

MASTER OF OCCUPATIONAL THERAPY (MOT) IN ONCOLOGY

[Syllabus Approved by Board of Studies, Medical & Health Sciences]

Programme Code	:	HLTH22
Programme Details	:	MASTER OF OCCUPATIONAL THERAPY (MOT) IN ONCOLOGY
Programme Learning Outcomes (PLOs / PSOs)	:	ANNEXED IN THE BELOW FORMAT.
Eligibility Criteria	:	ONLY INDIAN NATIONALS CAN APPLY. BACHELOR'S DEGREE IN OCCUPATIONAL THERAPY (BOT/BOTH WITH 50% MARKS). THE BACHELOR'S DEGREE PROGRAM SHOULD BE FULL TIME PROGRAM, WITH MINIMUM 4 ½ YEARS DURATION (INCLUDING 6 MONTHS OF INTERNSHIP) FROM A UNIVERSITY IN INDIA (RECOGNIZED BY UGC). CANDIDATES WHO HAVE PASSED BOT THROUGH CORRESPONDENCE OR DISTANCE EDUCATION PROGRAM ARE NOT ELIGIBLE.
Duration of the Course	:	2 YEARS
Programme Structure (Credit-Based)	:	NA
Detailed Course Syllabus	:	ANNEXED IN THE BELOW FORMAT.
Teaching–Learning Methodologies	:	DIDACTIC LECTURES FOLLOWED BY HANDS-ON EXPERIENCE.
Examination & Evaluation System	:	ANNUAL EXAMINATION
Internship / Project / Dissertation Guidelines	:	1 YEAR MANDATORY INTERNSHIP, THESIS SUBMISSION PRIOR TO FINAL EXAMINATION
Program In Charge	:	DR. MANJUSHA VAGAL manjusha.vagal@tmc.gov.in
Annexure (Books / Journals etc)	:	ANNEXUED

MASTER OF OCCUPATIONAL THERAPY IN ONCOLOGY

Programme Code: HLTH22

Programme Outcome:

Course Objectives:

The course also addresses the importance of evidence-based practice in occupational therapy, life-long learning and professional development, the benefits of collaborative OT with other rehabilitation team professionals and the relationships between policy, legislation and practice. This course builds upon prior course work, particularly on clinical Conditions in Occupational Therapy & their assessment and intervention theories of occupational therapy in rehabilitation. The student also learns about the current advanced & the future occupational therapy interventional technologies used for these patients.

Competency Domains and Learning Outcomes:

Domain 1: Clinical Assessment and Evaluation

Learning Outcomes:

- Conduct interviews and evaluations of persons in multiple settings
- Conduct comprehensive assessments of functional abilities.
- Apply specialized standardised evaluation tools relevant to clinical features
- Analyze assessment findings to formulate client-centred treatment plans.
- Explain the importance of quality of life needs of patients in palliative care

Domain 2: Intervention Planning and Implementation • Learning Outcomes:

- Design evidence-based intervention plans tailored to each individual
- Implement treatment plans for individuals having cancer in multiple settings.
- Demonstrate knowledge of community programs and organizations that assist them financially & psychosocially.
- Understand the hospice concept, formulate treatment plans to address quality of life issues for the terminally ill.

Domain 3: Inter professional Collaboration • Learning Outcomes:

- Understand the complications which may arise in persons undergoing chemotherapy / radiation Therapy & the effects of medication on their quality of life
- Collaborate effectively with team professionals and other healthcare providers.
- Participate in multidisciplinary teams to optimize the intervention outcomes.
- Communicate occupational therapy perspectives and contributions in hospice care, nursing homes

Domain 4: Professionalism and Ethical Practice • Learning Outcomes:

- Articulate how ethical considerations in oncology practice relate to the Code of Ethics regulations by NCAHP
- Knowledge of how demographics and policy influence healthcare of patients with cancer

Domain 5: Research and Evidence-Based Practice • Learning Outcomes:

- Critically appraise research literature relevant to occupational therapy in Onco- Occupational Therapy
- Integrate research findings into clinical practice to enhance the treatment outcomes.

DETAILED COURSE STRUCTURE

Core Course			
Course Code	Course name	Hours	Marks
MOT 101	Administration, Ethics & Educational Technology in Occupational Therapy	90	100
MOT 102	Research Methodology & Biostatistics	90	100
MOT 103	Advanced Clinical Foundations in Occupational Therapy Practice	90	100
MOT 104	Basic Medical Sciences & Theoretical foundation in Occupational Therapy for oncological science	90	100
MOT 201	Advanced Occupational Therapy Diagnostic & Prognostic skills in Oncology	90	100
MOT 202	Advanced Occupational Therapy Principles & Practices in Oncology	90	100
MOT 203	Current & Future Trends in Occupational Therapy in Oncology	90	100
Total		630	700

PRACTICAL

Practical			
Course Code	Course name	Hours	Marks
MOT 101-P	Clinical Presentation 1	90	100
	Skills acquisition and refinement (Teaching Assignment, seminars, journal club & Case presentation etc.)	240	
	Dissertation (to be continued in 2nd year MOT)	360	
	Clinical training/Field work	510	
MOT 201-P	Clinical Presentation 1	90	100
MOT 202-P	Clinical Presentation 2	90	100
MOT 204-DC	Synopsis and Dissertation Work	360	100
	Skills acquisition and refinement (Teaching Assignment, seminars, journal club & Case presentation etc.)	240	
	Clinical training / Field work	510	
Total			400

COURSE COORDINATOR

Core Course		
Course Code	Course name	Course Coordinator
MOT 101	Administration, Ethics & Educational Technology in Occupational Therapy	Dr. Nabila Ansari (otnabila@gmail.com)
MOT 102	Research Methodology & Biostatistics	
MOT 103	Advanced Clinical Foundations in Occupational Therapy Practice	
MOT 104	Basic Medical Sciences & Theoretical foundation in Occupational Therapy for oncological science	
MOT 201	Advanced Occupational Therapy Diagnostic & Prognostic skills in Oncology	
MOT 202	Advanced Occupational Therapy Principles & Practices in Oncology	
MOT 203	Current & Future Trends in Occupational Therapy in Oncology	

DETAILED SYLLABUS

MOT 101:Administration, Ethics & Educational Technology in Occupational Therapy (60 Hours)

Coordinators: Dr. Nabita Ansari
otnabila@gmail.com

▪ **Objectives (competency statements):**

The objectives of this course are:

- To know the procedure for setting up the OT department/clinic in Govt. & private institutes/ hospitals/Organisations
- To learn managerial skills for smooth learning of the department/Organisation/Institute
- To understand the quality assurance & provision of various services.
- To familiar with the financial & budgetary management of the OT dept./Institute
- To understand the changing perspectives and ideological approaches to the rehabilitation of persons with disability
- To critically examine legislations, national planning efforts and policy formulations for recognizing the human rights of persons with disability in India and actions taken their inclusion, development and rehabilitation using the rights- based perspective
- To enhance the potential of the Occupational Therapist to become effective communicators especially in the context of education
- To understand disability, concepts and models of disability
- To study Disability Evaluation, Assessment and Medical Certification.
- To know about the UNCRPD, Major Legal Provisions, Human Rights and Civil Rights for Persons with Disabilities.
- To study the role of government organizations, NGOs and international organizations in providing services to disabled persons
- To identify the role of occupational therapists in advocacy for influencing policy formulation, implementation and evaluation

Course Details:

This course provides a better understanding of the overall administration, management & setting up of the Occupational Therapy department/ Institute in Government & Private setup, Budgeting, Ethical practice of Occupational Therapy, disability laws, policies, and certification. The course involves a better understanding and application of disability evaluation and certification processes as per various *government laws and acts etc.*

▪ **UNIT I : Ethical Principles & Legislation**

- Legal/Legislative issues concerning Occupational Therapy
- Legal aspects of Persons with disability & Laws and National supporting bodies/organizations
- Code of ethics
- Consideration of religious belief, customs as per cultural norms prevailing in various geographical regions of practice (including spirituality, religious beliefs, cultural values & norms)

- Disability Evaluation, Assessment and Certification Process and Schemes for PWDs

- **UNIT II: Hospital Administration**

The setting of Occupational Therapy Service Unit

- Hospital administration, Principles and its applications to Occupational Therapy practice
- Planning and organization including Manpower & staffing, Equipment's (Standardized & Non-standardized), space and other physical infrastructure
- The setting of Occupational Therapy Service Unit
- Planning cycle, Principles of organizational charts,
- Occupational Therapy Management Skills (Principles, planning, organizing, staffing, Marketing, Health care delivery system, Supervision & Consultation)
- Service delivery and Resource & quality assurance- planning and management,
- Environment and environment variables
- Service design and management in various practice settings
- Budgeting, planning and income generation
- Organization, Staffing, Information & Communication technology, Coordination, Monitoring & evaluation and fiscal management.
- Medical Insurance, communication & Documentation
- Liaison, Policy making, decision and its implementation
- Organizing meetings, committees, and negotiations
- Quality Assurance (Functioning & Management of Clinical & Institutional set ups, Marketing, Controlling, Directing & Medical audit)
- Entrepreneurship in Occupational Therapy
- Personnel management: Personnel performance appraisal system

- **UNIT III Pedagogy and Application of Education Technology in Occupational Therapy**

- **Education Technology & Research**

- Philosophy of education & emerging issues in education
- Meaning, functions & aims of education
- Agencies of education
- Formal, informal & non – formal education
- Current issues & trends in higher education- Issue of quality in higher education
- Autonomy & accountability

- **Use of Information & Communication Technology (ICT) in Occupational Therapy**

- **Measurement of non-cognitive domains (Tests of intelligence, aptitude, attitude, and personality, Sociometry, anecdotal record, rating scales, check list and socio – economic status scale)**

- **Professional development of teachers**

- Education of persons with disabilities
- Need for educational philosophy
- Some major philosophies (idealism, naturalism, pragmatism) & their implications for education

- **Concepts of teaching & learning**
 - Meaning, need & scope of educational psychology
 - Meaning & relationship between teaching & learning
 - Learning theories
 - Dynamics of behaviour
 - Individual differences
 - **Curriculum**
 - Meaning & concept
 - Basis for curriculum formulation/development
 - Framing objectives for a curriculum
 - Process of curriculum development (including field work)
 - Effecting curriculum development
 - Evaluation of curriculum
 - **Methods & techniques of teaching**

(Lecture, demonstration, discussion, seminar, assignment, project method & case study)

 - Planning for teaching
 - Bloom's taxonomy instructional objectives
 - Writing instructional objectives in behavioural terms
 - Unit planning & lesson planning
 - Preparation of unit plan & lesson plan
 - **Teaching aids: Types, Principles of selection, preparation & use of audio- visual aids**
 - **Measurement & Evaluation**

Nature of educational measurement: meaning, process & types of testing

 - Construction of an achievement tests & its analysis
 - Standardized tests
 - Introduction of some standardized tools: important tests of intelligence, aptitude, personality
 - Continuous & comprehensive evaluation.
 - **Guidance & counselling**
 - Meaning & concepts of guidance & counselling
 - Principles
 - Guidance & counselling services for students & faculty members
 - Faculty development & development of personnel for O.T. services
 - **Clinical Education**
 - Awareness & guidance to the common people about health & disease, and available Professional services
 - Patient education
 - Education of health care practitioners
 - Use of media in clinical education
 - **Faculty development programs and Administration in clinical settings**
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- **Use of audio-visual aids in teaching**
- **Research, Innovation and latest advancements in Education**

- **Expected Outcomes:**
 - Define disability and explain the concepts and models of disability
 - Illustrate the Disability Evaluation, Assessment and Medical Certification for Persons with Disabilities
 - State various legislations, supporting legislations and supporting services for Persons with Disabilities.

MOT 102: Research Methodology & Biostatistics (60 Hours)

Coordinators: Dr. Nabita Ansari
otnabila@gmail.com

▪ Objectives

- Understand the basic concepts of Research Methodology
- Develop the Skill to Organize, Summarize & Present Data
- Understand and interpret the commonly reported statistical measures published in healthcare research
- To learn and apply the statistical research techniques to Occupational therapy practice

Course Details:

▪ UNIT I

▪ Research Methodology

An introduction to research methodology Defining the research problem

▪ Research methods & Research Designs

Quantitative research: Descriptive Correlational, Causal-comparative/Quasi experimental & Experimental

▪ Qualitative research

- Case study, Case series, Cohort studies Prospective & Retrospective longitudinal cohort, Nested Case Control, Pre post intervention & Time series design, repeated measures design & analysis, Randomized control designs & its types.
- Measurement and scaling techniques
- Bias in Research
- Methods of Data Collection
- Sampling design and strategies
- Testing of hypotheses (parametric or standards tests of hypotheses, non- parametric or distribution – free test)
- Measurement Properties of measurement including validity, reliability & responsiveness
- Measurers of Outcome and communicating Research of Occupational Therapy
- Writing of a research article
- Translating of evidence-based research into clinical practice
- Good Clinical Practice guidelines & pathways
- Writing proposal
- Role of computers in research
- Funding research proposal
- Repertory grid analysis and its application to health care research.
- Delphi technique (to arrive at a consensus of professional opinion on any given topic)
- Guideline for development / refinement, evaluation and use of assessment tools (including attitude scales)

- Scoring, administering test & critiquing tools
- Finding the Evidence: Measuring outcomes in Evidence Based Practice, Measuring Health Outcomes, Measuring clinical outcomes
- Evaluating Level of evidence in research using quantitative methods, Levels of evidence classification system, Outcome Measurement, Biostatistics, The critical review of research using qualitative methods
- Systematically reviewing the evidence: Stages of systematic reviews, Meta-analysis, The Cochrane collaboration
- Using the evidence: Building evidence in practice; Critically Appraised Topics (CATs), CAT format, Using CATs, Drawbacks of CATs
- Ethics in Research [Ethical guidelines in Research (Ethics Committee, IRB, Informed Consent, Plagiarism- Using available softwares to check for plagiarism)]
- Manuscript & Publication (Process of Manuscript writing, Procedure to submit research paper for publication in Indexed journals, ICJME guidelines for authors) and Publication Ethics
- Reference Management [Referencing styles & guidelines (APA, Vancouver, etc.), Reference software (Zotero, Mendeley, EndNote etc.)]
- Intellectual Property Right [Copyright & Filling Patent]

▪ **UNIT II: BIOSTATISTICS**

- Processing and analysis of data (measure of Dispersion, central value normal distribution curve)
- Quantitative & qualitative analysis

- Statistical analysis for differences & correlation: Basic, Advanced & special technique (probability)
- Parametric & non-parametric tests and Hypothesis testing)
- Analysis of variance and covariance
- Correlation & Regression analysis and their Interpretation
- Multivariate analysis techniques
- Functional Epidemiological Measures i.e. frequency, association, and potential impact: Incidence, Prevalence, Odds Ratio, Likelihood ration, sensitivity & specificity, Risk ratio & relative risk etc.
- Sample size estimation & power calculation including sampling
- Software use for data analysis – STATA, SPSS etc.
- Rasch analysis, Regression analysis

▪ **Course Outcomes:**

- Understand different types of research design and Concepts of Research Methodology
- Learns to control & minimize Biases & confounding factors and analyse random errors
- Makes all the collected data reasonable and precise inferences to make correct decisions
- Develop the ability to understand the process to conduct scientific Research
- Understand data generated health sciences using modern Statistical Methods.

MOT 103: Advanced Clinical Foundations in Occupational Therapy Practice (60 Hours)

Coordinators: Dr. Nabita Ansari
otnabila@gmail.com

▪ **Objectives**

- Understand & apply Philosophical & Conceptual base to OT Practice
- Enhance the abilities of the Occupational therapist to choose the appropriate evaluations and treatment procedures based on the philosophy of Occupational Therapy.
- To enhance the capabilities of the Occupational therapist in maximizing the client's / patient's function in occupational performance areas by using appropriate technology within the environmental context.

Course Details:

▪ **Unit-I**

▪ **Application Of Occupational Therapy Theory**

- Development, organization & use of OT knowledge: philosophical & conceptual base
- Emerging paradigm
- Model Base & Frames of References (FOR)
- Bridging the gap between theory & practice

- Therapeutic roles & functions
- Documentation, Assessment, Diagnosis and Independent Clinical Decision making (including establishing OT diagnosis)
- Clinical reasoning skill and Evidence based practice in Occupational Therapy
- Occupational Therapy Process Framework (OTPF); Referral & Screening occupational profile, Analysis of occupational performance, Independent Intervention Planning & Implementation, Re-evaluation & Review, Follow up, Post Discharge Support
- Recent trends in health care, WHO Clinical Practice Guidelines (CPG)
- Occupational therapy assessment & documentation pertaining to various Health & other Insurance
- Contextual framework & Socio-Cultural Influence in OT practice
- Liaison & Communication among healthcare professionals

▪ **Unit– II Assistive / (Re) Habilitation Technology**

- Technological applications including Assistive technology aids & appliances in various types of disabilities including communication aids
- Prosthetic & Orthotic device and latest advancements including introduction to CAD/CAM technology, 3 D printing etc.

▪ **Unit– III Environment Adaptations, Occupational Health & Ergonomics**

- Basic Ergonomics, and Elimination of environmental barriers
- Occupational Health & safety policies and legislation

▪ **Unit – IV Application of Clinical Foundation Skills**

- BLS including Cardio pulmonary Resuscitation (CPR), ACLS
- OT in Acute care setting:
 - Introduction to ICU, CCU & NICU
 - Orientation to ICU equipment's, (Ventilators & Life support devices) and Common procedures followed, Basic OT management strategies

▪ **Expected Outcomes:**

- Understand the rationale of practice while promoting range of practice tools for assessments & interventions
- To enhance the capabilities of the Occupational Therapist in optimizing the client's /patient's performance
- Understands the Clinical Decision-making process
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References

(for MOT 101,102 & 103)

1. Children with Developmental Disability by National Trust for the Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities, 1999
2. Government of India Scale 2018 (The Gazette of India: Extraordinary, Part II-Section 3-Sub-section (ii),2018, Part II-Section 3-Sub-section (iiI), 2024
3. Artificial Limb Manufacturing Corporation of India (ALIMCO) scale
4. Rehabilitation Medicine – Joel A. Delisa
5. Rehabilitation Medicine Joseph Goodgold
6. Disabled Village Children: A Guide for Health Workers, Rehabilitation Workers, and Families, Published January 1st 1987 by Hesperian Foundation
7. C Pharmaceutical statistics- Practical and clinical applications, Sanford Bolton, publisher Marcel Dekker Inc. NewYork.
8. Fundamental of Statistics – Himalaya Publishing House- S.C.GupthaDesign and Analysis of Experiments –PHI Learning Private Limited, R. Pannarselvam,
9. Design and Analysis of Experiments – Wiley Students Edition, Douglas and C. Montgomery
10. Review of Preventive and Social Medicine (Including Biostatistics), Jain Vivek, 6th Edition, 2014, ISBN: 9789351522331, JAYPEE Publications
11. Research methods for clinical therapists: applied project design andanalysis by Hicks, Caroly
12. Mahajan - Methods in Biostatistics, Jay Pee Brothers. Medical Publishers(P) Ltd. New Delhi.
13. Hicks- Research for Physiotherapists, Churchill Livingstone, London
14. Singh, I.- Elementary Statistics for Medical Workers. Jaypee Brothers Medical Publishers (P) Ltd. New Delhi. 13.
15. Rehabilitation Research: Principles and Applications by Elizabeth Domholdt (Elsevier Science Health Science Div, 2004)
16. Philip Kotler and Kevin Lane Keller: Marketing Management, Prentice Hall of India, New Delhi
17. Walker, Boyd and Larreche: Marketing Strategy- Planning and Implementation, Tata MC Graw Hill, New Delhi.
18. Dhruv Grewal and Michael Levy: Marketing, Tata MC Graw Hill

19. Arun Kumar and N Meenakshi: Marketing Management, Vikas Publishing, India
20. Rajan Saxena: Marketing Management; Tata MC Graw-Hill (India Edition)
21. Ramaswamy, U.S & Nanakamari, S: Marketing Managemnt: Global Perspective, Indian Context, Macmilan India, New Delhi.
22. Essentials of Community Medicine—A Practical Approach, Hiremath Lalita D, Hiremath Dhananjaya A, 2nd Edition, 2012, ISBN: 9789350250440, JAYPEE Publications
23. Community-Based Rehabilitation. Malcolm Peat. W.B. Saunders
24. Parks Text Book of Preventive & Social Medicine- K. Park
25. ILO, UNESCO & WHO (2004). Community-based rehabilitation for and with people with disabilities. Joint Position Paper. Geneva: UN.
26. ILO, UNESCO & WHO (2010). Introductory booklet - Community-based rehabilitation - CBR guidelines. Geneva: UN.
27. Desai, Capt. H.J.M. (1983). U.N. Concern for the Disabled. U.N. World Programme of Action Concerning Disabled Persons, France: Rehabilitation, Training and Employment Committee of the World Council for the Welfare of the Blind.
28. Chaturvedi, T.N. (1981). Administration for the Disabled: Policy and Organisational Issues. New Delhi: I.I.P.A.
29. Chandra, K. (1994). Handbook of Psychology for the Disabled and Handicapped, New Delhi: Anmol Publications.
30. Prasad, L. (1994). Rehabilitation of the Physically Handicapped. New Delhi : Konark Publishers.
31. Mohsini, S.R. & Gandhi, P.K. (1982). The Physically Handicapped. Delhi: Seema Publications.
32. Mani, R.D. (1988). The Physically Handicapped in India Policy and Programme. New Delhi: Ashish Publishing.
33. Narasimhan, M.S. and Mukherjee, A.K. (1988). Disability: A Continuing Challenge. New Delhi: Wiley Eastern Ltd

MOT 104: Basic Medical Sciences & Theoretical foundation in Occupational Therapy for oncological science (60 Hours)

Coordinators: Dr. Nabita Ansari
otnabila@gmail.com

▪ **Course Objectives**

- Integrate prior knowledge of anatomical, physiological, motor, sensory, cognitive & psychosocial aspects of person for the purposes of occupational therapy intervention of person suffering from cancer.
- To understand the cancer biology & the stages
- Understand the cultural diversity and heterogeneity among the aged, and its impact upon assessment, treatment planning and discharge planning
- To identify & document the appropriate frames of reference used for the specific condition.
- Use the various frames of references in the intervention of individual person having specific problems due to specific cancer disease
- Use the latest technology for assessment, intervention and documentation
- Explain the role of occupational therapy in the promotion of health and the prevention of disability for the individual, family, and society
- Demonstrate knowledge of community programs and organizations that assist the people undergoing treatment

Course Details:

- The overall goal of the course is to provide a conceptual framework for the study of oncology related to occupational therapy and to assist occupational therapy students to develop the skills and knowledge needed to understand major issues in quality of life of persons undergoing chemotherapy & radiation therapy which need to be addressed in OT practice. It involves the training in the use of various theories Frames of references & approaches in Occupational Therapy intervention of Oncology population

▪ **UNIT 1: Learn the basics of Clinical Oncology**

- Introduction to oncology
- Principal of clinical and pathological staging of cancer, diagnosis and principals of treatment
- Basics of Radiation Therapy
- Basics of cancer Chemotherapy, Hormone & Biological Therapy
- Basics of cancer surgery
- Combined modality of Radiotherapy and Surgery
- Combined modality of Radiotherapy and Chemotherapy
- Basics of Radiation treatment planning: Clinical aspects.

▪ **UNIT 2: Understand Cancer Biology in depth**

- Cellular structure and function
- Cell membrane and Cytoplasm
- Nucleus, normal gene transcription, DNA repair mechanism, polymorphism, micro-satellites, Methylation, hypomethylation & methylation reversal

- Haemopoiesis: Marrow structure, haemopoietic microenvironment, cell lineage & hierarchies
- Cell growth control: Normal cell growth & control, Autocrine, paracrine & endocrine control, signal transduction, cyclin kinases, gene promoters, signal pathways
- Cell Cycle Control and cancer, basic kinetics
- Growth disorders: Hyperplasia, dysplasia, carcinoma-in-situ and neoplasia
- Causation of cancer: Environmental factors, carcinogenesis (viral, radiation) normal tissue damage (early & late)
- Mechanism of spread, local invasion, metastasis
- Multistage carcinogenesis and metastatic cascade
- Tumour vasculature & angiogenesis

▪ **UNIT 3: Understand the radiobiology**

- Cell, tissue and tumor kinetics, Cell survival curve & basic of fractionation
- Radiation damage at cellular level (membrane, cytoplasmic, nuclear): normal tissue tolerance, effect on different tissues, schemes of reporting normal tissue damage
- Acute and late effects of Whole body irradiation.
- Molecular Biology of Radiation Damage & Repair: molecular process in radiation damage repair, time course of repair, chemotherapy drug resistance, damage (lethal, sublethal, potentially lethal)
- Acute & Late responding tissue and dose response relationship
- Predictive assay of radiation response
- Molecular basis of radiation sensitivity with respect to cancer biology

▪ **UNIT 4: Understand the chemotherapy process & clinical pharmacology**

- Mechanism of action of Cytotoxic drug: Mechanism of action, Phase & cell cycle specific drug, Mechanism of cell death, Drug resistance modifiers, drug interaction.
- Toxicity of Chemotherapy: Mechanism of toxicity, Dose limiting & common toxicities, Dose related & idiosyncratic toxicities, early, intermediate & late toxicity, factors modifying toxicities, safe handling of Cytotoxic drugs
- Molecular basis of cytotoxic drug action and drug resistance with respect to cancer biology

▪ **UNIT 5. Describe the Clinical signs and symptoms in different categories of cancer**

- Bone and soft tissue Cancer
- Neuro oncology
- Breast, Reproductive & Genital Cancer
- Lung Cancer
- Gastrointestinal cancer
- Head and neck Cancers
- Haematology cancer
- Systemic and Organ Cancers

▪ **UNIT 6: Describe the appropriate OT frames of reference (FOR), Models & approaches in specific oncological Conditions (Not Limited to)**

Behavioral Frame of Reference (FOR), Biomechanical FOR, Cognitive disability FOR, Developmental FOR, Neurodevelopmental FOR, Sensory Integration FOR, Rehabilitative Frame of Reference/ Rehabilitation FOR, Psychodynamic FOR, Spatiotemporal Adaptation FOR, Occupational Adaptation: An Integrative FOR, Model of Human Occupation FOR, Acquisitional

FOR, Compensatory FOR, Biomechanical FOR for Positioning Children for Function, Cognitive-Behavioral FOR, FOR for Motor Skill Acquisition, FOR for Visual Perception, Neuro-Developmental Treatment FOR, Occupational Adaptation FOR, Psychoanalytic Frame of Reference, Psychodynamic Frame of Reference, Psychospiritual Integration FOR, Social Participation FOR, Model of Human Occupation (MOHO), Occupational Adaptation Model (OAM)

▪ **UNIT 7: Ethical Consideration in Occupational Therapy practice in Oncology:**

- Consideration of socio cultural norms & spirituality
- Ethical guidelines to be followed for treatment of Cancer Patient

▪ **UNIT 8: Evaluate in details for Disability Certification:**

For permanent disability/ multi-disabilities specific to oncological conditions:

- Locomotor disabilities due to Amputation, Musculoskeletal conditions. neurological conditions & any other
- Mental Health disabilities

****As per the guidelines, described in the latest/ revised Government Gazette published by Department of empowerment of persons with Disabilities (Divyangjan), Ministry of Justice & Empowerment, New Delhi March 2024.*

▪ **UNIT 9: Enlist & describe the Legal issues/ Legislations acts / policies concerning:**

- Occupational Therapy Profession
- Persons with Disability
- Metrics in Cancer Rehabilitation
- Research Funding Issues and Priorities in Cancer Rehabilitation
- Health Maintenance and Screening in Cancer Survivor

▪ **Govt. Schemes & services for Cancer Treatment**

- Assistance from Government for poor & needy
- Affordable cancer treatment schemes in all the states of India
- Free accommodation for under treatment patient & family members
- Genetic Counselling & free check up
- Comprehensive Cancer Survivorship Act (CCSA)
- Ayushman Bharat - National Health Protection Scheme
- All India Health Minister's Discretionary Grant (HMDG)
- All India Health Minister's Cancer Patient Fund (HMCPF) of Rashtriya Arogya Nidhi (RAN)
- All India Railway concession for Cancer patient
- All India Health Minister's Cancer Patient Fund (HMCPF) of Rashtriya Arogya Nidhi (RAN)

Course Outcomes:

- Understand the cancer biology & radiobiology
 - Identify normal & pathological anatomy on diagnostic images
 - Understand the diagnosis, radio diagnosis & other investigations used in cancer
 - Disability evaluation as per the specific disabilities due to specific oncological condition
 - State various frames of references, theories & approaches used in the OT treatment
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MOT 201:Advanced Occupational Therapy Diagnostic & Prognostic skills in Oncology (60 Hours)

Coordinators: Dr. Nabita Ansari
otnabila@gmail.com

- **Course Objectives: (Competency statements)**
 - Elicit and interpret clinical signs and symptoms of diseases commonly seen in oncology & interpret clinical tests and special investigations commonly used in the diagnosis of these conditions.
 - Identify normal & pathological anatomy on diagnostic images
 - Illustrate the diagnostic tools to identify health problems in Geriatric patients
 - Understand the appropriate use of assessment tools for specific problems in geriatric patients
 - Able to administer the specific tool for screening the other associated issues in geriatrics
 - Describe & administer Specialized tools of OT assessment of cancer patients
 - Compare the scoring with norms & analyse it for planning of OT Program
 - Administer the tools for assessing progress in patients.
 - Demonstrate a broad range of technical skill in diagnosing the Occupational Therapy related Geriatric conditions.
 - Generate a primary diagnosis and a list of differential diagnoses consistent with typical presentations.
 - Make Critical decision and selection of outcome measures in Geriatric Occupational Therapy

Course Details:

- **UNIT 1: Assess & evaluate on basis of Evidence**
 - Current Research: Reviewing and applying the latest research findings to assessment and diagnosis.
 - Outcome Measures: Using validated tools to track progress and outcomes of interventions.
- **UNIT 2: Analyze & interpret the diagnostic & radio diagnostic investigations in cancer**
 - Basics and outline of types of diagnostic imaging techniques in various types of cancer,
 - clinical interpretation and significance X-rays, CT, MRI, Ultrasound, SPETCT, CT scan, Mammography and mammogram, Colonoscopy, Endoscopy, Gastroscopy, Laparoscopy, Pap smear test, Bone scan, Barium swallow, Barium enema, USG abdomen, and other diagnostic imaging, fiber optic endoscopy for diagnosis
 - Nuclear & Radio-imaging
 - Principles of pathological, hematological, bacteriological investigations related to oncological disorders with interpretation.
 - Investigational techniques in clinics and laboratory, Technology assessment and outcome measure.
 - Chemotherapy Induced Peripheral Neuropathy Assessment Tool (CIPNAT)
 - Radiation oncology toxicity grading (RTOG))
- **UNIT 3: Diagnostics in Occupational Therapy for oncology:**
 - Occupation and Occupational Science

- Occupational therapy Practice Frame work (OTPF) for person having cancer

Domains & Process to formulate client centered occupational therapy program:

- Occupational Therapy Domains
 - Occupations
 - Occupational Profile
 - Contexts
 - Performance Patterns
 - Performance Skills
 - Client Factors Occupational Therapy Process Evaluation & outcome measures

▪ **UNIT 4: Occupational Therapy Evaluation**

- Importance of assessment & evaluation, Outlines of principles and Methods of evaluation
- Knowledge and assessment for using common standardized and non- standardized tools/ instruments/tests/ scales in neurological disorders, neurosurgical, neuropsychiatric, and musculoskeletal disorders
- Condition specific outcome measures
- Clinical analysis of posture, movement and gait disorders & cardio respiratory fitness
- Neuro-motor evaluation
- Sensory evaluation
- Cognitive and perceptual evaluations
- Psychological evaluation
- ICF and other Occupation based conceptual frame work for assessment
- Critical decision making and selection of outcome measures
- Assessment, differential diagnosis and diagnosis of various neurological conditions
- Assessment of Physical and Neurological Functions of Patients in ICU
- Influence and relation of physical activity, diet, nutrition, life style, obesity and anthropometric
- Evaluation of Cancer Complications like Lymphedema, musculoskeletal, neurological, cardio respiratory.
- Evaluation of Exercise and cancer related fatigue

▪ **UNIT 5: ICF:**

- Understanding ICF & its Application in Occupational Therapy for cancer patients.

▪ **UNIT 6: To identify & administer appropriate standardized tests for specific needs in oncology with respect to Occupational Therapy:**

Standardised OT tools: (include following but not restricted to and equivalent to: (Use of relevant test batteries, carry out the correct procedure and their interpretation)

- **Patient Performance status (PPS):**
 - Zubrod scale,
 - ECOG (Eastern Cooperative Oncology Group) scale,
 - Karnofsky scale.
- **Basic and Instrumental Activity of Daily Living Skills:**

- Kohlman Evaluation of Living Skills (KELS)
 - Assessment of Motor and Process Skills (AMPS)
 - **Quality of life scales:**
 - European Organization for Research and Treatment of Cancer (EORTC) quality of life questionnaire Version 3.0 (QLQ-C30)
 - EORTC for different cancer specific questionnaires and cancer induced toxicity
 - EORTC scale for sexual health
 - IADL for cancer related fatigue, radiation proctitis, oral health, spiritual well- being, survivorship etc.
 - The International Classification of Functioning, Disability and Health (ICF), Quality of life Index.
 - Quality of Life: QoL assessment tools for clinical trials & routine practice, outcome measures
 - **Treatment toxicity assessment Scales:**
 - Chemotherapy induced Peripheral Neuropathy (CIPN)
 - Functional Independence Measure (FIM +FAM)
 - Klein-Bell Activities of Daily Living Scale (Klein-Bell)
 - Barthel Index
 - **Psychosocial Skills The Assessment of Occupational Functioning (AOF)**
 - Ways of Coping Checklist (WCC)
 - Assessment of Common Interaction Skills (ACIS),
 - Hospital Depression Anxiety Scale
 - **Self-Perception**
 - The Canadian Occupational Performance Measure (COPM)
 - **Specific Mental Functions Test:**
 - Functional Assessment of Cancer Therapy-Cognitive function (FACT- COG), Perceived cognitive questionnaire,
 - Cognitive Performance Test (CPT),
 - Mini Mental State Examination (MMSE),
 - Montreal Cognitive Assessment (MoCA), Loewenstein Occupational Therapy Cognitive Assessment (LOTCA) battery, Addenbrooke's Cognitive Examination – ACE- III
 - **Others**
 - Cancer coping questionnaire
 - **Pain:** Visual Analogue scale (VAS), Numeric rating Scale (NRS), Facial Pain scale-Revised, Verbal reporting scale (VRS), Brief pain Inventory (BPI), Pain Disability Index (PDI)
 - **Neuromusculoskeletal & movement related structure & Functions –**
 - Functions of Joints & Bones: ROM, Sit & Reach Test
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- Muscle Function: Manual muscle testing, Hand held Dynamometry, Grip strength, Back Leg Chest Dynamometer
 - **Cardio-vascular & respiratory capacity**- Graded activity testing, Duke's activity scale inventory, 2 or 6minutes' walk test, 9min run walk test, Borg's rating scale of perceived exertion.
 - **Immunological function (Lymphatic system)**: National cancer institute common terminology criterion for adverse effects version3, Breast Cancer Chemotherapy Questionnaire (BCCQ).
 - **Onco-Psychiatric conditions**: "Depression, Anxiety, and Stress Scale -21 items (DASS-21).
 - **Functional Outcomes** "Toronto Extremity Salvage Score (TESS), Musculoskeletal Tumor Society Rating Scale. (Upper extremity-top, Lower extremity-bottom) (MSTS), TUG
 - **Sexual functions**: LENT SOMA, EORTC Ca Cx, SVQ, CTCAE for vaginal stenosis
 - **Trismus**: Jaw Function Limitation Scale (JFLS), Gothenberg trismus scale, Head and Neck cancer scales for lymphedema assessment.

 - **Pediatric Oncology scales:**
 - **Reduction of fatigue**: Multidimensional Fatigue Scale
 - Visual Analog Scale-numeric (VAS), Faces Rating Scale
 - **Gross & Fine Motor Skills** BruininksOseretsky Test of Motor Proficiency (BOTMP-2edition), Purdue Pegboard, Jebsen Hand Function Test, Nine Hole Peg Test
 - **Quality of Life**: Quality of Life for Cancer Survivors, Childhood Health Assessment Questionnaire (CHAQ)
 - **Balance Assessment**: The Berg Balance Test (Berg)
 - **Cognitive performance**: Dynamic Occupational Therapy Cognitive Assessment (DOTCA), Mini mental state examination-child
 - **Activity Performance and Participation**: Canadian Occupational Performance Measurement (COPM)
 - **Play Scales**—Scale of playfulness, Revised Knox preschool play Scale (PPS)

 - **Geriatric cancer patients:**
 - Nutrition- BMI, MNA - Mini Nutritional Assessment
 - Cogntion-MMSE,
 - Comorbidities-CCI-Charlson comorbidity index,
 - Onco psychiatry: GAD Generalized Anxiety And Depression Scale
 - For Social Support- OARS MSS -Caregiver burden scale.
 - Fatigue-MOB H, MOB T.

 - **UNIT 7: Analyse & Interpret the Assessment:**
 - Screening the other associated issues in person with cancer
 - A primary clinical/functional diagnosis and a list of differential diagnosis
 - Planning of OT Program
 - Critical decision and selection of outcome measures necessary for prognosis

 - **UNIT 8: Documentation:**
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- Document the Assessment, outcome measures & interpretation

Course Outcomes:

- Candidates will get wide knowledge of various assessment tools and outcome measures applicable in Oncology. Candidates will be able to identify and apply the relevant assessment tool to a specific oncology condition & will be able to identify different types of cancers.
- The candidate should be able to know recent trends in investigative assessment methods for clinical & functional diagnosis & critical decision on planning Occupational Therapy intervention.

MOT 202 : Advanced Occupational Therapy Principles & Practices in Oncology (60 Hours)

Coordinators: Dr. Nabita Ansari
otnabila@gmail.com

Course Objectives:

▪ Learning objectives:

On successful completion of this subject it is expected that students will be able to

- Understand and apply the information regarding recent advances in Occupational Therapy for cancer patient care.
- Search the evidences available for assessment and management of oncological conditions.
- Apply the evidences available for the management of various oncological conditions
- Addresses the importance of evidence-based practice, including occupational therapy, life-long learning and professional development, the benefits of collaborative partnerships and the relationships between policy, legislation and practice.
- To build upon prior course work, particularly anatomy, Physiology, Clinical Conditions in Occupational Therapy, Assessment and Intervention of neuro, musculoskeletal & Psychosocial Issues using frame of references & theories of Rehabilitation.

Course Description:

- This course focuses on the role of occupational therapy in oncology within multiple settings (in-patient, out- patient and home care), long-term care programs, wellness & safety programs, hospice, and community- based programs (socialization, day treatment, adult day care programs), and alternative housing arrangements. In order for occupational therapists to understand the needs of cancer person, the course addresses the common impairments and disabilities and rehabilitation of these patients. Students will develop and demonstrate skills in the treatment planning and therapeutic adaptation, documentation, and discharge planning (including collaborative client and family education), and demonstrate knowledge of assistive devices, equipment, and technology/ environmental modifications to support community living and to improve the quality of life of person having cancer.

Course Details:

- **UNIT 1: To promote occupational functions in the oncological conditions with advanced clinical Occupational Therapy interventions of the following:**
 - Neuro oncology
 - Head & Neck Cancers
 - Bone & Soft Tissue Cancer
 - Paediatric oncology
 - Breast and Reproductive System & Genital Cancers
 - Systemic and Organ Cancers
 - Paediatric cancers
 - Haematological cancers

- Lung cancers
 - **UNIT 2: Understand OT Management by using appropriate frames of references in the children, adolescents, adults and elderly individuals having following dysfunctions but not limited to:**
 - Psychological dysfunctions (anxiety, depression) & psychosocial affectation due to cancer.
 - Musculoskeletal complications & dysfunctions of cancer
 - Neurological Dysfunctions
 - Genital & Urinary Dysfunctions
 - Respiratory dysfunctions
 - Pain in Cancer
 - Oncological Occupational Therapy in ICU
 - Gynaecological Dysfunctions
 - Postsurgical management
 - Dysfunctions due to Radiation therapy and Chemotherapy and surgical procedures
 - Cancer related fatigue.
 - Bowel & Bladder dysfunction in cancer patient
 - Lymphedema in cancer: OT Management
 - Sexuality issues and OT application in cancer rehabilitation.
 - Sleep issues in cancer and OT management.
 - Communication and swallowing dysfunction
 - Occupational Therapy in discharge planning, home assessment and home program in cancer patients
 - Vocational fitness program and job analysis based on ergonomic principles.
 - Return to work, school & Play.
 - Addressing Architectural barriers for cancer patients.
 - Application of ergonomics in Oncology.
 - Nutritional & diet care of cancer patients
 - Application of Occupation of Leisure & play in addition to conventional Occupational Therapy approaches
 - **UNIT3: Enlist the alternate practice settings in Oncology from Occupational Therapy perspective:**
 - Day care centers,
 - Community Services,
 - Preventive model
 - Long term care in Rehab Setting
 - **UNIT 4: Describe the Rehabilitation Setting:**
 - The Concept & goals of Rehabilitation
 - Principles of Rehabilitation - Assessment, goals, priorities and monitoring progress
 - Rehabilitation organisation-policies, expectation, carers, acute illness, social and financial support
 - Clinical evaluation in rehabilitation - impairment, disability and handicap
 - Prevalence of disability, types of disability
 - Rehabilitation as Team work - Team leadership, therapist, physiotherapy, occupational therapy, social worker, physician and nursing personnel.
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- Aids and application - tools for living
- Leisure & Play activities: Indoor & outdoor
- Contractures and other deleterious effects of immobility
- Pressure Ulcer - factors, prevention and management
- Organization and effectiveness of rehabilitation services -/ Community Services
- Day hospital, Day Care Centre, Long Stay Care Institution - role of rehabilitation in these settings

▪ **UNIT 5: Explain the Occupational Therapy in elderly with cancer in the ICU**

- Long-Term Outcomes After Critical Illness and Post Intensive Care Syndrome
- The Role of Occupational Therapy in Critical Illness

▪ **UNIT 6: Describe the Hospice & Palliative care:**

- Explain what is palliative care & need for palliative care based palliative care
- Principles of palliative & hospice care, with the application of evidence
- To identify the need of specific approach to be used in oncological conditions
- Describe characteristics of loss, grief & bereavement in relation to occupational performance.

- Develop evidence based treatment program for hospice patients associated with other medical, neurological, orthopedic, psychological conditions.
- Explain hospice family system & the need for treatment of the family as a unit of care.
- Application of assistive technology, orthosis, prosthesis, assistive aids in individuals receiving Palliative/Hospice care.
- Advocacy in Palliative care
- OT Management for Pain in Palliative care / in hospice
- Fatigue assessment and management in individuals with Palliative/Hospice care.
- Sleep assessment and management in individuals receiving Palliative/Hospice care. Sexuality issues and OT application in individuals receiving Palliative/Hospice care.
- Psychosocial issues and OT application in individuals with systemic/organ cancers. Postsurgical Occupational Therapy application in individuals receiving Palliative/Hospice care.
- Application of various OT techniques in individuals
- Geri care in individuals receiving Palliative/Hospice care

▪ **UNIT 7: Documentation**

- Document the Occupational Therapy intervention planning & periodic progress report
- Modification in the intervention if any

Course Outcomes:

- The overall goal of the course is to provide a conceptual framework for the study of oncology as it relates to occupational therapy and to assist occupational therapy post graduate students to develop the skills and knowledge needed to understand major issues in theory, research, and practice related to the oncology.

MOT 203:Current & Future Trends in Occupational Therapy in Oncology (60 Hours)

Coordinators: Dr. Nabita Ansari
otnabila@gmail.com

Course Objectives:

- To implement latest technologies for the OT intervention in oncology
- Understand the Frames of reference in OT while applying any new technology for various Oncological conditions
- To identify & document the appropriate newer assessment, planning goals & application of evidence based latest OT approaches used for the specific needs of patients
- Document & monitor goals of implementing recent approaches

Course Details:

It involves the training in the use of various theories, Frames of references & latest approaches used in Occupational Therapy intervention of cancer population, The Occupational Therapy care with technology is a rapidly evolving field, with numerous trends and innovations that are helping to improve the quality of care for persons having cancer.

▪ UNIT 1: Recent Technologies in Assessment & Evaluation:

- Motion Capture Systems: Detailed analysis of movement patterns and identification of dysfunctional mechanics .
- Posture analyser
- Gait analyser
- Motion Analyser
- trims
- fMRI
- Other methods

▪ UNIT 2: Advanced and evidence based use of Orthotics, Assistive and adaptive technologies:

- Splinting and orthosis
- Adaptive devices
- Assistive devices
- Wheelchairs
- Mobility Devices
- 3D printing
- Other devices

▪ UNIT 3: Recent advances in OT intervention –

Recent Therapies

- Mirror therapy
- Mental / motor imagery

- CIMT
- BWSTT
- Aquatic Therapy
- Bio feedback: For stress & pain management

- **Virtual reality (VR):**
 - Reality applications for cognitive rehabilitation

Adjunctive Therapies

- Neural mobilization and Neuro Dynamics
- FES
- NMES
- Transcranial Magnetic Stimulation
- Transcranial direct current stimulation
- Pain Modulation and intervention
- PAMOT
- Yoga therapy
- MFR
- Kinesiotaping
- Manual Therapy

- **UNIT 4: Recent advances in medical intervention**

- Genetic counselling
- Stem cell therapy
- Gene therapy
- Other recent neuro-regenerative interventions

- **UNIT 5: Technology and Older Adults**

- **Considerations of Assistive technologies**

- Aging and functional performance, assistive technology for elder adults
- Barriers and Acceptance of Technology in the Elderly
- Environmental impacts, products and technology
- Indoor environments and older people

- **Augmentative & Alternative Communication (AAC) in Geriatrics:**

Augmentative and Alternative Communication (AAC) to facilitate expression of basic wants and needs. When it comes to implementing an AAC system into a care plan, there are a vast number of options available. A thorough evaluation is crucial when determining the most appropriate AAC system to use.

- Understanding Augmentative and Alternative Communication (AAC)
- Categorization of AAC
- Types Of AAC Systems

- Symbols-based system
 - Communication boards
 - Text to Speech devices
 - Speech generating devices
 - Implementing AAC in daily Life
 - AAC, Aging, and Telephone Relay Access Technology
 - Challenges and considerations
- Brain computer Interface for functional Activities in Geriatrics oncology patients:
 - Training motor/cognitive abilities for preventing the aging effects,
 - Controlling home appliances,
 - Communicating with others during daily activities,
 - Controlling an exoskeleton to enhance the strength of the body's joints.

- **UNIT 6: Future trends:**

- **Telemedicine**

- Wearable technology: Wearable devices, smart clothing, and assistive technologies are used for enhancing independence. Wearable technology is used into assessments and interventions, helping patients track progress, manage health conditions, and improve mobility. Occupational therapists use latest assistive devices like Smartwatches, body-mounted sensors, and fitness trackers
- Smart home technology: smart thermostats and smart home security system
- Virtual assistants: Virtual assistants: Amazon's Alexa or Google Assistant : elderly individuals stay connected and manage their daily tasks, such as setting reminders or making phone calls.
- Robotics: Robotics technology
- Remote patient Monitoring: Remote patient monitoring (RPM) tools
- Smart Devices
 - Technology evolving from personal emergency response service tools (PERS)
 - Smartphones with large buttons and displays.
 - Voice assistants such as Amazon Echo and Google Home. Reminder to eat, take medication, and when their next doctor's appointment is scheduled

- **Unit 7: Other Facilities:**

- Hoist rehab
- Powered Exoskeleton Walk Training
- Rehab gyms : Occupational therapy departments are equipped with gyms to help patients remain healthy after being discharged from the hospital. Therapists also partner with gym facilities close to the patients and monitor their progress through technology.

Course Outcomes:

- Explain the recent knowledge in the field of oncology
- Illustrate & describe the recent diagnostic and assessment tools to identify specific impairments
- State various recent and future approaches used in Occupational Therapy for management of cancer person

References

1. Cancer Rehabilitation: Principles and Practice by Michael Stubblefield & Michael O'Dell 1st Edition
2. Cancer Rehabilitation and Survivorship: Trans disciplinary approaches to Personalized care by Joanne L & Patricia Schmitt 1st Edition
3. Palliative Care & Rehabilitation of Cancer Patients (Cancer Treatment and research) by Charles F. Von Gunten 1st edition
4. Willard and Spackmans occupational therapy by Crepeau, Elizabeth B | Boyt Schell, Barbara A | Cohn, Ellen S. Publisher: Philadelphia Wolters Kluwers/LWW 2009 Description: XXXI + 1191. ISBN: 9780781760041. Edition: 11
5. Willard and spackman's occupational therapy by Hopkins, HL | Smith, HD. Publisher: Philadelphia J.B. Lippincott Company 1988. Edition: 8
6. Occupational therapy for children by Case-Smith, Jane | OBrien, Jane Clifford. Publisher: Missouri Mosby Elsevier 2010 Edition: 6
7. Occupational therapy for physcial disfunction by Trombly, CA. Publisher: Baltimore William and Wilkins Co. 1983 . Edition: 2nd
8. Occupational therapy with elders: strategies for the COTA by Padilla, Rene L | Byers- Connon, S | Lohman, Helene L. Publisher: St. Louis Elsevier Mosby 2011. Edition: 3
9. Orthopaedic neurology: a diagnostic guide to neurologic levels by Hoppenfeld, D | Hoppenfeld, Stanley [Co-Author]. Publisher: Philadelphia Wolters Kluwer 2018 Edition: 2nd Ed
10. Lymphedema Presentation, Diagnosis, and Treatment by Greene, Arin K [Editors] | Slavin, Sumner A [Editors] | Brorson, Håkan [Editors]. Publisher: Cham Springer 2015 Description: 353. ISBN: 978-3-319-14492-4.
11. Daniels and worthingham's muscle testing: techniques of manual examination and performance testing by Avers, Dale | Brown, Marybeth | Daniels, Lucille | Worthingham, Catherine. Publisher: Missouri Elsevier 2019 Description: XIII + 400. ISBN: 978-0-323- 56914-9. Edition: 10th Ed
12. ACSM's Guide to Exercise and Cancer survivorship By American College of Sports medicine, Melinda Irvin
13. Fatigue in Cancer: A Multidimensional Approach by Maryl Lynne Wunningham, Margaret Barton Burke
14. Oxford Textbook of Palliative Medicine By Geoffrey Hanks, Nathan I. Cherny, Nicholas Christakis, Stein Kaasa 4th Edition
15. Lymphedema: A Concise Compendium of Theory and Practice By Byung- Boong Lee, John Bergan, Stanley G. Rockson 1st edition
16. Rehabilitation in Cancer Care by Rankin 1st Edition 5 501
17. Occupational Therapy In Oncology by Cooper 2nd edition
18. Cancer Pain Management: A Comprehensive Approach by Karen H. Simpson, Keith Budd
19. Exercise and Cancer Survivorship: Impact on Health Outcomes and Quality of Life edited by John Saxton, Amanda Daley 1st edition
20. Physical Rehabilitation by Osullivan.S.B. & Schmitz.T.J 3rd Edition
21. Rehabilitation Medicine by Delisa.J.A.&Gans.B.M 2nd Edition
22. Physical Medicine and Rehabilitation by Braddom.R.L 1st edition
23. Evidence-Based Rehabilitation; a Guide to Practice by Law.M. 1st edition
24. Assistive Technologies; Principles and Practice by Cook.A.M. & Hussey.S.M. 1st Edition

25. American Cancer Society Textbook Of Clinical Oncology By Murphy.G.P.;Lawrence.W 2nd Edition
26. Cancer: Principles And Practice Of Oncology By Devita.V.T; Hellman.S. 7th Ed
27. Clinical Oncology; By Abeloff.M.D; Armitage.J.O. 3rd Ed. 501
28. Bone Tumours (A Clinico Pathological Study) by Vastrad.M.C. 1st edition
29. Therapeutic Exercise by Caroline Kisner 5th edition A. Kinesiology Of The Musculoskeletal System : Foundations Of Rehabilitation By Donald Neumann 2nd Edition
30. Principles Of Exercise Therapy by M. Dena Gardiner 6th edition
31. Clinical Decisions In Therapeutic Exercise by Patricia E. Sullivan, Prudence D. Markos 2nd edition
32. Evidence-Based Guide To Therapeutic Physical Agents 1st Edition
33. Therapeutic Exercise by Basmajian.J.V. &Wolf.S.L 5th Edition.
34. Disability Evaluation by Demeter.S.L. &Andersson.G.B.I 1st edition
35. Community Based Rehabilitation Of Persons With Disabilities by Pruthvish.S 1st edition
36. Model of Human Occupation Key Reference- Kielhofner, G., & Burke, J. P. (1980). A model of human occupation, part 1. Conceptual framework and content. American Journal of Occupational Therapy, 34, 572-581. Year Published-1980 Primary Developer- Gary Kielhofner
37. Proprioceptive Neuromuscular Facilitation: Patterns and Techniques by Dorothy Knott, Margaret; Voss (Author) Publisher : Harper and Row; Second Edition (January 1, 1968)
38. Atlas of Limb Prosthetics: Surgical and Prosthetic Principles Mosby; 2nd edition (1 October 1992)
39. The Hand: Fundamentals of Therapy by Judith Boscheinen-Morrin (Author), FACS conolly, W Bruce, A, FRACS, FRCS (Author) Publisher Ltd, 3rd edition (19 December 2000)
40. Clinical Reasoning & Code of Ethics by Doris Pierce Heinemann- Butterworth
41. Qualitative Research In Occupational Therapy: Strategies And Experiences by Joanne Valiant Cook (Author) Publisher : Singular; 1st edition(April 24, 2001)
42. Activity Analysis: Application To Occupation by Gayle I. Hersch (Author), Nancy K. Lamport (Author), Margaret S. Coffey (Author) Publisher : Routledge; 5th edition (17 February 2005)
43. Activity analysis creativity & playfulness in Peaditric Occupational Therapy by Elissa Miller (Author), Heather Miller Kuhaneck (Author), Susan L. Spitzer (Author) Publisher: Jones and Bartlett Publishers, Inc; 1st edition (29 September 2009)
44. Ergonomics-How to design for ease and efficiency by K.H.E. Kroemer (Author), H.B. Kroemer (Author), K.E. Kroemer-Elbert (Author) Publisher : Pearson; 2nd edition (5 July 2001)
45. Occupational Therapy and Dementia Care by Ph.D. Gitlin, Laura N. (Author), Mary A. Corcoran (Author), Ph.D. Chee, Yeon Kyung(Contributor), Pamalyn Kearney (Contributor), Rosalyn S. Lipsitt (Contributor), Geri Shaw(Contributor), Susan Toth-Cohen (Contributor) Publisher : Amer Occupational Therapy Assn (May 15, 2005)
46. Group Dynamics in Occupational Therapy: The Theoretical Basis and Practice Application of Group Intervention by Marilyn B. Cole (Author) Publisher : SLACK Incorporated; 5th edition (30 August 2017)
47. Rehabilitation of Movement: Theoretical Basis of Clinical Practice by Judith Pitt- Brooke (Author) Publisher : Bailliere Tindall; 1st edition (13 October 1997)
48. Yoga & Rehabilitator by Nilima Patel (Author) Publisher : Jaypee Brothers Medical Publishers; First Edition (1 December 2008)
49. Mental Health Concepts And Techniques For The Occupational Therapy Assistant by Mary Beth Early (Author) Publisher: Lippincott Williams and Wilkins; 5th edition (17 August 2016)

PRACTICALS

MOT 1-PRACTICAL: Clinical Presentation

Coordinators: Dr. Nabita Ansari
otnabila@gmail.com

- **Practical: Clinical Presentation: 100 Marks**
- **Clinical Presentation:** Marks should be awarded on the basis of Approach, Knowledge, Demonstration & Discussion
 - Clinical Presentation 1: There shall be one clinical presentation based on Advanced clinical foundation skills:

Short case – 50 Marks
 - Spots- 30 Marks
 - Viva Voce on short case: 20 Marks

PRCATICAL MOT 2: Clinical Presentation 1

Coordinators: Dr. Nabita Ansari
otnabila@gmail.com

- **Practical Examination: Clinical and Viva Voce**
- **Clinical Presentations:** Marks should be awarded on the basis of Approach, Knowledge, Demonstration & Discussion
- **Clinical Presentation 1:** There shall be one clinical presentation based on Diagnostic and Prognostic Tools in SPECIALITY SUBJECT: 100 marks
 - Short case assessment - 50 Marks (Actual demonstration of assessment tool) & viva Voce – 20 marks
 - Spots- 30 Marks

MOT 2: Clinical Presentation 2)

Coordinators: Dr. Nabita Ansari
otnabila@gmail.com

- **Clinical Presentation 2: There shall be one clinical presentation based on Advanced Occupational Therapy Process & Practice in**
- **SPECIALITY SUBJECT (Includes current & future trends): 100 Marks Long case-**
 - Assessment: 20 Marks
 - SMART Goals: 25 Marks
 - Treatment Planning (Evidence Based): 25 Marks
 - Performance of direct handling of patients on interventional approaches on speciality condition should be considered) -30 marks

Synopsis and Dissertation Work (PRACTICAL)

Coordinators: **Dr. Nabita Ansari**
otnabila@gmail.com

- **Synopsis for dissertation:**

Synopsis is the introductory document of the original research project selected by the MOT candidate under the guidance of recognized PG guide. The topic of the synopsis once finalized by the Guide. The Student will present in the Departmental Review board (DRB). The approved synopsis in DRB is then submitted as a research proposal to the registered institutional Ethics Committee for ethical clearance of the selected topic for research. The approved synopsis by the Institutional Ethics Committee (IEC) is submitted for final approval.

- **Progress Report:**

Progress report is the document of attendance, additional reviews in relation to dissertation and progress of the research project duly certified by the university recognized Guide, Head of Department, and the Head of the Institution. Progress report must be submitted every six monthly from the commencement of the course till the completion of the course.

Course Outcomes:

- Dissertation is the mandatory original research study conducted by the MOT student under the supervision of the recognized guide which needs to be completed during two years pertaining to the area of specialty. The candidate must submit the completed dissertation 3 months prior to the commencement of the MOT Examination. The dissertation must be approved by the examiner. In case the student has to reappear for the exam in the same specialty in the subsequent attempts, he/she is not required to submit a fresh dissertation. The thesis shall be examined by a panel of three examiners; one internal and two external examiners, who shall also be the examiners of Clinical examination also.