

Subject Title:	COMMUNITY BASED REHABILITATION, ETHICS & BIO-ENGINEERING
Subject Code:	1PT1010405
Year:	Final Year
Pre-requisite Subject	- NONE -

Subject Name	Evaluation Scheme (Marks)					
	Theory(T)		Practical(P)		Total Marks	
	University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	Theory	Practical
Community Based Rehabilitation, Ethics & Bio- Engineering	80 (40+40)	20 (10+10)	80 (40+40)	20 (10+10)	100	100

Objectives of Course:

At the end of the course the candidate will be able to:

1. Describe the general concepts about Health, Disease & Physical fitness.
2. Describe national policies for the rehabilitation of disabled- role of IAP to promote physiotherapy as a health delivery system.
3. Describe the strategies to assess prevalence & incidence of various conditions responsible for increasing morbidity in the specific community, role of physiotherapy in reducing morbidity, expected clinical & functional recovery, reasons for non-compliance in specific community & environmental solution for the same.
4. Describe the evaluation of disability & planning for prevention & rehabilitation.
5. Describe CBR in urban & rural set up, WHO policies, concept of team work, role of multi- purpose health worker.
6. Identify with clinical reasoning the prevailing contextual (environmental & psychosocial, cultural) factors, causing high risk, responsible for various dysfunctions & morbidity related to lifestyle & specific community like women, aged, industrial workers & describe planning strategies of interventional policies to combat such problems.

PHYSIOTHERAPY IN COMMUNITY HEALTH

Teaching Scheme (Hours)			Evaluation Scheme (Marks)					
Lecture	Practical	Total	Theory(T)		Practical(P)		Total Marks	
			University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	Theory	Practical
			40	10	40	10	50	50

Subject Contents			
Sr. No.	Topic	Total Hours	Weight (%)
1	Concepts of community health Preventive, promotive, restorative and rehabilitative WHO definition of health and disease Health delivery system - 3 tier		
2	Disability types Physical & Psychological Evaluation, prevention & Legislation related to Persons with Disability (PWD)		
3	CBR Definition, principles, types (institutional, reach out and community), concepts, WHO policies Principles of Team work of medical practitioner, Physiotherapist, Occupational Therapist, Speech & Audiology Therapist, Prosthetist & Orthotist, Clinical psychologist, vocational counsellor and social worker Role of Physiotherapy in team, concept of multipurpose health worker, role of Physiotherapy and strategies in 3 tier Health delivery system, communication strategies.		
4	Health Care Prevention, Promotion & Restoration 1. In peri pubertal age group 2. In women-pregnancy, menopause 3. In Geriatrics- neuromusculoskeletal, cardiovascular, pulmonary, metabolic and degenerative conditions 4. In Obese / over weight 5. In Cardiovascular and Pulmonary conditions 6. In Diabetes 7. Health promotion for all.		
5	Women and child care 1. Antenatal exercises, Specific Breathing exercises, Relaxation, Postural training, Pelvic floor strengthening exercises with clinical reasoning 2. Physiotherapy during labor 3. Postnatal exercises program after normal labor / labor with invasive procedures with clinical reasoning 4. Menopause - Osteoporosis, Mental health, Physiotherapy management 5. Preterm babies 6. Adolescent age group 7. Nutritional disorders in women and children		
6	Geriatrics Physiology of aging, environmental changes and adaptations, balance and falls Role of Physiotherapy in geriatric population		

ETHICS AND MANAGEMENT

(A) ETHICS

Subject Contents			
Sr. No.	Topic	Total Hours	Weight (%)
1	Ethical principles in health care		
2	Ethical principles related to physiotherapy		
3	Scope of practice		
4	Rules of professional conduct - Physiotherapy as a profession - Relationship with patients - Relationship at health care institution i.e. hospital, clinic etc. - Relationship with colleagues and peers - Relationship with medical and other professionals		
5	Confidentiality and responsibility		
6	Malpractice and negligence		
7	Provision of services and advertising		
8	Sale of goods: personal and professional standards		
9	Legal aspects: legal responsibility of physiotherapists for their action in the professional context understanding liability and obligations in case of medico legal action		

(B) MANAGEMENT

Subject Contents			
Sr. No.	Topic	Total Hours	Weight (%)
1	Basic Principles of Administration and Organization.		
2	The evaluation Process and Treatment Planning		
3	Principles of Prescription writing.		
4	Evidence based practice & documentation		
	Industrial health A) Ability Management Job analysis - Job description, ergonomic evaluation, injury prevention		

	B) Environmental stress in the industrial area 1. Physical agents e.g. heat / cold, light, noise, vibration, UV radiation, ionizing radiation 2. Chemical agents-inhalation, local action and ingestion 3. Mechanical hazards-overuse/fatigue injuries due to ergonomic alternation and mechanical stresses		
	C) Mechanical stresses in various job related postures and activities		
	D) Psychological hazards		

BIO-ENGINEERING

Objectives of Course:

At the end of the course the candidate will be able to:

1. Acquire knowledge about biomechanical principles of application of variety of aids & appliances used for ambulation, protection & prevention.
2. Acquire in brief knowledge about various materials used for splints/orthosis & Prostheses and selection criteria for splints/orthosis & prostheses.
3. Acquire the skill of fabrication of simple splints made out of low cost material.

Teaching Scheme (Hours)			Evaluation Scheme (Marks)					
Lecture	Practical	Total	Theory(T)		Practical(P)		Total Marks	
			University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	Theory	Practical
50	20	70	40	10	40	10	50	50

Subject Contents			
Sr. No.	Topic	Total Hours	Weight (%)
1	Introduction and classification of aids and appliances		
2.	Biomechanical principles in designing of appliances, material used for fabrication & assessment procedures for static & dynamic alignment of the following Aids & appliances		
3.	Splints/Orthosis for spine-upper & lower limb, Prosthesis for Lower limbs, Upper limbs		
4.	Wheel chair prescription		
5.	Psychological aspects of orthotic and prosthetic application		
6.	Project – The students may be given a small project to fabricate 1 splint using POP, aluminum strips /sheets /wires, rubber bands, rexin, orfit etc.		