

KRISHNA VISHWA VIDYAPEETH, (DEEMED TO BE UNIVERSITY),

KRISHNA COLLEGE OF PHYSIOTHERAPY

KARAD, MAHARASHTRA.



MASTER OF PHYSIOTHERAPY (M. P. Th)

CBCS PATTERN SYLLABUS

M.P.Th - (COMMUNITY HEALTH SCIENCE)

PROGRAMME CODE: 3205

RULES FOR EXAMINATION SCHEME LEADING TO

POST GRADUATE PHYSIOTHERAPY PROGRAMME IN THE FACULTY OF PHYSIOTHERAPY

(Approved by the Board of Management)

MASTER OF PHYSIOTHERAPY (M. P. Th.)

PREAMBLE:-

The Department of Human Resource Development, Government of India, on the recommendation of the University Grants Commission (UGC) has accorded the status of a Deemed University to Krishna Vishwa Vidyapeeth, (Deemed To Be University), Karad for Faculty of Medicine, Dentistry, Physiotherapy Nursing, Allied Sciences and Pharmacy respectively.

The Degrees, Diploma and the Fellowship programmes of Krishna Vishwa Vidyapeeth, (Deemed To Be University), Karad shall have the same status as of those given by any Statutory University duly recognized by the University Grants Commission. (UGC).

The Master of Physiotherapy Programme is directed towards rendering training in Specialty discipline so as to enhance professional competence in order to fulfill requirement for Physiotherapy Education and Practice.

1. This shall apply to all the examinations leading to Post Graduate Physiotherapy namely Programmes offered: - Total Programmes offered: 10 Programmes.

Sr No	Programme Code	Programme Name
1.	3201	M.P.Th in Musculoskeletal Sciences
2.	3202	M.P.Th in Neuro Sciences
3.	3203	M.P.Th in Cardio Pulmonary Sciences
4.	3204	M.P.Th in Pediatric Neurology
5.	3205	M.P.Th in Community Health Sciences
6.	3206	M.P.Th in Oncology Physiotherapy
7.	3207	M.P.Th in Sports Physiotherapy
8.	3208	M.P.Th in Orthopedic Manual Therapy
9.	3209	M.P.Th in Obstetrics and Gynecology
10.	3210	M.P.Th in Geriatric Physiotherapy

SEMESTER WISE SUBJECTS:

Sr No	Course Code	Year	Semester	SUBJECT
1	3205-11	M.P.Th - I Year	I	1. Basic Sciences
2	3205-12			2. Basic Therapeutics
3	3205-21	M.P.Th - I Year	II	1. Advanced therapeutics in Specialty Subject
4	3205-22			2. Biostatistics and Research Methodology
5	3205-31	M.P.Th - II Year	III	1. General Physiotherapy in Specialty Subject – Paper 1
6	3205-32			2. Advances in Specialty Subject – Paper 1
7	3205-41	M.P.Th - II Year	IV	1. General Physiotherapy in Specialty Subject- Paper 2
8	3205-42			2. Advances in Specialty Subject – Paper 2

Duration: Master of Physiotherapy shall be a full time programme with duration of TWO academic years divided into FOUR semesters.

2. Eligibility for admission:

Applicant for admission to the programme, Master of Physiotherapy should have the Bachelor degree from I.A.P recognized institution or from the recognized university. Selection of candidate is strictly through Krishna PGAJET, which is conducted by Krishna Vishwa Vidyapeeth, (Deemed To Be University), Karad.

3. ELIGIBILITY FOR APPEARING FOR THE EXAM:

- The examination for the degree, Master of Physiotherapy shall be conducted twice in a academic year (i.e. Semester Pattern).
- Every student should present his / her dissertation at least three months prior to the fourth semester university examination. The acceptance of the dissertation by the examiners is important for the student's admission for the Written & Clinical (Practical) examination.
- Dissertation should be based on the Specialty Subject. A student who has submitted his / her dissertation once will not be required to submit a fresh dissertation if he / she re- appears for the examination in the same branch on a subsequent occasion, provided that the dissertation has been accepted by the examiners.

- The Degree of Master of Physiotherapy shall not be conferred upon a student unless he / she have passed in the Written, Practical and the Dissertation prescribed for the examination in accordance with the provision.
- The dissertation has been evaluated and approved AND
- Has passed both the headings i.e.
(With minimum of 50%) in Theory and Practical including Internal Assessment for both.

4. GOALS OF THE M.P.TH PROGRAMME:

- The goal of training post- graduate candidate in the respective specialty is to enable him / her to function as a consultant in the respective Physiotherapy specialty. This requires a thorough knowledge of the fundamental and recent advances.
- He/she should be able to make logical decisions regarding patient management & adapt interventions independently.
- During this period he/she will be expected to acquire skills in teaching technology & gain experience in research methodology.
- He/she should practice Physiotherapy in respective specialty and maintain the highest regards for ethical aspect.
- The programme shall focus on clinical reasoning, problem solving and measurement of treatment outcome, emphasizing on the recent diagnostic & therapeutic trends and skill specific Physiotherapy.

5. OBJECTIVES OF THE PROGRAMME: -

At the end of the programme the candidate shall be able to:

- Acquire the in-depth knowledge of structure and function of human body related to the respective branch of specialty.
- Acquire the in-depth knowledge of movement dysfunction of human body & principles underlying the use of physiotherapeutic interventions for restoring movement dysfunction towards normalcy.
- Ability to demonstrate critically appraises recent physiotherapeutic and related medical literature from journals & adapts diagnostic & therapeutic procedures based on it.
- Ability to perform skill in Physical & functional diagnosis pertaining to patient under care.
- Ability to make clinical decision & select appropriate outcome measures based on the comprehensive knowledge of theoretical aspects of specialty.
- Expertise in evidence-based skill in the management of movement dysfunction.
- Expertise in health promotion & quality restoration of functional movement pertaining to specialty.
- Planning and implementation of treatment programme adequately and appropriately for all clinical

conditions related to respective specialty in acute and chronic stage, in intensive care, indoor and outdoor institutional care, independent practice, on fields of sports and community and during disaster or natural calamities.

- Proficiency in planning and executing Physiotherapy services and teaching technology skills.
- Develop managerial and administrative skills.
- Develop the knowledge of legislation applicable to compensation for functional disability & appropriate certification

POSTGRADUATE PROGRAMME OUTCOMES

M.P.TH (Master of Physiotherapy)

The course is of two years duration (Divided into 4 Semesters) advanced learning programme in Physiotherapy with CBCS Pattern.

Total Specialties offered: 10 Specialties

1. M.P.Th In Musculoskeletal Sciences
2. M.P.Th In Neuro Sciences
3. M.P.Th In Cardio Pulmonary Sciences
4. M.P.Th In Pediatric Neurology
5. M.P.Th In Community Health Sciences
6. M.P.Th In Oncology Physiotherapy
7. M.P.Th In Sports Physiotherapy
8. M.P.Th In Orthopedic Manual Therapy
9. M.P.Th In Obstetrics And Gynecology
10. M.P.Th In Geriatric Physiotherapy

M.P.Th - IST YEAR INCLUDES TWO SEMESTERS NAMELY,

- **I - Semester:** It is common for all the specialties which include the two subjects Basic Sciences & Basic Therapeutics.
- **II - Semester:** Biostatistics and Research Methodology is a common subject for all specialties & Advanced Therapeutics in Specialty Subject is the second one.

M.P.Th – IIND YEAR INCLUDES TWO SEMESTERS NAMELY,

- **III - Semester:** It includes two subjects which are specialty specific namely, General Physiotherapy in Specialty Subject - Part I & Advances in Specialty Subject - Part I
- **IV - Semester:** It includes two subjects which are specialty specific namely, General Physiotherapy in Specialty Subject- Part II & Advances in Specialty Subject - Part II
- ***Dissertation:** An individual research project preferentially interventional study is mandatory to be completed before appearing for the IV - Semester examination.

M.P.Th (FIRST YEAR): I - SEMESTER

1. BASIC SCIENCES (3205-11)

COURSE OBJECTIVES:

- The student should be able to know the background of Physiotherapy profession, basic ethics and its principles.
- To understand and apply the principles of exercise physiology and nutrition
- To master various assessment tools, test.
- To obtain knowledge of Orthotics & Prosthetics.

COURSE OUTCOMES:

At the end of the course the student should be able to apply the basic principles and ethics of Physiotherapy profession, Biomechanics, Patho-mechanics and in depth Kinesiology of human body, all the assessments and clinical tests, diagnosis of various conditions, in depth knowledge of the Orthotics and Bio-engineering.

2. BASIC THERAPEUTICS (3205-12)

COURSE OBJECTIVES:

The student should be able to obtain detail knowledge with evidence base of all the Electrotherapeutic modalities, Electro-Diagnostic tests with its application for diagnosis and treatment of Physiotherapy conditions

COURSE OUTCOMES:

At the end of the course the student should have in depth knowledge of the Basic Electrotherapeutics, Physical And Functional Diagnosis, EMG / NCV and Radiological investigations.

M.P.Th (FIRST YEAR): II - SEMESTER

1. ADVANCED THERAPEUTICS SPECIALITY SPECIFIC (3205-21)

COURSE OBJECTIVES:

- To interpret various therapeutics used in the treatment of speciality specific conditions.
- To evaluate and generate a diagnosis and differential diagnosis of all related conditions related to speciality and its complications.
- Demonstrate condition specific various skills in the treatment.

COURSE OUTCOMES:

At end of the session the student will be able to learn the conditions pertaining to the speciality, the diagnostic test for the same. The students shall learn to make a correct diagnosis and also a differential diagnosis and learn the advanced techniques to treat the same.

2. BIOSTATISTICS AND RESEARCH METHODOLOGY (3205-22)

COURSE OBJECTIVES:

- To understand the statistical measures used for analysis and interpretation of research data.
- Enhanced training to apply the information on research design and their implementation
- To identify, read, critique research articles and understand and apply the principles of research to perform a guided research.

COURSE OUTCOMES:

- At the end of the course the student should have a sound knowledge regarding the basic concept of research, research designs, types of data, sampling methods, interpretation of result and various statistical tests.
- The student will be able to identify appropriate statistical technique reference, use of various software packages for analysis and data management. Interpretation of the results and its application in Physiotherapy.
- The student will be able to learn fundamental of reading and understanding research methods, design and statistics.
- Special emphasis is given to Biostatistics and Research methodology and for completing a scientific research project in the second year as per their elective subject.

M.P.Th (SECOND YEAR): III - SEMESTER

1. GENERAL PHYSIOTHERAPY IN SPECIALTY SUBJECT – PAPER 1 (3205-31)

COURSE OBJECTIVES:

- Evoke and interpret clinical signs and symptoms of speciality specific disorders & interpret various diagnostic tests, clinical and special investigations used in the diagnosis of the conditions.
- Management of patient, consultation, identifying the problem, derive a provisional diagnosis with differential diagnosis and to chalk out a treatment plan.
- Maintain a precise patient documentation.
- Discuss and develop a specific exercise prescriptions plan with their clinical use, and the sequence of treatment.

COURSE OUTCOMES:

- Be able to apply the knowledge for planning and evaluation of teaching methods in Physiotherapy.
- Be able to apply the knowledge on clinical education to spread awareness and guidance to common people about health and disease.
- Understand the pathophysiology of common conditions, their management and its effects on body systems.
- Assess patients' physical function, considering disease and treatment-related impairments.
- Design and implement evidence-based Physiotherapy interventions as per the health issues.

2. ADVANCES IN SPECIALTY SUBJECT – PAPER 1 (3205-32)

COURSE OBJECTIVES:

- Understand the application of the information regarding recent advances in Physiotherapy for patient care.
- Application and proper implementation of specific evidences available for assessment and management appropriate to the health conditions.

COURSE OUTCOMES:

- The students learn and excel in various aspects of Physiotherapy as per their speciality in theoretical and practical knowledge with a solid platform and tend to train them to be the best in the field.
- To analyse and undertake data for research purpose and its documentation for long life learning in Physiotherapy.
- To develop educational experience for proficiency in profession and promote Preventive and Rehabilitative aspect on the society.

M.P.Th (SECOND YEAR): IV - SEMESTER

1. GENERAL PHYSIOTHERAPY IN SPECIALTY SUBJECT- PAPER 2 (3205-41)

COURSE OBJECTIVES:

To equip Physiotherapy students with the knowledge and skills necessary to provide problem specific effective rehabilitation and supportive care for patients.

COURSE OUTCOMES:

- Recognize and manage potential complications specific to the condition.
- Demonstrate knowledge of protocol specific principles and their application in Physiotherapy practice.
- Communicate effectively with patients, their families, and the multidisciplinary team.
- Critically evaluate current research in the area of rehabilitation to inform clinical decision-making.

2. ADVANCES IN SPECIALTY SUBJECT – PAPER 2 (3205-42)

COURSE OBJECTIVES:

To provide students with an in-depth understanding of recent developments and emerging trends in the specialty subject, focusing on innovative diagnostic techniques, treatment modalities, and research breakthroughs.

COURSE OUTCOMES:

- Analyze cutting-edge research and its potential clinical applications.
- Evaluate novel diagnostic technologies and their impact on early detection and personalized treatment.
- Critically assess emerging advanced and targeted therapies.
- Explain advancements in Prevention strategies and Risk assessment.
- Interpret complex clinical trial data and their implications for patient care.
- Describe innovations and apply knowledge of recent advances to case studies and clinical scenarios.

END OF PROGRAMME:

After completion of PG (M.P.Th) Programme, with the above mentioned Programme features the Post-Graduates will be equipped with advanced knowledge in respective specialty related to Technical, Problem Solving and Scientific skills to practice with Evidence Based Physiotherapy Practice through firm decision making process in assessment and treatment, establish advance research hypotheses and undertake research works effectively within the healthcare sectors and community safely and efficiently inculcating effective communication skills.

TOTAL HOURS: MPTTh

Semester	Subject	Theory	Theory Credit point	Practical	Practical Credit point	Total Credit point
I - MPTTh						
I - Semester	Basic Sciences	100	7	100	7	14
	Basic Therapeutics	100	7	100	7	14
II - Semester	Advanced Therapeutics in Speciality	100	7	150	5	12
	Biostat & Research	100	7			7
II - MPTTh						
III - Semester	General PT in Speciality Paper - 1	200	13	225	8	21
	Advances in Speciality Paper - 1	200	13	250	8	21
IV - Semester	General PT in Speciality	200	13	225	8	21

	Paper - 2					
	Advances in Speciality Paper - 2	200	13	250	8	21
		1200	80	1300	51	131
Total Hrs: 2500			Total Credit point: 131			

EXAMINATION SCHEME:

	Theory		Practical	IA	
				Theory	Practical
Sem. I	Basic Sciences (100 Marks)	Basic Therapeutics (100 Marks)	-	50 marks x 2 Subjects	-
Sem. II	Advanced Therapeutics in Speciality (100 Marks)	Biostatistics & Research Methodology (100 Marks)	Advanced Therapeutics in Speciality (250 Marks)	50 marks x 2 Subjects	50 Marks
Sem. III	General Physiotherapy in Speciality Paper – 1 (100 Marks)	Advances in Speciality Paper – 1 (100 Marks)	-	50 marks x 2 Subjects	
Sem. IV	General Physiotherapy in Speciality Paper – 2 (100 Marks)	Advances in Speciality Paper – 2 (100 Marks)	Specialty Practical (300 Marks)	50 marks x 2 Subjects	50 Marks
Total: 1850 marks					

EXAMINATION PATTERN:

THEORY: (ALL SEMESTERS)

Q1. 10 BAQ (All compulsory)

10 x 5 = 50 marks

Q2. 2 LAQ (All compulsory)

2 x 25 = 50 marks

Total: 100 marks

***** INTERNAL ASSESSMENT: Out of 50 MARKS for each Subject**

PRACTICAL: (II & IV SEMESTER)

SEMESTER II PATTERN

- | | |
|--|-----------|
| 1. Long Case (Specialty) | 100 marks |
| 2. Short Case 1. (Assessment) | 50 marks |
| 3. Short Case 2. (Management) | 50 marks |
| 4. Spots | 50 marks |
| Total: 250 marks + IA: 50 marks | |
| = 300 Marks | |

SEMESTER IV PATTERN

- | | |
|--|-----------|
| 1. Long Case (Specialty) | 100 marks |
| 2. Short Case (Assessment) | 50 marks |
| 3. Short Case (Management) | 50 marks |
| 4. Dissertation Presentation | 50 marks |
| 5. Microteaching | 50 marks |
| Total: 300 marks + IA: 50 marks | |
| = 350 Marks | |

MPT_h - I: SEMESTER: I

COURSE: MPT_H IN COMMUNITY HEALTH SCIENCE

SUBJECT: BASIC SCIENCES

Subject	Theory	Credit	Practical	Credit	Total Credits
Basic Sciences	100	7	100	7	14

Sr. No	Content	Teaching Hours (200 Hrs.)		MK	DK	NK
		Didactic (100 Hrs.)	Practical (100 Hrs.)			
1.	PRINCIPLES AND ETHICS: a. Theoretical background of Physiotherapy profession.	5 hrs	-	MK		
	b. Professional sources in the community.					
	c. Principles and practice of physiotherapy in India.					
	d. Ethical background of physiotherapy.					
	e. Ethics of IAP & WCPT. Professional ethics.					
	f. Modified Referral ethics in the practice of Physiotherapy					
	g. Governing body of Physiotherapy Profession state & central level.					
2	EXERCISE PHYSIOLOGY AND NUTRITION: a. Nutrition and physical performance.	15 hrs	15 hrs	MK		
	b. Energy transfer.					
	c. Systemic adaptation during exercise.					
	d. Physical performance.					
	e. Factors affecting physical					

	performance.					
	f. Fatigue and lactate.					
	g. Training.					
	h. Fitness and testing.					
	i. Obesity.					
	j. Diabetes.					
	k. Applied exercise physiology.					
3.	PATHOMECHANICS AND CLINICAL KINESIOLOGY: Review of mechanical principles and applied biomechanics of human body.	10 hrs	5 hrs	MK		
4.	Review of various types of exercises, principles and its applications for joint mobility, muscle re-education, Strengthening and endurance training.	15 Hrs	5 Hrs	MK		
5.	Posture, analysis of normal and abnormal posture, posture training.	5 hrs	10 hrs		DK	
6.	Gait, analysis of normal and abnormal gait, gait training.	5 hrs	15 hrs			NK
7.	ADL, assessment and training of ADL.	5 hrs	10 hrs		DK	
8.	Clinical assessment, clinical tests and diagnosis of: <ul style="list-style-type: none"> • Musculoskeletal conditions • Manual Therapy clinical reasoning • Sports conditions • Neurological conditions • Cardio-pulmonary conditions • Obstetrics and Gynecology conditions • Pediatric conditions • Geriatric conditions • Oncology conditions • Community Health conditions 	10 hrs	15 hrs	MK		
9.	Measuring tools in therapeutics: Goniometry, accelerometer, pressure transducers, force plates,	5 hrs	10 hrs	MK		

	spondylometer, Body composition, anthropometric measurements, etc.					
10.	ORTHOTICS, PROSTHETICS & BIOENGINEERING:	25 hrs	15 hrs	MK		
	a. Orthosis of spine.					
	b. Orthosis of upper limb.					
	c. Orthosis of lower limb.					
	d. AK and BK Prosthesis.					
	e. Prosthetic fitting and training.					
	f. Biomechanical principles governing them.					

BASIC SCIENCES - RECOMMENDED BOOKS:

1. Ross and Wilson Anatomy and Physiology in Health and Fitness – Kathleen. J, Churchill Livingstone.
2. Samson Wright's Applied Physiology – Neil and Joel, Oxford press.
3. Principles of Anatomy – Harper Collins College Publications
4. Anatomy and Physiology for Physiotherapists – Mottram, Moffat, Blackwell Scientific
5. Atlas of Anatomy – Tank Patrick, Lippincot Williams
6. Surface and Radiological Anatomy – Halim A, CBS

REFERENCE BOOKS:

1. Clinical Kinesiology for the Physical therapist Assistants – Lippert L, Jaypee.
2. Brunnstrom's Clinical Kinesiology – Letimkuni W, Jaypee.
3. Clinical Kinesiology – Laura Weiss, Jaypee.
4. Joint Structure & Function – Levangie P, Norkin C, Jaypee.
5. Basic Biomechanics of the musculoskeletal system – Nordin M, Lippincot Williams.
6. Biomechanical Basis of Movement – Hamill J & Krutzen K M, Lippincot Williams.
7. Measurements of Joint Motion – Norkin C, F. A. Davis.
8. Principles of Mechanics & Biomechanics – Bell, Frank, Stanley Thornes Pvt. Ltd.
9. Basic Biomechanics – Hall, Susan J, McGraw hill.
10. Kinesiology – Oatis, Carol A, Lippincot Williams.
11. Applied Kinesiology – Robert Frost, North Atlantic Books.
12. Biomechanics of Spine – White and Punjabi, Lippincot Williams

MPT h - I: SEMESTER: I

COURSE: MPT H IN COMMUNITY HEALTH SCIENCE

SUBJECT: BASIC THERAPEUTICS

Subject	Theory	Credit	Practical	Credit	Total Credits
Basic Therapeutics	100	7	100	7	14

Sr. No	Content	Teaching Hours (200 Hrs.)		MK	DK	NK
		Didactic (100Hrs)	Practical (100Hrs)			
1.	Basic Electrotherapeutics: Review the principles and applications of the following electrotherapy modalities and justify the effects and uses of it with evidence	25 hrs	25 hrs	MK		
	1. Short wave diathermy.					
	2. Microwave diathermy.					
	3. Ultrasonic therapy.					
	4. Ultraviolet radiation.					
	5. Infrared radiation.					
	6. Iontophoresis.					
	7. Electric stimulation.					
	8. Di - Dynamic currents.					
	9. Interferential therapy.					
	10. Cryotherapy.					
	11. TENS.					
	12. LASER Therapy.					
	13. Paraffin wax bath.					
	14. Hydrotherapy.					
	15. Hydro collator packs.					
	16. Contrast bath.					
	17. Traction.					
	18. Mechanical external Compression therapy.					
	19. Fluidotherapy.					
	20. Phonophoresis.					
	21. Shock Wave Therapy					
3.	Pain and pain modulation.	5 hrs	5 hrs		DK	
4.	Conventional electro diagnosis.	5 hrs	5 hrs	MK		
	1) FG Test.					
	2) SD Curve.					

5.	Electrocardiogram.	10 hrs	10 hrs		DK	
6.	Echocardiography.	10 hrs	10 hrs			NK
7.	Physical & functional diagnosis.	25 hrs	25 hrs	MK		
	1. Clinical examination in general and detection of movement dysfunction.					
	2. Principles of pathological investigations and imaging techniques related to neuromuscular, skeletal and cardiopulmonary disorders with interpretation					
	3. Development screening development diagnosis, neurodevelopment assessment and motor learning-voluntary control assessment					
	4. Physical fitness assessment: <ul style="list-style-type: none"> • Cardiac efficiency tests and spirometry • Fitness test for sport 					
	5. Electro diagnostics-EMG/NCV A. Electromyography (EMG) Electro-diagnosis, clinical and kinesiological electromyography and evoked potential studies. 1. Instrumentation. 2. Types of electrodes. 3. Cathode ray oscilloscope digital processing. 4. Electrical safety. 5. Artifacts. 6. Normal and abnormal motor action potential. 7. EMG Examination. a. Muscle at rest. b. Insertional activity. c. Minimum effort. d. Maximum effort. 8. Motor unit's potential in disease. <ul style="list-style-type: none"> • Motor neuron disease. • Hereditary motor neuron disease. • Poliomyelitis. • Muscular dystrophy. • Inflammatory myopathies. • Congenital myopathies • Myotonia. • Metabolic myopathies. 					

	9) Quantitative methods in EMG.					
	B. Nerve conduction studies (NCV): I. Motor and sensory conduction. II. Physiology of nerve conduction. III. General factors affecting nerve conduction. IV. Nerve stimulation. V. H wave. VI. F wave. VII. Entrapment syndromes. a) Carpel tunnel syndrome. b) EMG studies in Myasthenia gravis. c) EMG studies in Decremental studies Lambert myasthenia syndrome. d) Electro diagnosis in Radiculopathy. e) Peripheral neuropathies. - Nerve conduction changes in peripheral neuropathy. - EMG changes in peripheral neuropathy.					
8	Radiological investigation. 1) X – ray. 2) CT / MRI Scan. 3) Blood investigation (routine)	20 hrs	20 hrs	MK		

BASIC THERAPEUTICS - RECOMMENDED BOOKS:

1. Exercise Physiology, energy, nutrition and human performance – McArdle, Katch &Katch, Lippincot Williams.
2. Illustrated principles of exercise physiology – Axen. K, Kathleen. V, Prentice Hall.
3. Essentials of Exercise Physiology – Shaver Larry. G, Surjeet Publications.
4. Physiology of Sports and Exercise – Majumdar. P, New Central Book.
5. Exercise and the Heart – Frolicher, Victor. F, Elsevier.
6. Textbook of Work Physiology – Astrand and Rodahl, McGraw Hill.
7. Kinanthropometry and Exercise Physiology Laboratory manual tests, procedures and data-Erston, Reilly, F & FN Spon.

REFERENCE BOOKS:

1. Communication Skills in Clinical Practice – Sethuraman K. R.
2. Handbook of Educational Technology – Elington Henry, Kogan Page.
3. Physical Therapy Administration & Management – Hickok, Robert J, Williams &Wilkins.
4. Clinical Decision making in Rehabilitation – Basmajian, John V, Churchill Livingstone.
5. Handbook of Clinical Teaching – Watts Nancy, Churchill Livingstone.
6. Physical Therapy Ethics by Gabard and Martin (Sep 2, 2010)
7. Management in Physical Therapy Practices by Catherine G. Page (Sep 23, 2009)
8. Physical Rehabilitation: Evidence-Based Examination, Evaluation, and Intervention byMichelle H. Cameron and Linda Monroe (Apr 5, 2007)
9. Physical Therapy Management by Ronald W. Scott and Christopher L Petrosino (Sep 1,2007)



MPT_h – I: SEMESTER: II

COURSE: MPTH IN COMMUNITY HEALTH SCIENCE

SUBJECT: BIOSTATISTICS AND RESEARCH METHODOLOGY

Sr No.	Contents	TEACHING HOURS Theory (100 Hrs)	Must Know	Desirable to Know	Nice to Know
1	Research methodology: I. How to read critique research. II. Introduction to research: frame work: levels of measurement: variables III. Basic research concepts: validity and reliability. IV. Design, instrumentation and analysis for qualitative research. V. Design, instrumentation and analysis for quantitative research VI. Design, instrumentation and analysis for quasi-experimental research VII. How to write research proposal VIII. Ethics in research IX. Importance of software in research X. Importance of SPSS, PowerPoint, etc in research.	60 hrs	MK		

2	Biostatistics: Descriptive and inferential statistics II. Types of data qualitative and quantitative III. Frequency distributions IV. Describing data with graphs V. Describing data with averages mode median mean VI. Describing variability variance standard deviation etc VII. Normal distributions VIII. Interpretations of result IX. Hypothesis testing X. T tests XI. ANOVA XII. Probability XIII. Type I and type II errors XIV. Parametric and non-parametric tests XV. Simple statistical analysis using available software.	40 hrs	MK		
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TEXT BOOKS FOR RESEARCH METHODOLOGY AND BIOSTATISTICS:

1. Research Methodology .Methods and Techniques C.R. Kothari New Age International Publishers.2nd edition 2008
2. Rehabilitation Research: Principles And Applications By Elizabeth Domholdt(Elsevier Science Health Science Div, 2004)
3. Research Methods for clinical therapists by Hicks Carolyne, Churchill
4. Foundations of clinical Research by Portney & Watkins, Davis
5. Research methodology by Kothari New Age international
6. Research Methodology for health professionals by Goyal, Jaypee
7. Methods in Biostatistics By Mahajan, B.K Jaypee
8. Principles & practice of Biostatistics By Dixit ,J.V Bhanot

TEACHING TECHNOLOGY:

1. Public Power And Administration – Wilenski, Hale And Iremonger, 1986
2. Physical Therapy Administration And Management – Hickik Robert J

3. A Practical Guide for Medical Teachers : John A Dent& Ronald M Harden: ElsevierHealth Sciences: 2009
4. International Handbook of Medical Education : Abdul W Sajid, Christie H McGuire et al: Greenwood Press 1994
5. Principles Of Medical Education by. Tejinder Singh, Piyush Gupta, DaljitSingh.year: 2009. Edition: 3rd edition Publisher: Jaypee brothers.

MPT h - I: SEMESTER: II

COURSE: MPT h IN COMMUNITY HEALTH SCIENCES

SUBJECT: ADVANCED THERAPEUTICS IN COMMUNITY HEALTH SCIENCES

Subject	Theory	Credit	Practical	Credit	Total Credits
Advanced Therapeutics in Community Health Sciences	100	7	150	5	12

Sr. No	Content	Teaching Hours		MK	DK	NK
		250 Hrs				
		Didactic (100hrs)	Practical (150 hrs)			
1.	Industrial health: Environmental stress in the industrial area - Accidents due to: 1) Physical agents-e.g. Heat/cold, light, noise, Vibration, U.V. radiation, Ionizing radiation 2) Chemical agents-Inhalation, local action, ingestion, 3) Mechanical hazards-overuse / fatigue injuries. <ul style="list-style-type: none">• Ergonomic alteration & Ergonomic evaluation of work place - mechanical stresses as per hierarchy of jobs.• Sedentarytable work - Executive, Clerk,• Inappropriate seating arrangement: Vehicle drivers, Constant standing jobs - Watchman, Defense Force, Surgeons.• Over-exertion in laborers: common accidents: Role of PT - Stress Management.	15 Hrs	30 hrs	MK		

	<p>4) Psychological hazards</p> <ul style="list-style-type: none"> e.g. Among executives, monotonicity & dissatisfaction in job, anxiety of work completion with quality, Role of P.T. in Industrial setup & Stress management - Relaxation modes. <p>5) Ergonomics.</p> <p>6)Preparation of Practical Models</p>					
2	<p>Geriatric health:</p> <p>1) Physiology of Aging.</p> <p>2) Normal and abnormal aging.</p> <p>3) Prevention of abnormal aging - role of Exercises and physical fitness programme and its significance.</p> <p>4) Methods of maintaining normal aging.</p> <p>5) Common geriatric problems - musculoskeletal / neuromotor / cardiorespiratory /Metabolic.</p> <p>6) Role of Physiotherapy in an old aged home.</p> <p>7) Preparation of practical models</p>	30 hrs	40 hrs	MK		
3	<p>Women's health:</p> <p>1) Anatomy of Pelvic floor</p> <p>2) Clinical reasoning for Physical exercises during pregnancy.</p> <p>3) Clinical reasoning for care to be taken during exercises during pregnancy.</p> <p>4) Prenatal / Antenatal programme.</p> <p>5) Clinical reasoning for specific breathing exercises/ relaxation/ postural training/ Pelvic floor stretching & strengthening exercises.</p> <p>6) Physiotherapy during labor Post-natal exercise programme after normal labor / labor with invasive procedures.</p> <p>I. Uro-genital dysfunction-P.T. management.</p>	30 hrs	40 hrs	MK		

	<p>II. Menopause-De-conditioning – P.T. management.</p> <p>III. Common Gynecological surgeries-role of P.T. management.</p> <p>IV. Clinical reasoning for application of Electro- therapeutic measures in Obst / Gynac.</p>					
4	<p>Pediatric health:</p> <p>1) Common pediatric health disorder - enumerate the various causes and methods of prevention.</p> <p>2) Physiotherapy management for the following pediatric orthopedic conditions such as CDH, CTEV, and Other foot disorders, still's disease, muscular dystrophies.</p> <p>3) Pediatric neurological conditions such as Anterior Poliomyelitis, Cerebral palsy, Hydrocephalus, Spinabifida, etc.</p> <p>4) Cardio respiratory conditions in Pediatrics.</p>	25 Hrs	40 Hrs	MK		

RECOMMENDED BOOKS:

INDUSTRIAL HEALTH:

- 1) "Industrial Physiotherapy: A Guide to Workplace Rehabilitation" by Karen L. Jacobs
- 2) "Industrial Rehabilitation: A Practical Approach" by David C. Athens
- 3) "Work-Related Musculoskeletal Disorders: A Guide for Physiotherapists" by Michael T. Marras
- 4) "Physical Therapy in Industry: A Guide to Workplace Health and Safety" by Steven J. James
- 5) "Workplace Wellness and Physiotherapy: A Guide to Promoting Healthy Workplaces" by David C. Athens.

GERIATRIC HEALTH:

- 1) "Physical Therapy for Older Adults: A Guide to Practice" by Barbara A. Chandler
- 2) "The Older Adult: A Guide for Physical Therapists" by Susan C. Wonders
- 3) "Geriatric Rehabilitation: A Guide to Practice" by Patricia A. Pulicherla
- 4) "Physical Therapy for seniors: A Guide to Exercise and Rehabilitation" by Elizabeth R. Pollard

- 5) "Geriatric Physical Therapy: A Case-Based Approach" by Andrew J. Moore
- 6) "Physical Therapy for Older Adults with Chronic Health Conditions" by Patricia A. Pulicherla
- 7) Geriatric physical therapy by Andrew A. Guccione, 2nd edition (Mosby 2000)

WOMEN'S HEALTH:

- 1) "The Female Pelvis: Anatomy, Function, and Rehabilitation" by Amy Stein
- 2) "Women's Health in Physical Therapy" by Katherine L. Morehouse
- 3) Physical Therapy for Women: A Guide to Rehabilitation After Injury or Childbirth" by Elizabeth R. Pollard
- 4) "Pelvic Floor Physical Therapy: A Guide to Evaluation and Treatment" by Michelle Smith
- 5) "Physical Therapy for Pregnancy, Postpartum, and Pelvic Floor Disorders" by Patricia S. Wolfe
- 6) "Rehabilitation for Women with Chronic Health Conditions: A Guide for Physical Therapists" by Susan C. Wonders

PEDIATRIC HEALTH:

- 1) Campbell's Physical Therapy for Children
- 2) Handbook of Pediatric Physical Therapy

MPT_h - II: SEMESTER: III

COURSE: MPT_h IN COMMUNITY HEALTH SCIENCES

SUBJECT:
GENERAL PHYSIOTHERAPY IN COMMUNITY HEALTH SCIENCES
PAPER 1

Subject	Theory	Credit	Practical	Credit	Total Credits
General Physiotherapy in Community Health PAPER 1	200	13	225	8	21

Sr.no	Content	Teaching hrs.		Must know	DK	NK
		425 Hrs				
		Didactic (200 Hrs)	Practical (225 Hrs)			
1.	Target population for various Community Health Disorders.	20 hrs	25 hrs	MK		
2.	Briefly review the health, dimensions of health, maintenance of normal health, illness, disorders, diseases, and different levels of Health Care Delivery Systems in the community.	15 hrs	15 hrs	MK		
3.	Impairment, Disability And Handicap	15 hrs	15 hrs	MK		
4.	Scope of Community Health.	10 hrs	10 hrs	MK		
5.	Basic concepts of Community Based Rehabilitation and foundations of CBR a. History of disability b. Discrimination c. Rehabilitation acts d. Legislation - Indian, International (WHO) e. Hospital based care to	25 hrs	25 hrs	MK		

	<p>community</p> <p>f. Agencies in rehabilitation</p> <p>g. Access and barrier free environment</p> <p>h. Psychosocial aspects of rehabilitation</p> <p>i. Ethical issues in rehabilitation</p> <p>j. Social security & definition of disability</p> <p>k. Medicaid: benefits and limitations</p> <p>l. Insurance and rehabilitation</p>					
6.	<p>CBR - Values and concept and its impact on professional practice;</p> <ul style="list-style-type: none"> • Various Definitions And Their Impact On Disabled People, • Principles And Values shaping professional practice, • Freedom from Barriers, Equality and Full Participation, • Integration, Inclusion 	10 hrs	10 hrs	MK		
7.	<p>Major approaches in working with people with disabilities,</p> <ul style="list-style-type: none"> • Independent living/ self-help/ empowerment, • CBR versus Institutional Rehabilitation - Barriers & Facilitators • Free environment and Information Technology, • Sheltered Employment Versus Community Workshop Employment, • Legislation(Anti-Discrimination), and 	20 hrs	25 hrs	MK		

	Public Education					
8.	<p>Intervention skills in Disability Rehabilitation:</p> <ul style="list-style-type: none"> • Rehabilitation counseling, • holistic approach in rehabilitation counseling, small group counseling and • vocational counseling for people with disabilities, • Skills training for Parents and Sibling counseling in rehabilitation. 	30 hrs	30 hrs			NK
9.	<p>Psychological Function and Patterns of Behavior.</p> <ol style="list-style-type: none"> a. Subjectivity of disability b. Adjustment of disability c. Adjustment: Role, societal values and self-image d. Body image and sense of self e. Psychopathologic reactions: depression and anxiety disorders 	15 hrs	15 hrs			DK
10.	<p>Evaluation of CBR Program</p> <ol style="list-style-type: none"> a. Types of CBR evaluation b. Role of government, public sectors and NGOs 	20 hrs	25 hrs	MK		
11.	<p>Screening of various Health Disorders at different Sectors.</p> <ul style="list-style-type: none"> • Inclusive of: Individuals with Cancer / Mental Illness / Physical Disabilities 	20 hrs	30 hrs	MK		

RECOMMENDED BOOKS:

TEXTBOOKS IN COMMON TO COMMUNITY HEALTH PHYSIOTHERAPY:

1. "Physiotherapy in Community Based Rehabilitation" By Waqar Naqvi.
2. "Physiotherapy in Women's Health" By R. Sapsford
3. "Physiotherapy in Women's Health" By Margaret Polden & Jill Mantle
4. "Industrial Therapy" By Glenda. L. Key
5. "Principles of Geriatric Rehabilitation" By N. Multani
6. "Text book of Physiotherapy for Obstetric & Gynecological conditions" By G.B. Madhuri
7. "Role of Physiotherapist in Obstetric & Gynecological conditions" By Purvi & Changela
8. "Geriatric Physical Therapy" By Andrew A. Guccione

HEALTH DISORDERS AND TARGET POPULATIONS:

1. "Pediatric Rehabilitation: Principles and Practices" by Michael A. Alexander - Target population: Children with disabilities
2. "Gerontological Rehabilitation" by Sue L. Greene - Target population: Older adults
3. "Rehabilitation in Cancer Care" by Julie K. Silver - Target population: Individuals with cancer
4. "Rehabilitation in Spinal Cord Injury" by Michael H. Weber - Target population: Individuals with spinal cord injury
5. "Rehabilitation in Chronic Disease" by Andrew J. Moore - Target population: Individuals with chronic diseases

BOOKS ON DISABILITY:

1. "Disability and Society" by John Swain - Analyzes disability in a societal context
2. "Disability and Public Policy: The Politics of Inclusion" by Harold Pollack - Examines disability policy
3. "The Oxford Handbook of Disability Studies" edited by Catherine J. Kudlick - Comprehensive overview of disability studies
4. "Impairment, Disability, and Handicap: A Conceptual Framework" by Philip Wood - Examines the relationships between impairment, disability, and handicap
5. "ICF-Based Rehabilitation: A Practical Approach" by Christoph Gutenbrunner - Practical application of ICF in rehabilitation settings
6. "Understanding Disability: A Guide to ICF" by Annette M. Majnemer - Introduces ICF and its applications in disability
7. "Impairment, Disability, and Quality of Life: A Conceptual Framework" by Joseph C. Wasser - Explores relationships between impairment, disability, and quality of life
8. "ICF-Based Health Care: A Practical Approach" by J. H. P. M. van Lieshout - Practical application of ICF in healthcare settings.

MPT_h - II: SEMESTER: III

COURSE: MPT_h IN COMMUNITY HEALTH SCIENCES

SUBJECT:

ADVANCES IN IN COMMUNITY HEALTH PHYSIOTHERAPY PAPER 1

Subject	Theory	Credit	Practical	Credit	Total Credit
Advances in Community Health Physiotherapy PAPER 1	200	13	250	8	21

Sr.no	Content	Teaching Hrs.		Must to know	Desirable to know	Nice to know
		450 Hrs				
		Didactic (200 Hrs)	Practical (250 Hrs)			
1.	Community based Rehabilitation of following disorders: a. Spinal cord injury b. Traumatic brain injury c. Stroke d. Amputations e. Heart disease, pulmonary disease f. Parkinson's disease g. Multiple sclerosis h. Arthritis i. Vestibular rehabilitation j. Burns k. Chronic pain l. Developmental disorders m. Degenerative, progressive disorders Challenges in quality of health care in community setup in the management of various therapeutic conditions like Malignancy, etc.,	20 hrs	25 hrs	MK		
2.	Disabilities other than Locomotor	10 hrs	15 hrs	MK		
3.	Evaluation and Theories of Aging	15 hrs	25 hrs	MK		

4.	Epidemiology	10 hrs	10 hrs		DK	
5.	<p>Common Disorders</p> <p>a. Heart disease</p> <p>b. Pulmonary disease</p> <p>c. Diabetes mellitus</p> <p>d. PVD</p> <p>e. Chronic illness</p> <p>a. Obesity / malnutrition</p> <p>b. Arthritis & other musculoskeletal disorders - low back pain syndrome</p> <p>c. Immuno- suppressed patients & Cancer</p> <p>d. CNS Disorders – dementia, Alzheimer’s</p>	25 hrs	30 hrs	MK		
6.	<p>Advances Geriatric rehabilitation services -</p> <p>Care in the Patient’s Own Home,</p> <p>Day Care outside the Home,</p> <p>Domiciliary Services,</p> <p>Sheltered Housing,</p> <p>Group Homes and</p> <p>Assisted Living Facilities,</p> <p>Nursing Home Care,</p> <p>Dementia / Psychiatric Units,</p> <p>Hospitalization,</p> <p>Ethical Considerations (Euthanasia, Living Wills, Etc.)</p>	15 hrs	15 hrs	MK		
7.	<p>Occupational Health:</p> <p>a. Physiology and Toxicology (Lead, Arsenic, Manganese, Aluminum, Silica, Coal, Hay & Acid Burn)</p> <p>b. Occupational Hazards - Factors, Classification, Implications & Epidemiology.</p> <p>c. Industrial Hygiene, Prevention, Management.</p> <p>d. Special Industries - Agricultural Industry and Pesticide Use, Air & Water Pollution,</p> <p>e. Hazardous Waste.</p>	20 hrs	30 hrs	MK		

	<p>f. Vulnerable worker's groups: women, children, older persons, chronically ill and handicapped workers.</p> <p>g. Labor law: work modification, tool design.</p>					
8.	<p>Industrial therapy in contemporary work place</p> <p>a. Industrial therapy – traditional medical model vs. worker care spectrum.</p> <p>b. Industrial therapy team approach</p> <p>Impact and outcome of industrial therapy</p>	10 hrs	10 hrs	MK		
9.	<p>Injury prevention & Ergonomics</p> <p>a. Job analysis</p> <p>b. Job placement assessment and pre-employment screening</p> <p>c. Employee fitness program</p> <p>Prevention of injuries-backand upper extremities.</p>	20 hrs	30 hrs	MK		
10.	<p>Returning the worker to productivity</p> <p>a. Acute care and functional management</p> <p>b. Functional capacity assessment</p> <p>c. Flexibility, mobility, strength and aerobic conditioning</p> <p>d. Work conditioning and work hardening</p> <p>e. Job stimulating</p> <p>f. Educating the worker for maximum productivity</p> <p>g. Psychological perspectives</p> <p>h. Vocational rehabilitation</p> <p>Assessing physical impairment</p>	25 hrs	25 hrs	MK		
11.	<p>Management in industrial therapy</p> <p>- Regulations and regulatory agencies.</p>	10 hrs	10 hrs			NK

12.	<p>Ergonomics</p> <ul style="list-style-type: none"> a. Introduction to ergonomics b. Anatomy, physiology and anthropometrics c. Ergonomic quality and cost-return benefits issues d. Human body interaction with the environment e. Work schedules, ergonomic models, methods and measurements (measurement tools and methods) f. Designing to fit the moving body g. Office ergonomics h. Handling loads <p>Designing for special populations</p>	20 hrs	25 hrs	MK		
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RECOMMENDED BOOKS:

COMMUNITY-BASED REHABILITATION (CBR):

1. "Community-Based Rehabilitation: A Practical Guide" by WHO (World Health Organization)
2. "CBR: A Strategy for Rehabilitation, Equalization of Opportunities, Poverty Reduction and Social Inclusion" by David Werner
3. "Rehabilitation in the Community: A Guide for Rehabilitation Workers" by Malcolm Gladwell
4. "CBR: A Framework for Rehabilitation, Social Integration and Empowerment" by Johannes Trummer
5. "Community-Based Rehabilitation: A Guide for Families and Caregivers" by UNICEF
6. "CBR: A Tool for Social Inclusion and Empowerment" by Disability Action

OCCUPATIONAL HEALTH AND ERGONOMICS:

1. "Occupational Health and Safety in Physical Therapy" by Steven J. James
2. "Ergonomics and Physiotherapy: A Guide to Workplace Assessment and Intervention" by David C. Athens
3. "Occupational Health and Physiotherapy: A Guide to Practice" by Karen L. Jacobs
4. "Industrial Health and Safety: A Physiotherapist's Guide" by C. Richard Hurley
5. "Physical Therapy in Occupational Health: A Guide to Practice" by C. Richard Hurley

MPT_h - II: SEMESTER: IV

COURSE: MPT_h IN COMMUNITY HEALTH SCIENCES

SUBJECT:

GENERAL PHYSIOTHERAPY IN COMMUNITY HEALTH SCIENCES PAPER 2

Subject	Theory	Credit	Practical	Credit	Total Credit
General Physiotherapy In Community Health Sciences PAPER 2	200	13	225	8	21

Sr.no	Content	Teaching hrs.		MK	DK	NK
		425 Hrs				
		Didactic (200 Hrs)	Practical (225 Hrs)			
1.	Basis for Therapeutic decision making related to Community health problems	30 hrs	30 hrs	MK		
2.	Disability evaluation in detail	25 hrs	30 hrs	MK		
3.	Physiotherapy management of miscellaneous conditions: a. Wound healing in diabetes mellitus, leprosy, pressure sores b. Obesity c. Burns d. HIV e. Skin conditions f. Diabetes mellitus g. Malignancy	30 hrs	45 hrs	MK		
4.	Concept of Preventative Physiotherapy for target population and team approach.	25 hrs	25 hrs	MK		

5.	Short project-based learning: Field work	15 hrs	15 hrs	MK		
6.	Disaster Management	15 hrs	15 hrs		DK	
7.	Different models of Community physical healthcare: specific to Urban / Rural	20 hrs	20 hrs	MK		
8.	Community causes for various health disorders	10 hrs	10 hrs	MK		
9.	National & International health programs for Musculoskeletal Physiotherapy interventions.	10 hrs	15 hrs	MK		
10.	Professional marketing strategies - Entrepreneurship a. Specialty clinics b. Independent Practice c. Joining organizations d. Groups e. NGO f. Specialty references	10 hrs	10 hrs			NK
11.	Management strategies of various Orthopedic Disorders.	10 hrs	15 hrs	MK		

RECOMMENDED BOOKS:

COMMUNITY HEALTH PHYSIOTHERAPY:

1. "Community Health Physiotherapy: A Practical Guide" by Fiona Moffatt
2. "Community Health and Physiotherapy: A Guide for Students" by Jennifer M. Bottomley
3. "Community-Based Rehabilitation: A Guide for Physiotherapists" by Malcolm Gladwell
4. "Community Health Physiotherapy: A Guide for Researchers" by Stephen J. Fitzpatrick
5. "Physiotherapy in Community Settings: A Guide for Practitioners" by Sarah E. G. Smith

DISABILITY EVALUATION:

1. "Disability Evaluation: A Guide for Practitioners" by Richard D. Weiner
2. "Assessing Disability: A Guide for Health Professionals" by Deborah A. Dougherty

3. "Functional Capacity Evaluation: A Guide for Practitioners" by David C. Poole
4. "Assessing Work-Related Disability: A Guide for Practitioners" by Philip L. Bridgman
5. "Medical Impairment and Disability Evaluation: A Guide for Health Professionals" by Charles A. Buchanan

PREVENTATIVE PHYSIOTHERAPY:

1. "Preventative Physiotherapy: A Guide for Practitioners" by David A. Greene
2. "Injury Prevention and Management: A Guide for Physiotherapists" by Michael Hutson
3. "Exercise and Physical Activity in Prevention and Treatment: A Guide for Health Professionals" by Steven N. Blair
4. "Preventative Physiotherapy for Older Adults: A Guide for Health Professionals" by Jennifer M. Bottomley
5. "Preventative Rehabilitation for Chronic Conditions: A Guide for Health Professionals" by Andrew M. Williams
6. "Physical Activity and Health Promotion: A Guide for Health Professionals" by Gregory W. Heath

MPT_h - II: SEMESTER: IV

COURSE: MPT_h IN COMMUNITY HEALTH SCIENCES

SUBJECT:

ADVANCES IN IN COMMUNITY HEALTH PHYSIOTHERAPY PAPER 2

Subject	Theory	Credit	Practical	Credit	Total Credit
Advances in Community Health Physiotherapy PAPER 2	200 Hours	13	250 Hours	8	21

Sr.no	Content	Teaching Hrs.		Must know	Desirable to know	Nice to know
		450 Hrs				
		Didactic (200 Hrs)	Practical (250 Hrs)			
1.	Principles of Ergonomics	10 hrs	15 hrs	MK		
2.	Ergonomic issues related to use of Hand Tools, Posture, Material Handling / Lifting, NIOSH Lifting Formula	10 hrs	10 hrs	MK		
3.	Frequent types of Injuries related to Workplace Design, Repetitive Motion and Cumulative Trauma Disorders	15 hrs	20 hrs	MK		
4.	Preventing ergonomically related injuries by: Redesigning The Workplace, Work Analysis and Work Conditioning & Work Hardening.	20 hrs	20 hrs	MK		
5.	Designing displays for Workers, Auditory Displays	10 hrs	10 hrs	MK		
6.	Transfers and Designs with relation to Assistive Technology.	10 hrs	10 hrs	MK		
7.	Controls and Control arrangements - Keyboards And Input Devices for Computers	5 hrs	5 hrs		DK	
8.	Gender Related Issues (Socio-Cultural)	10 hrs	10 hrs	MK		NK

9.	Early Detection And Intervention with evident researches - Outcome And Effectiveness. Rehabilitation in Chronic Disease - Outcome And Effectiveness.	30 hrs	50 hrs	MK		
10.	Team models and inter-agency collaboration	10 hrs	10 hrs			NK
11.	Parent's involvement and family centered	20 hrs	20 hrs		DK	
12.	Community based natural environments	20 hrs	20 hrs	MK		
13.	Evidence Based Practice of Physiotherapy in Community Health including: a) Medico legal issues b) Effective documentation c) Effective communication	30 hrs	50 hrs	MK		

RECOMMENDED BOOKS:

EVIDENCE BASED PHYSIOTHERAPY:

1. "Physiotherapy: A Guide to Evidence-Based Practice" by Jennifer M. Bottomley
2. "Evidence-Based Rehabilitation: A Guide for Health Professionals" by Mary E. Grittner
3. "Clinical Reasoning and Evidence-Based Practice in Physiotherapy" by Joy D. Williams
4. "Applying Evidence-Based Practice in Physiotherapy: A Guide for Practitioners" by David C. Poole

ASSISTIVE TECHNOLOGY IN REHABILITATION:

1. "Assistive Technology in Rehabilitation: A Guide for Practitioners" by Albert M. Cook
2. "Assistive Technology for People with Disabilities: A Guide for Rehabilitation Professionals" by Kenneth F. McCoy
3. "Assistive Technology for Communication and Language: A Guide for Rehabilitation Professionals" by David R. Beukelman