

**CMJ UNIVERSITY**  
SHILLONG, MEGHALAYA.  
Recognized by UGC

DETAILED SYLLABUS

**Under Graduate Diploma Program**  
**DPT**  
**(Diploma in physiotherapy)**

(YEARLY SYSTEM)

## **DPT (DIPLOMA IN PHYSIOTHERAPY)**

**COURSE TITLE : DPT(PHYSIOTHERAPY)**

**DURATION : 2 YEARS**

**TOTAL DIPLOMA MARKS: 2400**

### **FIRST YEAR**

<i>COURSE TITLE</i>	<i>Paper Code</i>	<i>MARKS</i>		
		THEORY	PRACTICAL	TOTAL
BASICS OF HUMAN ANATOMY	DPT-110	100	100	200
BASICS OF MEDICAL PHYSIOLOGY	DPT-120	100	100	200
PATHOLOGY	DPT-130	100	100	200
COMPUTER SKILLS	DPT-140	100	00	100
COMMUNICATION SKILLS IN ENGLISH	DPT-210	100	00	100
PSYCHOLOGY	DPT-220	100	00	100
MUSCULOSKELETAL SCIENCE	DPT-230	100	100	200
MS-OFFICE	DPT-240	100	00	100

### **SECOND YEAR**

<i>COURSE TITLE</i>	<i>Paper Code</i>	<i>MARKS</i>		
		THEORY	PRACTICAL	TOTAL
INTRODUCTION TO HUMAN HISTOLOGY	DPT-310	100	100	200
BIO-MECHANICS	DPT-320	100	100	200
THE PRINCIPLES OF PHYSIOTHERAPY	DPT-330	100	00	100
CLINICAL PRACTICE-I	DPT-340	100	00	100
NEUROANATOMY	DPT-410	100	100	200
MUSCULOSKELETAL PHYSIOTHERAPY	DPT-420	100	100	200
CLINICAL PRACTICE-II	DPT-430	100	00	100
PROJECT	DPT-440	100	00	100

**6 months internship in any Hospital or Nursing Home**

**Note:**

**Theory Paper:** 30% Continuous Internal Assessment and 70% University examination.

**Practical Paper:** 30% Continuous Internal Assessment and 70% University examination.

**Continuous Internal Assessment:**

- |   |                                       |
|---|---------------------------------------|
| 1) Two or three tests out of which minimum two Assessment will be considered for Assessment | 60% of Continuous Internal Assessment |
| 2) Seminars/Assignments/Quizzes   | 30% of Continuous Internal Assessment |
| 3) Attendance, class participation and behavior   | 10% of Continuous Internal Assessment |

## **FIRST YEAR**

**DPT-110**

**BASICS OF HUMAN ANATOMY**

**Maximum Time : 3 Hrs.**

**University Examination :70**

**Total Marks : 100**

**Continuous Internal Assessment:30**

**Minimum Pass Marks : 40%**

### **A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

### **B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

Skeleton Structures of Bone, Vertebral Column, Upper Extremity, Lower Extremity, superior extremity, inferior extremity, ossification centers, bone of upper limb, radius and ulna, surface marker of thorax abdomen, head and neck.

**DPT-110 P**

**BASICS OF HUMAN ANATOMY**

The laboratory course will comprise of exercises on what is learnt in the theory classes of the same course i.e. DPT 110.

## DPT -120

## BASICS OF MEDICAL PHYSIOLOGY

**Maximum Time : 3 Hrs. University Examination :70**  
**Total Marks : 100 Continuous Internal Assessment:30**  
**Minimum Pass Marks : 40%**

### A) Instructions for paper-setter

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

### B) Instructions for the candidates

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

**General information:-** The cell, membrane potential, some common terms used in physiology.

**Blood:-** Red blood corpuscles, hemoglobin, the leucocytes, immunity, origin and function of lymphocytes, reticulate endothelial system, the platelets, homeostasis, coagulation of blood, the plasma proteins, blood groups.

**Digestive system:-** introduction to digestive system. Elementary functional anatomical considerations, the salivary glands, the stomach and its secretion, pancreas, the bile, the small intestine, movement of the alimentary tract, gastrointestinal hormones, apud cells.

**Respiratory system:-** functional anatomy, ventilation, control of ventilation, exchange of gases between the alveoli and pulmonary capillary blood, carriage of O<sub>2</sub> and CO<sub>2</sub> by the blood and their exchange at the tissue level, applied and environment physiology. ung defense mechanism. changes with age.

## DPT –120 P

## BASICS OF MEDICAL PHYSIOLOGY

The laboratory course will comprise of exercises on what is learnt in the theory classes of the same course i.e. DPT 120.

## DPT-130

## PATHOLOGY

**Maximum Time : 3 Hrs. University Examination :70**  
**Total Marks : 100 Continuous Internal Assessment:30**  
**Minimum Pass Marks : 40%**

### A) Instructions for paper-setter

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

### B) Instructions for the candidates

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

**The Cell in Health and Disease:-** Introduction to Pathology, Cellular Structure and Metabolism, Etiology and Pathogenesis of Disease, Intracellular Accumulations and Disorders of Metabolism, Amyloidosis, Degenerations and Cell Death.

**Inflammation and Healing, Immunity and Hypersensitivity, Infection and infestation:-** Inflammation-Acute and Chronic, Granulomatous Inflammation, Healing, immunity and Hypersensitivity, Infection and Infestation.

**Fluid and Haemodynamic Derangements:-** Derangements of Body Fluids and Electrolytes, Haemodynamic Disorders due to Deranged Blood Volume, Haemodynamic Disorders of Obstructive Nature, Ischaemia and Infarction.

**Growth Disorders and Neoplasia:-** Adaptive Disorders of Growth, General Aspects of Neoplasia, Etiology and pathogenesis of Neoplasia, Clinical Aspects of Neoplasia, Common Specific Tumours.

## DPT-130 P

## PATHOLOGY

The laboratory course will comprise of exercises on what is learnt in the theory classes of the same course i.e. DPT 130.

## **DPT-140**

## **COMPUTER SKILLS**

**Maximum Time : 3 Hrs. University Examination :70**  
**Total Marks : 100 Continuous Internal Assessment:30**  
**Minimum Pass Marks : 40%**

### **A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

### **B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

Hardware & Software: CPU, RAM, SSD, Operating Systems, System Softwares, Application Software. Inside Computers. Computer Systems.

Input-Output devices: Monitor, Keyboard, Mouse, System Unit, Printer, Scanner.

Storage devices : Floppy disk, Hard disk, Cartridge tape, CD-ROM

Printers : Dot-Matrix, Inkjet, Laserjet, Colour printer, High speed printer, Label printer, Plotters.

**PROGRAMMING LANGUAGE:-**Compiler, Assembly Language, Machine Language.  
Graphical user interface : Windows 3x, Program manager, Main & accessories program groups, Multitasking.

**DPT-210  
ENGLISH**

**COMMUNICATION SKILLS IN**

**Maximum Time : 3 Hrs. University Examination :70**  
**Total Marks : 100 Continuous Internal Assessment:30**  
**Minimum Pass Marks : 40%**

**A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

**B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

Basic Skills: - Listening, Speaking, Reading and Writing.

Comprehension: - Reading Comprehension, Passages, Poems.

Listening Comprehension: - Talks, Reports, Poems

Writing Skills: - Paragraph Writing, Composition Writing, Report Writing, Application & Letter Writing

Grammar: - Simple, Compound and complex sentences, Co-ordinate clause (with, but or either-or, Neither-Nor otherwise or else), Subordinate clauses-noun clauses-as subjects object and complement: Relative Clauses (restrictive and non-restrictive clauses). Adverb clauses (open and hypothetical, Comparative Clauses

Simple present, progressive and present perfect, simple past, progressive and past perfect, indication of futurity, the passive (Sample present and past, present and past perfect and 'to' infinitive structure), Reported Speech: - (I) Declarative sentences, (ii) Imperatives (iii) Interrogatives –question, Yes/No Questions, Exclamation sentences, Modals (will, shall, should, would, ought to, have to/have got to, can, could, may-might and need), Verb structures (infinitives and gerundial)



**DPT-220**

**PSYCHOLOGY**

**Maximum Time : 3 Hrs.**

**University Examination :70**

**Total Marks : 100**

**Continuous Internal Assessment:30**

**Minimum Pass Marks : 40%**

**A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

**B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

The fundamentals of human behavior.:- biological bases of behavior, sensation and perception, motivation, learning and memory, maturation and development, personality, and social psychology.

Personal and social adjustment in modern society. Topics include maturing self-concept, healthy interpersonal relationships, constructive management of emotion and stress, and prevention of maladjustment.

The biological and environmental factors influencing the physical, intellectual, social, emotional, and language development from birth until death

**DPT-230**

**MUSCULOSKELETAL SCIENCE**

**Maximum Time : 3 Hrs.**

**University Examination :70**

**Total Marks : 100**

**Continuous Internal Assessment:30**

**Minimum Pass Marks : 40%**

**A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

**B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

Development of basic physiotherapy competencies in the management of spinal musculoskeletal disorders. Aspects of typical acute and chronic spinal musculoskeletal disorders covered include - etiology, pathology and clinical features, assessment, clinical decision making, management strategies - education, prevention, occupational health, functional rehabilitation, manipulation, work hardening, case management, health care system .

## **DPT-230 P**

## **MUSCULOSKELETAL SCIENCE**

The laboratory course will comprise of exercises on what is learnt in the theory classes of the same course i.e. DPT 230.

## **DPT-240**

## **MS OFFICE**

**Maximum Time : 3 Hrs. University Examination :70**  
**Total Marks : 100 Continuous Internal Assessment:30**  
**Minimum Pass Marks : 40%**

### **A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

### **B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

**MS Word** : Creating documents, Formatting, Auto text, Auto correct, Tables, Page setup, Printing, Object linking & embedding, Spell check, Thesaurus, Mail merge, Word art, Clip art.  
setup.

**MS Excel** : Creating workbooks & worksheets, Formulas & functions, Linking workbooks & worksheets, Cell references, Formatting, Creating charts, Data lists, Page setup, Printing.

**MS Power Point** : Creating slides with different layouts and templates, Inserting charts, Tables, Organisation charts, Pictures, Running a screen show, Presentation

## **SECOND YEAR**

**DPT-310**

**INTRODUCTION TO HUMAN HISTOLOGY**

<b>Maximum Time</b>	<b>: 3 Hrs.</b>	<b>University Examination</b>	<b>:70</b>
<b>Total Marks</b>	<b>: 100</b>	<b>Continuous Internal Assessment:</b>	<b>30</b>
<b>Minimum Pass Marks</b>	<b>: 40%</b>		

### **A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

### **B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

The structure of cells, tissues and organ systems and information derived from both light and electron microscopy. Studies in anatomy, cell biology, physiology, and biochemistry, broadening the understanding of how organisms function.

**DPT-310 P**

**INTRODUCTION TO HUMAN HISTOLOGY**

The laboratory course will comprise of exercises on what is learnt in the theory classes of the same course i.e. DPT 310.

## **DPT-320**

## **BIO MECHANICS**

**Maximum Time : 3 Hrs.**

**University Examination :70**

**Total Marks : 100**

**Continuous Internal Assessment:30**

**Minimum Pass Marks : 40%**

### **A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

### **B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

General biomechanics & basic information on force, loading, stress, strain, energy, work, elasticity, and basic mechanics as it applies to biological systems. Joint mechanics of the upper extremity, lower extremity and vertebral column. Cadaver dissections of the muscles, nerves and joints of these regions. Information on the mechanics of bone, Tissue ,cartilage, tendons/ligaments, nerves and muscle and how these tissues respond to modalities, exercise, growth and aging.

## **DPT-320 P**

## **BIO MECHANICS**

The laboratory course will comprise of exercises on what is learnt in the theory classes of the same course i.e. DPT 320.

**DPT-330**

**THE PRINCIPLES OF PHYSIOTHERAPY**

**Maximum Time : 3 Hrs. University Examination :70**  
**Total Marks : 100 Continuous Internal Assessment:30**  
**Minimum Pass Marks : 40%**

**A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

**B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

Mechanical Principles, An introduction to Movement, An Introduction to Exercise

Therapy, Starting positions, Relaxation, passive Movement.

An Introduction to Neuromuscular Facilitation, Proprioceptive Neuromuscular Facilitation,

1. Lying to sitting

2 Sitting Activities & Gait

3. Limb Activity

Joint Mobility, Technique of Mobilising Joints

Muscle Strength, Technique of Strengthening Muscles

Neuromuscular Co-ordination, Posture, Walking Aids

Individual, Group and mass treatment by exercise, instructing the patient

**DPT-340****CLINICAL PRACTICE I**

**Maximum Time : 3 Hrs. University Examination :70**  
**Total Marks : 100 Continuous Internal Assessment:30**  
**Minimum Pass Marks : 40%**

**A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

**B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

The student will be introduced to the practice of physiotherapy and provided with an opportunity to initially observe and then to implement basic physiotherapy assessment and treatment skills. The class will introduce the student to the concepts of professional conduct, charting skills, clinical learning objectives, and reflective practice. The student will be exposed to the practice of physiotherapy as one element of the health-care team.

**DPT-410****NEUROANATOMY**

**Maximum Time : 3 Hrs. University Examination :70**  
**Total Marks : 100 Continuous Internal Assessment:30**  
**Minimum Pass Marks : 40%**

**A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

**B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

Development and organization of the human central nervous system (brain and spinal cord), with emphasis on the organization of sensory and motor systems.

Gross and surface anatomy of the head and neck, anatomy of the central nervous system, sensory system, motor system (motor control and motor learning), visual system, auditory and vestibular systems (postural control), association and speech areas, cranial nerves, Autonomic nervous system, CNS blood supply, cerebro-spinal, fluid, development of the brain. Clinical application of neurophysiology, neuroplasticity, introduction to neuropathology (movement and sensory disorders, disorders of allied systems - speech and cognition), introduction to the assessment and management of disorders of the CNS, consideration of the effects of age on the nervous system.

**DPT-410 P****NEUROANATOMY**

The laboratory course will comprise of exercises on what is learnt in the theory classes of the same course i.e. DPT 410.



**DPT-420****MUSCULOSKELETAL PHYSIOTHERAPY**

**Maximum Time : 3 Hrs. University Examination :70**  
**Total Marks : 100 Continuous Internal Assessment:30**  
**Minimum Pass Marks : 40%**

**A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

**B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

The integration of introductory physiotherapy skills with applied scientific and clinical knowledge in the management of basic disorders of the musculoskeletal system. Studies include: exercise, sports, occupational, manipulative and orthopedic physiotherapy.

**DPT-420 P****MUSCULOSKELETAL PHYSIOTHERAPY**

The laboratory course will comprise of exercises on what is learnt in the theory classes of the same course i.e. DPT 420.

## **DPT-430**

## **CLINICAL PRACTICE II**

**Maximum Time : 3 Hrs.**

**University Examination :70**

**Total Marks : 100**

**Continuous Internal Assessment:30**

**Minimum Pass Marks : 40%**

### **A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

### **B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

CLINICAL PRACTICE II will prepare the student for clinical practice and provide a clinical practice experience at the end of Year II.. Clinical reasoning: problem definition, clinical problem solving framework, use of evidence and inference. Information literacy for physiotherapy practice. Physiotherapist's role in clinical problem management. Massage: theory and practice. Introduction to client-therapist relationships and communication. Interpersonal communication: theory and practice. Writing for physiotherapy practice.

## **DPT-440**

## **PROJECT**

**Maximum Time : 3 Hrs.      University Examination :70**  
**Total Marks : 100      Continuous Internal Assessment:30**  
**Minimum Pass Marks : 40%**

### **A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

### **B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

The Students will select a topic in their area of interest, in consultation with a supervisor, and carry out a project.