

Third B.O.Th. Year
305. REHABILITATION SCIENCE

Total hours: 80 hrs

Theory : 100 marks (Final Exam :70 marks + Internal assessment :30)

COURSE OBJECTIVES

The student will be able to fulfill with 75% accuracy (as measured by written evaluation) the following objectives:

1. CBR:

- define CBR and explain its MODELS.
- know how to start a CBR program
- clearly understand the role of O.T and the contributions of other health professionals
- differentiate CBRIIBR
- discuss the role of O.T. in disaster management

2. COMMUNITY MEDICINE

- understand various concepts of health & disease
- define health and describe dimensions of health

3. SOCIAL FACTORS AND HEALTH

- understand concepts in sociology & cultural factors n health & disease
- explain the social problems of workers especially those disabled.
- Epidemiology

4. OCCUPATIONAL HEALTH

- define occupational health and understand the role of OT in occupational disorders like occupational lung disease.
- Explain prevention of occupational diseases especially medical and engineering measures.

5. CHILD SURVIVAL AND SAFE MOTHERHOOD PROGRAM

- ‘understand the role of CSSM as a national program
- emphasis the role of the following conditions in community setting
 - a) Congenital orthopedic conditions e.g. CDH, CTEV
 - b) Neurological Disorders in the New born e.g. CP, spin bifida and AMC

6. NUTRITION & HEALTH

- ‘Describe constituents of food, their functions & national nutritional programs.

7. Appreciate and use key terms such as anthropology, ethnography, skill transfer, knowledge, attitude and community education, appropriate technology and multi-purpose health worker.

8. Understand International Classification of disability according to WHO’s ICF 2001

9. Describe magnitude of disability problems, its causes & future trends.

10. Define ‘Person with disability’, and highlight upon “Persons with Disability Act” by

Government of India 1995 Understand basic boncepts of disability evaluation and certification in India and social legislation

11. Explain prevention & detection of disability & role of O.T.

12. Outline the principles of organization & administration, organizational chart, starting a new rehabilitation centre- procedure, survey, interview & planning.

13. Outline the principles and goals in designing prescription, fabrication, check out of orthoses and prosthesis and apply knowledge in designing the necessary alternations required as per the clinical conditions.
14. Understand the adaptation and appropriate teaching methods in wheelchair selection process.
15. Develop innovative low cost aids & appliances in respect to therapeutic equipment & adaptive dev;ces, splints & mobility aids.
16. Describe the role of rehabilitation team workers such as physician, surgeon, occupational therapist, physical therapist, speech therapist, psychologist, social worker, vocational counselor, special education teacher, multipurpose health worker in rehabilitation.
17. Define Adjunctive therapy- describe biofeedback, physical agent modalities & Yoga therapy
18. Have knowledge of common sport injuries; prescribe assistive, adaptive equipment & adaptation of methods. Explain role of Occupational Therapist in return to sports& athletic activities

COURSE CONTENT:

1. CBR: Definition, models, structure, process, outcome, role of O.T and the contributions of other health professionals, differentiate OBR / IBR, Occupational Therapy for disaster management
2. Concepts of health & disease- definition & dimensions of health
3. Social factors and health - concepts in epidemiology, sociology & cultural factors in health & disease, social problems of disabled workers.
4. Occupational health- definition of occupational health, role of CT in occupational disorders like occupational lung disease. Medical and engineering measures in prevention of occupational diseases.
5. Child survival and safe motherhood program- role of CSSM as a national program. Role of O.T. in orthopedic & neurological conditions in new born such as CDH, CTEV, CP, spina bifida and AMC in community setting
6. Nutrition & health- constituents of food, their functions & national nutritional programs
7. Anthropology, ethnography, skill transfer, knowledge, attitude and community education, appropriate technology
8. International Classification of functioning, Disability & Health: ICIDH, WHO's ICF 2001.
9. Magnitude of disability problems, its causes & future trends.
10. Persons with Disability Act (1995) National Trust Act 1999, RCI Act 1992 By Government of India
11. Basic concepts of disability evaluation and certification in India and Social Legislation.
12. Prevention & detection of disability &. role of O.T. in it.
13. Principles of organization & administration, organizational chart, starting a new rehabilitation centre- procedure, survey, interview & planning.
14. Assistive Technologies:
 - A) Prosthesis:

- i. Definition, Aim, Principles and Amputee training and Evaluation.
 - ii. Upper Extremity Prosthesis — Types of Amputee, Types and components of prosthetic prescription criteria, checkout, pre-prosthetic and prosthetic training.
 - iii. Lower Ext Prosthesis — Biomechanical consideration, Types and Components of L/E prosthesis, pre and post prosthetic, training and checkout.
 - iv. Prosthetic deviation in AIK and B/K Prosthesis.
- B) Orthoses:
- i. Definition, Classification, Indication, Principles, Materials used.
 - ii. Orthotic components, terminology used in the upper, spinal and lower limb orthoses.
 - iii. Spinal Orthoses — Classification, Principles and indication in with brief description of each.
 - iv. Cervical Orthoses — Types, Goals and brief description.
 - v. Upper Ext. Orthoses — Types, goals and brief description and fabrication of shoulder, elbow and wrist hand orthoses.
 - vi. Lower Ext. Orthoses — Brief description of Hip, Knee and Ankle orthoses and Shoe modification.
14. Wheelchair selection process: Adaptations and appropriate teaching.
 15. Develop innovative low cost aids & appliances in respect to therapeutic equipment & adaptive devices, splints & mobility aids.
 16. Role of each rehabilitation team worker.
 17. Adjunctive therapies:
 - (i) biofeedback
 - (ii) physical agent modalities
 - (iii) Yoga
 18. Introduction to sport medicine - common sport injuries, prescribe assistive, adaptive equipment, splints, adaptive methods & role of Occupational Therapist in return to sports & athletic activities

BOOKS RECOMMENDED

1. Text Book of social and preventive medicine by Park
2. Disabled village children by David Werner.
3. Occupational Therapy for Physical Dysfunctions by C. .A.Trombly.
4. Willard and Spackman's Occupational Therapy by H. Hopkins & H. Smiths.
5. WHO's ICE 2001
6. Guidelines for evaluation of various disabilities and procedure for certification- By Ministry of social justice and empowerment notification 2001
7. Objective Evaluation of Impairment and Ability in Locomotor Handicapped — Qr. Sabapathyvinayagam Ramar— 1993.

References:

1. Community Based Rehabilitation by Malcolm Peat