clinical application effec 3. Muscle Stimulators (M | С | ;Т (| C | 0 | D | E: | | | | | | | | | | | РΤ | 20 |)4 | | | | |
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| 3 1 0 3 1 0 15 4 0BJECTIVES OF THE COURSE: Describe the Production & Physiological effects, Therapeutic uses, merits, contraindications of various low, medium & high frequency modes of or Physiological effects & therapeutic uses of various therapeutic ions & topic agents to be used for the application of lontophoresis & sonophonophores Acquire an ability to select the appropriate mode as per the tissue specific & are OUTLINE OF THE COURSE: UNITS ITTLE OF THE UNIT UNIT-I BASIC OF CURRENTS & LOW FREQUENCY CURRENTS UNIT-II MEDIUM FREQUENCY CURRENTS-II UNIT-V ELECTRO PHYSICAL AGENTS -I UNIT-V IDECTRO PHYSICAL AGENTS -I UNIT-V IDECTRO PHYSICAL AGENTS -I UNIT-V ELECTRO PHYSICAL AGENTS -I UNIT-V IDECTRO PHYSICAL AGENTS -I UNIT-V IDECTRO PHYSICAL AGENTS -I UNIT-V BASIC OF CURRENTS & LOW FREQUENCY CURRENTS: 1. | | | | | | | | | Cre | dite | 5 | | | | | | | То | tal N | / arl | ks | | |
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| OBJECTIVES OF THE COURSE: Describe the Production & Physiological effects, Therapeutic uses, merits, contraindications of various low, medium & high frequency modes of of Physiological effects & therapeutic uses of various therapeutic ions & topication of the Electro therapy modes on models, for the purpose of Ass Acquire an ability to select the appropriate mode as per the tissue specific & are OUTLINE OF THE COURSE: UNITS UTILE OF THE UNIT UNITS UNIT-I BASIC OF CURRENTS & LOW FREQUENCY CURRENTS UNIT-II MEDIUM FREQUENCY CURRENTS-I UNIT-II HECTRO PHYSICAL AGENTS -I UNIT-I SASIC OF CURRENTS & LOW FREQUENCY CURRENTS: INTel OF THE COURSE: UNIT-II HECTRO PHYSICAL AGENTS -I UNIT-I SASIC OF CURRENTS & LOW FREQUENCY CURRENTS: I. BASIC OF CURRENTS & LOW FREQUENCY CURRENTS: I. Basic of Currents: Introduction to History of currents, Production, F Nerve and Muscle tissue and therapeutic effects to AC, DC and Modifi <td c<="" th=""><th></th><th>0</th><th></th><th></th><th></th><th>3</th><th>3</th><th></th><th>1</th><th></th><th></th><th></th><th>0</th><th></th><th></th><th>15</th><th></th><th colspan="3">25</th><th></th><th>60</th></td> | <th></th> <th>0</th> <th></th> <th></th> <th></th> <th>3</th> <th>3</th> <th></th> <th>1</th> <th></th> <th></th> <th></th> <th>0</th> <th></th> <th></th> <th>15</th> <th></th> <th colspan="3">25</th> <th></th> <th>60</th> | | 0 | | | | 3 | 3 | | 1 | | | | 0 | | | 15 | | 25 | | | | 60 |
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| clinical application, effects, uses, indications, contraindications, preca | | | | | | | • | | | | | | | | | | | ••• | | | | | • |
| skills of equipment & patient preparation. Theories of pain relief by IFT | | | | | | | | | | | | | | | | | | | | | | - | |
| 2. Russian Currents (RC): Russian Currents (RC), Types of free | | | | | | | | | | | | | | | | | | | ienc | y, 1 | ouls | e v | vidths |

| | frequencies & intensities used as RC applications. Principle of clinical ap | plication effects, |
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| | uses, indications, contraindications, precautions, and operational skills | of equipment & |
| | patient preparation. | |
| | UNIT-III | |
| S.No. | HIGH FREQUENCY CURRENTS-I: | 08 Hours |
| 1. | Ultrasound Therapy Unit (UST): Ultrasound therapy Unit (UST), Production | on, Physiologica |
| | & Therapeutics effects, Principle of application of Ultrasound therapy, Metho | ds of Application |
| | of UST, phonophorosis, effects, indications, contraindications, precautio | ons, and patien |
| | preparation. | |
| 2. | Long Wave Diathermy (LWD): Long Wave Diathermy (LWD), Production, | , Physiological & |
| | Therapeutics effects, Principle of application of Long Wave Diathern | ny, Methods o |
| | Application of LWD, effects, indications, contraindications, precaution | ns, and patien |
| | preparation. | |
| 3. | Extracorporeal Shock Wave Therapy (ECSWT): Brief overview | |
| | UNIT-IV | I |
| S.No. | HIGH FREQUENCY CURRENTS-II: | 08 Hours |
| 1. | Shortwave Diathermy (SWD): Shortwave Diathermy (SWD), Production, | |
| | Therapeutics effects, Principle of application of Shortwave Diatherm | • |
| | Application of SWD, types of electrodes, effects, indications, contraindication | ons, precautions |
| | dangers and patient preparation. | |
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| 2. | Micro Wave Diathermy (MWD): Micro Wave Diathermy (MWD), Production | |
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| 4. | Electrotherapy Explained- Low and Reed |
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| 5. | Electrotherapy in Rehabilitation-Meryl Roth Gersh |
| 6. | Therapeutic modalities in rehabilitation-William E. Prentice |
| | REFERENCE BOOKS: |
| 1. | |
| 2. | |

| At th | e end of the semester the student will be able to: |
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| SU | IBJECT NA | ME: | SU | RFACE A | NATOM | Y & PALPA | TION | SKILLS | | |
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| and sof elbow a palpate palpatic and ma | ft tissue landn and wrist/hanc the landmark on skill to prepa | nark relatin d) and all r s, and prop are the stud | g to maj regions c minent a dents for | or extremity of the spine rea of the b more advan | joints, (foo (cervical, th ody for exa ced instruct | t/ ankle, knee horacic, lumbe mination. Ess ion concerning | e, hip, s er, pelvi ential o g physic | cating osseous shoulder girdle ic). Be able to bservation and cal examination its importance | | |
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| UNITS | | | | | | - | MINIM | UM NUMBER | | |
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| UNIT-I | INTRODUC SKILLS | INTRODUCTION OF SURFACE ANATOMY & PALPATION SKILLS | | | | | | | | |
| UNIT-II | LANDMAR | - | 04 Hours | | | | | | | |
| UNIT-III | LANDMARK LOCATION AND PALPATION SKILL OF U/E 04 Hours | | | | | | | | | |
| UNIT-IV | | | | | | | | 04 Hours 04 Hours | | |
| UNIT-V | -V BASIC POSTURAL OBSERVATIONAL SKILL Total (Minimal) | | | | | | | | | |
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| S.No. | SKILLS: | TION OF | SURF | ACE ANA | | PALPATIO | N | 04 Hours | | |
| 1. | Terminology | | | | | on skill. | | | | |
| 2. | Principle of | surface m | arking a | nd palpatior | า | | | | | |
| 3. | Types of pa | lpation and | d its use | s in assess | ment. | | | | | |
| 4. | Ethical and | legal issue | es regard | ding palpation | on techniqu | les. | | | | |
| | | | | UNIT- | ·II | | | | | |
| S.No. | LANDMAR | K LOCATI | ON ANI | D PALPATI | ON SKILL | OF SPINE: | | 04 Hours | | |
| 1. | Landmark loo | cation and | alpation | skill of Lumb | popelvic regi | ion. | | | | |
| 2. | Landmark loo | cation and | alpation | skill of Thora | acic Spine. | | | | | |
| 3. | Landmark loo | cation and | calpation | skill of Cerv | ical and Occ | cipital region. | | | | |
| | | | | UNIT- | | | | | | |
| S.No. | LANDMAR | K LOCATI | ON ANI | D PALPATI | ON SKILL | OF U/E: | | 04 Hours | | |
| 1. | Landmark loo | cation and | alpation | skill of Shou | Ilder Girdle. | | I | | | |
| 2. | Landmark loo | - | • | | | | | | | |
| 3. | Landmark loo | cation and | calpation | skill of Wrist | & Hand | | | | | |
| | | | | UNIT- | IV | | | | | |
| - | LANDMAR | KIOCAT | | | | | | | | |
| S.No. | | N LUCAI | | DFALFAI | ION SKILL | OF L/E. | 04 Hours | | | |

| 2. | Landmark location and palpation skill of Knee. |
|-----|--|
| 3. | Landmark location and palpation skill of Hip. |
| | UNIT-V |
| S.N | o. BASIC POSTURAL OBSERVATIONAL SKILL: 04 Hours |
| 1. | Normal body alignment, symmetry and plumb line. |
| 2. | Observation of static and dynamic posture in various positions (sitting, standing & walking) |
| | and gait. BOOKS RECOMMENDED: |
| | TEXTBOOKS: |
| 1. | A Manual Therapist Guide to Surface anatomy and Palpation Skills by David Byfield & Stuar Kinsinger. |
| 2. | Orthopaedics Physical Assessment. By D Magee. |
| 3. | An Introduction of fundamental Anatomy by David Sinclair. |
| 4. | Human Anatomy by B.D. Chaurasiya- All 3 volumes. |
| 5. | Surface anatomy By John S.P. Lumley |
| 6. | Surface and Radiological Anatomy By A. Halim |
| | REFERENCE BOOKS: |
| 1. | |
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| At th | he end of the semester the student will be able to: |
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| SUBJECT NAME: | | | | PSYCHO | | | PSYCHOLOGY & EXPERIMENTAL PSYCHOLOGY | | | | | | | | |
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| S.No. | | | | UNIT-I | | | 06 | Houro | | | | | | | |
| 5.NO. 1. | Definition | uliantian a | Of Hours Definition, application and methods in psychology, Biology of Behavior, Sensory processes | | | | | | | | | | | | |
| | LIPETINITION an | niication a | nd metho | nds in nsvcho | loav Bioloc | w of Rehav | ior Sensorv | nrocesse | | | | | | | |
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| | and perception | on, Princip | les of lea | arning, Class | ical and In ories, forget | strumental | Conditioning ia. | processe , Cognitive Hours | | | | | | | |
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BOOKS RECOMMENDED:

TEXTBOOKS: Morgan C.T., King R. A., Weijz J. R. Schopler J. 1. Introduction to Psychology, 7th edn. (Tata McGraw-Hill Publishing Co. Ltd.) 2. Human Development, 5th. (Tata McGraw Hill Publishing Co. Ltd 3. Munn N.L. Introduction to Psychology-(Premium Oxford, I.B.P. Publishing Co.) 4. 5. Parameshwaran E. G. & Ravichandra K. - Experimental Psychology: A Laboratory Manual (1st edn.) (Seema Publications, Delhi) Munn Julia (ed.) **REFERENCE BOOKS:** 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13.

STUDENT LEARNING OUTCOMES/OBJECTIVES: At the end of the semester the student will be able to: 1. 2.

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| S.N | | TITLE OF TH | | | | | | | Hours | |
| 1. | | | ints, muscl | e work, a | and stability | of various | s fundamen | tal and derived | | |
| 2. | | positions. Different type | s of muscl | e contrac | tion muscl | e work an | oun action (| of muscles and | | |
| ۷. | | coordinated m | | | | o work, gr | | | | |
| 3. | | Measurement | | | | | | | | |
| 4. | | | e grading | of muscle | e strength r | egion wise | upper limb | and lower limb | | |
| E | | and trunk. Various techniques of progressive strengthening exercises of muscles region wise. | | | | | | | | |
| <u>5.</u> 6. | | | | • | | • | | is part of body- | | |
| 0. | | region wise. | or suspen | | apy and its | application | | is part of body- | | |
| 7. | | | d functions | s along | with appli | cation of | various e | quipment in a | | |
| | | gymnasium. | | | | | | | | |
| 8. | | Use of various Evaluate ADL | | | | | | | | |
| <u>9.</u> 10. | | Normal and al | | | <u>v</u> | | ive technique | 29 | | |
| 10. | | | | | al (Minimal) | | | | 60 | |
| | | | | BOOK | | | • | | · | |
| | | | | | TEXTBO | | | | | |
| 1. | Ki | sner and Colb | y. F.A. Dav | | | - | dations and | Techniques | | |
| 2. | | ardiner, Princip | | | | | | · · · | | |
| 3. | | orkins & White | | | | int Motion: | A Guide to C | Goniometry. | | |
| 4. | | ood - W.B. Sa | | | | | | | | |
| 5. | | endal, Muscle t | | | | | | | | |
| 6. | | argarett Hollis, | | | | | | | | |
| 7. | НС | ollis, Lab Exerc | ise i nerap | | ERENCE | | JIIS. | | | |
| 1. | | | | ŇEF | | BOOK3 . | | | | |
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| | | | STUDENT | | ING OUT | COMES/O | BJECTIVE | S: | | |
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| | course involves | | | | | | | | | | | |
| Indic | ations, and contra | | | | | | used in Physio | therapy. | | | | |
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| S.No | | TITLE OF THE UNIT - Student should be able to explain the rationale for the prescription of safe and effective electrotherapy modalities. | | | | | | | | | | |
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| 1. | | | | | | d safety device. | e of low | | | | | |
| 2. | frequency curr | | | erves and f | nuscles | by various type | | | | | | |
| 3. | | | | r nointe roc | | e, including the | unner and low | or | | | | |
| э. | limb, trunk & fa | | | | 3011 WISE | | מאלה מות והאלי | | | | | |
| 4. | , | | ifferent lov | v frequency | | s faradic foot b | ath faradism | | | | | |
| 4. | Therapeutic application different low frequency currents faradic foot bath, faradism under pressure, lontophoresis. | | | | | | | | | | | |
| 5. | TENS Stimulat | • | | application | - region | wise | | | | | | |
| 6. | IFT-Its operation | • | | | - | WI3C. | | | | | | |
| 7. | | ••• | | • | | of application- r | egion wise | | | | | |
| 8. | | | | | | nod of application | | <u>د</u> | | | | |
| 9. | | | | | | od of applicatio | | | | | | |
| 10. | | | • | | | se including ice | | | | | | |
| | vapocoolant sp | orays, etc. | | | 0 | 0 | · · · | | | | | |
| 11. | | | | | | hod of applicat | | э. | | | | |
| 12. | | - | | | | on - regionwise. | | | | | | |
| 13. | | thermy uni | t, its opera | ation and d | ifferent r | nethods of appl | ication - | | | | | |
| 14. | regionwise. | thormy unit | ite opore | tion and di | fforont m | nethods of appli | cation | | | | | |
| 14. | regionwise. | | | auun anu ui | | iethous of appli | | | | | | |
| | | | Tota | al (Minimal) | | | | 60 | | | | |
| | | | | | | | | | | | | |
| | | | | S RECON | | DED: | | | | | | |
| 4 | Clayton's Electrot | | | TEXTBO | JKS: | | | | | | | |
| 1. 2. | Clayton's Electroth Electrotherapy Ex | | ada & Kid | hon | | | | | | | | |
| 2. 3. | Clinical Electrothe | | | | | | | | | | | |
| 3. 4. | Electrotherapy Ex | | | | | | | | | | | |
| 4 . 5. | Electrotherapy in | | | | | | | | | | | |
| 6 . | Therapeutic mod | | | | . Prentic | e | | | | | | |
| | | | | ERENCE | | | | | | | | |
| 1. | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | |

4.

STUDENT LEARNING OUTCOMES/OBJECTIVES:

At the end of the semester the student will be able to:

| 1. | |
|----|--|
| 2. | |
| 3. | |

| | SUBJI | ECT NA | ME: | SURFACE ANATOMY & PALPATION SKILLS LAB | | | | | | | |
|----------|---|--|-----------|---|-------------|------------------|-------------|----------------|--|--|--|
| | SUBJ | ECT CO | DE: | PT 209 | | | | | | | |
| | Hrs. / Wk. | | | Credits | | s | | | | | |
| L | Т | Р | L | Т | Р | ТА | СТ | ESE | | | |
| 0 | 0 | 2 | 0 | 0 | 2 | 50 | 50 | 00 | | | |
| | 2 | | | 1 | | |)0 | 00 | | | |
| | | OE | BJECTI | VES OF | | URSE: | | | | | |
| | irse involves a | | | | | | | l, indications | | | |
| and cont | tra-indications, | | | | | | siotherapy. | | | | |
| | | | | IE OF TH | | | | | | | |
| S.No. | | | | | | in the rational | e for the | Hours | | | |
| | prescription of safe and effective knowledge of surface anatomy and | | | | | | | | | | |
| 4 | | Palpation Skill. Terminology related to surface anatomy, and palpation skill. | | | | | | | | | |
| 1. | | | | - | | | | | | | |
| 2. | | | 0 | 1 1 | ypes of pa | alpation and us | ses. | | | | |
| 3. | Normal body | 0 | , | | | | | | | | |
| 4. | | | • | namic postu | re in vario | ous positions | (sitting, | | | | |
| | standing & w | | | | | | | | | | |
| 5. | Landmark lo | | • • | | • | 0 | | | | | |
| 6. | Landmark lo | | | | | | | | | | |
| 7. | Landmark lo | cation and | palpatior | n skill of Cer | vical and C | Occipital region | | | | | |
| 8. | Landmark lo | cation and | palpatior | n skill of Sho | ulder Girdl | e. | | | | | |
| 9. | Landmark lo | cation and | palpatior | n skill of Elbo | OW. | | | | | | |
| 10. | Landmark lo | cation and | palpatior | n skill of Wri | st & Hand | | | | | | |
| 11. | Landmark lo | cation and | palpatior | n skill of Foc | d & Ankle. | | | | | | |
| 12. | Landmark lo | cation and | palpatior | n skill of Kne | е. | | | | | | |
| 13. | Landmark lo | | | | | | | | | | |
| | 1 | | Total | (Minimal) | | | | | | | |

| | BOOKS RECOMMENDED: | | | | | | | |
|------------|--|--|--|--|--|--|--|--|
| TEXTBOOKS: | | | | | | | | |
| 1. | A Manual Therapist Guide to Surface anatomy and Palpation Skills by David Byfield & Stuart | | | | | | | |
| | Kinsinger. | | | | | | | |
| 2. | Orthopaedics Physical Assessment. By D Magee. | | | | | | | |
| 3. | An Introduction of fundamental Anatomy by David Sinclair. | | | | | | | |
| 4. | Anatomy of Chaurasiya- All 3 volumes. | | | | | | | |
| 5. | Surface anatomy By John S.P. Lumley | | | | | | | |
| 6. | Surface and Radiological Anatomy By A. Halim | | | | | | | |
| | REFERENCE BOOKS: | | | | | | | |
| 1. | | | | | | | | |
| 2. | | | | | | | | |
| 3. | | | | | | | | |

STUDENT LEARNING OUTCOMES/OBJECTIVES: At the end of the semester the student will be able to:

1. 2. 3.

SCHEME OF EXAMINATION & MODELS OF QUESTION PAPER OF BACHELOR OF PHYSIOTHERAPY (BPT)

| | | | 5 | SCHE | ME OF | F EXA | MINA | | N | | | |
|--------------------|---|--------------|----------|------------|---------|----------|--------------|--------|------------|-----------|-------|------------|
| | | | | | Tŀ | IEORY | : | | | | | |
| | | | | INTER | NAL A | SSES | SMEN | T (IA) | | | | |
| | | | | | |) Marks | | . , | | | | |
| CI | LASS 1 | EST (CT |) | | | TEA | CHER | ASSE | ESSM | ENT (| TA) | |
| MSE-1 | MS | SE- 2 Makeup | | ST-1 | ST-2 | Q-1 | | | A-2 | | A-4 | Attendance |
| 25 | | | 25 | 5 5 | | 5 | 5 5 | | 5 | 5 | 5 | 5 |
| | • | | EN | ND SEM | ESTER | EXAM | INATIO | ON (ES | SE) | • | • | |
| | | | | | 60 |) Marks | 5 | | | | | |
| | | | | | | | | | | | | |
| | | | | INTER | NAL A | | | T (IA) | | | | |
| | | | | | | s Test (| CT) | | | | | |
| | 1: 25 Ma | arks | | | 3 (50%) | | | | Tim | ne: 1:3 | 0 Hou | - |
| Q.No. | | | | | Models | | | | | | | Marks |
| 1. | Multip | oles Choic | ce Ques | | - | - | | | | | 1 | .5X5=7.5 |
| | | | | | Questic | | | Unit | | | [| 4 5 |
| | a. i) | | | ii) | | | iii) | | iv) | | | 1.5 1.5 |
| | b. | i) | | ii) | | | iii) | | iv) iv) | | | 1.5 |
| | c. d. | i) | | ii) ii) | | | iii) iii) | | iv) | | | 1.5 |
| | и. е. | i) i) | | ii) | | | iii) | | iv) | | | 1.5 |
| 2. | e. i) ii) iv) Short Questions (any three) Iii) Iii) | | | | | | | | | 2.5X3=7.5 | | |
| | a. | | | | | | | | | 2.5×5=7.5 | | |
| | b. | | | | | | | | | | | 2.5 |
| | C. | | | | | | | | | | | 2.5 |
| | d. | | | | | | | | | | | 2.5 |
| | e. | | | | | | | | | | | 2.5 |
| 3. | Long | Question | s (any t | wo) | | | | | | | | 5X2=10 |
| | a. | | | | | | | | | | 5 | |
| | b. | | | | | | | | | | | 5 |
| | C. | | | | | | | | | | | 5 |
| | | | | End Se | | | | (ESE) |) | | | |
| | MM: 6 | 0 Marks | | | | 21 (35 | %) | | | Time | | Hours |
| Q.No. Models Marks | | | | | | | | | | | | |
| 1. | Multip | ole Choice | e Quest | | | _ | <u> </u> | | | | | 1X12=12 |
| | | • | <u> </u> | | Questic | | | Unit | | | 1 | |
| | a. | i) | | ii) | | | iii) | | iv) | | | 1 |
| | b. | i) | | ii) | | | iii) | | iv) | | | 1 |
| | C. | i) | | ii) | | | iii) | | iv) | | | 1 |
| | d. | i) | | ii) ;;; | | | iii) iii) | | iv) | | | 1 |
| | e. f. | i) i) | | ii) ii) | | | iii) | | iv) iv) | | | 1 |
| | т. g. | i) | | ii) | | | iii) | | iv) | | | 1 |
| | 9. h. | i) | | ii) | | | iii) | | iv) | | | 1 |
| | i. | i) | | ii) | | | iii) | | iv) | | | 1 |
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| | j. | i) | ii) | iii) | iv) | 1 |
|----|---------|--------|-----|------|-----|---|
| | k. | i) | ii) | iii) | iv) | 1 |
| | I. | i) | ii) | iii) | iv) | 1 |
| 2. | Short Q | 3X4=12 | | | | |
| | a. | | | | | 3 |
| | b. | | | | | 3 |
| | С. | | | | | 3 |
| | d. | | | | | 3 |
| | е. | | | | | 3 |
| | f. | | | | | 3 |
| 3. | Short Q | 3X4=12 | | | | |
| | a. | | | | | 3 |
| | b. | | | | | 3 |
| | C. | | | | | 3 |
| | d. | | | | | 3 |
| | е. | | | | | 3 |
| | f. | | | | | 3 |
| 4. | Long Qu | 6X2=12 | | | | |
| | а | | | | | 6 |
| | b. | | | | | 6 |
| | C. | | | | | 6 |
| 4. | Long Qu | 6X2=12 | | | | |
| | a. | | | | | 6 |
| | b. | | | | | 6 |
| | C. | | | | | 6 |