Forth B.O.Th. Year
402.O.T. IN MEDICAL CONDITIONS

Total hours: 420 hrs (theory-60 hrs + clinics-60 hrs + clinical practice -300 hrs).
Total marks: 200, Theory: 100 + Clinical: 100
Theory- University exam: 70 + internal assessment: 30 = 100
Clinical- University exam: 70 + internal assessment work 30 = 100

COURSE OBJECTIVES:

The student will be able to fulfill with 75 % accuracy as measured by wren, oral & clinical evaluation the following objectives

1) Rheumatoid Arthritis

Define R.A., describe role of O.T. in treatment of R.A. & Collagen disorders with assessment explain in detail pathomechanics of hand deformities their prevention & splintage, describe rehabilitation in acute, subacute & chronic stage of R.A, explain joint protection techniques their implication in R.A. patients with work simplification & energy conservation techniques.

2) Gerontology

Describe biological & psychological theories of aging, explain the interrelation of aging & disease & concepts of death & dying.
Describe & understand O.T. assessment in geriatrics

3) Dermatology

Define leprosy
Explain the psychosocial implications of leprosy & need for intervention by O.T. Describe O.T. treatment in acute & chronic dermatological conditions

4) HIV

Describe the stage of infection
Define physical psychological environmental needs of patient with HIV infection Explain assessment processes & develop appropriate treatment planning

5) Pulmonary Conditions

Asses air entry and secretions by auscultation
Interpretation of pulmonary function tests and their application in rehabilitation.
State general approach of O.T in Pulmonary conditions such as chronic bronchitis, bronchitic asthama, emphysema, empyema, COPD, ILD, T.B., Lung abscess, occupational lung diseases. Explain postural deviations after thoracic surgery & O.T. management.
Assess functional performance- capacity to perform occupational activities includinq

woleisure and self-care.
Assess motor performance-functional. mobility, strength and endurance.

Prescribe activities to improve lung capacity using diapharmatic and pursed lip breathing patterns and incorporate correct breathing patterns in day-to-day living.
Energy conservation techniques and work assessment.
Development of pulmonary endurance & work capacity.

6) Cardiac Conditions

Describe clinical application of O.T. with respect to common cardiac conditions such ischaemic heart diseases, acute myocardial infarction, hypertension, cardiac myopathie congenital and acquired heart diseases, valvular diseases, and following interventions Ii CABG, angioplasties, valve replacements.
Understand the clinical presentations with respect to physical findings, pathophysiology a investigative reports.
Administer exercise protocol using modalities like treadmills, ergometers, step-equipments, walking brisk walking, spot jogging exercises.
State application of exercise with respect to risk stratification, indications, dose mode a methods.
Understanding application of exercise training effect for work, activity and sports prescription.
Interpret from exercise performance based on parametric evaluation-ECG and haemodynamic responses.
Define METS & state its classification in brief.
Explain work simplification & energy conservation techniques based on ergonomic principles state use & application.
Assess and prescribe work simulation techniques in cardiac dysfunctions.
Understand & apply different components of work assessment in cardiac conditions. Application of **O.T.** in controlling risk factor like obesity, smoking, hyperlipidemia, sedentary style, HT, diabetes and family history.

7) Hematological conditions

Explain the term hemophilia.
Describe its physical & psychological implications & O.T. management

COURSE CONTENT

1) Rheumatiod Arthritis: ..
Definition, O.T. treatment in R.A., pathomechanics of hand deformities, rehabilitation of R.A. in Acute stage, rehabilitation of R.A. in subacute stage, rehabilitation of R.A. in chronic stage joint protection techniques, work simplification techniques.

2) Gerontology:
Theories of ageing, ageing & disease, death & dying, O.T. treatment in gerontology

3) Dermatology: -
Leprosy, O.T. in acute & chronic dermatological conditions with psychosocial implications.

4) HIV:
Stages of infection, physical psychological & environmental consideration, O.T. assessment treatment.

5) Pulmonary conditions:
Chronic bronchitis, bronchial asthma, emphysema, empyema, COPD, ILD, T.B., lung abscess occupational lung diseases, throcic surgeries, related postural deviations and their corrections.
Assessment-auscultation or air entry and secretions. Interpretation of pulmonary function test and their application in rehabilitation.
Therapeutic intervention-Assessment of functional performance capacity to perform occupational activities including work, leisure and self-care.
Assessment of motor performance-functional mobility, strength and endurance.
Activities to improve lung capacity using diaphragmatic and pursed lip breathing patterns.
Incorporation of correct breathing patterns in day-to-day living.
Energy conservation techniques and work assessment.
Development on pulmonary endurance & physical work capacity.

6) Cardiac conditions
Intervention in acute, convalescent and late phases of cardiac illnesses such as ischaemic heart diseases, acute myocardial infarction, hypertension, cardiac myopathies, congential and acquired heart diseases, valvular diseases, and following interventions like CABG, angioplasties, valve replacements.
Categorisation of cardiac patients on the basis of risk factors for exercise prescription.
Indications and contra-indications for mobilization, exercise training, work prescription, activity and sports participation.
Prescription of exercise, work and activity based on METS.
Exercise dose and mode.
Cardiac conditioning using tredmill, *erqe* metre step-apparatus, waking, joggинq protocols,
Interpretation of signs and symptoms dunng.exercise training and work assessment. Effect

of drugs on exercise performance. Modification of exercise, work and activity programmes with respect to residual cardiac function. Assessment on work Simulation. Work simplification & energy conservation techniques based on ergonomic principles, their us & application.

7) Haematological conditions

O.T**.** in Haemophilia

8) Neurophysiological principles applied to therapeutic procedures in the treatment of pyramidal, extrapyramidal, cerebellar and lower motor neuron lesions.Current neurophysiological theories and their application in O.T. in the various neurological problems in children, adolescents and adults including defects and Injuries to the brain and spinal cord.

9) Cognitomotor perceptual skills: Evaluation, Scales used, training and models of cognitive rehabilitation.

10) Preventive, curative and rehabilitative Occupational Therapy for common neurological conditions, such as stroke, traumatic head injury, brain tumors, cortical Iesions,Vestibular
Dysfunctions, Parkinson's disease, chorea, Athetosis, Cerebellar Dysfu nctions, Multiple Sclerosis, Motor Neurone Disease, Human lmmuno-deficinety virus. Syringomyelia, Transverse myelitis, Tabes dorsalis, spinal cord tumours, Peripheral neuropathies, Myopathy, Myasthenia gravis.

11) Management of dysphagia normal physiology of swallowing, describe disease process resulting into dysphagia, state guidelmes for assessment & treatment of patients with dysphagia.

12) Occupational Therapy for Developmental Disabilities:
i. Occupational Therapy with neonates and infants.
ii.Cerebral Palsy: Classification. aetiology and O.T. approaches including neurodevelopmental therapy preschool training, CT. in the school system, Home Care Programme.
iii. Common Genetic Disorders: Neural Tube Defects.
iv. Sensory Integrative therapy.

BOOKS RECOMMENDED

1) Occupational Therapy — Willard & Spackman's
2) OT. Practice Skills for Physical Dysfunction Pedretti
3) O.T. in physical Dysfunction — Tromby & Scott
4) Therapeutic Exercise — Kisner
5) Therapeutic Exercise Basmajian
6) Rehab Medicine — Goodgold
7) Rehabilitation of Hand — Wynn & Parry
8) Hand — Hunter
9) Hand splitting — Fees, Gettle & Strickland.
10) Pulmonary rehabilitation, guidelines to success — Hodgkin T.E,
11) Physical rehabilitation, assessment, treatment — O'Sullivan.