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Ordinance & Syllabus For “Occupational Therapy” Master of Occupational Therapy (MOT)



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कुलपति
अटल बिहारी वाजपेयी चिकित्सा विश्वविद्यालय
उत्तर प्रदेश, लखनऊ

**Atal Bihari Vajpayee Medical University UP
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CDR. Poonam Rani
Prof. Prakash Kumar (Dr. Ruby Arkar)

ORDINANCE, REGULATIONS & SYLLABUS FOR MOT COURSE OF ATAL BIHARI VAJPAYEE MEDICAL UNIVERSITY,
LUCKNOW (U.P) INDIA ADOPTED AS PER NCAHP COMPETENCY BASED CURRICULUM (NCAHP ACT- 2021)

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Prof. (Dr.) Nishu Arkar
Upadhyay

APPROVED SYLLABUS 2026-27 ONWARDS

**Atal Bihari Vajpayee Medical University
Lucknow, UP**



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List of Abbreviations

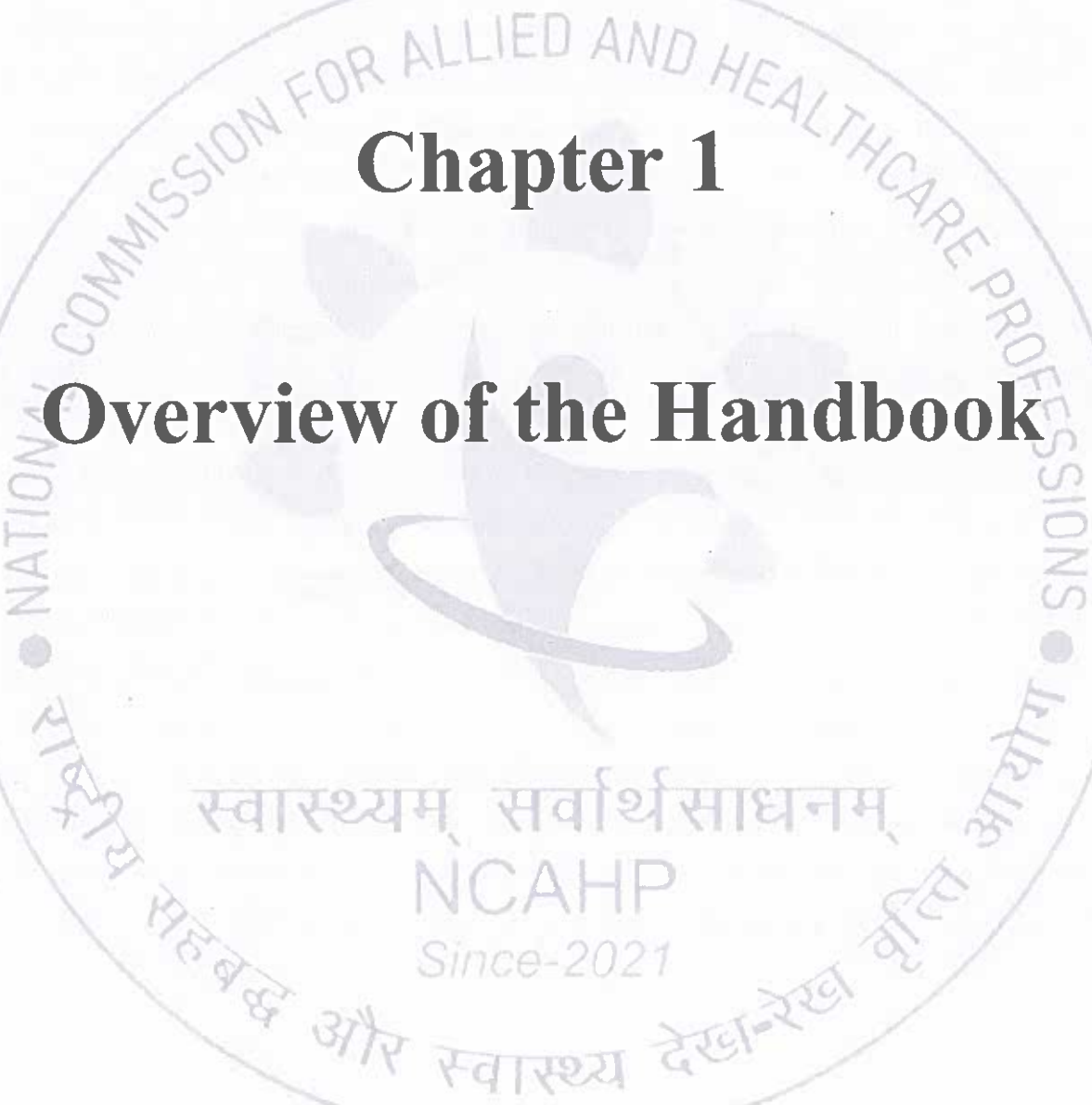
ABA	Applied Behaviour Analysis
ACLS	Advanced Cardiovascular Life Support
AHP	Allied and Healthcare Professional
ADL	Activities of Daily Living
B Sc	Bachelor of Science
BOT	Bachelor of Occupational Therapy
BLS	Basic Life Support
BMW	Bio Medical Waste
CATS	Credit Accumulation and Transfer System
CBCS	Choice-Based Credit System
CbD	Case-based Discussion
CBSE	Central Board of Secondary Education
COTE	Continued Occupational Therapy Education
CNS	Central Nervous System
CPR	Cardiopulmonary Resuscitation
CPU	Central Processing unit
CR	Confidential Report
CVS	Cardio Vascular System
DOPS	Directly Observed Procedural Skills
DOAP	Demonstration- Observation - Assistance – Performance
DRB	Departmental Review Board
ECTS	European Credit Transfer systeS FAOT -
FOT	Fundamentals of Occupational Therapy
HSSC	Healthcare Sector Skill Council
ICT	Information & Communication Technology
IA	CIA
JCI-	Joint Commission International

IEC	Institutional Ethics Committee
LAQ	Long Answer Questions
M CEX	Mini Case Evaluation Exercise
MOT	Master of Occupational Therapy
MCQ	Multiple Choice Questions
NABH	National Accreditation Board for Hospitals & Healthcare Providers
NCAHP	National Commission for Allied & Healthcare Professions
NCRC	National Curricula Review Committee
NDT	Neurodevelopmental treatment
NIAHS	National Initiative for Allied and Healthcare Sciences
NMC	National Medical Commission
NUE	Non University Examination
NSDA	National Skills Development Agency
NSQF	National Skills Qualification Framework
OTDP	Occupational Therapy Diagnostic & Practice
OTMC	Occupational Therapy in Medical conditions
OTPF	Occupational Therapy Practice Framework
OSCE	Objective Structured Clinical Examination
OTSC	Occupational Therapy in Surgical conditions
OSLER	Objective Structured Long Examination Record
OSPE	Objective Structured Practical Examination
PAM	Physical Agent Modalities
PG	Post Graduate
PNF	Proprioceptive Neuromuscular Facilitation
PPE	Personal Protective Equipment
RPwD	Rights of Persons with Disability
SAQ	Short Answers Questions
SI	Sensory Integration

TSU	Technical Support Unit
UG-	Under Graduate
UGC	University Grants Commission
UHC	Universal Health Coverage
UNCRDP	United Nations Convention on the Rights of Persons with Disabilities
WHO	World Health Organization
WWW	World Wide Web

Chapter 1

Overview of the Handbook



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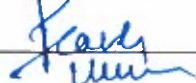
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1.0 Overview of the Handbook

The Parliament of India passed the National Commission for Allied and Healthcare Professions bill on March 28, 2021. Accordingly, an interim commission was established for the National Commission for Allied and Healthcare Professions Act in accordance with the rules issued by the central government on May 27, 2021. This commission's primary goals are to evaluate institutions, maintain a Central Register and State Register, regulate and uphold standards of education and services by allied and healthcare professionals, and create a system to enhance access, research, development, and adoption of the most recent scientific advancements. In addition, the commission started the process of preparing the curriculum for Occupational Therapy (OT) education across the country. It has been noted that uniformity in the education and training of Occupational Therapy professionals nationwide must be guaranteed, as previous reports have indicated that there are differences in the educational and training methods of Occupational Therapy courses offered by institutions nationwide

In order to review and update the guidelines for Occupational Therapy education and career pathways with a new structured curriculum based on skills and competencies, the National Commission for Allied & Healthcare Professions under the Ministry of Health & Family Welfare, Government of India, established an expert committee. Thus, this handbook has been developed to familiarize & delineate uniformity in the Occupational Therapy education and formulate guidelines for imparting education and training in Occupational Therapy by the universities, colleges, healthcare providers as well as educators offering Occupational Therapy education. This handbook aims to reduce variations in education by presenting a standardized curriculum, career pathways, nomenclature, and other key elements for the Occupational Therapy profession. The shift from a purely didactic approach is intended to produce better-skilled professionals and enhance the overall quality of patient care.



1.1 Healthcare Professionals: Who Are They?

According to the National Commission for Allied and Healthcare Professions Act, a "healthcare professional" is defined as a scientist, therapist or other professionals who studies, advises, researches, supervises or provides preventive, curative, rehabilitative, therapeutic or promotional health services and who has obtained any qualification of degree under this Act, the duration of which shall not be less than three thousand six hundred hours spread over a period of three years to six years divided into specific semesters". Primary care refers to the work of health professionals who act as a first point of consultation for all patients within the healthcare system. Such a professional would usually be a primary care physician, such as a general practitioner or family physician, a licensed independent practitioner such as an Occupational Therapist, or a non-physician primary care provider (mid-level provider) such as a physician assistant or nurse practitioner. Depending on the locality, health system organization, and sometimes at the patient's discretion, they may see another health care professional first, such as a pharmacist, a nurse (such as in the United Kingdom) a clinical officer (such as in parts of Africa), or an Ayurvedic or other traditional medicine professional (such as in parts of Asia). Depending on the nature of the health condition, patients may then be referred for secondary or tertiary care. Since the past few years, many professional groups have been interacting and seeking guidance on all those who would qualify under the purview of "healthcare professionals". In the healthcare system, statutory bodies exist for clinicians, nurses, pharmacists and dental practitioners; but a regulatory structure for around 50 professions was absent in India. Currently, the Parliament of India has enacted the National commission for allied and healthcare professions act 2021 to put these 56 professions under the ambit of the allied and healthcare system. The act defines Occupational Therapists as "healthcare professionals due to their nature of duties and responsibilities and numbers of hours of training at entry level qualification that is Bachelor of Occupational therapy, which is much more than 6100 hours spread over Five years including one year of rotatory clinical internship.

1.2 The Scope and need for Occupational Therapy professionals in the Indian healthcare system

Over the last few decades, technological progress has led to significant improvements in the quality of medical care. However, these advancements have also brought about new and complex challenges within the healthcare system. It is now a well-known fact that effective healthcare delivery relies on a multidisciplinary approach, requiring the coordinated contributions of both clinical and non-clinical professionals, extending well beyond the conventional roles of doctors and nurses. Professionals who can competently handle sophisticated machinery and advanced protocols are now in high demand. Diagnosis is now so dependent on technology, that allied and healthcare professionals (AHPs) are vital to successful treatment delivery.

Indian healthcare system is witnessing a growing demand for functional restoration and holistic care, driven by rising rates of chronic illnesses, disabilities, psychosocial issues, and an aging population. In this context, Occupational Therapy has emerged as a crucial discipline that supports individuals in regaining functional independence and improving their quality of life.

The quality of education, training, and community health orientation received by all types of health workers, as well as their ability to work as a cohesive team, are critical factors in the efficient provision of healthcare services operating independently and in a variety of professional teams.

The Indian government wants universal health coverage, but the largest obstacle to achieving its goals may be a shortage of qualified human resources. In India, the advantages of having allied and other medical professionals in the healthcare system are still not fully understood. The Indian healthcare system still relies heavily on the doctor-centric approach, despite the overwhelming evidence that AHPs can improve access to healthcare services and significantly lower healthcare costs. Occupational Therapy professionals play a vital role in the healthcare system, addressing the functional needs of individuals affected by physical, neurological, psychosocial, or developmental conditions. Occupational Therapy professionals contribute to holistic, patient-centered care by enabling individuals to regain independence and improve their quality of life through therapeutic interventions. Occupational Therapy plays an important role in preventive, restorative and rehabilitative care of persons with activity limitations and participation restrictions.

Expanding the integration of Occupational Therapy services into primary, secondary, and tertiary care alongside greater awareness, policy support, and educational standardization is essential to strengthen India's capacity to deliver inclusive, rehabilitative, and community-based healthcare.

Occupational Therapy professionals also play a significant role in caring for patients who struggle mentally and emotionally in the current challenging environment and require mental health support; and help them return to well-being. Children with communication difficulties, the elderly, cancer patients, patients with long-term conditions such as diabetes people with vision problems, and amputees; the list of people and potential patients who benefit from Occupational Therapy is indefinite.

Occupational Therapy plays an essential role in the functional restoration of individuals across a broad spectrum of health conditions. In neurological cases, interventions are designed to enhance motor and functional skills, cognitive-perceptual functioning, and independence in activities of daily living. Within orthopaedic settings, therapists facilitate the recovery of mobility, strength, and the functional use of affected limbs. In paediatric population, Occupational Therapists facilitate development of essential life skills by addressing delays or impairments in gross and fine motor coordination, achieving milestones in all aspects of a child's development, cognitive functioning, self-care, and social participation. In cases involving sensory processing challenges, Occupational Therapists implement structured, evidence-based sensory integration strategies to help children interpret and respond appropriately to sensory input, thereby enhancing attention, emotional regulation, and adaptive behaviors. Interventions are tailored to the individual needs of the child and delivered within a family-centered framework, with the goal of promoting functional independence and improving overall quality of life. In the domain of mental health, Occupational Therapy supports individuals by fostering emotional regulation, developing social and communication skills, enhancing assertiveness, and encouraging meaningful engagement in daily routines. Geriatric populations benefit substantially from Occupational Therapy through strategies aimed at fall prevention, environmental modifications, and support for age-related cognitive and physical changes. In the management of complex medical conditions, therapists address fatigue, reduce functional limitations, and assist with the reintegration of individuals into daily and occupational roles, thereby enhancing quality of life during and post-treatment. Furthermore, Occupational Therapy contributes to cognitive rehabilitation, psychosocial support, palliative care, and

wellness interventions, while also promoting adherence to treatment regimens and facilitating community reintegration. Across these domains, Occupational Therapy fosters independence, promotes well-being, and improves overall health outcomes. Therefore, the scope of Occupational Therapy practice is extensive, covering a wide array of professional domains, as outlined below:

- Across the age span of human development from neonate to old age
- with patients having complex and challenging problems resulting from systemic illnesses such as in the case of diabetes, cardiac abnormalities/conditions, and elderly care to name a few.
- Towards health promotion and disease prevention, as well as assessment, diagnosis management/intervention. through Models of practice and Frame of Reference and evaluation of interventions and protocols for treatment.
- In a broad range of settings from a patient's home to community (return to work, community reintegration through environmental modifications).
- primary care centers, to tertiary care settings.

1.3 Learning objectives and goals for students of Occupational therapy

The handbook has been designed with a focus on performance-based outcomes pertaining to different levels. The learning goals and objectives of the undergraduate and post-graduate Occupational Therapy education program will be based on the performance expectations. They will be articulated as learning goals (why we teach this) and learning objectives (what the students will learn). Using the framework, students will learn to integrate their knowledge, skills and abilities in a hands-on manner in a professional healthcare setting. These learning goals are divided into nine key areas:

1. Develop competencies for Independent Occupational Therapy practice.
2. Communication with stakeholders
3. Member of a multidisciplinary health team
4. Ethics and accountability at all levels (clinical, professional, personal and social)
5. Commitment to professional excellence
6. Leadership and mentorship
7. Social accountability and responsibility
8. Scientific attitude and Research scholar
9. Lifelong learning and transfer of knowledge

1.3.1 Independent Clinical Practice

Each student will plan and carry out the management, investigation, and prevention strategies using the best available data and a patient/family-centered approach. They will also provide the necessary follow-up services. The goals of the program should allow the students to:

- Utilize the fundamentals of science and evidence-based practice.
- Use relevant standardized and non-standardized tools when necessary.
- Identify the indications for Occupational Therapy intervention and perform them appropriately.
- Deliver patient care in a variety of settings, effectively and economically, while prioritizing the needs of each individual patient.
- Recognize how biological, psychological, spiritual, and economic factors affect patients' well-being and respond appropriately.
- Include techniques for specific emergency care, disease prevention, and health promotion of the patients with a knowledge of the healthcare concerns related to various socioeconomic backgrounds and social norms.

1.3.2 Communication with stake holders

The student will acquire the skills necessary to effectively and appropriately communicate with patients, clients, caregivers, other medical professionals, and other community members. One essential component of providing health care services is communication. The goals of the program should allow the students to:

- Clearly explain the diagnosis to the patient and determine suitable treatment plans in a sensitive way that is in the best interests of the patient and society.
- Clearly discuss the diagnosis with the patient, and decide appropriate as possible and respond appropriately to the information.
- Describe the proposed healthcare service's nature, goal, potential advantages and disadvantages, limitations, and, if available, reasonable alternatives.
- Appropriately communicate with and provide pertinent information to other stakeholders, including members of the healthcare team.

- Use communication effectively and flexibly in a manner that is appropriate for the reader or listener; Investigate and take into consideration the patient's ideas, beliefs, and expectations during interactions with them, along with varying factors such as age ethnicity, culture, and socioeconomic background.
- Develop efficient techniques for all forms of written and verbal communication including accurate and timely record keeping.
- Evaluate their own communication abilities, cultivate self-awareness, and be capable of enhancing their interpersonal relationships. with them, along with varying factors such as age, ethnicity, culture and socioeconomic background
- Have the ability to advocate for health promotion and offer lifestyle modification aadvice.

1.3.3 Participation in a multidisciplinary healthcare team

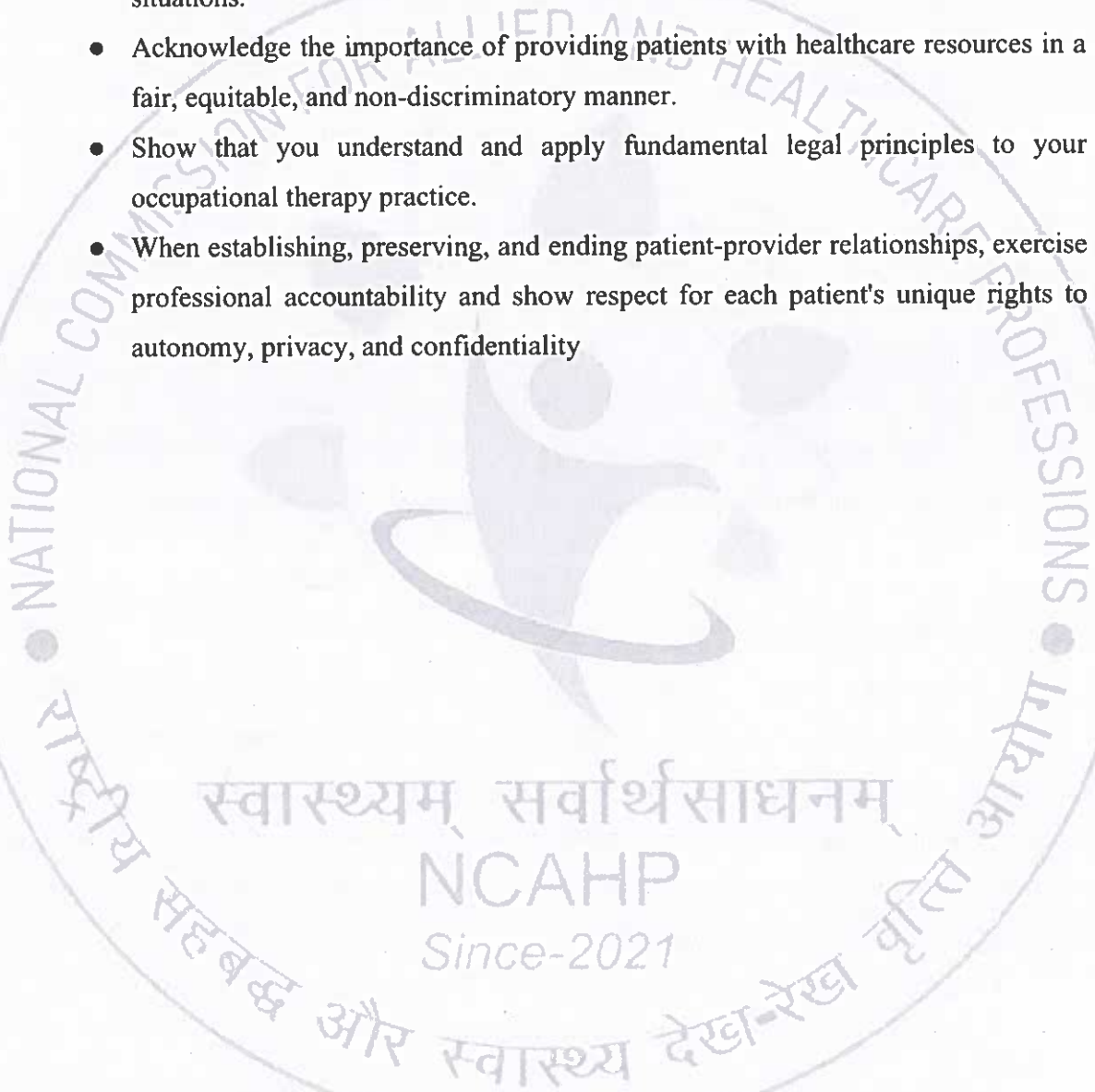
For the student, good team communication is very important, including being open and honest about goals, choices, uncertainty, and errors. In order to achieve coordinated, high-quality care, at least two healthcare professionals must collaborate to accomplish common goals both within and across settings when providing health services to individuals families, and/or their communities. This is known as team-based health care. The program's goals will be to enable the students to:

- Acknowledge, express, comprehend, and encourage team goals that represent the priorities of the patient and their family.
- Establish clear expectations for each team member's roles, responsibilities, and accountability. This maximizes the team's efficiency and enables them to use the division of labor effectively, achieving more than the sum of their individual efforts.
- Establish mutual trust among team members to foster strong reciprocity norms and increase opportunities for collective success.
- Create a culture of general and specific understanding by communicating well so that the team prioritizes and continuously improves its channels of communication.
- Acknowledge quantifiable procedures and results so that the team and the individual can decide on and execute accurate and prompt feedback on goals and team performance. Performance can then be monitored and enhanced both instantly and gradually using these.

1.3.4 Ethics and accountability (personal, professional, social, and clinical)

In order to apply these fundamental ideas to their work as Occupational Therapists, students will gain an understanding of clinical ethics and the law. Program goals should allow students to:

- Explain and apply the basic concepts of clinical ethics to actual cases and situations.
- Acknowledge the importance of providing patients with healthcare resources in a fair, equitable, and non-discriminatory manner.
- Show that you understand and apply fundamental legal principles to your occupational therapy practice.
- When establishing, preserving, and ending patient-provider relationships, exercise professional accountability and show respect for each patient's unique rights to autonomy, privacy, and confidentiality



1.3.5 Commitment to professional excellence

Technical proficiency, appearance, confidence, empathy, compassion, understanding, patience, manners, verbal and nonverbal communication, an anti-discriminatory and nonjudgmental attitude, and appropriate physical contact are just a few of the qualities and traits that the student will demonstrate in his or her thoughts and actions to demonstrate professionalism. Within the bounds of the law, the program's goals will be to enable students to:

- Showcase unique, meritorious, and superior practice that results in excellence and demonstrates a dedication to competence, standards, ethical principles, and values.
- Exhibit the trait of being accountable to everyone, including peers, employers, service users, standard-setting/regulatory bodies, and oneself, for all actions and inactions.
- Make sure that self-interest does not drive actions or inactions
- Show consideration for co-workers and service users.
- Exhibit humanity in daily activities by acting with dignity, respect, empathy compassion and honour

1.3.6 Leadership and mentorship

In order to guarantee clinical efficiency and patient satisfaction, the student must assume a leadership position when necessary. In addition to being able to effectively manage both themselves and others, they must be able to react independently and confidently to both planned and unpredictable situations. Opportunities to enhance the experience of seeking medical attention and the provision of healthcare services must be developed and maximized.

Program goals should empower students to:

- Be change agents and leaders in service development and quality improvement to improve people's health and healthcare experiences.
- Care should be systematically evaluated, and the results should be used to improve people's experiences and care outcomes as well as to inform clinical treatment procedures and services.
- Prioritize tasks and efficiently use time and resources to maintain or improve the standard of care. Acknowledge and be conscious of how one's own beliefs, values, and presumptions may affect one's practice.

- Learn supervision, feedback, reflection, and evaluation, from their experiences and take responsibility for their own professional and personal growth.
- Use a variety of professional and personal development skills to help others and themselves become more competent.
- Work both individually and collaboratively; students must have the capacity to assume a leadership role in order to safely plan, assign, and manage occupational therapy care, manage risk, and maintain accountability for the care provided; actively engage and value the contributions of others to integrated person-centered care; and effectively collaborate across agency and professional boundaries.
- Aware of when and how to interact with patients, refer them to other agencies and professionals, respect the choices of others and service users, encourage collaborative decision-making, produce positive results, and facilitate seamless transitions between agencies and services.

1.3.7 Social responsibility and accountability

The students will understand that healthcare and allied health professionals must be socially responsible, prudent resource managers, and advocates within the healthcare system. They will focus all of their research and service efforts on addressing their top health concerns because they have a mandate to serve the community, region, and country. The goals of the program should empower the students to:

- Respond to the needs of the population and exhibit understanding of the local, regional, and national determinants of health
- Create and support innovative practice patterns by offering evidence-based treatment and experimenting with fresh approaches that will better apply research findings and address the needs of individuals and communities
- Create a common vision for a future health care system that is sustainable and evolving by cooperating with and strengthening alliances with other stakeholders, such as academic health centers, governments, communities, and other pertinent professional and non-professional organizations.
- Advocate for the resources and services required to provide the best possible care for patients

1.3.8 Scientific attitude and Research scholar

Throughout their interactions with peers and patients, their academic pursuits, their research, and every other facet of their professional lives, the student will apply good scientific and/or scholarly principles. The goals of the program should allow the students to:

- Practice evidence-based practice by applying scientific method principles
- Take ownership of their educational experiences
- Develop fundamental skills like patient education, feedback-giving, presentation skills, and the design and dissemination of research knowledge
- Structure their continuing professional education to address the unique needs of the population.

1.3.9 Lifelong learning and transfer of knowledge

While using contemporary tools and technology, the student should be dedicated to ongoing skill and knowledge development. The program's goals will be to enable students to:

- Construct and improve their current skills
- Learn new skills
- Conduct objective self-assessments of their knowledge and abilities
- Implement recently acquired knowledge or abilities in patient care
- Continue to reflect on themselves and draw on their experiences to improve their learning and personal and professional development
- Identify and choose a suitable, personally and professionally fulfilling career pathway
- Develop a research question
- Be knowledgeable about basic, clinical, and translational research in its application to patient care
- Search (including electronically) and critically evaluate medical literature to enable its application to patient care

1.4 Purpose & Scope:

1.4.1 Purpose

The main technical, cognitive, emotional, and ethical facets of occupational therapy practice can be outlined in a set of professional education standards. Such a guideline has numerous advantages. Policymakers, regulatory agencies, occupational therapy students, and anybody else who wishes to understand the professional standards of the field in India may find this to be an essential tool.

The separate but connected goals exist. They are as follows:

- The goal of societal minimum standards for occupational therapy education is to guarantee that occupational therapy's contribution to people's health, and well-being is acknowledged on a national and worldwide scale
- To satisfy societal expectations regarding welfare and high-quality healthcare
- Promoting uniformity and quality in occupational therapy practice both domestically and abroad is the professional goal of minimum standards, which includes several components: fostering research on occupational performance, occupational therapy education, and practice; fostering the national and international exchange of knowledge, faculty, and students between programs; fostering the international mobility of qualified therapists; and strengthening occupational therapy communities worldwide by fostering a shared understanding, experience, and language of OT education.
- The minimum standards for occupational therapy are intended to establish uniformity in OT education in India and to make it globally acceptable. Establish a baseline for assessing whether the OT program is fulfilling the required minimum standards.
- Review educational program through the process of self-evaluation
- Promote graduate commitment to lifelong learning through Continued Occupational Therapy Education (COTE) and other professional development program

1.4.2 Scope:

A broad spectrum of beneficiaries who are interested in academic training or occupational therapy education in India can use the document. The following summarizes some of the main points of this document: These standards are available for use by regulators:

- The objectives of entry-level occupational therapy courses should be developed or modified in accordance with occupational therapists' regulatory expectations.
- Professional education should be monitored in all of its aspects, including the acquisition of core subject knowledge as well as other crucial aspects like professionalism, lifelong professional development and learning, interpersonal skills, and the integration of core knowledge into clinical practice.
- To guarantee that occupational therapy entry-level education in India adheres to consistent standards that are comparable to the WFOT Minimum Competency Standards for the same population. This document may also be used by the students studying occupational therapy.
- To comprehend the prerequisites for occupational therapy practice and education
- To comprehend the different facets of professional development, such as subject knowledge, professionalism, lifelong learning and professional development, interpersonal skills, and the incorporation of fundamental knowledge into clinical practice.

1.5 Occupational Therapy support personnel or organizations

- To understand occupational therapists' roles and responsibilities

1.5.1 Government and Policymakers

- To inform expectations regarding occupational therapy services for development of policy and education
- To provide background information for health human resource planning and policy development

1.5.2 Other Professionals

- To understand occupational therapists' roles and competencies

1.5.3 International agencies

- To provide information for credentialing of occupational therapy programs

1.6 Introducing Novel Components to the Teaching of Occupational Therapy

1.6.1 Competency-based curriculum

Notwithstanding the hierarchy and degree of responsibility in healthcare settings, a notable skill gap has been noted among the professionals providing healthcare services. The wide range of approaches used in healthcare education and the disparity in expectations for graduates at work and after completing a course are the causes of the wide variation in service quality. While the course design focuses on what one is expected "to know," it is assumed that students will learn what they are expected "to perform" at work. Therefore, the competency-based curriculum bridges the gap between "know what" and "do how."

The curriculum design being used has a significant impact on the efficacy and efficiency of any educational program. As scientific and medical knowledge has advanced, educators have come to the realization that learning is no longer restricted to learning lists of facts and figures; in fact, by the time a professional want to work in the healthcare industry, the knowledge they have learned may be out of date. Competency-based education, a curriculum idea created to give professionals the skills they require, is therefore the solution. A competency-based program is a combination of skills and competencies that are developed to teach pertinent content across a variety of courses and settings, based on the needs of the individual or population (e.g., clinical knowledge, patient care, or communications approaches). Competency-based education places more emphasis on competencies, outcomes, performance, and accomplishments than the traditional educational system, which emphasizes objectives, content, teacher-centric learning, and summative evaluation. Learner-centered teaching activities and ongoing, formative evaluation are used in this situation. In order to obtain competency-based credentials, a professional must demonstrate a specific set of competencies that allow them to accomplish specific objectives. Employers, students, and other stakeholders can set realistic expectations thanks to competency frameworks, which include a concise description of a person's abilities upon completion of the credential. The curriculum design outlined in this handbook will therefore be based on skills and competencies in order to meet the demands of the current and future healthcare delivery systems.

1.6.2 Encouraging professionals to learn independently

It is now relevant to review the learning processes for appropriate modifications as a result of the shift in emphasis from traditional to competency-based education. Learning is no longer limited to the walls of a classroom or the lessons that a teacher teaches, as is well known. The platform has been expanded and new ways for students to learn and acquire skills and knowledge have been introduced by the new tools and technologies. Learner-centric and self-directed learning are two of the cutting-edge strategies.

In its broadest sense, self-directed learning refers to a process where people, with or without assistance from others, take charge of determining their own learning needs, creating learning objectives, locating learning resources, selecting and putting into practice learning strategies, and assessing learning results (Knowles, 1975).

Instead of just responding to transmissions from resources, self-directed learning involves learners taking the initiative to use them, which improves their learning. AHPs and other health professionals can benefit from lifelong, self-directed learning (SDL), which has been recognized as a critical skill for medical graduates (Harvey, 2003). Numerous studies conducted all over the world have demonstrated the superiority of the self-directed learning approach over the teacher-centric approach.

Learners become more reliant on their teachers, and the focus of instruction shifts to the subject. When a teacher supplies the learning materials, students are typically content with what is offered; however, when they are asked to complete the same assignment, they must always look through a lot of resources on the topic. In contrast to traditional classroom instruction, the handbook encourages self-directed learning and provides a platform for students who want to pursue lifelong learning.

1.6.3 Credit hours versus the conventional method

The University Grants Commission (UGC) and the National Assessment and Accreditation Council (NAAC) have recently emphasized the necessity of adopting an efficient grading system to gauge student performance and developing a Choice-Based Credit System (CBCS) that is comparable to international standards. Every significant provider of higher education in the world runs a credit system. These include the Credit Accumulation and Transfer System (CATS) in the UK, the Pan-Canadian Protocol on the Transferability of University Credits, the European Credit Transfer System (ECTS), the "National Qualifications Framework" in Australia, and the systems in the US, Japan, and other countries.

A completely convertible credit-based system that is accepted at other universities is now required on a global scale. The popularity of programs like "twinning programs," "joint degrees," and "study abroad" has made it necessary to give students mobility and flexible curriculum options.

The current curriculum structure is broken down into smaller sections with an emphasis on study hours that can be converted into credit hours in accordance with international standards that are adhered to by many other nations in order to guarantee the graduates' acceptance on a global scale.

1.6.4 An integrated curriculum structure

In its purest form, vertical integration is the process of integrating clinical knowledge and skills into the basic science years while also highlighting and extending the teaching of basic science concepts' applications during the clinical years. Only the first half of the process is included in many so-called "vertical integration" initiatives.

The process of identifying concepts or abilities that are cross-cutting (like the basic sciences) and particularly clinically relevant, then using them as a cohesive theme for presentations, clinical examples, and course materials is known as horizontal integration; for instance, integrating human anatomy, physiology, pathology, and other basic science courses about organ systems; or integrating computer skills, ethics, legal concerns, finance, politics, humanities, and culture into various course components, such as the clinical continuum.

Through the use of a common language of medical science, an integrated curriculum seeks to help students reach a level of scientific fluency that goes beyond simple fact and concept acquisition. This will enable them to start thinking creatively about medical issues.

In addition to bridging the gaps between theory and practice, as well as between hospital-based and community practice, this creative new curriculum has been designed to support both horizontal and vertical integration between disciplines. The amount of time spent on laboratory and basic sciences (along with their clinical applicability) would be the maximum during the first year of training, gradually declining during the second and third years, placing a greater emphasis on clinical exposure and learning.¹¹ Nevertheless, it might vary from one course to another based on the professional group.

1.6.5 Learning methodologies

With a focus on self-directed learning, the curriculum will include a foundation course that focuses on communication, basic clinical skills and professionalism; and will incorporate clinical training from the first year itself. It is advised that basic and laboratory science education be combined with adequate clinical experience at the primary care level. The introduction of case scenarios for class discussions and case-based learning should also be prioritized.

An effective healthcare system is built on healthcare education and training, and India's educational system has not yet benefited from the ongoing global technological revolution. Clinical skills are taught and learned at the patient's bedside or in other clinical settings, like laboratories, with the addition of didactic instruction in classrooms and lecture halls, according to the report "From Paramedics to Allied Health: Landscaping the Journey and way ahead." The adoption of successful assessment patterns has led to a paradigm shift toward outcome-based education in addition to keeping up with the rapid advancement of technology. But in institutions where it is currently scarce, the need for competence demonstration must be encouraged. The report also lists a few Indian healthcare and allied education institutions that have set up clinical skill centers, labs, and high-fidelity simulation labs to improve training and practice for healthcare and allied education professionals. Simulated patients, computer-assisted resources, and mannequins are used to replicate all or a portion of a clinical encounter, as the report reiterates. By properly training the workforce on newer technologies, simulators help address a number of problems, including inefficient use of resources and equipment, limitations in providing hands-on training in real-life situations, and inefficient methods for assessing skills. The numerous teaching and learning approaches that make use of cutting-edge resources and technologies are listed in the table below:

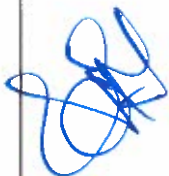


Table 1.1 Clinical teaching-learning process that employ cutting-edge methods

<p>Patients</p>	<ul style="list-style-type: none"> ● Teach and evaluate in specific clinical settings ● Develop soft skills for evaluation, OT diagnosis and planning for intervention and activity prescription. ● Use Occupational Therapy Practice Framework (evaluation of Occupational performance areas, performance components and performance contexts) perform a physical examination. ● Application of methods, modalities and strategies in Occupational Therapy ● Practice periodical evaluation ● Get performance feedback
<p>Mannequins</p>	<ul style="list-style-type: none"> ● Application of the skills learned. ● Develop fundamental procedural knowledge. ● Apply basic science for understanding clinical problem solving ADL training, Basic life support
<p>Simulators & Mobile Health (mHealth) Applications</p>	<ul style="list-style-type: none"> ● Develop your leadership and teamwork skills ● Execute pulmonary and cardiac care techniques ● Use your patient care skills ● Use your knowledge of fundamental science to solve clinical problems ● Deliver programs, reminders, and educational resources
<p>Use of Videos/ Artificial Intelligence and Machine Learning</p>	<ul style="list-style-type: none"> ● Videos of patients, mannequins, and subjects that have already been recorded ● Online photos and videos from reputable organizations and institutions ● Reference and textbook materials, among other things ● Analyze large datasets to predict outcomes and tailor therapy
<p>Task under Occupational therapists</p>	<ul style="list-style-type: none"> ● Tasks as specific to the Occupational Therapy Profession: sensory integration, pre-feeding stimulation & techniques, Ergonomics & work hardening, Functional assessment & training, Disability evaluation & certification, customizing splints/orthosis & adaptive devices, home modifications, school-based OT, mental health screening and rehabilitation, industrial rehabilitation, Customizing orthosis & adaptive devices etc.

1.6.6 Methods of Assessment

The annual assessment system is the traditional method of evaluating students. Internal and external tests, as well as a theory exam at the end of the year or semester, make up the majority of institutions' assessments. In essence, this evaluates knowledge rather than abilities or proficiencies. In competency-based training, students are evaluated according to how well they perform the skills that correspond to their competencies. As a result, each of the three qualities—knowledge, abilities, and attitudes—is evaluated in accordance with the specific competency.

Nowadays, a number of new techniques and resources are easily available, but using them calls for specialized training. Below are a few of these:

- Objective Structured Clinical Examination (OSCE), Objective Structured Practical Examination (OSPE), Objective Structured Long Examination Record (OSLER)
- Mini Case Evaluation Exercise
- Case-based discussion (CBD)
- Direct observation of procedures (DOPs)
- Portfolio
- Multi-source feedback
- Patient satisfaction questionnaire

These days, many healthcare and allied courses use an objective structured clinical examination (OSCE). It assesses proficiency in clinical examination, administration of various assessment tools and application of Occupational Therapy procedures/prescriptions. In Occupational Therapy, the basic essential elements consist of functional analysis of the occupational roles, translation of these roles (“competencies”) into outcomes, and assessment of trainees' progress in these outcomes on the basis of demonstrated performance. The competencies attained, not the underlying procedures or amount of time spent in formal educational settings, are the only factors that define progress. The majority of approaches emphasize regular evaluation of learning outcomes by using predefined, accepted assessment criteria (such as rating scales for scoring or observation checklists). Teachers must therefore be aware of these developments and appropriately implement them in the educational system.



NATIONAL COMMISSION FOR ALLIED AND HEALTHCARE PROFESSIONS

Chapter 2

Approach to the Curriculum Development

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2.0 Approach to the Curriculum Development

Following the publication of the report "From Paramedics to Allied Health: Landscaping the journey and the way ahead," the Ministry of Health and Family Welfare gave top priority to the main suggestions and issues brought up by different healthcare and allied professional associations and specialists, as stated in the report. The report's main recommendations included the necessity of standardizing the curriculum and pedagogical requirements for the main courses taken by allied and healthcare professionals.

2.1 Actions taken during the curriculum development:

A uniform standard curriculum is required, and it should be upgraded to meet the nation's current needs while taking into account the NCAHP Act and its provisions for the regulation and upkeep of standards of education and services by allied and healthcare professionals. This curriculum has been developed in light of the standards of occupational therapy professions worldwide and with reference to the modifications in curricula at reputable national and international universities and institutions. A comprehensive and internationally recognized set of educational standards founded on skills and competencies is part of this.

2.1.1 Constitution of Occupational Therapy Task force committee:

To guarantee broad geographic representation and meet a range of needs throughout the country, a taskforce committee was constituted by NCAHP with professional experts in the fields of academia, practice, and research from top government and private institutions throughout India. These individuals designed the curricula using a standardized framework and functioned as subject matter experts. The task force committee was given guidelines by the commission to update and recommend new guidelines for occupational therapy education and practice in India.

2.1.2: Taskforce meetings:

A series of twenty-five online meetings lasting two to three hours each involving all taskforce member were organized to complete the work of development of This hand book.



2.1.3 Literature review:

The handbook of the "Minimum standards of Academic council of occupational therapy of All India Occupational Therapists' Association," UGC guidelines, and the curricula of all the top Indian universities were referred as the fundamental framework. These served as a starting point for revision and upgrading to meet international standards in occupational therapy education and practice while taking into account technological developments and updates.

A consensus was established among the task force committee members regarding the inclusion or exclusion of various suggestions, informed by both member deliberations and a comprehensive review of the literature. The diverse and extensive expertise of the task force members in their respective domains had played a pivotal role in evaluating the relevance of the proposed curriculum within the broader healthcare context, marking a significant milestone in the standardization of Occupational Therapy education in India." Detail deliberations were made regarding the framework, content, competencies, hours, examination pattern, and recommended teaching, learning & assessment methods. The curriculum was developed for Bachelor of Occupational Therapy (BOT), Master of Occupational Therapy (MOT), and PhD programs.

2.1.4 Public opinion: was solicited on public platform for 15 days through which more than 2000 comments were received, reviewed and incorporated appropriately as per the recommendations of the Taskforce members.

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2.2

The versatile and immense experience of task force members in their respective streams, to assess the applicability of the curricula drafted in view of the healthcare system as a whole will be a milestone in standardization of Occupational Therapy education in India. After lengthy discussion, all of the experts agreed for drafting the curriculum in the line of the following thematic areas:

1. The occupational therapy profession requires the development of minimum curriculum guidelines.
 - Future-focused and patient-centered curricula are ideal.
 - Needs to incorporate the most recent technological developments.
 - Needs to permit worldwide mobility and be in line with international standards.
2. No institution should offer any distance learning or part-time programs in healthcare science; all programs should be offered full-time.
3. The following must be covered in curricula:
 - The profession's definition
 - Entry requirements
 - Entry qualification: Bachelor-level programs other than entry qualification that are desired in the profession
 - Qualification nomenclature
 - The length of the internship combined with the length of each program level

Competencies must drive the curriculum content and are required at the end of each level

The number of desired faculty members (along with their hierarchy and designations) and the minimum requirements for each program level

 - Batch size and student-to-faculty ratios
 - Program evaluation framework and assessment at the conclusion of each program

Information about journals, reference books, and necessary and desired equipment must also be taken into account



4. To guarantee the bare minimum of proficiency in fundamental subjects, a predetermined credit-based system must be adhered to. It is necessary to assign credits and hours to every subject.
5. A shared entrance method to be taken into account for the program
6. "English" should be used as the teaching language.
7. Each program level will incorporate a competency framework that includes performance criteria as well as relevant knowledge, skills, and behaviors.
 - The competencies ought to be quantifiable and in line with evaluations
 - The weighting of the content, number of hours, and credits for foundation courses may vary depending on the needs of different professions, and they may be distributed throughout the program
 - Focus on soft skills and communication.
8. An internship must be required for all programs
 - Rotatory internships can also be required by clinical programs to give students more clinical exposure
 - Since the internship is a component of the academic program, educational institutions should be responsible for making sure that students complete it at the affiliated hospital
 - To guarantee that students receive practical experience, standalone institutions must have a memorandum of understanding (MoU) with a medical college, hospital, or healthcare facility in accordance with the guidelines (i.e., the desired number of OPD, etc.) specified in the curriculum
 - The memorandum of understanding should specify the clinical supervision of the students; clinical preceptors or institutional staff may be taken into consideration
 - Internship students must receive a stipend of a fair amount
 - Since internships are a component of the academic program, they cannot be counted as work experience
 - The curriculum must also include student or observer participation
 - If available, simulation and skill labs can be utilized during the first few years of observership or studentship to practice program-specific skills

- A few hours each year may be set aside for workshops or seminars on emerging technologies
 - Students and interns should be given transportation if the clinical facility is located off campus
 - After the internship is over, all practical skills must be monitored, documented in a digital logbook, and assessed
9. Master's programs ought to be encouraged in order to foster field specialization and produce qualified faculty members.
10. PhD in Occupational therapy should be encouraged in educational and research institutions. Appropriate regulations for the institutions, co-supervisor or research supervisor, PhD length and procedure for the entire PhD program should be formulated.

2.3 Occupational Therapy Professional Council Member Meeting:

A physical Meeting was organized among all Five council members at NCAHP office on 20th and 21st May 2025 for finalizing the draft curriculum.

Chapter 3

Background of the Occupational Therapy Profession

NATIONAL COMMISSION FOR ALLIED AND HEALTHCARE PROFESSIONS

राष्ट्रीय सहबद्ध और स्वास्थ्य देख-रेख वृत्ति आयोग

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3.1 Statement of Philosophy–

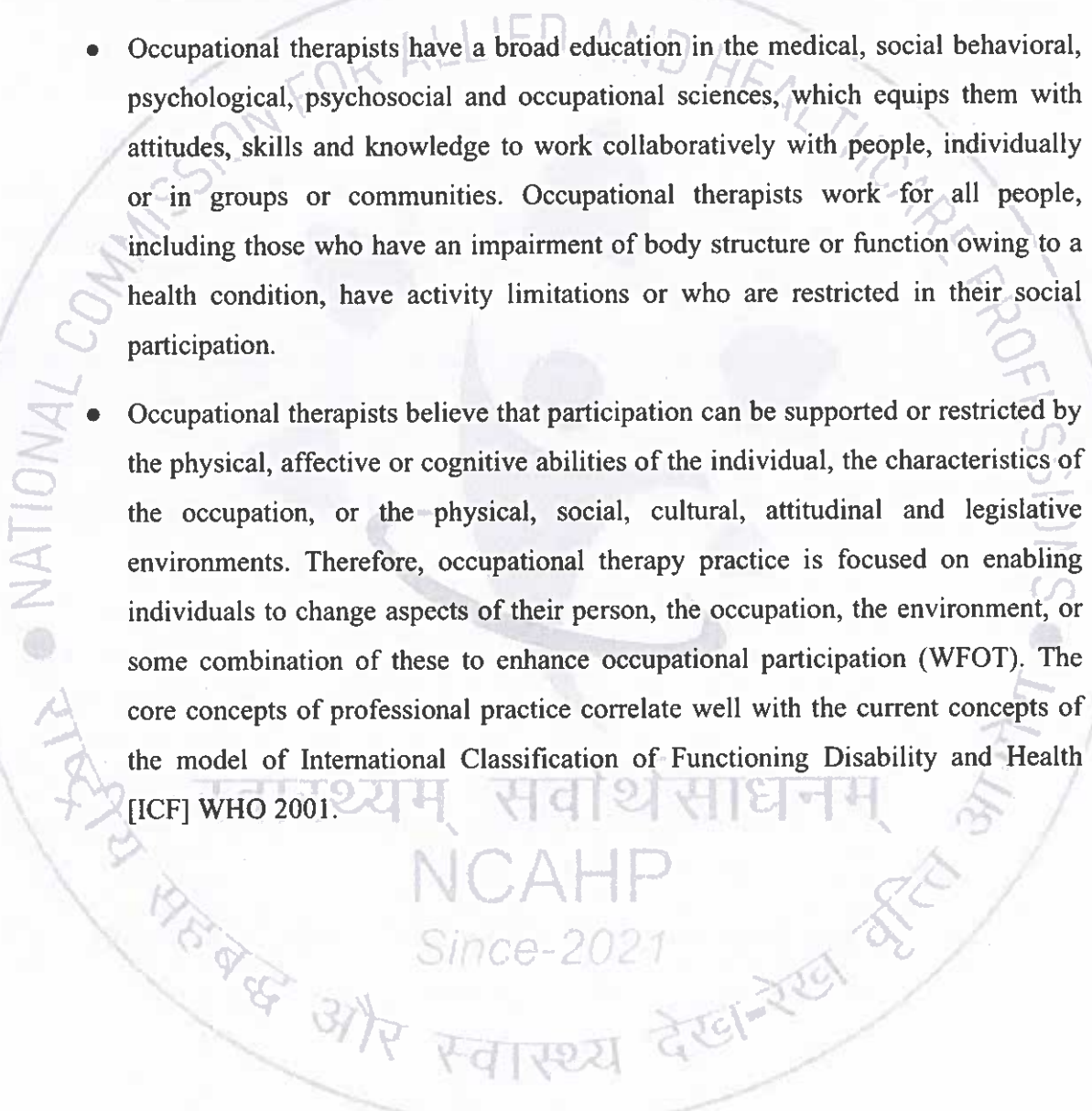
The philosophy of Occupational Therapy is rooted in the belief that engagement in meaningful occupation is essential for health, well-being, and quality of life. Occupational Therapy views individuals as holistic beings whose physical, emotional, cognitive, and social components are interdependent. This client-centered profession emphasizes the therapeutic use of purposeful and meaningful activities to enable people of all ages to participate in the roles and routines of daily life. The dynamic interaction between the person, environment, and occupation forms the core of Occupational Therapy practice, aiming to promote independence, dignity, and functional performance across various life domains.

Occupational Therapists must have commitments to lifelong learning and to search for the evidence that supports and advances practice. Critical thinking, problem solving, intellectual perseverance and courage are all essential characteristics of the successful occupational therapist.

3.2 Definition of Occupational Therapy & Occupational Therapist

- “Occupational Therapy is a holistic, evidence based client centered first contact and/or referral profession of modern health care system, based on science of occupation with primary focus on purposeful goal-oriented activity/occupations, enhanced with the use of latest technological systems for evaluation, diagnosis, education and treatment of the clients whose function(s) is (are) impaired by physical, psychosocial & cognitive impairments, whether congenital or acquired, affecting their quality of life with the aim to prevent disability, promote health & well-being and return to optimum occupational roles.
- Specific occupational therapy services include but are not limited to: preventive health literacy, assessment & interventions in activities of daily living (ADL), work & productive activities, play, leisure and spiritual activities; functional capacity analysis, prescription, designing and training in the use of assistive technology, adaptive equipment & splints, and environmental modifications to enhance functional performances.” (AIOTA 2017)

- In occupational therapy, occupations refer to the everyday activities that people do as individuals, in families and with communities to occupy time and bring meaning and purpose to life. Occupations include things people need to, want to and are expected to do. Occupational Therapy is thus an applied science based on scientific reasoning that enhances ability of client to participate in purposeful occupational tasks.
- Occupational therapists have a broad education in the medical, social behavioral, psychological, psychosocial and occupational sciences, which equips them with attitudes, skills and knowledge to work collaboratively with people, individually or in groups or communities. Occupational therapists work for all people, including those who have an impairment of body structure or function owing to a health condition, have activity limitations or who are restricted in their social participation.
- Occupational therapists believe that participation can be supported or restricted by the physical, affective or cognitive abilities of the individual, the characteristics of the occupation, or the physical, social, cultural, attitudinal and legislative environments. Therefore, occupational therapy practice is focused on enabling individuals to change aspects of their person, the occupation, the environment, or some combination of these to enhance occupational participation (WFOT). The core concepts of professional practice correlate well with the current concepts of the model of International Classification of Functioning Disability and Health [ICF] WHO 2001.



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- The NCAHP Act 2021 defines an Occupational Therapy Professional as the following:
 - “Occupational Therapy Professional is a person who delivers client-centered services concerned with promoting health and wellbeing through occupation to enable people to participate in the activities of everyday life, which includes professionals such as Occupational Therapists who achieve this outcome by working with people and communities to enhance their ability to engage in the occupations they are expected to do, or by modifying the occupation or the environment to better support their occupational engagement. The Occupational Therapist can practice independently or as a part of a multi-disciplinary team and has a minimum qualification of a baccalaureate degree.
 - The Occupational Therapist assesses/evaluates, diagnoses, plans & implements the treatment and rehabilitation program of all age groups of persons (neonates to geriatric population) having any impairment which hamper their participation in their daily functions and prevent them from achieving their life roles. Occupational Therapy professionals use scientific knowledge base & advocacy skills to protect, promote and optimize health & functional Independency and prevent illness/injury, alleviate suffering of human responses while assuming responsibility via. Holistic Approach.
 - The Occupational Therapist can practice independently or as a part of a multi-disciplinary team and has a minimum qualification of a baccalaureate degree. (NCAHP Act 2021)
 - **The International Standard Classification of Occupations (ISCO)** given by the International Labour Organisation (ILO) is 2269.



3.3 Responsibilities / Activities

Occupational Therapy is a health care profession & is an essential part of health & community service delivery system. Occupational Therapist helps individuals, families, groups, communities, organizations, or populations to develop strategies and opportunities to maximize the engagement in one's 'occupations' includes things people need to, want to and are expected to do according to their living context. Occupational Therapists use a scientific approach based on evidence and clinical reasoning for their decision-making process.

Occupational Therapists practice independently of other health care/service providers and also within multidisciplinary rehabilitation/habilitation programs to prevent, gain, maintain or restore optimal function and quality of life in individuals. Such a decision-making process by Occupational Therapist, ensuring that the needs of patients are met involves multiple steps:

- Comprehensive Assessment
- Diagnosis
- Decision making on intervention planning with appropriate clinical reasoning
- Planning an individual / beneficiary specific evidence based intervention
- Implementation of the proposed intervention
- Monitoring
- Modifying the intervention based on the input from monitoring
- Re-evaluating the client / beneficiary of occupational therapy services
- Effectively liaison with all the other associated professionals

3.4 Scope of Practice:

Occupational therapists are committed to the provision of culturally appropriate care to all clients. They work within a multicultural society, remaining cognizant of their own cultural values whilst also striving to understand and respect the particular cultural context of their clients. All Occupational Therapists registered to practice are qualified to provide safe and effective occupational therapy & are guided by their own code of ethical principles. They have met National entry-level education and practice standards, and have successfully passed a standardized Occupational Therapy competence examination. The minimum education requirement is often a baccalaureate degree in Occupational Therapy.

The roles implicit by occupational therapists include, but are not limited to

- Clinician
- Counsellor
- Occupational-related health risk assessor and advisor (e.g., Evaluation of Work-Related Musculoskeletal Disorders (WRMSDs), worksite ergonomic evaluation, driving evaluation etc.)
- Program director (e.g., a specific program to promote mental health among elderly OR adolescents etc.)
- Rehabilitation director
- In addition to these roles related to the 'direct delivery' of occupational therapy services, an occupational therapist may also manage other roles like,
- Researcher
- Academician
- Diplomat

3.5 Practice settings

Occupational Therapy is delivered in a variety of settings which allow it to achieve its purpose. Prevention, health promotion, treatment/intervention, habilitation, and rehabilitation take place in multiple settings that may include, but are not confined to, the following:

- Government organizations/institutions/hospitals/projects
- Non- government organizations
- Private sectors like
- Acute care hospitals & nursing homes (Indoor & out door patients)
- Rehabilitation centers
- community settings including primary health care centers, individual homes and field settings
- Special schools /Main stream Schools/ Integrated schools/preschool centers
- Child development centers
- Geriatric clinics/centers
- Chronic care facilities/ Nursing homes

- Social agencies/Community-Based Rehabilitation (CBR) & Disaster Management Projects
- Hospice care facilities
- Mental Health Setups /Institutions and Hospitals
- Corporate offices/Ergo Furniture manufacturing industries & others
- Occupational health centers
- Public settings (e.g., shopping malls, public transport) for ACCESS
- Prisons
- Education and Research Institutes/Centers
- Fitness clubs, health clubs, gymnasium
- Forensic medicine
- Women wellness clinics/centers
- Some occupational therapists develop expertise in a specific working area, or with a specific age group or disability.

3.6 Professional code of ethics

Preamble

Applications of Code and Ethics Standards Principles are considered universally and where a conflict exists, occupational therapy personnel will pursue responsible efforts for resolution. The guiding principles of Code of ethics are intended to orient the individuals within the profession, ensure the clients best interests and to protect the professional itself and its position. Professional ethics ensure a place of trust within the health care system for those who choose to practice occupational therapy. The ethical principles mainly include Autonomy, Veracity, Justice, Fidelity, and Beneficence among others. Occupational Therapists duly registered with the NCAHP /State Council are expected to abide by this Code of Ethics. The goal of the Code of Ethics is to achieve and maintain high standards of professional integrity toward clients, colleagues, partners, stakeholders and the public. The Code describes the expected conduct of all registered members in occupational therapy practice, including those involved in direct service to clients, management, administration, education and research.

The following Code of Ethics is expected from the professionals practicing Occupational Therapist:

- Possess the qualities of integrity, loyalty and reliability.
- Use professional communication with clients, colleagues, partners and stakeholders.
- Value and respect clients right to be self-directed in their decision-making in accordance with their own needs, values and available resources.
- Value and respect client's rights to be treated with respect and dignity within a safe and non-judgmental environment.
- Ensure confidentiality and privacy of personal information.
- Recognize and manage issues related to conflict of interest.
- Maintain a standard of professional competency to provide high quality service.
- Abide by legislative requirements and codes of ethics established by provincial occupational therapy regulatory organizations (As applicable) and other organizations to which the members have obligations (e.g., employer, facility)
- Contribute to interdisciplinary collaboration and development of partnership to advance the occupational performance of the population served.
- Understand and manage ethical implications involved in all practice domains, including research.
- Participate in continuing professional development throughout their career and apply new knowledge and skills to their professional work which is based on best available evidence.
- Promote their profession to the public, other professional organizations and government at regional, provincial and federal levels and
- Contribute to the development and/or dissemination of professional knowledge.



Occupational Therapists shall work on the basis of first contact / referral and shall observe the code of ethics specified as below:

3.6.1 Responsibility to Self as a Professional

Occupational Therapists should demonstrate knowledge & skill of high academic & professional standards, open-mindedness & respect and maintain professional integrity while rendering services. They shall provide services within the framework of occupational therapy based on curriculum, experience, research and practice.

3.6.2 Responsibility to the Recipient of Services

- Occupational Therapists shall:
- Provide services to recipients without discriminating on the basis of caste, colour, religion, race, ethnicity, geography, age, gender, gender identity, sexual orientation, economic status, impairments and disabilities, marital status, culture and political affiliation.
- At all-time strive to give treatment of the highest level of professional skill. Establish a collaborative relationship with recipients of service including families, significant others, and caregivers in setting goals and priorities throughout the intervention process. This includes full disclosure of the benefits, risks, and potential outcomes of any intervention; the personnel who will be providing the intervention(s); and/or any reasonable alternatives to the proposed intervention.
- Ensure that confidentiality and right to privacy are respected and shall discuss only pertaining facts with other professional persons involved in the treatment program.
- Ensure that people receiving their services feel safe, accepted, and are not threatened by actions or attitudes of the therapist.
- Respect the consumer's right of consent or refusal for services, involvement in research, or educational activities.
- Shall intentionally refrain from actions that cause harm or injury to the recipient of services.

- Avoid relationships that exploit the recipient of services physically, emotionally, psychologically, financially, socially, or in any other manner that conflicts or interferes with professional judgment and objectivity.
- Avoid engaging in any sexual relationship or activity, whether consensual or non- consensual, with any recipient of service, including family or significant other, while a relationship exists as an occupational therapy practitioner, educator, researcher, supervisor, or employer.
- Avoid any undue influences, such as alcohol or drugs, that may compromise the provision of occupational therapy services, education, or research.
- Avoid exploiting any relationship established as an occupational therapist to further one's own physical, emotional, financial, political, or business interests at the expense of the best interests of recipients of services.
- Take appropriate steps to facilitate meaningful communication and comprehension in cases in which the recipient of services has limited ability to communicate.

3.6.3 Responsibility to Professional Colleagues

The Occupational Therapist must show professional concern for those practicing the same or other Professional skills, recognizing that only by achieving and fostering mutual respect and understanding the effective service can be rendered to the clients and others.

3.6.4 Responsibility to the Employers

The Occupational Therapist should be responsible to his employing Institution and should assist in interpretation of its functions within the community. He/she must accept his/her proper share of responsibility to the Organization and administration to the department to which he/she is appointed.



3.6.5 Responsibility to develop Professional Knowledge

Occupational Therapists shall be responsible for actively maintaining, updating and developing their personal professional competence and apply their developed /acquired skill and knowledge in the professional work based on best available evidence. If carrying out research and/or studies the client's informed consent should be obtained and there should not be any conflict of interest involved. The novel ideas / techniques in the field of Occupational Therapy must be evidence based. The researcher's contribution to development of body of knowledge must be acknowledged as per research norms.

3.6.6 Responsibility to the Profession of Occupational Therapy

The Occupational Therapist must recognize his/her responsibilities in contribution to the growth and development of his/her profession through the exchange of information, rising of treatment and educational standards and improving conditions or employment. They should be committed to promote occupational therapy in public, government and/or private sector bodies at state, national and international Levels. Occupational Therapists shall uphold and foster the values, integrity, and ethics of the profession. The Occupational Therapist shall report to appropriate authorities any acts in practice, education, and research that appear unethical or illegal.

3.6.7 Responsibility to the Community

Occupational Therapists shall-Promote information and understanding relative to the function and procedures of Occupational Therapy. Ensure that their fee structure is fair and reasonable. They shall charge fees which are a fair reflection of services delivered both to individual and organizations with which they have contracts for service. At all times recognize the fact that, in the eyes of the public, the attitude and philosophy he/she presents, portrays the profession.

3.6.8 Responsibility towards Professional Organisation

The Occupational Therapist must recognize his/his responsibilities for improving conditions or employment by supporting his/his professional organizations at the local, national and international levels. Occupational Therapists must become an integral part of the national associations for multidimensional growth of the profession in the country.

3.7 Recognition of Title & qualification on the basis of carrier progression

- Within the multidisciplinary team, the professional responsible for administrating Occupational Therapy treatment also at times referred to as the Occupational Therapist. The terminology of Occupational Therapist is an internationally adopted nomenclature and thus should also be applicable in an Indian context.
- The Commission recognizes any Healthcare professional as “Occupational Therapist” who has acquired Bachelor of Occupational Therapy from recognized university/College as per the regulations of the Commission.
- The recommended title thus stands as the “Occupational Therapist” with the Prefix “Dr” and suffix “OT”
- It is a known fact that with the career advancement, the nomenclature will also vary and will also depend on the sector and profile of the professional/ profession.
- The tables below indicate the various channels of career progression in three distinct sectors such as clinical setting, academic and research route. It is envisaged that the Occupational Therapist will have one entry pathway – graduates with baccalaureate. The level of responsibility will increase as the career progresses. The tables also indicate the corresponding level of qualification with experience required by the professional to fulfill the requirements of each level.

- Provision of time bound career progression for Occupational Therapist in Clinical, Academic and Research sector as per NMC.
- Considering the extent of patient dealing in case of Occupational Therapist and such other professions, Government aims to phase out the Diploma and PG Diploma level courses and promote only Bachelor's and Master's degree courses. In the academic front, to work at the position of a Lecturer/Assistant Professor the candidate must attain Master's degree.



Table 3.1: Nomenclature based on Clinical career progression for Occupational Therapist

Sector	Progression from Entry level	Eligibility and Experience		Annual Performance based appraisal
	Designation	Direct Recruitment	Promotion	
Clinical	i. Clinical Occupational Therapist	Fresh BOT graduate	Fresh BOT graduate	As they will work in the same position for next three years and they will need to have performance appraisals
	ii. Senior Clinical Occupational Therapist	Three years of clinical experience	Three years' of clinical experience	Proficiency test CR, self-appraisal & HOD/Principal's Appraisal/year
	iii. Superintendent Occupational Therapist	Five years' of clinical experience with MOT qualification desirable	Five years' experience in the post of Senior Occupational Therapist MOT is desirable for promotion	Proficiency test CR, self-appraisal & HOD/Principal's Appraisal/year Attended Two National / International conferences.
	iv. Chief Occupational Therapist	Eight years' experience as Superintendent Occupational Therapist.	Eight years' experience as Superintendent Occupational Therapist.	Proficiency test CR & Self-appraisal/ year Attended Two National / International conferences
		MOT is Mandatory	MOT is Mandatory	

Sector	Progression from Entry level	Eligibility and Experience		Annual Performance based appraisal
	Designation	Direct Recruitment	Promotion	
	v. Director Occupational Therapy/Head of the Occupational therapy Department*	Five years' experience as Chief Occupational Therapist.	Five years' experience as Chief Occupational Therapist.	Proficiency test CR, Self appraisal/ year. Three national/ International Conference.
		MOT is Mandatory	MOT is Mandatory	
	vi. Assistant Director General [A.D.G]	Five years of clinical experience as Director OT. MOT is Mandatory	2 years' experience as Director OT. MOT is Mandatory	Proficiency test CR, Self appraisal/ year Five National/ International Conferences



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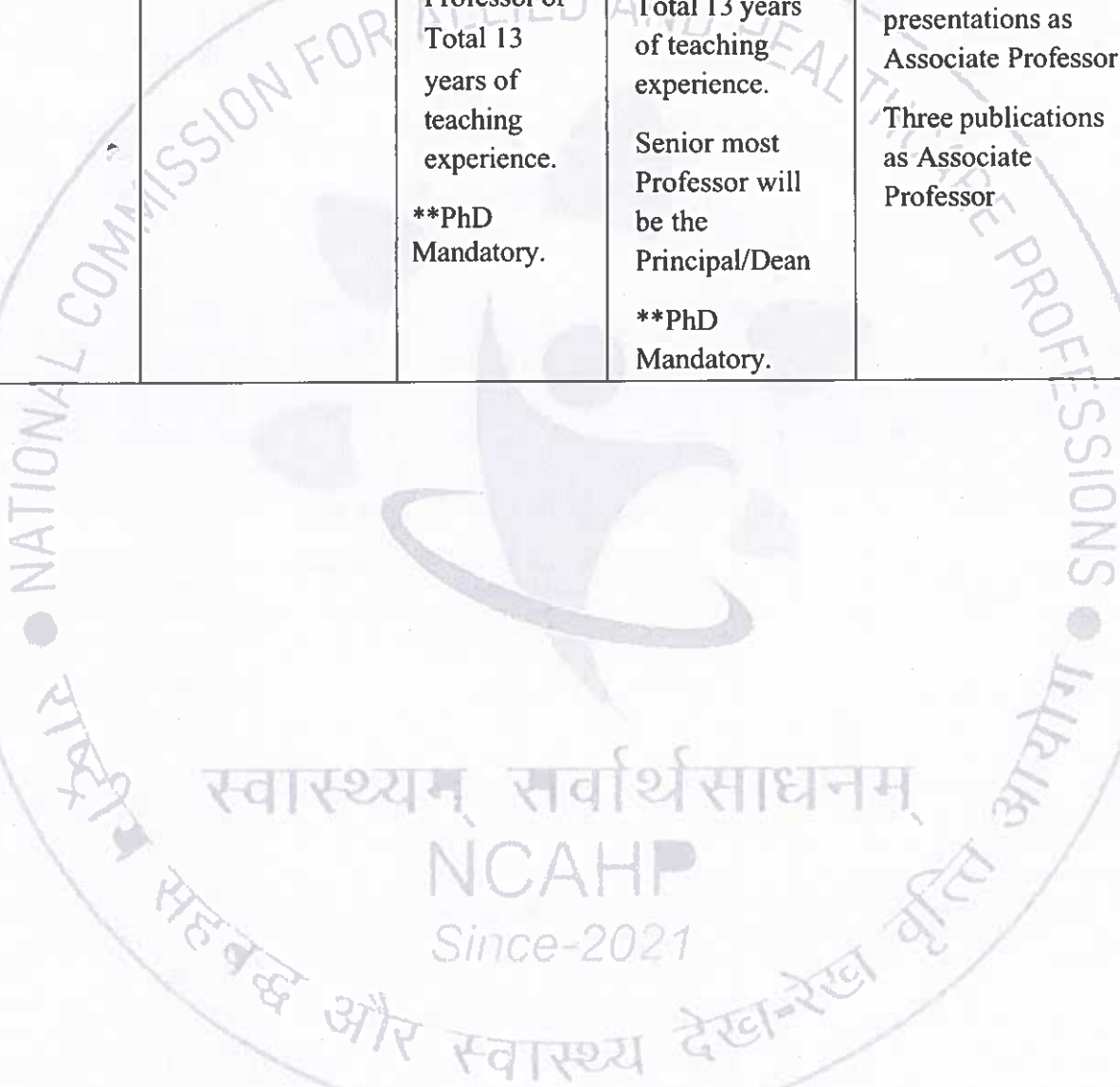
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Table 3.2: Nomenclature based on academic career progression for Occupational Therapist

Sector	Progression from Entry level	Eligibility and Experience		Annual Performance based appraisal
	Designation	Direct Recruitment	Promotion	
Academic	i. Assistant Professor	Fresh MOT graduate	Fresh MOT graduate	As they will work in the same position for next three years and they will need to have performance appraisals
	ii. Assistant Professor (Senior)	Three years' of experience as Assistant professor Ph.D** is Desirable for promotion/ direct recruitment to Assistant Professor (Senior grade)	Three years' of experience as Assistant professor/Lecturer Ph.D** is desirable for promotion/ direct recruitment to Assistant Professor (Senior grade)	Proficiency test CR, self- appraisal & HOD/Principal's Appraisal/year Two Conference presentation as Asst. Professor Junior/Lecturer. Two publications during tenure period as Asst. Professor Junior
	iii. Associate Professor	Total Five years of experience as Assistant Professor (out of which minimum 2 yrs as Senior AP preferably) PhD** is Mandatory.	Total Five years of experience as Assistant Professor /Lecturer (out of which minimum 2 yrs. as Senior AP preferably) PhD** is Mandatory.	Proficiency test CR & Self- appraisal/ year Two Conference presentation as Asst. Prof. Senior Three Publications as Asst. Prof. Senior

Sector	Progression from Entry level	Eligibility and Experience		Annual Performance based appraisal
	Designation	Direct Recruitment	Promotion	
	iv. Professor	Five years of Experience as Associate Professor or Total 13 years of teaching experience. **PhD Mandatory.	Five years of Experience as Associate Professor or Total 13 years of teaching experience. Senior most Professor will be the Principal/Dean **PhD Mandatory.	Proficiency test CR, Self appraisal/ year Three Conference presentations as Associate Professor Three publications as Associate Professor



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Table 3.3: Nomenclature based on Research career progression for Occupational Therapist

Sector	Progression from Entry level	Eligibility and Experience		Annual Performance based appraisal
	Designation	Direct recruitment	Promotion	
Research	i. Scientist -C	MOT, PhD in Occupational Therapy	MOT, PhD in Occupational Therapy	Proficiency test CR, self- appraisal & HOD/Principal's Appraisal/year
				One Conference presentation, One publication during tenure period
	ii. Scientist D	Five years of research experience as Scientist C.	Five years of research experience as Scientist C.	Proficiency test CR, self- appraisal & HOD/Principal's Appraisal/year
				Two Conference presentation as scientist C Two publications during tenure period as Scientist C.
	iii. Scientist E	Eight years of experience as Scientist D	Eight years of experience as Scientist D	Proficiency test CR & Self- appraisal/ year
				Two Conference presentation as Scientist D Three Publications (as first author) as Scientist D

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Sector	Progression from Entry level	Eligibility and Experience		Annual Performance based appraisal
	Designation	Direct recruitment	Promotion	
	iv. Scientist F	Five years of Experience as Scientist E	Five years of experience as Scientist E	Proficiency test CR, Self-appraisal / year. Three Conference presentations as Scientist E Three publications (as first author) as Scientist E.
	v. Scientist G/ Research Head	Five years Experience as Scientist F	Five years of experience as Scientist F (Designation as per UGC / ICMR Norms) Scientist D	Proficiency test CR, Self-appraisal / year Five Conference presentations as Scientist F Five publications (as first author) as Scientist F

* For hospitals/ universities having department of Occupational therapy

** Ph. D. under any specialty/ discipline in Occupational therapy Only

*** Pay scales for Clinical, research and academic designations will be same at different levels. E.g. Pay scale of Senior Occupational therapist (Clinical), Assistant Professor (Academic) and Scientist C (Research) at the same level, will be the same

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- A minimum of 55 % marks in MOT examinations is required for teaching designation or research designation. A relaxation of 5% may be provided at the graduate and master's level for the Scheduled Caste/Scheduled Tribe/ Differently-abled (Physically and visually differently-abled) categories for the purpose of eligibility and for assessing good academic record during direct recruitment to teaching positions. The eligibility marks of 55%marks (or an equivalent grade in a point scale wherever grading system is followed) and a relaxation of 5% to the categories mentioned above are permissible, based only on the qualifying marks without including any grace mark procedures.

- Mandatory Ph.D. will be applicable after five years of implementation of these rules where ever mentioned in above Tables- 3.1, 3.2, & 3.3. These qualifications are applicable for future recruitment.

In the case of teachers who are already holding teaching posts and have more than 10 years teaching experience will continue to hold their post in their respective institution.

- All Academic Post are full time teaching Post and a teaching experience from Head/ Principal/ Director of a recognized Occupational Therapy college or Institution will only be valid for counting any teaching experience.
- All teaching staff will engage in clinical practice at the attached hospitals/OPD, assuming dual responsibilities. Their workload will be calculated accordingly, with hours spent in clinical settings considered equivalent to theory hours.
- All teaching faculties should compulsarily be trained in "Implementation of Competency-based curriculum for BOT" organized by competent authority.
- It is preferably for all teaching faculties to attend "Faculty Development program" every three years.
- Occupational Therapists on clinical posts who impart and are responsible for clinical training and supervision of Occupational Therapy students/ interns will be provided with academic experience by the Dean /Principal of the respective recognized Occupational Therapy college will only be valid.



3.8 Job availability

As per ILO documentation, employers worldwide are looking for job applicants who not only have technical skills that can be applied in the workplace, but who also can communicate effectively, including with customers; can work in teams, with good interpersonal skills; can solve problems; have good ICT skills; are willing and able to learn; and are flexible in their approach to work. Graduates can expect to be employed in hospitals and private practices as Occupational Therapist. A career in research, following the completion of a higher degree such as a PhD, is an option chosen by some graduates. Graduates are eligible for employment overseas where their qualifications, training and experience are highly regarded. Graduates have good employment prospects, and will enter a field in which the demand for professionals has increased in recent years and will keep on increasing due to chronic conditions, lifestyle change. An ageing population requiring increased medical rehabilitation services, together with the continuing introduction of hi-tech equipment, ensures strong demand for future graduate

3.9 Education of the Occupational Therapist

When developing any education program, it is necessary that program planning should be outcome-based, meeting local and national manpower requirements, personal satisfaction and career potential for the professionals with supporting pathways in the development of the profession. One of the major changes is the shift from a focus based on traditional theoretical knowledge and skills to competency-based education and training. Optimal education/training requires that the student is able to integrate knowledge, skills and attitude in order to perform a professional act adequately in a given situation.

Thus, the curriculum in Chapter 4 aims to focus on skills and competencies-based approaches for learning and are designed accordingly. The curriculum is designed with an aim to standardize the content across the nation. The aim of 5 years degree program is to enable the development of an OT as a key member of the multidisciplinary team and to enable him/her to execute advanced preparation/planning/delivery of Occupational Therapy treatment with quality assurance.



With the change in the disease dynamics and multifold increase in the cases needing specialized Occupational Therapy treatment, it is imperative that a well-structured program of postgraduate education is also encouraged so as to enhance research capacity within the country to widen the scope of clinical practice for the profession. Thus, a master's degree program is recommended with minimum of two years of education in specialized field of Occupational Therapy. The post graduate students can contribute significantly in research and academics.

PhD also plays a significant role in the academic system of occupational therapy; however, the curriculum has not indicated any prescriptive guidelines for that level apart from mapping it on the career and qualification map.

3.10 Requirements of Infrastructural, Functional Equipment and Human Resources:

The establishment of an Occupational Therapy college

No person shall establish a college/institute without obtaining prior permission from the commission.

The following organizations shall be eligible to apply for permission to set up an Occupational Therapy college, namely: -

1. A State Government/Union territory
2. A University and Deemed to be University,
3. An autonomous body promoted by Central and State Government by or under a Statute for the purpose of medical education;
4. A society registered under the Societies Registration Act, 1860 (21 of 1860) or corresponding Acts in State
5. Companies registered under the Company Act may also be allowed to open occupational Therapy colleges.



6. Occupational Therapy education prepares a person for independent practice and involves extensive clinical training in almost every specialty & super specialty of modern medicine and all other aspects of health care. Henceforth, new occupational Therapy College/institutes can only be established in National Medical Commission (NMC) recognized medical colleges. These colleges/institutes will need to fulfil the entire essential requirement as following. However, the institute may share common facilities, faculties and infrastructure with the medical college.


3.10.1 LAND AND BUILDING –

- a) If the college is in the premises of NMC permitted/ recognized medical college, no separate land is required. Existing norms of land for medical college will suffice. Besides that, the constructed area/Building norms for Occupational Therapy College must be fulfilled as per the requirements mentioned below. In all other cases, the applicant must provide the land details on which the institution will be established for providing Occupational Therapy education. In such cases, the Occupational Therapy College should have an attachment with the medical college & hospital (through signed MOU) in nearby vicinity. It should be in the name of the society/ trust /company applying for the same (sale deed/lease/gift deed etc.).
- b) The applicant Institution / Trust should have a separate independent building for Occupational Therapy College and facilities for clinical training as per the curriculum as prescribed by the commission from time to time.
- c) Such a building should be constructed in such a way that there is adequate parking space and recreational area or open space for students as prescribed by the commission.
- d) Such a building should have adequate space and should have outpatient Occupational Therapy department, various laboratories as needed, office space, class rooms, a hostel and other ancillary facilities.
- e) Minimum exclusive built-up area for such a college should be 31,000 sq.ft.

- f) Building should be barrier free accessible to persons with disability and as per NBCI guidelines (National Building Code of India).
- g) Building must be recorded on the appellate institute name or if the land is under lease agreement, it must be for at least 10 years
- h) Building must have requisite clearances from the respective civic and administrative authorities like Fire NOC, structural stability certificate, land use certificates, etc.
- i) Building must have CCTV cameras for CCTV surveillance in every area of common use as can be prescribed.
- j) Biometric facility for students and staff, faculty attendance record/documentation buildings with disability friendly and accessible facility

3.10.1.1 Occupational Therapy Department/ O.P.D:

A well-equipped OPD facility in the Occupational Therapy department with instruments of all specialties like Musculoskeletal & Hand, Neurology, Paediatric, Cardiorespiratory, sports medicine, Geriatrics, Mental Health and Community should be available at the college premises. A student/ patient ratio of 1:5 should be maintained. In addition to the own Occupational Therapy OPD in the college building (in case of the existing institutions) if required, the College can get attachment (through signed MOUs) to a maximum of 5 Occupational Therapy depts./ OPDs in various hospitals with a minimum 50 patients OPD workload per day. An outpatient department at the tie-up facility cannot be considered as an independent Occupational Therapy OPD/ unit of the college. Besides the Occupational Therapy OPD at the campus, the institute should also start a community/extension center in nearby rural /semi urban area.



3.10.1.2 HOSPITAL / HOSPITAL ATTACHMENT –

- a. If the college is in the premises of MCI/NMC permitted/recognized Medical College as constituent college, then, there is no requirement for attachment of any other hospital.
- b. In all other cases proof of availability of 250 beds own/attached hospital (Government/Private) for clinical training of 50 students shall be furnished (student: Bed ratio of 1:5). The hospital must be within 10 km radius of the College. College must provide mandatory bus service to the students if the hospital is located more than 1 km away from the College. Within 5 years of application of these Rules, the colleges must have their Own Prescribed Hospital on the college premises.
- c. College can be affiliated to maximum five (05) hospitals having indoor and outdoor facility in the following specialties to have cumulative/total bed strength of 250.

Table 3.4 Cumulative bed strength as per Specialties / Super Specialties Occupational Therapy

Sr. No.	Specialties / Super Specialties Occupational Therapy
1	Orthopedics Neurology & Neurosurgery
2	Medicine including rheumatology, geriatrics and emergency medicine
3	Surgery including plastic surgery and burns
4	Mental Health
5	Orthopedics, Hand & Sports Science
6	Paediatric, Paediatric surgery and Neonatal ICUs
7	Respiratory medicine
8	Cardiology, ICU and cardiothoracic surgery
9	Geriatrics
10	Total bed strength = 250

- d. Tie up hospitals cannot get attached to more than two colleges. If the affiliated hospital is attached with two colleges, the bed strength must be adequately divided amongst the colleges as per the prescribed student: bed ratio.
- e. The affiliated hospital shall provide information regarding any MOU with other colleges, if any & MOU should be for at least five years or as per the respective state policy.
- f. The MOU should mention the available clinical specialties, patient loads, and availability of required equipment for clinical training with names and designations of the faculties responsible for the training in the hospital.
- g. FACULTY: The college/institute must arrange for occupational therapy faculties for supervision and clinical teaching of students inside the hospital. This can be done either by posting its own occupational therapy faculties in the hospital or making remunerative arrangement for recruiting occupational therapy faculties of the hospital.
- h. Hospitals may recruit its faculties of occupational therapy for supervision and clinical training of Occupational Therapy students and supervision of occupational therapy interns with similar eligibility, pay scales, and promotional avenues of occupational therapy institutes.

3.10.1.3 Occupational Therapy College Building: Total area: 31,000 sq.ft



3.10.1.4 Space requirements for an annual intake of 30 students of Bachelor in Occupational Therapy (BOT):

Occupational Therapy course can be started by any Medical Teaching College.

Along with the course, the college will be expected to start an Occupational Therapy Department to provide Occupational Therapy services to patients and provide clinical experience to students. For this Separate building is recommended.

The Head of this department will have to be a senior most professor & certified Occupational Therapy practitioner with a minimum of master's degree in Occupational Therapy (Preferably PhD).

The faculty of the department of Occupational Therapy will have a dual responsibility of running the clinical work along with conducting lectures and practical for the students.

***ATTACHMENT TO NMC RECOGNIZED MEDICAL COLLEGE IS RECOMMENDED.**

Note: - Facilities like auditorium, canteen and playground could be shared with other the program me conducted in the campus by the same trust / society /educational board under the same university.

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Table 3.5 Infrastructure facilities

	Sr.No.	Description of clinical/service units/labs	Area in sq.ft	
Hospital and other infrastructure facilities	1	Land & building Plot size 0.5acre	Land should be owned by trust or institute and should be earmarked for the institution, The Institution should submit the land papers	
	2	Covered area (Including area for lifts, stairs, Corridors etc.)	31,000 sq.ft	
	3	ADMINISTRATIVE BLOCK		
		Reception and waiting hall	500 sq. ft	
		Principal office with attached toilet	200 sq.ft	
		Secretariat/ Account office / record room	500 sq. ft	
		Toilets separate gents & ladies	200 sq. ft	
	4	ACADEMIC BLOCK		2000sq. ft
		Library with reading room, photocopier, internet, computer, Journal room, video recording room		
	5	LECTURE THEATER (minimum four in numbers) each lecture theatre 600sq ft @12sq. ft per student, ergonomically designed.		2400sq. ft
	6	Labs with demonstration room and HOD		
		Anatomy	1000sq. ft	
		Physiology	1000sq. ft	
		MSK & Hand therapy lab	1500 sq. ft	
		Functional restoration & Assistive technology Lab		1000sq. ft Lab

Sr.No.	Description of clinical/service units/labs	Area in sq.ft
	Work assessment, simulation, and hardening lab	500 sq. ft
	Cognitive-perceptual lab & Sensory motor therapy: Neuro OT	1000 sq. ft
	Psycho-social remedial lab: OT for Mental Health	1500 sq. ft
	Developmental Therapy: Paediatric OT	1000 sq. ft
	Sensory Integration Lab	1000 sq ft
	Cardio-Pulmonary lab	500 sq ft
7	Clinical training. OPD Occupational therapy clinic in campus and attached with 200 bedded multi-speciality hospital.	OPD (Occupational therapy) in campus (essential) attached with 200 bedded multi-speciality hospital.
8	Playground both indoor and outdoor sports facilities should be provided for staff and students.	3000 sq. ft
9	Auditorium with latest audio	3000 sq. ft
10	Common room separate common room for boys and girls 500 each.	1000 sq. ft
11	College canteen	1000 sq. ft
12	Toilet for staff/ students separate for gents & ladies	300 sq. ft
13	Electricity	Continuous electricity supply stand by- UPS/ generator
14	Water supply	Safe drinking water
15	Communication facilities	Telephone andFax/ email etc.
16	Visual equipment and facilities for LCD display	

Area Description of Clinical/Service Units/Labs in OT Dept.	Sr.No.	Description of clinical/service units/labs	Area in sq.ft
	1	Musculoskeletal and Hand Rehabilitation Lab	1500
	2	Neurological Rehabilitation Lab a) Cognitive-perceptual therapy unit b) Sensory motor therapy unit	1500
	3	Paediatric Occupational Therapy unit	1000
	4	Splinting/Assistive Technology Clinic/Lab	1000
	5	Psychosocial Remedial Lab (OT for Mental Health)	1500
	6	Activities of Daily Living Unit	500
	7	Work & functional Restoration Lab	500
	8	Standard Evaluation Lab	200
	9	Cardiopulmonary Lab	500
	10	Sensory Integration Therapy unit	1000
	11	Skill Lab	1500

3.10.2: Functional equipments/tools

Table 3.6 Machinery & Equipment Requirements: Occupational Therapy Department

Hand therapy lab:	Sr. No.	Equipment	Required Quantity
	1	Jobson Taylor Hand Function Test	01
	2	Purdue Pegboard Test	01
	3	Pinchometer	01
	4	Dynamometer	01
	5	Isolated finger exerciser	01
	6	Grip exercisers	01
	7	Craw ford small part dexterity test	01
	8	Minnesota test of hand functions	01

Functional restoration & Assistive technology lab	Sr. No.	Equipment	Required Quantity
	1.	Functional assessment kit for ADL	01
	2.	Ergonomically devised adapted equipment for home, work place and leisure	01
	3.	Self-help adapted equipment	01
	4.	Wheelchair modifications	01
	5.	Mobility aids	04
	6.	Electrical Drill machine	01
	7.	Sewing Machine	01
	8.	Heat Bath	01
	9.	Splint Tools & material	01

Work assessment, simulation, and hardening lab: (Community-based and Industrial rehab)	Sr. No.	Equipment	Required Quantity
	1.	Tailoring equipment	01
	2.	Computer set	02
	3.	Driver rehab set	01
	4.	Work sample tests	01
	5.	staircase	01

Cognitive-perceptual lab & Sensory motor lab: (Neuro OT)	Sr. No.	Equipment	Required Quantity
	1.	Cognition & Perception Testing Batteries	01
	2.	Sensory Assessment Kits	01
	3.	Balance Assessment Tools	01
	4.	Neuro-therapeutic modalities	01
	5.	Stability Trainers	01

Psycho-social remedial lab: (OT for Mental Health)	Sr. No.	Equipment	Required Quantity
	1.	Reaction time machine	01
	2.	Tests for fine motor skills and motor accuracy	01
	3.	Psychomotor activities	01
	4.	Indoor and Outdoor Games	01
	5.	Cognitive Retraining activities	01

Developmental Therapy lab: (Pediatric OT)	Sr. No.	Equipment	Required Quantity
	1.	Cerebral Palsy Chairs	05
	2.	Floor Mats	04
	3.	Play types of equipment	Lots
	4.	Vestibular-Proprioceptive equipment	01
	5.	Puzzles/Books	Lots
	6.	Fine-motor Games	Lots
	7.	Art activities	Lots
	8.	Perception assessment tools	01

Cardiovascular Lab	Sr. No.	Equipment	Required Quantity
	1.	Basic tools of assessment for Cardio-pulmonary parameters	01
	2.	Bicycle Ergometer	01
	3.	Treadmill	01
	4.	Fat pad measurement tools	01
	5.	Spiro meter	01

General Equipment:	Sr. No.	Equipment	Required Quantity
	1.	Gonio meters	05
	2.	Wobble Board	02
	3.	Exercise mattress (Large)	02
	4.	Exercise Mattress (Small)	02
	5.	Wall Bar	01
	6.	Slings and ropes (suspension apparatus)	01
	7.	Parallel Bars	01
	8.	Medicine Balls	02
	9.	Tilt Table	01
	10.	Axillary crutches (Adult & Pediatrics)	02 each
	11.	Wheel chair (Big and Small)	02
	12.	Walker (Adult and Baby walker)	02 each
	13.	K-Walker (Adult and baby)	02 each
	14.	Shoulder ladder	02
	15.	Wrist roller	01
	16.	Static cycle /Bicycle fretsaw	02
	17.	X-ray viewer	01
	18.	Rowing machine	02
	19.	Elbow crutches	02
	20.	Mattress for mat exercise	02
	21.	Posture examining device	01
	22.	Pelvic level device	01
	23.	Pelvic traction kit	01
	26.	De-Lorme's Metal Weight Shoe	01
	27.	Shoulder pulley, ladder, wheel	01
	28.	Treadmill machine	01
	29.	Quadriceps springs	01
	30.	BP apparatus	01
	31.	Skinfold calipers	01

General Equipment:	Sr. No.	Equipment	Required Quantity
	32.	Walking stick adjustable	02
	33.	Tripod stick adjustable	02
	34.	Vestibular ball (cotton)	02
	35.	Torch	02
	36.	Tendon hammer	02
	37.	Handgrip dynamometer	01
	38.	Multi exerciser	01
	39.	Therapy roll 34 inches	01
	40.	Examination Table	05
	41	Weights	09 pairs
	43.	Weight bars with weight pans	2+2+2
	44.	Sand bags	10
	45.	Peak flow meter	01
	46.	Therabands	04
	47.	Full length mirror	01
	48.	Inclined & horizontal sand boards	05
	49.	Sand blocks, weights, and pulleys	05
	50.	Peak flow meter	01
	51.	Full length mirror	01

Table 3.7 Detail List of Tools & Equipment for OT Assessment & intervention as per Occupational Therapy sections

S. No.	List of Equipment (Paediatric Section including Sensory integration section)
1.	Baby bolster, small bolster, medium bolster
2.	Peanut & round therapy balls
3.	Small tilt board
4.	Benches- small & medium
5.	Mattresses -medium & Full size
6.	Baby wedge
7.	Large wedge
8.	Standing board - small
9.	Standing board - large
10.	Corner Seater - Tray Combination with Abduction Bar
11.	Walker - small
12.	Corner chair with adaptation of tray & abduction bar
13.	Trolley
14.	Therapy ball small, medium, and big
15.	Toys/rattles/puzzles/educational games/ Table top activities
16.	Exercise mats
17.	Bean Ball
18.	Ball Pool (without Balls)
19.	Ball Pool's Plastic Balls *500 no's
20.	Bean Bag
21.	Platform Swing with Adaptation Kit
22.	Flexion Disc
23.	Flying Trapeze
24.	Frog Swing
25.	Junior Nesti Benches
26.	Barrel

S. No.	List of Equipment (Paediatric Section including Sensory integration section)
27.	Vertical Bolster
28.	Scooter Board
29.	Sling Swing (Lycra with Net)
30.	Trampoline (Round)
31.	T Swing, Tube Swing & Platform swing
32.	Texture Fruits Tree
33.	Tower Ladder - Four Section
34.	Sensory mats
35.	Vibrator
36.	Baby swing
37.	Hammock swing
38.	Tunnel
39.	Weighted cuffs
40.	Trapeze Rod
41.	Tremble Ramp
42.	Posterior walker – small and medium
43.	Trampoline
44.	Sensory Garden (In the institute campus in the natural Environment)
45.	Auditory & visual sensory room
	List of Equipment (MSK/Neuro. /Hand /Cardio & Psychiatry section)
46.	Jamar Hand Dynamometer
47.	J-Tech (Tracker)
48.	Micro Fret
49.	Temperature Probe
50.	Monofilaments
51.	Goniometer
52.	Purdue Pegboard
53.	Crawford small part dexterity test

S. No.	List of Equipment (Paediatric Section including Sensory integration section)
54.	Jebson taylor hand function test
55.	Bennet hand tool
56.	O'Connor dexterity test
57.	Box & Block test
58.	Minnesota dexterity test
59.	Volumeter
60.	Finger circumferentiometer
61.	Deluxe pedal exerciser
62.	2 Speed Massager
63.	Magic band
64.	Thumb scissor
65.	Magnetic peg board
66.	Infra-red temperature scanner
67.	Wrist evaluation kit
68.	Splint dynamometer
69.	Colorimeter
70.	Wall mounted goniometer
71.	Arthrodiagonal protractor
72.	Vernier caliper
73.	Pneumatic squeeze dynamometer
74.	Weight discriminator
75.	Reaction time Machine
76.	Steadiness tester
77.	Tremor quantifier
78.	Moberg Pickup test
79.	Tuning fork set
80.	CPM set (
81.	Work hardening set

S. No.	List of Equipment (Paediatric Section including Sensory integration section)
82.	Stop watch
83.	Common splints, orthosis, and prosthesis & adaptive devices for UE, LE & Spine
84.	Tools & equipment for splinting
85.	Electrical hot water tub
86.	Electrical oven
87.	Materials for splinting like Aluminum sheets, High & low temperature plastics, padding & harnessing material etc.
88.	Hand exerciser
89.	Pronation supination board
90.	Quads chair
91.	Medicine balls
92.	Sanding units
93.	Ankle exerciser
94.	Spring balance
95.	Pedi cycle
96.	Bicycle Ergometer
97.	Peg boards – different types
98.	Rowing machine
99.	Finger ladder
100.	Shoulder wheel
101.	Depth perception board
102.	Clay / putty – different resistance
103.	Dumbbells – different weights
104.	Weigh cuffs – different weights
105.	Theraband – different resistance
106.	Wobble board
107.	Postural mirror
108.	Stethoscope
109.	Treadmill

S. No.	List of Equipment (Paediatric Section including Sensory integration section)
110.	Coarse blocks
111.	Jig saw puzzles (two piece to multiple pieces)
112.	Simulating activities for psychiatric patients
113.	Cervical & pelvic traction (Desirable)
	List of Equipment (Mobility)
114	Transfer boards
115.	Wheelchair – different types
116.	Walkers – different types
117.	Walking sticks
118.	Quadri pod, tripods
119.	Crutches – different types
120.	Dressing board
121.	Adapted kitchen wares
122.	Reacher
123	Mattresses

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Table 3.8 Community Occupational Therapy Laboratory:

Sr. No.	Items	No.
1	Weighing machine	Two
2	Baby weighing machine	Two
3	Skin fold caliper	4 sets
4	Goniometer	4 sets
5	Height measuring stand	Two
6	Vehicle for transport of students / interns and staff to community visits	One
7	Adaptive devise & some common splints	1 each



Table 3.9 Equipment for Skill Laboratory:

Sr. No.	Items	No.
1	Work Simulator	One set
2	Driving Simulator	One set
3	Mannequins	2
4	Virtual Reality station	1 set
5	Robotics	1 set
6	Adapted kitchen, washrooms, Home appliances & devices	One set of each
7	Equipment for additive & adductive Therapies	One each
8	Aqua pool	One
9	Proping Bed, Couch, Bandages, Tapes, Thera bands, spine boards, Bolsters, Mats	One set of each

***Skill Laboratory is mandatory for simulated training: The requirements of high-tech equipment for the skill laboratory may be filled in phases.**

Splinting material/tools: Brass Handle Scissor, Heat Gun, cutting Pliers, Nose Pliers, Bench Vice, Grinder, Drill Machine and Bit Set, Tin Cutter, Saw, Cast Steel Anvil, Mallet, Adjustable Projector Trolley, Files, Ball Pen Hammer, Water Bath, Wire Cutter, Riveting/Bending Rolling Tool, Small Heating Pan, Foot sewing Machine, Heavy Duty Shear, All-purpose Snip, Hole Punch, Centre Punch, Metal Scales, Aluminum sheets, Thermoplastic sheets, Adhesive & padding materials.

Assessment Tools: Sphygmomanometer, LOTCA, Biofeedback, Tuning Fork, Knee Hammer, Replacement Probe Hot/Cold, Visual Choice Reaction Inner, COPM Kit, Dyslexia Adult Screening Test, Movement ABC-2 Complete Set, CSPDT Complete Set, E- MOHO (CD- OPHI-II, CD – Educational Version), Evaluation Tool of Children's Handwriting, TVPS: R Kit, Weight Discrimination, Infant Toddler Sensory Profile, O'Conner Dexterity Test, DOTCA - CH, Touch Test Sensory Evaluation, BADS C-Kit, Berry Visuo-Motor Integration, TEA CHKIT, Children's Memory Scale Complete Kit

Furniture & Fixtures: Tables, Chairs (classroom/office), Cupboards, Pin- up Board, Notice Board, Treatment Plinth Low/ High, Revolving Stools, Lockers, Storage cabinet, Examination Table or couch, Screens, Foot Step, Stools, Biomedical Waste storage area

Teaching Aids: Skeleton and stand, X-ray lobby viewing box, Hand Splinting set, Orthosis set, Prosthesis Set, Adaptive Device Set.

3.10.3 Library:

Table 3.9 Library books

Item	Requirement
Text Books As per syllabus one copy of Book per 10 students per subject.	600-700
Reference books	300 Advanced Books As per requirement
Journals	At least four international and four national journals
Subscription to electronic data base/e- journals	Required
Mandatory Internet facility Access to e- library Equipment	Minimum 15 computer terminals for 60 students

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Table 3.9 DEPARTMENT LIBRARY

Text Books For issuing & Reference	Latest editions of all the books of all subjects (List of Recommended books given in syllabus)
	Adequate as per the number of student's intake capacity
Journals	<ul style="list-style-type: none"> ● Indian Journal of O.T ● American Journal of O.T ● Archives of Physical Medicine and Rehab. ● W.F.O.T Bulletin ● Australian journal of O.T ● Canadian Journal of OT ● British Journal of O.T <p>LIST OF ONLINE JOURNALS</p> <ul style="list-style-type: none"> ● Wiley, Lippincott online Journals ● BMJ JI. Collection (online) 29 Journals ● BMJ Case Report ● Acland Anatomy Database, Video ● Pediatric Care Online (PCO)
Audio Visual Facilities	LCD projector

3.10.4 Human Resource Requirements

1. **Occupational Therapy faculty [core]:** Minimum basic qualification and teaching experience required for teachers as mentioned in chapter 3 Table 2

2. **Teachers of pre, para and clinical/medical subjects:**

Table 3.10 Visiting Faculty

S. No.	Topic
1	Anatomy
2	Physiology
3	Biochemistry
4	Psychology
5	Sociology
6	Pharmacology
7	Medicine
8	Pediatrics
9	General surgery
10	Neurology
11	Psychiatry
12	Orthopedics
13	Obstetrics & Gynecology
14	PSM
15	Cardiology
16	ENT
17	Plastic surgery
18	Ophthalmology
19	Biostatistics

Teachers of Specialty Medical Subjects:

These Teachers should be necessarily Post Graduates in specialty Subjects preferably attached to NMC Recognized Medical College. These teachers can be part-time or external teachers. A photo declaration should be given by part-time teachers indicating their willingness to work at the said Institution and declaration of working with other colleges.

*** It is recommended to have Biometric Attendance of all staff.

The qualifications of

- a. Anatomy, Physiology, Biochemistry, Pathology, Microbiology, Pharmacology Orthopaedics, General Medicine, General Surgery, Neurology, Neurosurgery, , Pediatrics, Obstetrics and gynecology, Cardiology, Cardiac surgery, Plastic surgery, MD/MS/ MSc,/PhD./DM/M.Ch. in respective specialty
- b. Prosthetics and orthotics, Psychology & Sociology, Biostatistics – post graduate with 55% marks in respective specialty (subject) having knowledge of English, Computer Applications in depth.
- c. *Staff for pre-clinical/ Para clinical, clinical/Medical Subjects can be appointed on fulltime or part time basis as guest/part time faculty

3. Staffing Pattern – Teaching & Non-Teaching Staff

It is recommended that a core faculty and student ratio of 1:3 for PG and for UG 1:10 to be followed.

The size of student intake should be in proportion to the number of OT faculties (10:1)

Note :- Each faculty should not take more than (02) lectures per day

Qualification & Experience of Staff in the Occupational Therapy Course: -

As per UGC Regulation on Minimum Qualification for appointment of teachers and other Academic Staff in Universities and Colleges

**Table 3.11 Required core Occupational Therapy teaching staff
(Core faculty) for BOT program
(Ratio of teacher to student 1: 10 should be maintained)**

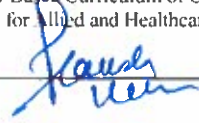
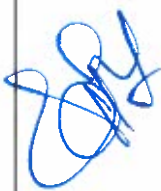
Intake capacity	Post	No. of posts in the start of 1st year of BOT	No. of posts in the start of 2nd year of BOT	No. of posts in the start of 3 rd year of BOT	No. of posts in the start of 4 th year of BOT
30	Professor & Principal/ Dean	1	1	1	1
	Professor	--	--	--	1
	Associate Professor	1	1	2	2
	Assistant Professor	1	4	6	8
Total no of posts		3	6	9	12
60	Professor & Principal/ Dean	1	1	1	1
	Professor	--	--	1	2
	Associate Professor	2	3	4	6
	Assistant Professor	3	8	12	15
Total No of Posts		6	12	18	24
100	Professor & Principal/Dean	1	1	1	1
	Professor	1	1	2	3
	Associate Professor	2	4	6	8
	Assistant Professor	6	14	21	28
Total no of posts		10	20	30	40

Ref: *Eligibility, minimum qualification for teachers and staffing pattern in Occupational Therapy college Maharashtra regulation 2020. (MAHARASHTRA STATE COUNCIL FOR OCCUPATIONAL THERAPY AND PHYSIOTHERAPY, MUMBAI).

Adjunct and Visiting Faculty: Institutions may appoint additional Faculty Members from abroad with equivalent qualifications as Adjunct or Visiting Faculty on part time basis

Table 3.12 Nonteaching staff:

Sr. No	Posts	Number
1	Clinical Occupational Therapist	6
2	Librarian	1
3	Asst. Librarian	1
4	Office Superintendent	1
5	Accountant	1
6	Office Assistant Clerk	1
7	Lab Attendants	4
8	Peon/Sweepers/Cleaners	as per the requirement



Chapter 4:

Competency Based Curriculum of Occupational Therapy

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4.24 Master of Occupational therapy (MOT)

Introduction

- Master of occupational Therapy (MOT) is a full time (ON CAMPUS) Two years course with compulsory clinical field work.
- A student is assigned a Guide recognised by the University for the Selected Specialty. The compulsory dissertation commences with presenting the original research protocol in front of the Departmental Review Board and with its approval it is evaluated and passed by the Institutional Ethics Committee and then submitted to the University for Final Approval of the synopsis.
- The student along with Clinical, Para-clinical, supervisory, administrative, and micro-teaching must finish the collection of data, analysis and writing the dissertation three months prior to final year examination.
- The student is eligible to appear for the final exam at the end of two years, after submission and approval of dissertation by University.
- The entire post graduate activity is documented as logbook to be compulsorily submitted for eligibility to appear for exams at the end of each year.
- Completion of the Research Methodology and Teaching Technology workshop is desirable.
- The MOT degree is conferred after passing all the theory exams and practical exams.

4.24.1 Course Objective

At the end of two years of full-time Master's Course in Occupational Therapy, Student will be able to apply clinical knowledge, plan-implement-execute-appraise Occupational Therapy intervention, have aptitude to conduct research, get trained as a teacher, learn supervising skills and take administrative roles. The course aims to make a MOT student a professional of finest clinical and managerial skills to be specialized in the subject opted.

- The student will be trained in specifics and advanced therapeutic processes pertaining to the diagnosis and management of the respective specialty and allied subjects.

- The student will be able to perform critical evaluation of Occupational Therapy and related medical science literature for adopting new theories and technologies in Occupational Therapy diagnostic and therapeutic procedure.
- The student will be able to implement Evidence based interventions and periodically update knowledge and translate into everyday clinical practice.
- The students will be able to implement a transition program for patients from acute care to community integration.
- The students will be able to ethically abide by the rights of the patients and maintain high standards of good clinical practice.
- The Student will be able to design and conduct an original research study in the field of their respective specialty subject.
- The student will be able to execute administrative skills of organising, co-ordinating and documenting various post graduate activities
- The student will be able to use the latest technology for presentation skills, intervention and documentation
- The student will be proficient in communication with Authorities, Colleagues, co-professionals, patients, and their care givers
- The students should be able to project the Occupational Therapy process and outcomes, amidst the co-professional team members.
- The student will be able to conduct a micro teaching class for undergraduate students
- The student will be able to supervise clinical and practical demonstrations of undergraduate students

4.24.2 Aims of the course

By the end of the course, the student should have acquired knowledge (cognitive domain), professionalism (affective domain) and skills (psychomotor domain) as given below:

A. Cognitive Domain

- Clinical History taking, Functional Diagnosis and reasoning
- Use of relevant test batteries and their interpretation
- Planning appropriate treatment and discharge

- Update knowledge base
- Teach and Supervise UG students
- Conduct research studies, present, and publish research articles

B. Psychomotor Domain

- To implement various approaches, techniques, design and fabricate orthosis, adapt and modify environment
- Create individualized, Innovative and client centered treatment methods and adaptations for patient.
- To understand the dynamic interaction of various medical interventions for the client on the overall outcome of the disease

C. Affective Domain

- Adhere to the institutional ethics at work and maintain the professional conduct
- Empathetic behavior with patients and their relatives
- Respect patient rights, privilege and occupational justice
- Empowerment and participation of patient and their care givers in the therapeutic process
- Develop Communication skills with colleagues
- Respect and accept teamwork

4.24.3 Expectation from the future post graduate in providing patient care.

1. Course work includes advanced knowledge and skills related to the respective branch of specialty.
2. Acquire in-depth knowledge of structure and function of human body related to the respective branch of specialty.
3. Acquire the in-depth knowledge of movement dysfunction of human body, cause thereof principles underlying the use of occupational therapy interventions for restoring movement dysfunction towards normalcy.
4. Demonstrate skill in Physical & Functional diagnosis pertaining to patient under his/her care.
5. Demonstrate ability to critically appraise recent primary, secondary literature from journals & adopt diagnostic & therapeutic procedures based on it.
6. The student will also perform independent research within the department and help the department and the team for treatment planning of the patient.

7. Demonstrate ability to make clinical decision (based on evaluation) regarding Occupational therapy strategy techniques and select appropriate outcome measures based on the comprehensive knowledge of specialty.
8. Demonstrate an expertise in evidence-based skill in the management disorders including movement and functional dysfunction in concerned specialty.
9. Demonstrate an expertise in health promotion, early identification and intervention for quality restoration of function.
10. Planning and implementation of treatment programme adequately and appropriately for all clinical conditions common as well as rare related to respective specialty in acute and chronic stage, various situation and places related to the specialty.
11. Demonstrate proficiency in creating awareness using newer technology, at various levels in community for healthcare & professional awareness.
12. Demonstrate leadership, managerial, administrative & communication skills.
13. Demonstrate the knowledge of legislation applicable to compensation for functional disability welfare schemes & rights of the disabled, laws related to industrial workers & disabled & appropriate certification.
14. Demonstrate proficiency in classroom and clinical teaching using newer and appropriate technology.

4.24.4 Scope of Training:

Course is intended to prepare candidates for responsibilities in position of **Specialized practitioner:** MOT student will be able to provide quality occupational therapy services, including evaluation, intervention, program planning and implementation, discharge planning-related documentation, and communication. Service provision may include direct, monitored, and consultative approaches.

Researcher: MOT student will be able to design and conduct a research in the field of any subject (specialty). A MOT student will also be able to read, understand and critically review the research literature published in the journals, newsletters, and test manuals.

Teacher: MOT student will be able to Design and conduct educational sessions for undergraduate students imparting theoretical and clinical knowledge.

Supervisor: MOT student will be able to establish a dynamic teaching learning relationship and educational process which will serve as the bridge between previously learnt knowledge and clinical skills through experiential process.

Administrator: MOT student will be able to plan, organize, direct and control departmental and institutional activities, events, programs, and various Occupational Therapy services

Consultant: MOT student will be able to give an expert opinion or information on organizational, program development, supervisory, or clinical issues or any combination of these to the person/organization seeking the Occupational Therapy services

4.24.5 Description of Course

Duration of Course:

Master of Occupational Therapy (MOT) shall be full time, (compulsory ON CAMPUS) course with duration of two academic years

Total teaching hours per academic year: 1560 Hrs. (Total= 3120 Hrs. for 2 years) 39 hrs per week (39 hr /week x 40 weeks)

Academic training, excluding internal and University examination, extracurricular activities, Public Holidays, and Vacation

Medium of instruction:

English shall be the medium of instruction for all the subjects of study and for examination of the course.

Stipend: It is mandatory that the MOT students will get stipend for their academic year at par with NMC guidelines.

Proposed specialities in Master of Occupational Therapy

1. Master of Occupational Therapy in Musculoskeletal sciences – MOT (MSK)
2. Master of Occupational Therapy in Paediatrics & Neonatology- MOT (P&N)
3. Master of Occupational Therapy in Neurosciences – MOT (NEURO)
4. Master of Occupational Therapy in Mental Health – MOT (MH)
5. Master of Occupational Therapy in Cardiovascular & Pulmonary Sciences- MOT (CVPS)



6. Master of Occupational Therapy in Rehabilitation – MOT (REHAB)
7. Master of Occupational Therapy in Geriatrics - MOT (GR)
8. Master of Occupational Therapy in Hand –MOT (Hand)
9. Master of Occupational Therapy in Oncological Sciences- MOT(ONCO)

4.24.6 Overview of Proposed Courses in MOT

First Year MOT (MOT- I)

First Year of MOT will have Four Courses. Out of which three courses (MOT 101, 102 & 103) would be common to all specialities, one Course (MOT 104) would be a speciality paper

Continuing Internal Assessment (CIA): Would be inclusive of Journal Club: Presentation of reviewed published articles, Critiquing assessment, Critiquing analysis, case presentations, microteaching, seminar, topic presentations, seminars & etc.

Nomenclature of each Course of MOT -I

MOT 101: Ethics, Management and Educational Technology in Occupational Therapy Practice

MOT 102: Research Methodology & Biostatistics

MOT 103: Advanced clinical foundation in Occupational Therapy practice

MOT 104: Specialty Paper 1

Basic Medical Sciences & Theoretical foundation in Occupational Therapy for (specialty subject) e.g. Pediatrics & Neonatology.

CIA: Journal Club: Presentation of reviewed published articles, Critiquing assessment, Critiquing analysis, case presentations, microteaching, seminar, topic presentations, seminars, Instrument presentation & etc.

Second Year MOT (MOT- II)

Second year of Masters in Occupational Therapy would have total of Four courses, out of which three courses (MOT 201, 202 & 203) would be proposed speciality papers,

MOT-204: Dissertation

Nomenclature of each Subjects/ Courses of MOT -II MOT 201: Specialty paper 2

Advanced Occupational Therapy Diagnostic & Prognostic skills in (specialty subject) e.g. Paediatrics & Neonatology

MOT 202: Specialty Paper 3

Advanced Occupational Therapy process & practice in (specialty subject) e.g. Paediatrics & Neonatology

MOT 203: Specialty paper 4

Current & Future Trends in Occupational Therapy Practice in Speciality e.g. Paediatrics & Neonatology

MOT 204: Dissertation

4.25. 7 Eligibility for admission:

1. The candidate should have passed the Bachelor of Occupational therapy from a regular, on campus course, recognized by NCAHP with pass marks (50%). He /She should have appeared in CUET-PG test/ Any similar tests conducted by Central or State Govt./University Any other test as recognized by NCAHP.
2. Candidate must furnish a certificate of physical fitness from a registered medical practitioner and two references from persons other than relatives testifying to satisfactory general character at the time of submission of application form.
 - a. No candidate will be admitted on any ground unless he/she has appeared in the admission test and interview.
 - b. Entrance test, to be conducted by the university as per the syllabus.
 - c. Successful candidates on the basis of written test will be called for the interview & shall have face an interview board. The interview board will include the Head of the Department of Occupational therapy (Chairman of the Board) and other members as per the policy of institute/ university, whose recommendations shall be final for the selection of the candidates.
 - d. During subsequent counselling (s) the seat will be allotted as per the merit of the candidate depending on the availability of seats on that particular day.

- e. Candidate who fails to attend the Medical Examination on the notified date(s) will forfeit the claim for admission and placement in the waiting list except permitted by the competent authority under special circumstances.
- f. The name of the student(s) who remain(s) absent from classes for more than 15 days at a stretch after joining the said course will be struck off from the college rolls without giving any notice.

4.25.8 Intake of students

The guide to student's ratio shall be 1:3 for admission in first year MOT and cannot be extended in any case. The intake of students to the course shall be at the starting of academic year only. Maximum number of seats in each MOT Speciality would be 12.

4.25.9 Guide

a) Qualification of Guide:

- The academic qualification and teaching experience required for recognition as guide is Masters in Occupational Therapy (MOT) with 5 years of teaching experience post MOT.
- Students cannot be left without guide for more than 3 months total during their post- graduation study. (i.e. in the event of resignation of guide college

Should appoint the guide within 3 months as per the essential criteria of guide) or as prescribed by University/Government.

b) Change of Guide

In case of registered guide leaving the college for any reason or in case of death of guide, guide may be changed with prior permission from the university but as per the mentioned guideline here before. For benefit of students, services of visiting faculty can be utilized, but these faculty members will not be counted in the PG teachers and they cannot register candidates.

4.25. 10 Methods of training

The training of postgraduate for MOT degree shall be on a full-time pattern with graded responsibilities in the management and treatment of patients entrusted to his / her care. Acquisition of practical competencies being the keystone of post graduate medical education, post graduate training should be skills oriented. Learning in post graduate programme should be essentially self-directed and primarily emanating from clinical and academic work. The formal sessions are merely meant to supplement this core effort

The participation of all the students in all facets of educational process is essential:

- a) Every candidate should participate in seminars, group discussions, clinical rounds, case presentations, clinics, journal review meetings, national/ international conferences & COTE, .
- b) Every candidate should be required to participate in the teaching and training programs of undergraduate students. Training should include involvement in laboratory experimental work and research studies
- c) **Formal teaching sessions [minimum]**

At least 4-hrs of formal teaching per week per subject is necessary. The departments may select a mix of the following sessions:

- Journal club : Once a week
- Seminar/ lecture/ Micro teaching: Once a week
- Case discussions: Twice a week
- Interdepartmental case or seminar: Once a week

d) Graded responsibility in the care of patients and operative work
(Structured Training Schedule of clinical & speciality subjects only)

- Clinical work: Record to be maintained in the log book (No. of patients every week in Both years of MOT)
- Observes
- Assisted a senior Occupational therapist
- Performed procedure under the direct supervision of a senior specialist wherever necessary
- Performed Independently

● **Other Activities:**

- Teaching Activities – Teaching UG student
- Learning Activities: Self Learning, Use of computers & library
- Participation in departmental activities;
- Clinical presentation
- Special clinics
- Inter departmental meetings
- Community work, camps / field visits
- Clinical rounds
- Dissertation work
- Participation in conferences/ presentation of paper -Minimum 2 in two years
- Any other – Continuing Occupational Therapy Education (COTE)

e) **Clinical Assignments**

- Mandatory clinical fieldwork is inclusive of management of patients in intensive care unit, acute care set up, out-patient department and community.
- Each clinical assignment will be for a period of 2 months.
- Assignments for MOT I will be related to general & speciality allied conditions (Medicine, Surgery, Psychiatry, OPD, Orthopaedics)
- Assignments for MOT II will be of speciality subject.
- Rotation and posting in other departments for a maximum of 6 months, the candidate must spend 18 months in the department concerned of specialty & its allied subjects

f) **Logbook**

Logbook is the document of reflective writing which must be maintained by MOT student throughout the two years of the course. A logbook contains the record of performance in the clinical postings, micro teaching, case presentations, group discussions and seminar evaluated by the recognised Post graduate teachers. A logbook also reflects candidate's participation in co-curricular activities like workshops, seminars, conferences, Continued Occupational Therapy Education, and community services (Annexure).

g) Attendance:

A candidate will be permitted to appear for the University Examination if he/she secures not less than 85% of attendance in the number of instructional days/practical at hospitals during the academic year, failing which he/she should complete the number of days/hours before appearing for the final examination conducted by the university.

4.25.11 Dissertation

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.

A) 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.

B) 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

4.25.12 Assessment:

It is essential to monitor the learning progress of each candidate through continuous appraisal and regular assessment. It not only helps teachers to evaluate students, but also students to evaluate themselves. The monitoring is done by the faculty of the department based on participation of students in various teaching / learning activities.

The assessment will be comprised of Formative and summative-

CIA (IA)/ Formative assessment

- 1) MOT Student will be evaluated based on assessment of PG activities of clinical assignments, case presentations, microteaching, seminar, topic presentations.

It may be structured and assessment be done using checklists that assess various aspects.

- Theory, Seminars, recent advances, Open discussion, Micro teaching, quiz, Viva.
- Practical, clinical rounds and bed side evaluation & application.
- Journal club: article presentation, critiquing assessment & analysis
- Case presentation, discussion and clinical conference.
- Patient based /Laboratory or Skill based learning
- Self directed learning and teaching
- Departmental and interdepartmental learning activity
- External and Outreach Activities.

- 2) The College may conduct periodic tests/Class Assignments from time to time as per their feasibility as a part of CIA.
- 3) Records and marks obtained in all above CIAs will be maintained by the Head of Department which should be provided to the university as & when required.
- 4) The CIA marks will not be added in the university exams but will only be reflected in the final mark sheet provided by the university.

Eligibility to appear in the University examinations:

- a) Average of all CIA will be considered for eligibility to appear in final Examination with minimum 50% scoring
- b) Submission of dissertation 3 months before the Final year university exams
- c) Maintenance of log book for both years signed by respective faculty & finally approved by HOD & to be submitted during final Examination.

Summative Assessment

Theory Examination: There will be university examination at the end of each year

Clinical/Practical /Viva Voce examination

Practical examination shall be conducted at the end of first & second year by a panel of 2 examiners out of which one should be from another university.

Dissertation: To be examined at the end of 2nd year of MOT

Student shall make a 15minute presentation of dissertation followed by 10minute question answer by examiners.

Marks to be awarded separately by each examiner and an average shall be taken as the final marks awarded to the student in both practical as well as dissertation.

4.25.13 Examiners:

- Postgraduate teacher in Occupational therapy having a minimum of five years of teaching experience from recognized Occupational therapy college will be eligible to be the examiner.
- In case of non-availability of the post graduate faculty as an external examiner from other OT colleges then the non-teaching/Clinical occupational therapist having minimum five years of experience after MOT in respective specialty may be considered (valid only for first 3 years from the publication of these guidelines)

4.25.14 University Examination Pattern

University Examination: There will be university examination at the end of every year

Written Examination:

Theory: Each paper will be of 3 hours duration

CIA marks will be given in each course on skill acquisition and refinement pertaining to the course.

Maximum mark of CIA is fifty marks (50). Student must secure 50% of CIA to be eligible for appearing University examination.

Max. Marks: 100 each paper

MOT I: MOT 101, 102 & 103 Common for all specialties

MOT 104 is for respective specialty

Practical: Clinical Presentation: 100 Marks

Clinical Presentation : Marks should be awarded on the basis of Approach, Knowledge, Demonstration & Discussion

1. **Clinical Presentation 1:** There shall be one clinical presentation based on Advanced clinical foundation skills:
 - Short case -50 Marks
2. **Spots-** 30 Marks
3. **Viva Voce on short case:** 20 Marks

MOT Ist Year

Theory Marks	Practical Marks	Total Marks
400	100	500

SAMPLE OF THEORY QUESTION PAPER PATTERN FOR UNIVERSITY EXAMINATIONS

End of Year Examination (EYE) Theory		
Pattern & Choices	Marks	Total Marks
Short essay questions 7 out of 8	7 x 10	70
Essay question 2 out of 3	2 x 15	30
Total		100

MOT II: Speciality subjects: MOT 201, 202, 203 Theory: Each paper will be of 3 hours duration **Max. Marks:** 100 for each Paper.

***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**

- a) **Short case assessment - 50 Marks** (Actual demonstration of assessment tool) & viva Voce – 20 marks
- b) **Spots- 30 Marks**

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-**

- i) **Assessment: 20 Marks**
- ii) **SMART Goals: 25 Marks**
- iii) **Treatment Planning (Evidence Based): 25 Marks**
- iv) **Performance of direct handling of patients on interventional approaches on speciality condition should be considered) -30 marks**

Dissertation: 100 Marks

Presentation -50

Viva voce on dissertation: 50

MOT IInd Year

Theory Marks	Practical Marks	Dissertation Marks	Total Marks
300	200	100	600

Sample Schema for type of CIA Master of Occupational Therapy Program			
Core Theory / Discipline Specific Specialty Courses			
Seminar/Journal club/Creativity exercise / Review & Assignment /Periodic tests		Attendance 90%	Total
PRACTICAL COURSE (MOT-I)			
(W: 25) Record Book/ Observation Book/ Log Book	(W: 25) Practical skills/ Case presentation /clinical work	90 %	W: 50
PRACTICAL COURSE (MOT-II)			
(W: 50) Lesson Plan /Teaching Learning Materials/ preparation of Evaluation materials/ Teaching Log Book	(W: 50) Assessment of Teaching Skills/ Demonstration/ Lecture cum discussion / Panel Discussion	90 %	W:100
Clinical Rotations (CR)			
(W: 50) Clinical Cases Log Book/ Report	(W: 50) Assessment of Skills	90 %	W:100

Criteria for Promotion from 1st MOT to 2nd MOT

MOT First Year

If a student fails in any subject in MOT I then he can be allowed to appear in the supplementary examination. The Student can however be allowed to continue classes and postings of Second Year till the time of appearing for supplementary examination. If the candidate fails in the supplementary examination too, he/she has to appear these papers at the end of Second Year MOT along with other Papers of Second Year MOT. If the eligible candidate due to any reason is unable to appear in the first year MOT University examinations, then based upon special permission from the university, he may be allowed to appear in the supplementary examination. If the candidate fails in the supplementary examination then he will be allowed to continue classes and postings of Second Year till the time of appearing for next university examination. If the candidate fails in this examination too, then he/she has to appear these papers at the end of Second Year MOT along with other Papers of Second Year MOT.

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MOT Second Year

If student fails in any of the subjects, then he/she can be allowed to appear in the intermediate examination (of 2nd MOT) to be held within 6 months. She/he can reappear in the subsequent university examination till the maximum number of 6 attempts/Course completion time as prescribed by the University.

4.25.15 Essential Requirements for MOT Institution

Occupational therapy Post Graduate education prepares a person for independent practice in Specialties and involves extensive clinical training in almost every specialty and super specialty of modern medicine. Henceforth, new Post Graduate Occupational therapy College/institute can only be established in NMC recognized medical college. Notwithstanding New Occupational Therapy College to be started in NMC recognized medical college will need to fulfil all the essential requirement as following. However the institute may share common facilities, faculties and infrastructure with the medical college.

All existing occupational therapy colleges/ institute will continue to impart occupational therapy education provided that following conditions are fulfilled:

Eligibility

- a) Any government /Private/ Self Financing Educational Trust/Charitable Trust/Society/Company registered under the relevant Act, applicant will be eligible to apply.
- b. College should be running BOT programme for last 5 years
- c. Standalone MOT programme can be started in institutions having NMC approved medical college and are willing to share its facilities for the teaching and research of MOT students.
- d. Stand alone MOT programme can also be started by the institutes of national importance and institution of eminence in their campus if they are running postgraduate programme in other disciplines of healthcare.
- e. Stand alone MOT programme should be approved by State Allied & Health Care Commission.

Physical infrastructure

Whole campus should be accessible for persons with disabilities.

Land and space requirement

There shall be no separate land required for starting MOT course subject to fulfilment of eligibility criteria to start the MOT programme. However the essential requirements in terms of physical infrastructure, Manpower as given below must be furnished

- 1) Rooms for faculty [per specialty]
 - a. Professor 1
 - b. Associate professor 1
 - c. Assistant professor 2
- 2) Common room for students
 - a) Toilets for men
 - b) Toilet for women Classroom - 02 rooms of 400 sq.ft. (each).
- 3) Laboratory - each specialty lab shall have area of 800 sq.ft. area

The laboratories should be provided with the mandatory equipment as specified under equipment requirements of specialties.

Standalone MOT institute must have all the Occupational Therapy laboratories (with atleast one equipment of each category as mentioned for BOT Program)

Staff Requirement (Student faculty ratio)

Professor	3:1
Assoc. Prof	3:1
Asst. Prof	3:1

Minimum Equipment requirements for MOT specialties

Fully equipped **Occupational Therapy** labs (Functional restorative & Assistive technology lab, Work assessment, simulation, and hardening lab, Cognitive-perceptual lab & Sensory motor lab) are mandatory for master of occupational therapy programs. For each post graduate speciality of occupational therapy (MOT) program fully equipped corresponding department for undergraduate occupational therapy (BOT) program is mandatory. If the institute is offering BOT then same lab and infra structure may be used for MOT programs in addition to following program specific list.

“List of equipment for Master in Occupational Therapy”

In addition to the equipment for assessment & intervention listed in BOT syllabus as per various areas of occupational therapy specialties.

M.O.T. (Musculoskeletal Sciences & Hand)

List of Equipment

- Electronic Goniometer
- Dynamometer
- Hand Evaluation Kit,
- Biofeedback unit with facility EMG unit with integrated analysis software provided,
- Video camera and player for movement analysis,
- Isokinetic Unit,
- Motion Analysis system,
- Sensory Re-education kit,
- Gait analyzer
- Driving evaluation and simulator
- Work Simulator
- Work hardening
- Ergo-bicycle
- Tilt table
- CPM Upper Extremity
- Aqua pool/ Hydro therapy unit

- Virtual Reality for Upper extremity functions, balance, eye hand coordination & cognition
- Antigravity treadmill
- Virtual reality treadmill
- Robotics- Desirable
- Appropriate standardized tools as defined in Syllabus of MOT paper 201

M.O.T. (Pediatrics & Neonatology)

List of Equipment

- Sensory Garden
- Sensory Park
- Sensory mats
- Trapeze
- Rock climbing wall
- Tactile path
- Ball pool
- Slide
- Barrel
- Rainbow arch
- Balance beam
- Tactile disc
- scooter board
- various tactile textured activities
- Sensory tunnel
- Lycra hammock
- Balancing bridge
- Tactile sensory wall activities
- Sensory mats
- Rope Ladder (2 to 4 segments)
- Baby tactile path
- Appropriate Standardized assessment tools as defined in Syllabus of MOT paper 201

M.O.T. (Neurosciences)

List of Equipment

- Functional Electrical stimulation
- Neuro-muscular stimulation.
- Transcranial Magnetic stimulation device
- Biofeedback unit with the facility to do quantitative analysis and therapy
- Balance boards / Beam
- Sensory Reeducation kit
- Gait Analyzer
- Motion Analyzer is desirable
- Isokinetic unit
- Driving evaluation and simulator
- Work simulator & Work hardening unit
- Ergometer / Ergo-bicycle
- Aqua pool/ Hydro therapy unit
- Virtual Reality unit for Upper extremity functions, balance, eye hand coordination & cognition
- Antigravity treadmill
- Virtual reality treadmill
- Robotics- Desirable
- Appropriate standardized tools as defined in Syllabus of MOT paper 201

MOT (Cardiopulmonary)

List of Equipment

- Treadmill
- Ergo Bicycle with arm and leg unit
- Spirometer Portable.
- Peak Flow meters.
- Body Composition Analyzer.
- Energy consumption analyzer is desirable.

- Mannequin for CPR training.
- ECG Machine
- Appropriate standardized tools as defined in Syllabus of MOT paper 201

MOT (Mental Health)

List of Equipment

- Reaction Time Machine
- Computer based cognitive therapy unit
- Tread mill
- Ergo cycle
- Vestibular & Proprioceptive equipment
- Biofeedback
- Virtual reality unit
- Set of items used in Mindfulness
- Music System
- Standardized scales and tools to be used for learning and Spotters - each of tools as mentioned in the syllabus of MOT paper 201

MOT (Oncology)

List of Equipment:

- Equipment as mentioned in BOT & MOT (Musculoskeletal & Neurosciences)
- Pneumatic compression therapy unit with accessories for both upper and lower limbs
- Dumbbells set/Thera bands/Thera tubes
- Play activities for children for Gross motor & fine motor functions
- Therapy ball
- Low Benches/ stools/chairs/Mattresses
- Sensory Kit
- Small Bicycle
- Light weight medicine balls
- Appropriate standardized tools as defined in Syllabus of MOT paper 201

MOT (Geriatrics)

- Appropriate equipment as listed in MOT (Musculoskeletal science, Neuro science, Mental Health)
- Appropriate standardized tools as defined in Syllabus of MOT paper 201

Library:

In addition to books requirement for undergraduate teaching additional adequate reference

books to cater to the post graduate studies should be provided. Minimum 5 indexed international journals should be provided for with additional journal in each elective area/specialty. In addition, reference books, Audio visual facility, Slide projector, Computer, Internet facility is to be provided.

Clinical Facilities:

If the course is in the premises of NMC permitted/recognized Medical College as constituent college, there is no requirement for attachment of any other hospital or else Memorandum of Understanding for clinical training should be made with specialty hospitals having the specialty of Musculoskeletal/ Trauma Units, Neurology/ Neurosurgery, Oncology, Geriatrics, Cardio Pulmonary unit with intensive care facilities, Paediatrics & Neonatology, Community Occupational therapy and Sports unit. In either case each teaching unit shall accommodate 6 PG students only. Both training on in-door as well as outdoor patients should be provided.

Human resource requirement Teaching Faculty each Specialty

Professor 1

Associate professor 1

Assistant professor 2

Maximum number of students admitted for Master's program should be 3 in each specialty every year.

Services of visiting faculty can be utilized, but these faculty members will not be counted as the PG teachers and they cannot register candidates.

Non-teaching staff

Office superintendent/ assistant 1 Computer operator 1

Lab assistant / demonstrator - BOT 1



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4.25.16 Syllabus of Master of Occupational Therapy & Distribution of teaching hours, credits & University Examination Marks

MOT 1: Distribution of teaching hours, credits & University Examination Marks

Subjects	Total teaching hours -1560			Credits			Total Credits	Marks Distribution
	Theory/ Tutorials	Practical/ demo/lab work	Clinical	Theory	Practical/ demo/lab work	Clinical	62	Total No of Marks 500
MOT101 (Common Paper) Ethics, Management and Educational Technology in Occupational Therapy Practice	90			06			06	Theory -100
MOT102 (Common Paper) Research Methodology & Biostatistics	60	30		04	01		05	Theory -100
MOT 103 (Common Paper) Advanced clinical foundation in Occupational Therapy practice	90	90		06	03		09	Theory-100 Practical 100
MOT 104 (Speciality Paper 1) Basic Medical Sciences & Theoretical foundation of Occupational Therapy in speciality	60	30		04	01		05	Theory-100
Skills acquisition and refinement (Teaching Assignment, seminars , journal club & Case presentation etc.)		240			08		08	CIA only

Subjects	Total teaching hours -1560			Credits			Total Credits	Marks Distribution
	Theory/ Tutorials	Practical/ demo/lab work	Clinical	Theory	Practical/ demo/lab work	Clinical	62	Total No of Marks 500
Dissertation (to be continued in 2 nd year MOT)			360			12	12	
Clinical training/Field work			510			17	17	
Total teaching hours (1560) & Total credits (62)	300	390	870	20	13	29	62	

MOT II: Distribution of teaching hours, credits & University Examination Marks

Subjects	Total teaching hours - 1560			Credits			Total Credits	Marks Distribution
	Theory/ Tutorials	Practical/ demo/lab work	Clinical	Theory	Practical/ demo/ lab work	Clinical	60	Total No of Marks 500
MOT201 (Specialty Paper 2) Advanced Occupational Therapy Diagnostic & Prognostic skills in speciality	90	90		6	03		09	Theory -100 Practical-100
MOT202 (Specialty paper 3) Advanced Occupational Therapy process & practice in speciality	90	90		6	03		09	Theory -100 Practical-100

Subjects	Total teaching hours - 1560			Credits			Total Credits	Marks Distribution
	Theory/Tutorials	Practical/demo/lab work	Clinical	Theory	Practical/demo/lab work	Clinical	60	Total No of Marks 500
MOT 203 (Specialty paper 4) Current & Future Trends in OT for specialty subject	60	30		4	01		05	Theory-100
MOT 204 (Dissertation)			360			12	12	Practical-100
Skills acquisition and refinement (Teaching Assignment, seminars, journal club & Case presentation etc.)		240			08		08	CIA only
Clinical training /Field work			510			17	17	
Total teaching hours (1560) & Total credits (60)	240	450	870	16	15	29	60	

Master in Occupational Therapy (MOT)

MOT 101: Administration, Ethics & Educational Technology in Occupational Therapy

Course Description - 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.

Objectives (competency statements): The objectives of this course are:

1. To know the procedure for setting up the OT department/clinic in Govt. & private institutes/ hospitals/Organisations
2. To learn managerial skills for smooth learning of the department/Organisation/Institute
3. To understand the quality assurance & provision of various services.
4. To familiar with the financial & budgetary management of the OT dept./Institute
5. To understand the changing perspectives and ideological approaches to the rehabilitation of persons with disability
6. 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
7. To enhance the potential of the Occupational Therapist to become effective communicators especially in the context of education
8. To understand disability, concepts and models of disability
9. To study Disability Evaluation, Assessment and Medical Certification.

10. To know about the UNCRPD, Major Legal Provisions, Human Rights and Civil Rights for Persons with Disabilities.
11. To study the role of government organizations, NGOs and international organizations in providing services to disabled persons
12. To identify the role of occupational therapists in advocacy for influencing policy formulation, implementation and evaluation

Expected Outcomes:

1. Define disability and explain the concepts and models of disability
2. Illustrate the Disability Evaluation, Assessment and Medical Certification for Persons with Disabilities
3. State various legislations, supporting legislations and supporting services for Persons with Disabilities.

Content

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

1. 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

2. Use of Information & Communication Technology (ICT) in Occupational Therapy

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

4. Professional development of teachers

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

5. Concepts of teaching & learning

- Meaning, need & scope of educational psychology
- Meaning & relationship between teaching & learning
- Learning theories
- Dynamics of behaviour
- Individual differences

6. 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

7. 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

8. Teaching aids: Types, Principles of selection, preparation & use of audio-visual aids

9. 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.

10. Guidance & counselling

- Meaning & concepts of guidance & counselling
- Principles
- Guidance & counselling services for students & faculty members
- Faculty development & development of personnel for O.T. services

11. 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

12. Faculty development programs and Administration in clinical settings

13. Use of audio-visual aids in teaching

14. Research, Innovation and latest advancements in Education

MOT 102: Research Methodology & Biostatistics

Objectives (competency statements): The objectives of this course are:

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

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Expected Outcomes:

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

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, Plagiari-sm- Using available softwares to check for plagiari-sm)]
- 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

MOT 103 Advanced Clinical Foundations in Occupational Therapy Practice

Objectives (competency statements): The objectives of this course are:

1. Understand & apply Philosophical & Conceptual base to OT Practice
2. Enhance the abilities of the Occupational therapist to choose the appropriate evaluations and treatment procedures based on the philosophy of Occupational Therapy.
3. 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.

Expected Outcomes:

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

Content

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:
 1. Introduction to ICU, CCU & NICU
 2. Orientation to ICU equipment's, (Ventilators & Life support devices) and Common procedures followed, Basic OT management strategies

Reference Books and other resources 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.Guptha Design and Analysis of Experiments –PHI Learning Private Limited, R. Pannerselvam,
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 and analysis by Hicks, Carolyn
12. Mahajan - Methods in Biostatistics, Jay Pee Brothers. Medical Publishers (P) Ltd. New Delhi.
13. Hicks- Research for Physiotherapists, Churchill Livingstone, London

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17. Walker, Boyd and Larreche: Marketing Strategy- Planning and Implementation, Tata MC Graw Hill, New Delhi.
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19. Arun Kumar and N Meenakshi: Marketing Management, Vikas Publishing, India
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23. Community-Based Rehabilitation. Malcolm Peat. W.B. Saunders
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25. ILO, UNESCO & WHO (2004). Community-based rehabilitation for and with people with disabilities. Joint Position Paper. Geneva: UN.
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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.



Master of Occupational Therapy in Paediatrics & Neonatology- MOT (P&N)

MOT 104: BASIC MEDICAL SCIENCES & THEORETICAL FOUNDATIONS IN OCCUPATIONAL THERAPY FOR PAEDIATRICS & NEONATOLOGY

Course Description:

This course involves training in basic medical science of paediatrics & neonatology & the use of various theories, frames of references, and approaches used in Occupational Therapy intervention for paediatric populations.

Course Objectives:

- To understand principles of human development and maturation.
- To describe various developmental theories.
- To learn about genetic and embryological development.
- To understand developmental stages from birth to adolescence.
- To review medical aspects of paediatric conditions.
- To understand about various Govt. Initiatives and Ethical guidelines pertaining to practice in the specified domain.

Course Outcomes:

- Explain principles of human development and maturation.
- Illustrate various developmental theories and their applications.
- Understand genetic and embryological development processes.
- Identify and describe developmental stages and milestones.
- Review medical aspects and conditions relevant to paediatrics.
- Able to practice within the domain with understanding of Ethical principles and basic knowledge base for Client Centred Practice.

UNIT 1: Principles of human development and maturation

- Principles of Human Development
- Growth, Development and Maturation

UNIT 2: Developmental theories including

- Psychosexual theory of Freud
- Ego psychology of Erikson
- Cognitive theory of Piaget
- Kohlberg's stages of moral development
- Maslow's humanistic psychology
- Gessels' developmental schedule
- Hanghurst – developmental tasks
- Skinners theory of radical behaviourism
- Rogers' self-theory
- Learning theories

UNIT 3: Overview of Genetics

Review of cellular mitosis and meiosis, Chromosomes–sex determination, Chromosomal aberration, Patterns of inheritance, Molecular genetics and protein synthesis, Heredity and environment, Medical genetics

UNIT 4: Embryology:

Development of a foetus, Development of various systems stressing on neuromuscular and hand development

UNIT 5: Developmental Stages:

The development process from birth to adolescence including: Physical, Cognitive, Emotional, Social, Language, Adaptive, Cognitive-Perceptual, Emotional and Play.

UNIT 6: Current trends in developmental theory:

Hemispheric specialization, Sociology, Interactionism

UNIT 7: Prenatal Diagnosis in Paediatrics and implication for Occupational Therapy.:

Prenatal problems – birth defects and their causes, the detection and monitoring of high-risk pregnancies, foetal diagnostic and intervention procedures



UNIT 8: Review medical aspects of the following Paediatric and Neonatal conditions: High risk infant, Complications related to Birth Trauma, Congenital Defects, Cerebral palsy, Muscular dystrophy, Neural tube defects, Still's disease, Lung infections, Congenital Cardio pulmonary conditions, Paediatric Orthopaedic problems, Genetic skeletal dysplasia, Nutritional disorder, Intellectual Disability, Neuro Developmental disorders(ASD,ADHD,SLD), Neuro Psychiatric Disorders, Complications related to Trauma and Burns, Haematological Disorders etc.

UNIT 9: Paediatric health care services in India:

Health promotion and well-baby clinics, Community based care, Preventive Paediatrics, Screening tests and procedures, Immunization and Nutritions, Various Child healthcare initiatives by Government of India including Vaccination schedule, Early Intervention Program, Child and adolescent Health schemes, Child Development Clinics, High risk Infant clinic.

UNIT 10: Role of the family in Paediatric Management

UNIT 11: Major theoretical approaches to Paediatric Management:

Neuro-physiological approaches, Reilly-an explanation of play, Llorens facilitation growth and development, Guilfoyle & Brady – spatiotemporal adaption, Sensory integration, Behaviour modification approach, Biomechanical approach, Activities therapy – including activity analysis for paediatric condition, Visual perception, Acquisition frames of reference, Motor Control, Motor Learning, Cognitive behavioural approaches.

UNIT 12: Play:

Theories, using play as media, Importance of Play, Play as Occupation.

UNIT 13: Ethical Considerations in Paediatric Occupational Therapy Practice

- Considerations for Socio-Cultural norms and spirituality.
- Ethical Guidelines to be followed while handling children (Age specific)

UNIT 14: Disability Evaluations

Overview of Disability Certification in Paediatrics

Guidelines for Disability Certification of Benchmark disabilities related to Paediatric Population.

MOT 201: Advanced Occupational Therapy Diagnostic & Prognostic skills in Paediatrics & Neonatology

Course Description:

This course deals with methods of assessment and screening, evaluating components of function in Neonates and children.

Course Objectives (Competency Statements):

- To understand basic methods of assessment and screening.
- To evaluate components of behavior and childhood performance.

Course Outcomes:

- Explain basic methods of assessment and screening.
- Illustrate the components of behavior and childhood performance.

Course Content:

UNIT I: Basic Methods of Assessment and Screening

- Clinical observation of basic skills
- Clinical observation of the child interacting with the environment
- Interviewing and history taking
- Screening instruments including standardized tests (e.g., Apgar score, Denver developmental screening test)
- Use of checklists

UNIT 2: Assessment for Neonates and Child Development

- a. INFANIB, NBAS NNNE Pain Scales, Neonatal Reflexes
- b. INFANIB, NOMAS, LATCH Score, Pre feeding Readiness Scale
- c. PEDI, BSID II, PDMS, Ages & Stages Questionnaire
- d. Oral Motor Skills: Feeding & Swallowing Assessment in Infants



UNIT 3: Methods of Evaluating Childhood Performance Skills

- Testing motor function and other systems of evaluation: GMFM, BOT-2, PDMS2
- Evaluating hand functions: Box & Block Test, Jebson Taylor Hand Function Test, ABILHAND -Kids
- Testing sensory processing (integrative) dysfunction: Sensory Profile
- Testing Cognition: Griffith's scale BSID scale DASII Scales, DOTCA
- Assessment of Performance Area (ADL, Play): Wee FIM, COPM
- Assessment of Play: Test of Playfulness, Revised Knox Preschool Play Scale, Test of Environmental Supportiveness, Takata Play Assessment
- Testing Visual perceptual function: Berry VMI, TVPS, MVPT
- Testing psychosocial function
- Testing language and communication: Peabody Picture Vocabulary Test, Preschool Language Scale
- Handwriting evaluation: ETCH, PRINT 2
- Behavior evaluation: Conner's Behaviour rating scale BRIEF Child Behaviour checklist

UNIT 4: Condition Specific Scales

- Indian Scale for Assessment of Autism (ISAA)
- Tools for ADHD (Vanderbilt),
- Autism (M-chat, CARS)
- NIMHANS Battery for SLD
- NITI (NIEPID Indian Scale of Intelligence)

UNIT 5: Hand Function Development

- Hand function development stages
- Development of Pencil grasp, Prewriting and Writing Skills

UNIT 6: Investigative procedures supplementary to Occupational therapy in Pediatrics and Neonatology

- Radiological
- Biochemical and Other relevant Lab Investigations
- Electro physiological Studies
- Specific disease markers

UNIT 7: Occupational Therapy Practice Framework (OTPF)

Application of Domain and Process components to formulate Client Centred Occupational Therapy Program.

UNIT 8: ICF

- Understanding ICF
- Application of ICF in Paediatric Occupational Therapy

UNIT 9: Documentation in Paediatric Occupational Therapy.

MOT –202 Advanced Occupational Therapy Process & Practice in Paediatrics & Neonatology

COURSE DESCRIPTION:

The Course aims to train Occupational Therapy Students in understanding Evidence based practice and application of best practices in Occupational Therapy in Paediatrics & Neonatology.

COURSE OBJECTIVES.

- To understand the use of various treatment approaches in planning interventions in Occupational Therapy
- To give an overview of the treatment techniques used in Occupational Therapy in Paediatrics & Neonatology.

COURSE OUTCOMES

- To demonstrate clinical skills in selecting the most appropriate treatment technique for a given condition
- To practice Client centred Occupational Therapy.
- UNIT 1: Conventional Occupational Therapy Approaches in Occupational Therapy: Planning Interventions in Paediatric Occupational Therapy based upon:
 - Neuro-Developmental Therapy
 - Sensory Integration
 - Teaching-Learning four Quadrant Model
 - Motor Skills Acquisition
 - Bio-mechanical FOR

- Cognitive Behaviour Therapy
- Behaviour Therapy
- Narrative Processes
- Applied Behaviour analysis

UNIT 2. Sensory Integration Therapy

- Introduction to Sensory Integration
- Neuroanatomy and Physiology of Sensory Systems
- Theoretical Foundations of Sensory Integration Therapy (Models and Approaches)
- Principles of Sensory integration Therapy
- Sensory Processing Disorders
- Assessment Tools used in Sensory processing disorders
- Intervention Techniques & Strategies used in Sensory processing disorders
- Applications in Clinical Practice

UNIT 3. Interventions in NICU

- Environmental Modifications in NICU
- Positioning and Handling / Kangaroo Care
- Sensory Stimulation & Regulation
- Feeding & Swallowing Support
- Neuro protective approach
- Neurodevelopmental Interventions
- Caregiver Education & Family Support

UNIT 4: Occupational Therapy in Early Intervention

- Neuro protective approach
- Ladder approach
- Encompassing all Neuro Developmental approaches and related interventions

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UNIT 5: Evidence Based Practice- Specific Occupational Therapy Interventions

- Interventions for Neuro-sensory/Neuro-motor/Neuro-Psychiatric/Musculoskeletal dysfunctions
- Interventions for enhancing Childhood Occupations/ADL
- Interventions for Social Participations
- Interventions for Visual Perceptual Deficits
- Interventions for Motor Skill Acquisition
- Interventions for handwriting skill
- Interventions for Cognitive Deficits
- Interventions for behavioural Dysfunctions
- Interventions for Communication Dysfunctions

UNIT 6: Self-Maintenance Activities

- Eating: Oral motor control evaluation and treatment
- Toileting
- Grooming and hygiene
- Mobility, including the use of mobility aids, Wheelchairs
- Screen time management
- Home program

UNIT 7: Adaptations for Independence

Techniques and tools for fostering independence

UNIT 8: Orthosis and Prosthesis in Children

- Types and applications of orthosis and prosthesis
- Condition specific and Topographical

UNIT 9: Group Therapy for Children

Strategies and benefits of group therapy

UNIT 10: Play and Recreational Activities

Importance and implementation of play in therapy

UNIT 11: School-Based Interventions

Occupational Therapy in the school setting

UNIT 12: Interventions for Pre Vocational Skills Development & Training

Pre Vocational assessments and intervention

UNIT13: Preventive Occupational Therapy

Community Wellness Programs for children

MOT –203: Current & Future Trends in Occupational Therapy Practice in Paediatrics & Neonatology

The Course aims to train Occupational Therapy Students in developing awareness related to the latest Research, Innovations and Technology in Occupational Therapy in Paediatrics & Neonatology.

COURSE OBJECTIVES

- To train students with the latest developments in field of Paediatric Occupational Therapy.
- To train Occupational Therapy Post Graduates in blending conventional Occupational Therapy interventions and newer technologies for formulating Client centred Occupational Therapy.

COURSE OUTCOMES

- Illustrate the use of recent advances in routine Occupational therapy interventions
- To adopt best practices in Occupational therapy using latest Technology and adjuncts.

1. Augmented Reality (AR) and Virtual Reality (VR) for Children

- Immersive Therapy
- App based simulation of skills

2. Advanced Orthotic and Prosthetic Devices

- Exoskeletons
- Wearable Devices
- Thera suite
- Therapy Garments

3. Adjuncts to Occupational Therapy

- Alert Program
- Picture Exchange Communication Skills
- ABA
- Floor Time
- Aquatic Therapy
- Brain Gym
- Kinesio-taping
- PAMOT (As applicable)
- Yoga
- Animal Assisted
- Robotics
- Botox Application and Rehabilitation Concerns
- MFR techniques (Preparatory stage)

4. Tele health and Tele therapy:

- Remote Access.
- Virtual Therapy Sessions
- Digital Assessment Tools
- Distance Monitoring

5. Adaptive Devices & Communication Aids

6. Mindfulness and Mental Health Programs for School Children

7. Adaptive Sports/ Special Olympics/ Para Sports for Children with Special Needs

Skill Assessment

Training for specific skills related to Sports.

Suggested Readings:

Reference Books:

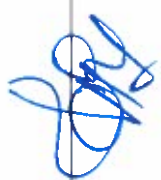
1. Principles and Practice of Pediatric Neurology by Kenneth F. Swaiman and Stephen Ashwal
2. Neonatal and Pediatric Respiratory Care by Brian K. Walsh
3. Occupational Therapy for Children and Adolescents by Jane Case-Smith and Jane Clifford O'Brien
4. Pediatric Skills for Occupational Therapy Assistants by Jean W. Solomon and Jane Clifford O'Brien
5. Developmental and Therapeutic Interventions in the NICU by Susan E. Swedo and Audrey L. Holland
6. Frames of Reference for Pediatric Occupational Therapy by Paula Kramer and Jim Hinojosa
7. The Developing Child: Using Jungian Type to Understand Children by Elizabeth Murphy and Joseph Diegmüller
8. Cerebral Palsy: A Complete Guide for Caregiving by Freeman Miller and Steven J. Bachrach
9. Pediatric Physical Therapy by Jan Stephen Tecklin
10. The Out-of-Sync Child: Recognizing and Coping with Sensory Processing Disorder by Carol Stock Kranowitz
11. Handbook of Pediatric Neuropsychology by Andrew S. Davis
12. Child Development by Laura E. Berk
13. Textbook of Clinical Pediatrics edited by A. Parthasarathy
14. Neonatology: Principles and Practice edited by V. K. Paul and A. Bagga

Journals:

1. American Journal of Occupational Therapy (AJOT)
2. Journal of Pediatric Rehabilitation Medicine
3. Pediatric Physical Therapy
4. Developmental Medicine & Child Neurology
5. Journal of Developmental & Behavioral Pediatrics
6. Physical & Occupational Therapy in Pediatrics
7. Indian Journal of Pediatrics
8. Journal of Neonatology (India)
9. Indian Journal of Occupational Therapy (IJOT)
10. Indian Journal of Pediatrics and Child

Health Position Papers:

1. American Occupational Therapy Association (AOTA) - Position Paper on Occupational Therapy Practice with Children and Youth
2. World Federation of Occupational Therapists (WFOT) - Position Statement on Pediatric Occupational Therapy
3. National Neonatology Forum (NNF) of India - Guidelines and Position Papers on Neonatal Care
4. All India Occupational Therapists' Association (AIOTA) - Position Papers on Pediatric Occupational Therapy Practice
5. European Academy of Childhood Disability (EACD) - Guidelines and Position Papers on Developmental Disabilities
6. American Academy of Pediatrics (AAP) - Policy Statements on Pediatric Care and Development



Master of Occupational Therapy in Neurosciences – MOT (NEURO)

Course Description

This course focuses on the role of occupational therapy in various neurological conditions rehabilitation settings (in-patient, out-patient and home care), long-term care programs, and community-based rehabilitation. In order for occupational therapists to understand the needs of neurologically compromised persons, the course addresses the neuroscience process and its application on management of the individuals. Students also learn about common impairments and disabilities and rehabilitation needs of these individuals. Students will develop and demonstrate skills in evaluation, 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 neurologically compromised individuals. It also trains the students on various theories, Frames of references & approaches used in Occupational Therapy intervention of the concerned population.

Course Objectives (competency statements)

- The objective of this course is to enable candidate to apply general principles of practice in therapy and enhance Occupational Therapy process.
- The candidate should be able to understand the nature of Occupation and its influences on the humans have sound theoretical knowledge about the professional ethics and skills required for making a competent Occupational Therapy professional.
- The candidate is intended to inculcate managerial skills and be able to take various roles in the organizations.
- The candidate will fortify themselves as a researcher and an Evidence-Based practitioner to add to the pool of existing knowledge in the given context
- The candidate will be able to understand the community needs, implement, regulate, and apply various approaches for the wellness and integration of the individuals in the community.

- The candidate will be well versed with the use and application of various advanced technologies, recent trends and alternatives for the Occupational Therapy Practices.
- The candidate will be proficient in various models of occupational therapy practice, understand their principles and be able to apply in the given clinical conditions and setting.
- Candidate will be well prepared for the management of disasters like epidemics, pandemics, and natural and un-natural calamities.

Competency Domains and Learning Outcomes:

Domain 1: Clinical Assessment and Evaluation

● **Learning Outcomes:**

- Conduct interviews and evaluations of persons with neurological impairments in multiple settings
- Conduct comprehensive assessments of functional abilities.
- Apply specialized standardised evaluation tools relevant to clinical features
- Analyze assessment findings to formulate client-centered treatment plans.
- Explain the importance of quality of life issues for persons with neurological impairments and their relationship to cultural, religious and Ethnic issues

Domain 2: Intervention Planning and Implementation

● **Learning Outcomes:**

- Design evidence-based intervention plans tailored to each individual with neurological impairments
- Implement treatment plans for persons with neurological impairments in multiple settings.
- Formulate treatment plans (including discharge planning) in partnership with persons with neurological impairments /families utilizing behavioural objectives.

- Demonstrate knowledge of community programs and organizations that assist the persons with neurological impairments.
- 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 persons with neurological impairments as a high-risk group with regard to medication interactions, including how physiologic changes influence medication effects.
- Collaborate effectively with other professionals of Neurology team and other healthcare providers.
- Participate in multidisciplinary teams to optimize the intervention outcomes.
- Communicate occupational therapy perspectives and contributions in persons with neurological impairments.

Domain 4: Professionalism and Ethical Practice

- **Learning Outcomes:**

- Articulate how ethical considerations in neuro-rehab practice relate to the Code of Ethics regulations by NCAHP
- Knowledge of how demographics and policy influence healthcare in neurological patients

Domain 5: Research and Evidence-Based Practice

- **Learning Outcomes:**

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

MOT 104: Basic Medical Sciences & Theoretical foundation in Occupational Therapy for Neurosciences

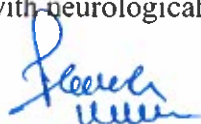
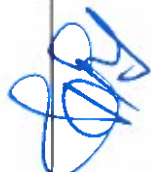
Course Description:

The overall goal of the course is to provide a conceptual framework for the study of neuroscience as it relates to occupational therapy and to assist occupational therapy students to develop the skills and knowledge needed to understand major issues in theory, research, and practice related to the persons with neurological impairments. It involves the training in the use of various theories Frames of references & approaches used in Occupational Therapy intervention of persons with neurological impairments,

Course Objectives (competency statements) –

The objectives of this course are:

- 1) Integrate prior knowledge of anatomical, physiology, sensory, motor, cognitive, and functional deficits in neurological conditions for purposes of occupational therapy intervention
- 2) To understand the basic and related neuroscience.
- 3) Understand the importance of functions persons with neurological impairments
- 4) Understand the cultural diversity and heterogeneity among the persons with neurological impairments, and its impact upon assessment, treatment planning and discharge planning
- 5) To describe the biological and psychological, psycho-social theories related to neuroscience
- 6) Use the various frames of references in the intervention of persons with neurological impairments
- 7) To identify & document the appropriate frames of reference used for the specific condition in neurological conditions
- 8) Use the latest technology for assessment, intervention and documentation
- 9) Explain the role of occupation in the promotion of health and the prevention of disease and disability for the individual, family, and society
- 10) Demonstrate knowledge of community programs and organizations that assist the persons with neurological impairments.



Course Outcomes:

1. Explain the normal motor control and learning among healthy individuals and across the life span.
2. Explain the process of impairments following neurological insult.
3. Explain the process of neural recovery after neural damage.
4. State various frames of references, theories & approaches used in neurological conditions

Course Contents:

Be able to discuss the neuro-scientific process, theories of movement and the relevant neurophysiological, physical and psychological aspects.

UNIT 1: To describe the Neurophysiology: Theoretical Consideration

1. Neurophysiology of motor control
2. Overview of CNS Function
3. Sensory-motor perceptual systems
4. Motor development across the life span

UNIT 2: To understand the Motor Control theories

1. Understanding the nature of movement
2. Task and environmental constraints on movement control
3. Theories of motor control
4. Practical application of motor control

UNIT 3: To understand the Motor Learning theories

1. Nature of motor learning
2. Theories of motor learning
3. Stages of Motor learning and motor skills
4. Practical application of motor learning



UNIT 4: To explain the Neurophysiological basis of recovery

1. Recovery of motor function – concepts and factors affecting the motor recovery
2. Neuroplasticity – Definition, mechanism, theories
3. Neuroplasticity and learning
4. Neuroplasticity and recovery of function
5. Neuroplasticity and neurodegenerative disease

UNIT 5: To describe the Postural & Mobility control

1. Normal Postural & Mobility control
2. Development of Postural & Mobility control
3. Ageing and Postural & Mobility control
4. Abnormal Postural & Mobility control

UNIT 6: To describe the Reach, grasp & manipulation control

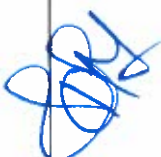
1. Normal Reach, grasp & manipulation control
2. Development of Reach, grasp & manipulation control
3. Reach, grasp & manipulation control across the life span
4. Abnormal Reach, grasp & manipulation control

UNIT 7: To understand the Neurological Impairments

1. Impairments associated with nervous system involvement
2. Impairments in the motor system
3. Impairments in sensory systems
4. Cognitive impairments
5. Other deficits

UNIT 8: To understand Theories, Models, Approaches and Frames of references

1. Traditional treatment approaches
2. Contemporary treatment approaches (Task oriented approach, MRP etc.)
3. Cognitive disability FOR
4. Rehabilitative FOR
5. Biomechanical FOR
6. Cognitive Behaviour FOR



7. Behavioural FOR
8. Activities health model
9. Psychosocial model
10. Other OT related FOR / approaches in neurological conditions

UNIT 9: To apprise about various Legislation & Laws related to neurological conditions/disabilities

1. National health policies & schemes related to various neurological conditions
2. The Rights of Persons with Disabilities Act, 2016

UNIT 10: To understand about guidelines related to evaluation and certification of disability related to various neurological conditions

Recent government guidelines to assess neurological and related 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

स्वास्थ्यम्, सर्वार्थसाधनम्

NCAHP

Since-2021

MOT 201 Advanced Occupational Therapy Diagnostic & Prognostic skills in Neurosciences

Course Description:

1. A better understanding & process of the various diagnostic procedures used in Occupational Therapy for various neurological conditions.
2. Will enable for clinical & functional diagnosis & critical decision on planning Occupational Therapy intervention

Course Objectives (Competency statements)

- Elicit and interpret clinical signs and symptoms & interpret clinical tests and special investigations commonly used in the diagnosis of neurological conditions.
- Illustrate the diagnostic tools to identify health problems in neurological conditions
- Understand the appropriate use of assessment tools for specific problems in neurological conditions
- Able to administer the specific tool for screening the other associated issues in neurological conditions
- Describe & administer Specialized tools of OT assessment in neurological conditions
- Compare the scoring with norms & analyse it for planning of OT Program
- Administer the tools for assessing progress in the patients.
- Demonstrate a broad range of technical skill in diagnosing the Occupational Therapy related neurological conditions.
- Generate a primary diagnosis and a list of differential diagnoses consistent with typical presentations.
- Make Critical decision and selection of outcome measures in Occupational Therapy for neurological conditions



Course Outcomes:

1. Able to understand about various investigation used for the diagnosis of neurological conditions
2. Able to apply various standardized and non-standardized outcome measure used in evaluation of neurological conditions
3. Able to identify and criticize outcome measures
4. Able to plan management based on the assessment

Course Contents:

Types, understanding, procedure of carrying out and interpretation of findings of the various investigation and OT assessment method used in neurological conditions

UNIT 1: Neurological investigation

1. Investigation procedures used in Neurology and Neurosurgery
2. Biopsy, Densitometry, Arthroscopy, etc.,
3. Biomarkers specific to neurological disorders
4. Principles, Techniques and interpretation of biochemical and Pathological investigations
5. Recent advances in Medical/diagnostic assessment and evaluation

UNIT 2: Neuro-radiological investigation

1. Skull X- Ray
2. Magnetic Resonance Imaging Scan (MRI)
3. Computerized Tomography(CT)
4. Positron Emission Tomography (PET)
5. Ultrasonography
6. Brain Angiography
7. Intracranial pressure monitoring
8. Lumbar puncture
9. Other neuro-radiological assessment

UNIT 3: Neurophysiological investigation

1. EMG (Qualitative and Quantitative EMG)
2. NCV (Conventional Methods)
3. MCV, RNS, EPS, EEG related to neurological disorders with interpretation.
4. Other Electrophysiological assessment

UNIT4: Occupational therapy Evaluation

1. Importance of assessment & evaluation, Outlines of principles and Methods of evaluation
2. Knowledge and assessment for using common standardized and non-standardized tools/ instruments/tests/ scales in neurological disorders, neurosurgical, neuropsychiatric, and developmental disorders
3. Condition / impairment specific outcome measure
4. Clinical analysis of posture, movement and gait
5. Neuro-motor evaluation
6. Sensory evaluation
7. Cognitive and perceptual evaluations
8. Psychological evaluation
9. ICF and other Occupation based conceptual frame work for assessment
10. Critical decision making and selection of outcome measures
11. Assessment, differential diagnosis and diagnosis of various neurological conditions
12. Assessment of Physical and Neurological Functions of Patients in ICU

UNIT 5: To identify & administer appropriate standardised tests for specific problems in neurological conditions

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)

I. Motor recovery

- a. Brunnstorm recovery stages
- b. Fugl-Meyer assessment (FMA)
- c. Action research arm test (ARAT)
- d. Wolf motor function test (WFMT)

II. Cognition

- a. Montreal cognitive assessment (MoCA)
- b. Mini mental status examination (MMSE)
- c. Lowenstein occupational therapy cognitive assessment (LOTCA)

III. Sensory

- a. Nottingham Assessment of Somato-Sensations
- b. Erasmus modified Nottingham Sensory Assessment
- c. Thumb localization test

IV. Posture & balance

- a. Time up & Go (TUG)
- b. Berg balance scale (BBS)
- c. Functional Reach Test
- d. Functional ambulation category (FAC)
- e. Trunk impairment scale (TIS)
- f. Postural Assessment Scale for Stroke

V. Ambulation

- a. Functional ambulation category (FAC)
- b. 10-meter walk test (10-MWT)
- c. Rivermead Visual Gait Assessment (RVGA)
- d. Tinetti Performance Oriented Mobility Assessment
- e. Multiple Sclerosis Walking Scale (MSWS-12)
- f. 6-minute walk test

VI. Depression

- a. Beck depression inventory (BDI)
- b. Hamilton depression rating Scale
- c. Geriatric depression scale

VII. Function

- a. Barthel Index (BADL)
- b. Functional independence measure (FIM)
- c. IADL, BADL – Lawton & Brody's Scales
- d. Katz index of independence
- e. Spinal cord independence measure (SCIM)
- f. Canadian occupational performance measure (COPM)

VIII. Disability

- a. Modified ranking Scale (mRS)
- b. Disabilities of the Arm, Shoulder, and Hand Questionnaire (DASH)
- c. Disability Rating Scale (for TBI)

IX. Quality of Life

- a. QOL – Short form 36
- b. QOL – Short form 12

UNIT 6: Analysis & interpretation of Assessment:

- 1) Screening the other associated issues in neurological conditions
- 2) A primary clinical/functional diagnosis and a list of differential diagnosis
- 3) Planning of OT Program
- 4) Critical decision and selection of outcome measures necessary for prognostic purpose & research studies

MOT 202: Advanced Occupational Therapy Process & Practice in Neurosciences

This course focuses on the role of occupational therapy in various neurological conditions rehabilitation settings (in-patient, out-patient and home care), long-term care programs, and community-based rehabilitation. In order for occupational therapists to understand the needs of neurologically compromised persons, the course addresses the neuroscience process and its application on management of the individuals. Students also learn about common impairments and disabilities and rehabilitation needs of these individuals. Students will develop and demonstrate skills in evaluation, 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 neurologically compromised individuals. It also trains the students on various evident based frames of references & approaches used in Occupational Therapy intervention of the concerned population.

Course Objectives (Competency statements):

1. The objectives of this course are to provide the candidate with expertise in advanced knowledge with respect to the intervention strategies for neurological conditions (including neuro-pediatrics, neurosurgical, neuro-psychiatric, neuro-oncology conditions).
2. The candidate will be able to acquire in depth knowledge about various neurological conditions, and will be able to plan and implement occupational therapy intervention for the same
3. The candidate will be able to decide and implement evidence based practice for a specific neurological disorder
4. The course 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.

Course Learning Outcomes:

The overall goal of the course is to provide a conceptual framework for the study of neuroscience 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 neurological conditions.

Course Contents:

UNIT 1: Occupational therapy for the Neurological conditions

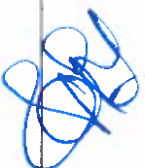
- a. Disorders of Central Nervous System
- b. Various disorders of the Motor Unit – Neuropathies, Myopathies and Neuromuscular junction Disorders.
- c. Autonomic Nervous system dysfunction
- d. Peripheral Nervous system conditions
- e. Cerebellar Disorders
- f. Demyelinating, Inflammatory, Infectious and Degenerative conditions.
- g. Metabolic and Deficiency Disorders

UNIT 2: Occupational therapy for the Neuro-pediatric conditions

- a. Developmental neuro-pediatric conditions
- b. Congenital neurological anomalies
- c. Genetic disorders
- d. Other disorders

UNIT 3: Occupational therapy for the Neurosurgical conditions

- a. Traumatic Brain Injury
- b. Traumatic Spinal Cord Injury
- c. Peripheral nerve injuries
- d. Others



UNIT 4: Occupational therapy for the Neuro-oncological conditions

Tumours of neurological origin -

- a. Brain Tumours
- b. Spinal Tumours
- c. Others

UNIT 5: Occupational therapy for the Neuro-psychiatric conditions

- a. Anxiety disorders
- b. Depression
- c. Trauma- and Stressor-Related Disorder
- d. Neurocognitive disorders
- e. Other related disorders

UNIT 6: Occupational therapy for the Specific neurological impairments

- a. Sensory System Dysfunction and management
- b. Visual Deficits and its management
- c. Management of perceptual disorders
- d. Management of cognitive disorders
- e. Oromotor Dysfunctions and Management
- f. Vestibular Dysfunction and its rehabilitation
- g. Psychosomatic conditions and management.
- h. Disorders of consciousness (including coma) and Intensive Care Units (ICU)
- i. Pain management
- j. Pharmacology in Neurorehabilitation
- k. Community-based rehabilitation for neurological conditions
- l. Palliative care approach in neurological conditions

UNIT 7: Evidence-based practice

Evidence-based occupational therapy / rehabilitation for -

- a. Neurological conditions
- b. Neuro-pediatric conditions
- c. Neurosurgical conditions
- d. Neuro-oncological conditions
- e. Neuropsychiatric conditions

MOT 203: Current & Future Trends in Occupational Therapy Practice in Neurosciences

Course Description:

It involves the training in the use of various recent trends used in Occupational Therapy intervention of neurological condition. Neuroscience is a rapidly evolving field, with numerous trends and innovations that are helping to improve the quality of care for the patients with neurological impairments.

Course Objectives (competency statements):

- 1) To apprise about the recent and future investigation methods in the field of neurosciences
- 2) To acquaint about the recent and future intervention methods in the field of neurosciences
- 3) To describe the neurobiological, neurotechnological, and other neuroscientific updates in the field and its application in the investigation and intervention
- 4) To induce abilities to carry out researches in the upcoming field of neuro-rehabilitation

Course Outcomes:

1. Explain the recent knowledge in the field of neurosciences
2. Illustrate the recent diagnostic and assessment tools to identify subtle neurological impairments
3. State various recent and future approaches used in neurological conditions

Course Contents:

UNIT 1: Advanced and evidence based use of Orthotics, Assistive and adaptive technology in neurological conditions

- a. Splinting and orthosis
- b. Adaptive devices
- c. Assistive devices
- d. Wheelchair
- e. Mobility Devices
- f. Other devices

UNIT 2: Advances in Assessment and Evaluation

- a. Posture analyzer
- b. Gait analyzer
- c. Motion Analyzer
- d. rTMS
- e. fMRI
- f. Other methods

UNIT 3: Advances in rehabilitation and adjunctive intervention in Occupational therapy

- a. Robotics
- b. Virtual reality
- c. Mirror therapy
- d. Mental / motor imagery
- e. CIMT
- f. BWSTT
- g. Biofeedback
- h. Neural mobilization and Neuro Dynamics
- i. FES
- j. NMES
- k. Transcranial Magnetic Stimulation
- l. Transcranial direct current stimulation
- m. Kinesiotaping
- n. Yoga therapy
- o. Other recent neuro-rehabilitation interventions

UNIT 4: Advances in medical intervention

- a. Genetic counselling
- b. Stem cell therapy
- c. Gene therapy
- d. Other recent neuro-regenerative interventions

UNIT 5: Advances in Technological Intervention

- a. Digital health interventions
- b. Artificial intelligence intervention
- c. Brain computer interface
- d. Neuroprosthesis
- e. Telemedicine:
- f. Wearable technology:
- g. Smart home technology:
- h. Virtual assistants
- i. Remote patient Monitoring
- j. Smart Devices
- k. Other recent neuro-technological devices

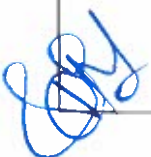
Recommended Texts:

1. Occupational Therapy and Physical Dysfunction Trombly, 3rd and 4th edition.
2. OT practice skills for physical dysfunction by L.V. Pedretti
3. OT for physical dysfunction by CA Trombly
4. Willard and Spackman's O.T – Helen Hopkins and Smith A.H.
5. Cognitive and Perceptual dysfunction: A clinical reasoning approach to evaluation and intervention. Carolyn Unsworth. Lippincott Williams and Wilkins.
6. Neuroscience: Fundamentals for Rehabilitation. Laurie Lundy Ekman. W. B.Saunders.
7. Motor control: Therapy and Practical Applications. Anne Shumway Woollacott. Lippincott Williams and Wilkins.
8. Neurological Rehabilitation. Darcy Ann Umphred. Mosby.
9. Neuropsychiatry. Fogel&Schiffs. Williams & Wilkins.
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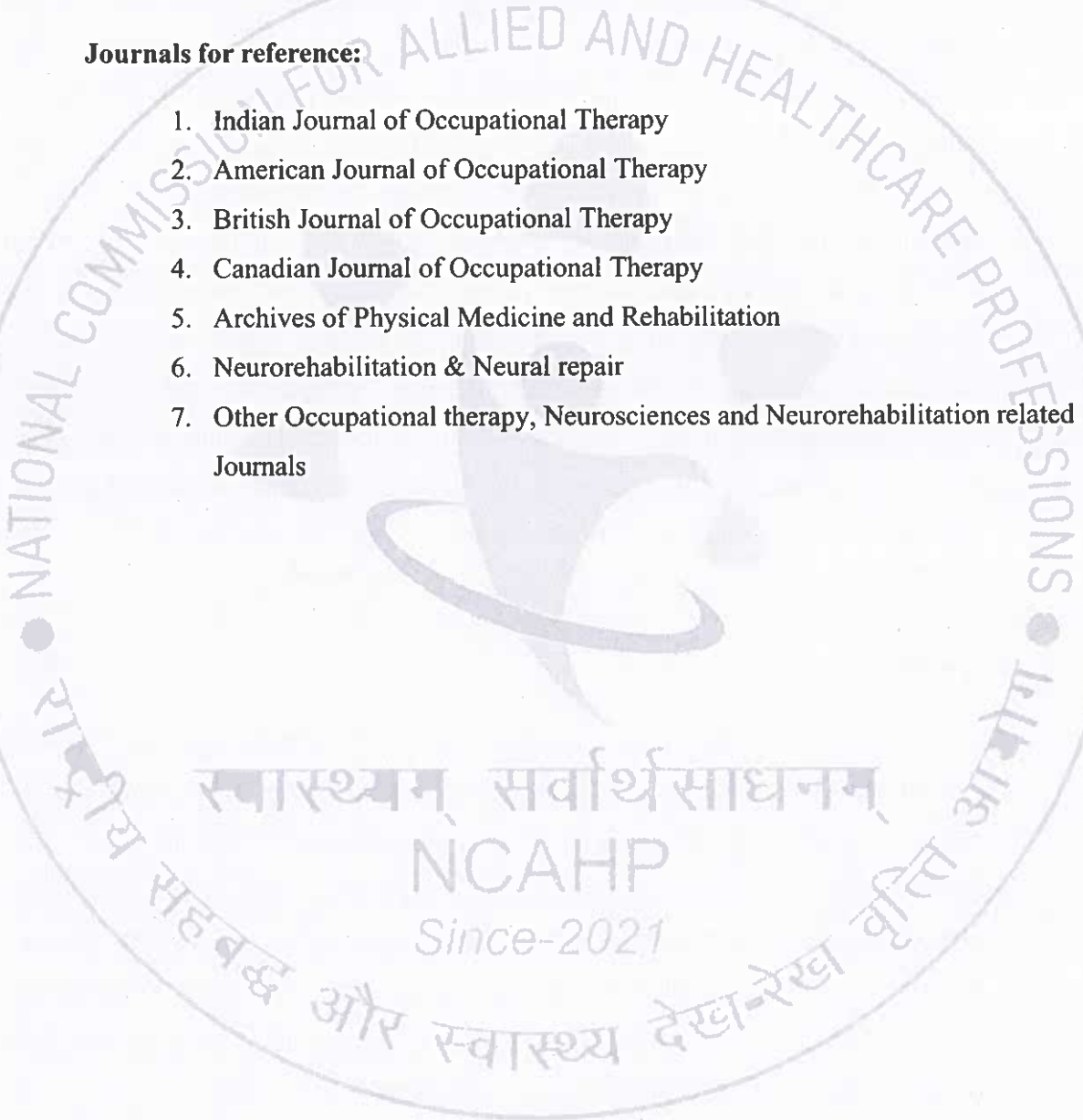




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5. Archives of Physical Medicine and Rehabilitation
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Master of Occupational Therapy in Geriatrics - MOT (GR)

Course Description

This course focuses on the role of occupational therapy with the aged within geriatric rehabilitation 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 environments. In order for occupational therapists to understand the needs of older persons, the course addresses the aging process and its physiological, sociological, and psychological effects, with attention to heterogeneity and older person's strengths and capabilities. Students also learn about common impairments and disabilities and rehabilitation needs of older persons. Students will develop and demonstrate skills in evaluation, 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 older persons. It also trains the students on various theories, Frames of references & approaches used in Occupational Therapy intervention of Geriatric population,

Course Objectives:

The course also addresses the importance of evidence-based practice, including 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 Growth and Development, Clinical Conditions in Occupational Therapy, Assessment and Intervention of Psychosocial Issues, Theories of Adult Rehabilitation. The topics of aging and gender issues, successful aging, and community and home safety are also added for quality care of elderly persons



Competency Domains and Learning Outcomes: Domain 1: Clinical Assessment and Evaluation

Learning Outcomes:

- Conduct interviews and evaluations of aged 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-centered treatment plans.
- Explain the importance of quality of life issues for older persons and their relationship to cultural, religious and Ethnic issues

Domain 2: Intervention Planning and Implementation

Learning Outcomes:

- Design evidence-based intervention plans tailored to each individual aged person
- Implement treatment plans for aged individuals in multiple settings.
- Formulate treatment plans (including discharge planning) in partnership with older persons/families utilizing behavioural objectives.
- Demonstrate knowledge of community programs and organizations that assist the elderly, particularly frail older people.
- 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 elderly as a high-risk group with regard to medication interactions, including how physiologic changes influence medication effects.
- Collaborate effectively with other professionals of Geriatrics team and other healthcare providers.
- Participate in multidisciplinary teams to optimize the intervention outcomes.
- Communicate occupational therapy perspectives and contributions in geriatric nursing homes, geriatric community homes

Domain 4: Professionalism and Ethical Practice

Learning Outcomes:

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

Domain 5: Research and Evidence-Based Practice

Learning Outcomes:

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



MOT 104: Basic Medical Sciences & Theoretical foundations in Occupational Therapy of Geriatrics

Course Description:

The overall goal of the course is to provide a conceptual framework for the study of gerontology as it relates to occupational therapy and to assist occupational therapy students to develop the skills and knowledge needed to understand major issues in theory, research, and practice related to the older adult. It involves the training in the use of various theories Frames of references & approaches used in Occupational Therapy intervention of Geriatric population,

Course Objectives (competency statements) –

The objectives of this course are:

- 1) Integrate prior knowledge of anatomical, physiology, sensory and cognitive changes in late adulthood for purposes of occupational therapy intervention with older adults
- 2) To understand the aging process –acute and chronic.
- 3) Understand the importance of sexuality and sexual expression among older persons
- 4) Understand the cultural diversity and heterogeneity among the aged, and its impact upon assessment, treatment planning and discharge planning
- 5) To describe the Biological and psychological, psycho social theories of aging
- 6) Use the various frames of references in the intervention of older person
- 7) To identify & document the appropriate frames of reference used for the specific condition in Geriatric patients
- 8) Use the latest technology for assessment, intervention and documentation
- 9) Explain the role of occupation in the promotion of health and the prevention of disease and disability for the individual, family, and society
- 10) Demonstrate knowledge of community programs and organizations that assist the elderly, particularly frail older people.

Course Outcomes:

1. Explain the process of aging & the health problems following aging
2. Illustrate the diagnostic tools to identify health problems in Geriatric patients
3. State various frames of references, theories & approaches used in Geriatric population

Course Contents:

Be able to discuss the aging process, theories of aging and the relevant physical and psychological aspects.

UNIT 1: To describe the Ageing Process: Theoretical Consideration

- 1) Ageing: Roles & factors
- 2) Biological and psychological theories of aging
- 3) Personality theories
- 4) Challenges for occupational therapy
- 5) Use of the ICF

UNIT 2: To understand the body structures and body functions of geriatrics

- 1) The central nervous system
- 2) The peripheral nervous system
- 3) Voice and speech production
- 4) Mental functions
- 5) The sensory systems: structure and function
- 6) The integumentary system
- 7) The cardiovascular system
- 8) The respiratory system
- 9) The immune system
- 10) The neuro-musculoskeletal system
- 11) The digestive system
- 12) Metabolism
- 13) Thermoregulation
- 14) Endocrine functions
- 15) The genito-urinary systems

UNIT 3: To explain Bio-physical changes in Ageing

- 1) Aging, Functional Change, and Adaptation.
- 2) Age-Related Organismic Changes.
- 3) Age-Related Sensory Change.
- 4) Age-Related Changes in Cognitive Function.
- 5) Age-Related Changes in Physical Activity.
- 6) Age-Related Changes in Digestion and Excretion.
- 7) Age-Related Changes in the Body's Defense Mechanisms.
- 8) Age-Related Changes in Sexual Activity.

UNIT 4: To explain Culturally Diverse Elders.

- Health Beliefs and Practices.
- Implications for Intervention with Ethnic Elders.

UNIT 5: To Analyse the Investigations in the Elderly:

- 1) Policy and interpretation
- 2) Radiological, Haematological and Biochemical investigations
- 3) ECG
- 4) Urinalysis
- 5) Radioisotope tests/ Bone Scan
- 6) Imaging – Ultrasound, CT, Scan, MRI
- 7) How much to investigate
- 8) Concept of normal range
- 9) Nutritional Assessment

UNIT 6: To elicit & interpret the clinical features related to Functional Performances in Pathologies of old age

- 1) Cancer
- 2) Dementia
- 3) Depression
- 4) Diabetes
- 5) Falls
- 6) Fractures and osteoporosis
- 7) Heart failure

- 8) Learning disabilities
- 9) Musculoskeletal problems/arthritis
- 10) Respiratory disease
- 11) Stroke (cerebrovascular accident)

UNITS 7: Describe the appropriate OT frames of reference (FOR) & approaches in specific Geriatric Condition:

- 1) Acquisitional FOR
- 2) Behavioural FOR
- 3) Biomechanical FOR
- 4) Cognitive behavioural FOR
- 5) Compensatory FOR
- 6) Psychodynamic FOR
- 7) Psycho analytical FOR
- 8) Psycho spiritual FOR
- 9) Rehabilitative FOR
- 10) Sensory Integration FOR
- 11) Cognitive disability FOR
- 12) MOHO
- 13) Activities health model
- 14) Psychosocial model
- 15) Behavioural approach
- 16) Task oriented Approach
- 17) Other OT related approaches

UNIT 8: Older people and Occupational Justice

- A) Occupation as a right
- B) Occupation as a matter of social justice
- C) Occupational justice & older people
- D) Occupation, morbidity and mortality and the promotion of health

UNIT 9: Ethical Consideration in geriatric Occupational Therapy practice:

- a) Consideration of socio-cultural norms & spirituality
- b) Ethical guidelines to be followed for treatment of Cancer Patients

UNIT 10: Evaluate in details for Disability certification:

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

- a) Locomotor disabilities due to Amputation, Musculoskeletal conditions neurological conditions & any other
- b) 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 11: To enlist & identify the systems, services and policies for Elderly persons:

National policies for older persons: Older Indians carries a large burden of disease and disability and pose a tremendous challenge for the health sector as well as also social and economic infrastructure.

Govt. of India Initiatives:

- 1) National Policy on Older Persons (1999),
- 2) National Health Policy (2015),
- 3) National Population Policy (2015),
- 4) Maintenance and Welfare of Parents and Senior Citizens Act, (2007)
- 5) National Program for Health Care of the Elderly (2011, 2014) the state initiatives in old age care.
- 6) The development of services for older people
- 7) Finance and employment
- 8) Driving and transportation
- 9) Housing and adaptations
- 10) Health and social care
- 11) Quality in health and social care
- 12) Patient/carer experience
- 13) Efficiency
- 14) Effective delivery of appropriate care

MOT 201 Advanced Occupational Therapy Diagnostic & Prognostic skills in Geriatrics

Course Description:

- A better understanding & process of the various diagnostic procedures used in Occupational Therapy for Geriatric patients.
- Will enable for clinical & functional diagnosis & critical decision on planning Occupational Therapy intervention.

Course Objectives: (Competency statements)

- Elicit and interpret clinical signs and symptoms & interpret clinical tests and special investigations commonly used in the diagnosis of geriatric conditions.
- 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 in Geriatric population
- 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 contents:

UNIT 1: Evidence-Based Practice

- Current Research in Geri care: 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. Medical-diagnostic evaluation:

1 Investigations:

- Biopsy, Densitometry, Arthroscopy, etc.,
- Biomarkers specific to neurological disorders
- Principles, Techniques and interpretation of biochemical and Pathological investigations
- Recent advances in Medical/diagnostic assessment and evaluation

2. Radiological evaluation

- a) X- Rays
- b) Magnetic Resonance Imaging Scan (MRI)
- c) Computerized Tomography (CT)
- d) Positron Emission Tomography (PET)
- e) Ultrasonography
- f) Angiography
- g) Intracranial pressure monitoring
- h) Other-radiological assessment

3. Neurophysiological evaluation

- a. EMG & NCV interpretation
- b. MCV, RNS, EPS, EEG related to neurological disorders with interpretation.

4. Other Electrophysiological assessment

UNIT 3: Diagnostics in Geriatric Occupational Therapy:

1. Occupation and Occupational Science
2. Application of Occupational therapy Practice Frame work (OTPF) for elderly persons:

Domains & Process to formulate client centered occupational therapy program

- I. Occupational Therapy Domains
 - a. Occupations
 - b. Occupational Profile
 - c. Contexts
 - d. Performance Patterns
 - e. Performance Skills
 - f. Client Factors
- II. Occupational Therapy Process
 - a) Evaluation
 - b) Intervention
 - c) Outcomes

UNIT 4: ICF:

Understanding ICF & its application in geriatric Occupational Therapy

UNIT 5: Occupational Therapy Evaluation

- a) Importance of assessment & evaluation, Outlines of principles and Methods of evaluation
- b) Knowledge and assessment for using common standardized and non-standardized tools/ instruments/tests/ scales in neurological disorders, neurosurgical, neuropsychiatric, and musculoskeletal disorders
- c) Condition specific outcome measures
- d) Clinical analysis of posture, movement and gait
- e) Neuro-motor evaluation
- f) Sensory evaluation

- g) Cognitive and perceptual evaluations
- h) Psychological evaluation
- i) ICF and other Occupation based conceptual frame work for assessment
- j) Critical decision making and selection of outcome measures
- k) Assessment, differential diagnosis and diagnosis of various neurological conditions
- l) Assessment of Physical and Neurological Functions of Patients in ICU

UNIT 6: To identify & administer appropriate standardised tests for specific problems in geriatrics

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

X. Posture, balance and gait:

- a. Time up & Go
- b. POMA performance-oriented mobility assessment
- c. Tandem / Semi tandem stand
- d. Functional research scale

XI. Scales for fall prevention:

Fall risk assessment

XII. Activity Participation and community Integration:

- a. Activity specific balance, confidence (ABC) scale
- b. Community integration questionnaire

XIII. Cardio pulmonary function and age-related changes:

Ten-minute targeted geriatric assessment

XIV. Hearing – vision and functional performance:

- a. Whisper test
- b. Hearing handicap index
- c. Inventory for the elderly NHANES battery
- d. Functional Low Vision assessment (IADL)
- e. OARS – Older American Resources & Services Geriatric Functional Rating Scale

XV. Cognitive functions:

- a. Mini mental status examination (MMSE)
- b. MOCA (Montreal cognitive assessment)
- c. LOTCA (Lowenstein occupational therapy cognitive assessment)

XVI. Mental status and Depression:

- a. Geriatric depression scale
- b. Geriatric depression scale short form

XVII. Activities of Daily Living:

- a. Barthel Index (BADL)
- b. FIM – FAM
- c. IADL, BADL – Lawton & Brody’s Scales
- d. Katz index of independence
- e. A-ONE (Arnadottir OT neuro behavioural evaluation)

XVIII. Work and Retirement:

- a. Validation of driving simulator by measuring visual attention skills of older adult drivers
- b. community integration questionnaire
- c. social adaptive functioning scale

XIX. Sexuality in late Adulthood:

- a. Perceived sexuality distress scale
- b. King’s health care questionnaire

XX. Home and environment

- a. Home FAST
- b. Social adaptive functioning scale
- c. Resident Assessment Protocol (RAPS)

XXI. Quality of Life

- a. QOL – Short form 36
- b. QOL – Short form 12

XXII. Urinary incontinence

- a. Questionnaire for urinary incontinence
- b. Incontinence QOL

XXIII. Conservative Pain Assessment:

- a. VAS – visual analogue scale
- b. Geriatric pain measure – short form
- c. advanced dementia pain scale

XXIV. Faces pain scale

XXV. Sleep & Sleep Disorders Assessment:

- a. Pittsburgh sleep quality index (PSQI)
- b. Consensus sleep diary (CSD)
- c. Epworth sleepiness scale
- d. Stanford health care sleep questionnaire
- e. Global sleep assessment scale

XXVI. End of life & terminal illness

- a. Hospice history & philosophy
- b. HAOF OT assessment –Hospice Assessment of Occupational function.
- c. c)Themes in hospice O.T
- d. d)Hospice goal planning & treatment

XXVII. Holistic Approach to Geri Care

- a. Integrated Approach: Combining physical, psychological, and social assessments to form a comprehensive evaluation.
- b. Personalized Assessment Plans: Tailoring evaluation methods to the individual needs of each athlete.

UNIT 7: Analysis & interpretation of Assessment:

- Screening the other associated issues in geriatrics
- A primary clinical/functional diagnosis and a list of differential diagnosis
- Planning of OT Program
- Critical decision and selection of outcome measures necessary for prognostic purpose & research studies

UNIT 8: Documentation:

Document the Assessment, outcome measures & interpretation

MOT 202: Advanced Occupational Therapy Process & Practice in Geriatrics

Course Description

This course focuses on the role of occupational therapy with the aged within geriatric rehabilitation 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 environments. In order for occupational therapists to understand the needs of older persons, the course addresses the aging process and its physiological, sociological, and psychological effects, with attention to heterogeneity and older person's strengths and capabilities. Students also learn about common impairments and disabilities and rehabilitation needs of older persons. Students will develop and demonstrate skills in evaluation, 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 older persons.

Course Objectives:

The course also addresses the importance of evidence-based practice, including occupational therapy, life-long learning and professional development, the benefits of collaborative OT- OTA partnerships and the relationships between policy, legislation and practice. Additional topics include aging and gender issues, successful aging, and community and home safety.

This course builds upon prior course work, particularly Growth and Development, Clinical Conditions in Occupational Therapy, Assessment and Intervention of Psychosocial Issues, Theories of Adult Rehabilitation.

Course Learning Outcomes:

The overall goal of the course is to provide a conceptual framework for the study of gerontology 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 older adult.

Course Contents:

To promote occupational functions in the geriatric conditions with advanced clinical occupational therapy interventions in the following:

UNIT 1: Occupational Therapy in Social Geriatrics:

The Social context of older people

- A) Ageist attitudes, values, assumptions, and stereotypes
- B) Ageism and discrimination
- C) Cross cultural perspectives on ageing and older people
- D) Exploring the social networks of older people
- E) Mapping social networks
- F) Types of social support
- G) Types of support network
- H) Pets as members of the older person's social context
- I) Health professionals as sources of social support
- J) Dysfunctional social contexts
- K) The social context, health and longevity
- L) Implications for occupational therapists

Management of elderly with respect to social context :

- A) Role of Government and NGOs in up-liftmen of socio-economic status of older people
- B) national policies on ageing and old age care
- C) Geriatric Service for the Elderly with consent of family/client
- D) Day Hospital, Day Care Centre, Long Stay Care Institution, Home for the aged
- E) Nursing Home for geriatrics
- F) Ethical Issues in Geriatric Medicine

UNIT 2: Occupational Therapy in Preventive Geriatrics:

- A) Preventing Diseases and promoting health in old age - Types of preventive activities - Risk factor management in elderly - screening
- B) Health belief model - General Health practices in elderly
- C) Exercise in the elderly - Physical and Mental domain - Benefits of Exercise
- D) Development of Anticipatory Care and its Rationale - methods of Anticipatory Care
- E) Health promotion and Health Education in the Elderly
- F) Anti-Aging interventions

UNIT4: Occupational Therapy in Rehab settings

- A) The concepts and History of Rehabilitation
- B) The goals of Rehabilitation
- C) Principles of Rehabilitation - Assessment, goals, priorities and monitoring progress
- D) Rehabilitation in old age - Special features in relating to aging, multiple pathology, Policies, expectation, carers, acute illness, social and financial support
- E) Clinical evaluation of rehabilitation - impairment, disability and handicap
- F) Prevalence of disability, types of disability
- G) Rehabilitation as Team work - Team leadership, therapist, physiotherapy, occupational therapy, social worker, physician and nursing personnel.
- H) Aids and application - tools for living
- D) Application of productive leisure activities
- J) Contractures and other deleterious effects of immobility
- K) Pressure Ulcer - factors, prevention and management
- L) Organization and effectiveness of rehabilitation services - Community Services
- M) Geriatric Unit, Day hospital, Day Care Centre, Long Stay Care Institution - role of rehabilitation in the above services

UNIT 5: Geriatric Occupational therapy in community

- A) Community-Based Occupational Therapy in Healthy and Frail Elderly
- B) Healthy Ageing for the Well Elderly Through Prevention
- C) Home-Based Occupational Therapy Services to specific conditions.

UNIT 6: Geriatric Occupational Therapy in the ICU

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

UNIT 7: Hospice & Palliative care:

- To identify the need of specific approach to be used in Geriatric conditions
- Describe characteristics of loss, grief & bereavement in relation to occupational performance.
- Develop treatment program for hospice patients & their care givers.
- Explain hospice family system & the need for treatment of the family as a unit of care.
- Role of OT in Hospice & Palliative care

UNIT 8: Geriatric Psychiatry:

1) Dementia & Alzheimer's disease

- Describe the cognitive changes in normal aging, cognition and activities in normal aging
- Assessing functional performance in dementia, managing dementia
- Assessing functional performance in Alzheimer's disease, managing Alzheimer's disease

2) Depression

Overview of depressive disorders, Depression and functional status, treatment of depression, cultural factors in depression

3) Personality traits.

Overview of Personality traits, Personality traits and functional status, treatment of Personality traits, cultural factors in Personality traits

UNIT 9: Forensic Occupational therapy:

- a. Team: It including clinical and forensic psychiatry and mental health professionals, geriatricians and internists, attorneys and courts, regulators, and other professionals working with the older population.
- b. Its include clinical forensic evaluation, regulations and laws, civil commitment, different forms of capacity, guardianship, patient rights, medical-legal issues
- c. Identify the five most common types of abuse found among elderly.
- d. Recognize relationship between deteriorating functional structure & the potential for abuse & reflect.
- e. Incorporate preventive strategies in the treatment plan

UNIT 10: Visual rehabilitation in Geriatric Occupational Therapy

- a) Symptoms of low vision
Blurred vision, Central field loss, Contrast loss and glare problems, Multiple field loss, Distortion, Tunnel vision
- b) Employment and job training
- c) Assistive products, like lighting and reading stands
- d) Technology, like magnifiers and screen readers
- e) Daily living and independent living skills trainings
- f) Emotional support, like counselling or support groups
- g) Transportation and household services

UNIT 11: Documentation:

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

MOT 203: Current & Future Trends in OT for Geriatrics

Course Description:

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

This course updates the knowledge of students about the latest technologies used in OT intervention.

Course Objectives (competency statements) –

1. To implement latest technologies for the OT intervention in geriatrics.
2. Understand the Frames of reference in OT while applying any new technology for various geriatric conditions.
3. To identify & document the appropriate newer assessment, planning goals & application of evidence based latest OT approaches used for the specific needs of elderly patients
4. Document & monitor the progress of implemented recent approaches

Course Outcomes:

1. Explain the recent knowledge in the field of geriatrics
2. Illustrate & describe the recent diagnostic and assessment tools to identify specific impairments in elderly persons.

Course Contents:

UNIT 1: Recent Technologies in Assessment & Evaluation:

- a) Motion Capture Systems: Detailed analysis of movement patterns and identification of dysfunctional mechanics.
- b) Posture analyser
- c) Gait analyser
- d) Motion Analyser
- e) trims
- f) fMRI
- g) Other methods

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

- a) Splinting and orthosis
- b) Adaptive devices
- c) Assistive devices
- d) Wheelchair
- e) Mobility Devices
- f) 3D printing
- g) Other devices

UNIT 3: Recent advances in OT intervention

1. Recent Therapies

- a) Mirror therapy
- b) Mental / motor imagery
- c) CIMT
- d) BWSTT
- e) Vestibular Rehabilitation Therapy (VRT) For vestibular & balance disorders
- f) Virtual reality (VR):
- g) Virtual reality applications for motor learning and rehabilitation
- l) Virtual environments for pain distraction and management

2. Adjunctive Therapies

- a) Neural mobilization and Neuro Dynamics
- b) FES
- c) NMES
- d) Transcranial Magnetic Stimulation
- e) Transcranial direct current stimulation
- f) Pain Modulation and intervention
- g) PAMOT
- h) Yoga therapy
- i) MFR
- j) Kinesiotaping



UNIT 4: Recent advances in medical intervention

- a) Genetic counselling
- b) Stem cell therapy
- c) Gene therapy
- d) Other recent neuro-regenerative interventions

UNIT 5: Technology and Older Adults

1 Considerations of Assistive technologies

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

2. 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.

- A) Understanding Augmentative and Alternative Communication (AAC)
- B) Categorization of AAC
- C) Types Of AAC Systems
 - I. Symbols-based system
 - II. Communication boards
 - III. Text to Speech devices
 - IV. Speech generating devices
- D) Implementing AAC in daily Life
- E) AAC, Aging, and Telephone Relay Access Technology
- F) Challenges and considerations

3. Brain computer Interface for functional Activities in Geriatrics

- (1) Training motor/cognitive abilities for preventing the aging effects,
- (2) Controlling home appliances,
- (3) Communicating with others during daily activities,
- (4) Controlling an exoskeleton to enhance the strength of the body's joints.
- (5) Electroencephalogram (EEG) to improve their quality of life

UNIT 6: Future trends in elderly care

- **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:

- I. Home based Elderly care
- II. Training for trainer
- III. Productive Ageing: Finding innovative approaches to support productive aging
 - a) Exploring the Productive ageing resources
 - b) Driving & Community Mobility
 - c) Falls Prevention
 - d) Occupational engagement & Productive ageing

Recommended texts:

- 1) Jean M Kiernat. Occupational Therapy and Older adult: A Clinical Manual
- 2) Anee McIntyre and Anita Atwal. Occupational Therapy and Older People
- 3) Christian Pozzi, Alessandro Lanzoni. Maud J L Graif. Occupational Therapy for Older people
- 4) Bortnick, K. (2017). *Occupational Therapy Assessment for Older Adults*. Thorofare, NJ: SLACK
- 5) Turpin, & Wama, (2011). *Using Occupational Therapy Models in Practice: A Field Guide*. St. Louis MO, Elseveir 2011
- 6) Poo, A. (2015). *The Age of Dignity: Preparing for the Elder Boom in a Changing America*. New York, NY: The New Press.
- 7) Bjorklund, B.A. (2015). *The Journey of Adulthood (8th ed.)*. Boston, MA: Pearson
- 8) Sirven & Malamut, (2008) *Clinical Neurology of the Older Adult 2nd Edition* Stony Brook Library Catalog Number:
- 9) Lewis,S.C. (2003). *Elder Care in Occupational Therapy (2nd ed.)* Thorofare, NJ: Slack
- 10) Piersol, C.V. & Erlich, P.L. (2008) *Occupational Therapy in Home Health Care, PRO-ED, Incorporated*
- 11) Radomski, M.V. & Trombly-Latham, C.A. (2008). *Occupational therapy for physical dysfunction (7th ed.)*. Baltimore: Lippincott Williams & Wilkins.
- 12) Crepeau, E.B., Chon, E.S., Schell, B.A. (Eds.) (2007). *Willard and Spackman's Occupational Therapy. (12th ed.)*. Philadelphia, PA: Lippincott, Williams & Wilkins.
- 13) Pendleton, HM, and Krohn, W.S. (Eds.) (2006). *Pedretti's: Occupational therapy: Practice skills for physical dysfunction, 8th ed.*, St. Louis, MO: Mosby/Elsevier
- 14) Lichtenberg, P. (Ed.) (2008) *Handbook of Assessment in Clinical Gerontology 2nd Ed.*, St. Louis, MO: Mosby/Elseviere
- 15) Marilyn B. Cole, Karen Crane Macdonald (2015) *Productive Aging: An Occupational Perspective*
- 16) Abhaya Gupta. Measurement scales used in Elderly.

Master of Occupational Therapy in Oncological Science MOT (ONCO)

Course Description

This course focuses on the role of occupational therapy for cancer patients in various settings (in-patient, out-patient and home care), long-term care programs, wellness & safety programs, hospice, and community-based programs). In order for occupational therapists to understand the needs of cancer patient, the course addresses the basic medical science like clinical oncology, Cancer Biology, Radiobiology and the effects of chemo therapy & radiations on the cancer biology . Students also learn about common impairments and disabilities and rehabilitation needs of cancer patient persons. Students will develop and demonstrate skills in evaluation, 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 persons. It also trains the students on various theories, Frames of references & approaches used in Occupational Therapy intervention of patients undergoing surgical & or non-surgical treatment of cancer

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.

MOT 1styear

MOT 104: Basic Medical Sciences & Theoretical foundation in Occupational Therapy for oncological science

Course Description:

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.

Course Objectives (competency statements) –

The objectives of this course are

1. 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.
2. To understand the cancer biology & the stages
3. Understand the cultural diversity and heterogeneity among the aged, and its impact upon assessment, treatment planning and discharge planning
4. To identify & document the appropriate frames of reference used for the specific condition.
5. Use the various frames of references in the intervention of individual person having specific problems due to specific cancer disease

6. Use the latest technology for assessment, intervention and documentation
7. Explain the role of occupational therapy in the promotion of health and the prevention of disability for the individual, family, and society
8. Demonstrate knowledge of community programs and organizations that assist the people undergoing treatment

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

Course Contents:

UNIT 1: Learn the basics of Clinical Oncology

- a) Introduction to oncology
- b) Principal of clinical and pathological staging of cancer, diagnosis and principals of treatment
- c) Basics of Radiation Therapy
- d) Basics of cancer Chemotherapy, Hormone & Biological Therapy
- e) Basics of cancer surgery
- f) Combined modality of Radiotherapy and Surgery
- g) Combined modality of Radiotherapy and Chemotherapy
- h) Basics of Radiation treatment planning: Clinical aspects.

UNIT 2: Understand Cancer Biology in depth

- a) Cellular structure and function
- b) Cell membrane and Cytoplasm
- c) Nucleus, normal gene transcription, DNA repair mechanism, polymorphism, micro-satellites, Methylation, hypomethylation & methylation reversal
- d) Haemopoiesis: Marrow structure, haemopoietic microenvironment, cell lineage & hierarchies

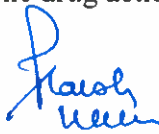
- e) Cell growth control: Normal cell growth & control, Autocrine, paracrine & endocrine control, signal transduction, cyclin kinases, gene promoters, signal pathways
- f) Cell Cycle Control and cancer, basic kinetics
- g) Growth disorders: Hyperplasia, dysplasia, carcinoma-in-situ and neoplasia
- h)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

UNIT 3: Understand the radiobiology

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

UNIT 4: Understand the chemotherapy process & clinical pharmacology

1. Mechanism of action of Cytotoxic drug: Mechanism of action, Phase & cell cycle specific drug, Mechanism of cell death, Mechanism of cell death, Drug resistance modifiers, drug interaction.
2. 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
3. Molecular basis of cytotoxic drug action and drug resistance with respect to cancer biology



UNIT 6. Describe the Clinical signs and symptoms in different categories of cancer

- 1) Bone and soft tissue Cancer
- 2) Neuro oncology
- 3) Breast, Reproductive & Genital Cancer
- 4) Lung Cancer
- 5) Gastrointestinal cancer
- 6) Head and neck Cancers
- 7) Haematology cancer
- 8) Systemic and Organ Cancers

UNIT 7: 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 8: Ethical Consideration in Occupational Therapy practice in Oncology:

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

UNIT9: Evaluate in details for Disability Certification:

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

1. Locomotor disabilities due to Amputation, Musculoskeletal conditions. neurological conditions & any other
2. 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 10: Enlist & describe the Legal issues/ Legislations acts / policies concerning:

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

Govt. Schemes & services for Cancer Treatment

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

MOT 2nd Year

MOT 201 Advanced Occupational Therapy Diagnostic & Prognostic skills in Oncology

Course Description:

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.

Course Objectives: (Competency statements)

1. 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.
2. Identify normal & pathological anatomy on diagnostic images
3. Illustrate the diagnostic tools to identify health problems in Geriatric patients
4. Understand the appropriate use of assessment tools for specific problems in geriatric patients
5. Able to administer the specific tool for screening the other associated issues in geriatrics
6. Describe & administer Specialized tools of OT assessment of cancer patients
7. Compare the scoring with norms & analyse it for planning of OT Program
8. Administer the tools for assessing progress in patients.
9. Demonstrate a broad range of technical skill in diagnosing the Occupational Therapy related Geriatric conditions.
10. Generate a primary diagnosis and a list of differential diagnoses consistent with typical presentations.
11. Make Critical decision and selection of outcome measures in Geriatric Occupational Therapy

Course contents:

UNIT 1: Assess & evaluate on basis of Evidence

1. Current Research: Reviewing and applying the latest research findings to assessment and diagnosis.
2. Outcome Measures: Using validated tools to track progress and outcomes of interventions.

UNIT 2: Analyse & 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:

- a. Occupation and Occupational Science
- b. Occupational therapy Practice Frame work (OTPF) for person having cancer:

Domains & Process to formulate client centered occupational therapy program:

Occupational Therapy Domains

- a. Occupations
- b. Occupational Profile
- c. Contexts
- d. Performance Patterns
- e. Performance Skills
- f. Client Factors

Occupational Therapy Process

Evaluation & outcome measures

UNIT 4: Occupational Therapy Evaluation

- a. Importance of assessment & evaluation, Outlines of principles and Methods of evaluation
- b. Knowledge and assessment for using common standardized and non-standardized tools/ instruments/tests/ scales in neurological disorders, neurosurgical, neuropsychiatric, and musculoskeletal disorders
- c. Condition specific outcome measures
- d. Clinical analysis of posture, movement and gait disorders & cardio respiratory fitness
- e. Neuro-motor evaluation
- f. Sensory evaluation
- g. Cognitive and perceptual evaluations
- h. Psychological evaluation
- i. ICF and other Occupation based conceptual frame work for assessment
- j. Critical decision making and selection of outcome measures
- k. Assessment, differential diagnosis and diagnosis of various neurological conditions
- l. Assessment of Physical and Neurological Functions of Patients in ICU

- m. Influence and relation of physical activity, diet, nutrition, life style, obesity and anthropometric
- n. Evaluation of Cancer Complications like Lymphedema, musculoskeletal, neurological, cardio respiratory.
- o. 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 standardised 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
 - **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** Bruininks Oseretsky 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
- **Cognition-**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:

1. Screening the other associated issues in person with cancer
2. A primary clinical/functional diagnosis and a list of differential diagnosis
3. Planning of OT Program
4. Critical decision and selection of outcome measures necessary for prognosis

UNIT 8: Documentation:

Document the Assessment outcome measures & interpretation

MOT 202: Advanced Occupational Therapy Principles & Practices in Oncology

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 Objectives:

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

1. Understand and apply the information regarding recent advances in Occupational Therapy for cancer patient care.
2. Search the evidences available for assessment and management of oncological conditions.
3. Apply the evidences available for the management of various oncological conditions
4. 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.
5. 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 Learning 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.

Course Contents:

UNIT 1: To promote occupational functions in the oncological conditions with advanced clinical Occupational Therapy interventions of the following:

- a. Neuro oncology
- b. Head & Neck Cancers
- c. Bone & Soft Tissue Cancer
- d. Paediatric oncology
- e. Breast and Reproductive System & Genital Cancers
- f. Systemic and Organ Cancers
- g. Paediatric cancers
- h. Haematological cancers
- i. Lung cancers

UNIT 2:

OT Management by using appropriate frames of references in the children, adolescents, adults and elderly individuals having following dysfunctions but not limited to:

- a. Psychological dysfunctions (anxiety, depression) & psychosocial affectation due to cancer.
- b. Musculoskeletal complications & dysfunctions of cancer
- c. Neurological Dysfunctions
- d. Genital & Urinary Dysfunctions
- e. Respiratory dysfunctions
- f. Pain in Cancer
- g. Oncological Occupational Therapy in ICU
- h. Gynaecological Dysfunctions
- i. Postsurgical management

- j. Dysfunctions due to Radiation therapy and Chemotherapy and surgical procedures
- k. Cancer related fatigue.
- l. Bowel & Bladder dysfunction in cancer patient
- m. **Lymphedema** in cancer: OT Management
- n. Sexuality issues and OT application in cancer rehabilitation.
- o. Sleep issues in cancer and OT management.
- p. Communication and swallowing dysfunction
- q. Occupational Therapy in discharge planning, home assessment and home program in cancer patients
- r. Vocational fitness program and job analysis based on ergonomic principles.
- s. Return to work, school & Play.
- t. Addressing Architectural barriers for cancer patients.
- u. Application of ergonomics in Oncology.
- v. Nutritional & diet care of cancer patients
- w. 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:

- a) Day care centers,
- b) Community Services,
- c) Preventive model
- d) Long term care in Rehab Setting

UNIT 4: Describe the Rehabilitation Setting:

- a. The Concept & goals of Rehabilitation
- b. Principles of Rehabilitation - Assessment, goals, priorities and monitoring progress
- c. Rehabilitation organisation-policies, expectation, carers, acute illness, social and financial support
- d. Clinical evaluation in rehabilitation - impairment, disability and handicap
- e. Prevalence of disability, types of disability

- f. Rehabilitation as Team work - Team leadership, therapist, physiotherapy, occupational therapy, social worker, physician and nursing personnel.
- g. Aids and application - tools for living
- h. Leisure & Play activities: Indoor & outdoor
- i. Contractures and other deleterious effects of immobility
- j. Pressure Ulcer - factors, prevention and management
- k. Organization and effectiveness of rehabilitation services -/ Community Services
- l. 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:

- a) Explain what is palliative care & need for palliative care
- b) Principles of palliative & hospice care ,with the application of evidence based palliative care
- c) To identify the need of specific approach to be used in oncological conditions
- f. Describe characteristics of loss, grief & bereavement in relation to occupational performance.
- g. Develop evidence based treatment program for hospice patients associated with other medical, neurological, orthopedic, psychological conditions.
- h. Explain hospice family system & the need for treatment of the family as a unit of care.
- i. Application of assistive technology, orthosis, prosthesis, assistive aids in individuals receiving Palliative/Hospice care.
- j. Advocacy in Palliative care
- k. OT Management for Pain in Palliative care / in hospice
- l. Fatigue assessment and management in individuals with Palliative/Hospice care.

- m. Sleep assessment and management in individuals receiving Palliative/Hospice care.
- n. Sexuality issues and OT application in individuals receiving Palliative/Hospice care.
- o. Psychosocial issues and OT application in individuals with systemic/organ cancers.
- p. Postsurgical Occupational Therapy application in individuals receiving Palliative/Hospice care.
- q. Application of various OT techniques in individuals
- r. 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



MOT 203: Current & Future Trends in Occupational Therapy in Oncology

Course Description: 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.

Course Objectives (competency statements) –

- 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 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

Course Contents:

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

1. 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

2. 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

3. **Brain computer Interface for functional Activities in Geriatrics oncology patients:**

- (1) Training motor/cognitive abilities for preventing the aging effects,
- (2) Controlling home appliances,
- (3) Communicating with others during daily activities,
- (4) Controlling an exoskeleton to enhance the strength of the body's joints.

UNIT 6: Future trends :

Telemedicine

- a) **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
- b) **Smart home technology:** smart thermostats and smart home security system
- c) **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.
- d) **Robotics:** Robotics technology
- e) **Remote patient Monitoring:** Remote patient monitoring (RPM) tools
- f) **Smart Devices**
 - a. Technology evolving from personal emergency response service tools (PERS)
 - b. Smartphones with large buttons and displays.
 - c. 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.

Recommended books :

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 Winningham, 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 Pediatric 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 & Rehabilitation 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)

Master of Occupational Therapy in Mental Health – MOT (MH)

Course Description

This course focuses on the role of occupational therapy for the Individuals diagnosed with Mental Health issues in 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 environments. In order for occupational therapists to understand the needs of clients, the course addresses the Mental Health issues and its physiological, sociological, and psychological effects, with attention to heterogeneity and person's strengths and capabilities. Students also learn about common impairments and disabilities and rehabilitation needs of Mentally ill persons.

Students will develop and demonstrate skills in evaluation, 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 persons with Mental Illness. It also trains the students on various theories, Frames of references & approaches used in Occupational Therapy intervention for person with Mental Illness.

Course Objectives:

The course also addresses the importance of evidence-based practice, including 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 Growth and Development, Clinical Conditions in Occupational Therapy, Assessment and Intervention of Psychosocial Issues, Theories of Mental Health Rehabilitation.

Competency Domains and Learning Outcomes: Domain 1: Clinical Assessment and Evaluation

• Learning Outcomes:

- Conduct interviews and evaluations of persons with Mental Health issues in multiple settings
- Conduct comprehensive assessments of functional abilities.
- Apply specialized standardised evaluation tools relevant to clinical features
- Analyze assessment findings to formulate client-centered treatment plans.
- Explain the importance of quality of life issues for persons and their relationship to cultural, religious and Ethnic issues

Domain 2: Intervention Planning and Implementation

• Learning Outcomes:

- Design evidence-based intervention plans tailored to each individual person
- Implement treatment plans for individuals in multiple settings.
- Formulate treatment plans (including discharge planning) in partnership with persons/families utilizing behavioural objectives.
- Demonstrate knowledge of community programs and organizations that assist the people.
- Document the necessary findings

Domain 3: Inter professional Collaboration

• Learning Outcomes:

- Understand the Individual as a high-risk group with regard to medication interactions, including how physiologic changes influence medication effects.
- Collaborate effectively with other professionals of team and other healthcare providers.
- Participate in multidisciplinary teams to optimize the intervention outcomes.
- Communicate occupational therapy perspectives and contributions in hospitals, community centres and halfway homes

Domain 4: Professionalism and Ethical Practice

• Learning Outcomes:

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

Domain 5: Research and Evidence-Based Practice

• Learning Outcomes:

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

MOT 1st year

MOT 104: Basic Medical Sciences & Theoretical foundation of Occupational Therapy in Mental Health

Course Description:

The overall goal of the course is to provide a conceptual framework as it relates to occupational therapy and to assist occupational therapy students to develop the skills and knowledge needed to understand major issues in theory, research, and practice related to the Patients diagnosed with Mental Health Issues. It involves the training in the use of various theories Frames of references & approaches used in Occupational Therapy intervention of Mental Health population

Course Objectives (competency statements) – The objectives of this course are:

1. To create valuable human resource for providing occupational therapy in the speciality area of mental health.
2. To know the history and knowledge base of mental health occupational therapy including recovery model, medical model and occupational science.
3. To understand human occupation and mental health throughout life span.
4. To study in-depth foundation of occupational therapy related to mental health.
5. To study in-depth specific factors of mental health.
6. To be able to participate in a lifelong process of learning, practicing, advocating and researching occupational therapy in mental health.

Course Outcomes:

1. Define Human Occupation throughout life span and explain the foundation of occupational therapy, concepts and models of mental health and wellbeing.
2. Describe the specific client factors related to mental health.
3. Describe clinical reasoning, psychiatric OT & evidence based practice in mental health Occupational therapy.

UNIT 1: History of Occupational Therapy in Mental Health

UNIT 2: Knowledge base of Mental Health occupational Therapy

- Recovery model
- Medical, psychological and occupational therapy theories and models related to mental health occupational therapy.
- Psychosocial, family systems and client centered approach in OT.
- Suicide prevention and psychological first aid.

UNIT 3: Human occupation and mental health throughout the lifespan

- I. Development of Human Occupation and brief description of developmental stages
- II. Factors promote healthy Development and Developmental Problems
- III. Application and Critique of various Developmental Theories.

UNIT 4: Foundation in Mental health Occupational Therapy

Section A: Specific client factors related to Mental Health

- a. Cognitive Skills
- b. Cognitive Beliefs
- c. Sensory Skills
- d. Communication and Social Skills
- e. Coping Skills
- f. Motivation
- g. Emotion Regulation
- h. Pain Regulation
- i. Thinking
- j. Perception and awareness
- k. Risk assessment

Section B: Symptoms of Mental illness

- a. Disturbance of consciousness
- b. Disturbance of reasoning and judgment
- c. Disturbance of memory
- d. Disturbance of thought and perception

- e. Disturbance of vision
- f. Disturbance of motor behavior
- g. Disturbance of speech
- h. Disturbance of affect

Section C: Interaction with Patients:

- a. Therapeutic Use of Self
- b. Responding to symptoms of Behaviour
- c. Safety Techniques
- d. Group Concepts and Techniques

UNITS 5: Describe the appropriate OT frames of reference (FOR) & Treatment approaches in specific Mental Health Conditions:

- a. Behavioural FOR
- b. Biomechanical FOR
- c. Cognitive behavioural FOR
- d. Compensatory FOR
- e. Psychodynamic FOR
- f. Psycho analytical FOR
- g. Psycho spiritual FOR
- h. Rehabilitative FOR
- i. Sensory Integration FOR
- j. Cognitive disability FOR
- k. MOHO
- l. Acquisitional Frame of reference
- m. Developmental

UNIT 8: To apprise about various Legislation & Laws related to Mental Health conditions / disabilities

1. National health policies & schemes related to various Mental Health conditions
2. Recent Rights of Persons with Disabilities act
3. The Rights of Persons with Disabilities Act, 2016
4. Mental Health Act ,2017 and other relevant legislation implemented in the area of Mental Health
 - To understand the provisions of Mental Health act for effective service delivery
 - Laws of the land pertaining to mental illnesses like MHCA 2018, RPWD 2016, JJ act
 - National policies for older persons, women, children, LGBTQ and other vulnerable population

UNIT 9: To understand about guidelines related to evaluation and certification of disability related to various Mental Health conditions

- a. Recent government guidelines to assess Mental Health and related disabilities
- b. 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

UNIT10: Ethical considerations in Mental Health Occupational Therapy:

- a) Considerations for Sociocultural norms and spirituality
- b) Ethical guidelines for patient handling

UNIT 11: Occupational Therapy Practise Framework (OTPF)and ICF:

- a) Application of Domain and Process components to formulate client centred Occupational Therapy Program
- b) Understand ICF
- c) Application of ICF in Mental Health Occupational Therapy



MOT 2nd Year

MOT 201: Advanced Occupational Therapy Diagnostic & Prognostic skills in Mental Health

Course Description:

1. A better understanding & process of the various diagnostic procedures used in Occupational Therapy for Mental Health Patients .
2. Will enable for clinical & functional diagnosis & critical decision on planning Occupational Therapy intervention.

Course Objectives: (Competency statements)

1. To understand the Mental health Assessment, the Process and the methods of Assessment
2. To critically examine the behavioural strengths and barriers in the context of occupational performance using standardized and non- standardized assessments
3. To understand Psychopathology and function of various Mental Health conditions
4. To study the foundation of occupational therapy related to mental health
5. To understand DSM -V criteria & ICD-10

Course Outcomes:

1. Define the OT Mental health assessment process and methods.
2. Describe the standardized & Non- standardized assessment
3. Describe the psychopathology and function of various Mental Health conditions
4. Define the disease model of psychiatric diagnosis. discuss how the American Psychiatric Associations (APA), Diagnostic and statistical manual of mental disorders (DSM) and World health Organization (WHO) , International Classification of disease (ICD) have developed in parallel.
5. Discuss the ways in which Occupational therapy categorization of psychosocial dysfunction differs from psychiatric diagnosis.
6. Identify the six areas of focus for Occupational therapy as described in occupational therapy practice framework.

Course contents:

UNIT 1: Evidence Based Practice

- Current Research; Reviewing and applying the latest research findings to assessment and diagnosis.
- Outcome Measure: Using validated tools to track progress and outcome of Interventions

UNIT 2: Analyse & interpret the Medical investigations in Mental Health

Section I: Biological Investigations

- Medical Investigations
- Toxicology Screen
- Drug Level Electrophysiological Studies
- Brain Imaging
- Neuro Endocrine Tests
- Biochemical Tests
- Genetic Tests
- Sexual Disorder Investigations

Section II: Psychological Investigations

- Objective Tests
 - Projective tests
 - Psychological tests
 - Rating Scales
- **Understand Child Psychiatry Assessments tools and interpret in relation to Occupational Therapy Practice:**
 - Child behaviour checklist/youth self-report,
 - Brief Psychiatric Rating Scale – Children (BPRS-C)
 - Childhood Autism Rating Scale, 2nd Edition (CARS2)
 - The Carolina Vineland Social Maturity Scale (VSMS) Vineland Adaptive Behavior Scale (VABS)
 - Indian Scale for Autism (ISAA)

- **Understand Adult Psychiatry Assessments tools and interpret in relation to Occupational Therapy practice**

- Hamilton Rating Scale for Depression (HAM-D or HRSD)
- Beck Depression Inventory (BDI)
- Inventory of Depressive Symptomatology
- Geriatric Depression Scale (GDS)
- Beck Anxiety Inventory
- Hamilton Rating Scale for Anxiety,
- Yale-Brown Obsessive Compulsive Scale (YBOCS) Short PTSD Rating Interview (SPRINT)
- Panic Disorder Severity Scale
- Alcohol Use Disorders Identification Test (AUDIT) Iowa Personality Disorder Screen (IPDS)
- Inventory of Interpersonal Problems
- Wechsler Adult Intelligence Scale (WAIS)
- NIMHANS screening tool

UNIT III: Diagnostics in Mental Health Occupational Therapy:

- Occupation and Occupational Science
- Occupational therapy Practice Frame work for elderly persons : Domains & Process :

Occupational Therapy Domains

- Occupations
- Occupational Profile
- Contexts
- Performance Patterns
- Performance Skills
- Client Factors
- Occupational Therapy Process
- Evaluation
- Intervention
- Outcomes

UNITIV: 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 used in Mental Health conditions
- 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 Mental Health conditions

UNIT V: To identify & administer appropriate standardised tests for specific problems in Occupational Therapy Mental Health.

The following tools are recommended but are not limited to. Interviews: The purpose of Interview is to gather information about the patients

- Occupational Performance History Interview
- Role Check List
- The Canadian Occupational Performance Measure(COPM)
- Model of Human Occupation Screening Test 2

Observation Checklists:

Comprehensive Occupational Therapy Evaluation Tool(COTE)

Assessment of Daily Living Skills:

- Milwaukee Evaluation of Daily Living skills
- Kohlman Evaluation of Living skills
- Vellore Inventory of Life Skills- for BADL/ IADL assessment
- Global Assessment of Functioning (GAF)
- ICF Checklist- for overall functional assessment

Assessment of Time Use:

- Occupational Questionnaire
- Barthel Time Construction

Assessment of Process skills and Mental functions:

- The Bay Area Functional Performance Evaluation
- Allen Cognitive tests
- Montreal Cognitive Assessment
- Assessment tools to assess Psychological Functions
- Rosenberg Self-Esteem Scale
- Tennessee Self-Concept Scale
- Resiliency Scales for Children & Adolescents

Assessments of Leisure Interest and Social Participation:

- Modified Interest Checklist
- Adolescent Leisure Interest Profile
- Vellore Assessment of Social Performance
- Leisure Satisfaction Scale
- NonVerbal social skills rating scale for mentally ill

Assessment of prevocational/ vocational skills

Vocational potential assessment tool - for

UNIT VI: Documentation in Mental Health Occupational Therapy

Initial assessment and Follow up

MOT 202: Advanced Occupational Therapy Process & Practice in Mental Health

Course Description:

This course focuses on the role of occupational therapy with the Individuals diagnosed with Mental Health issues in 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 environments. In order for occupational therapists to understand the needs of clients, the course addresses the Mental Health issues and its physiological, sociological, and psychological effects, with attention to heterogeneity and person's strengths and capabilities. Students also learn about common impairments and disabilities and rehabilitation needs of Mentally ill persons. Students will develop and demonstrate skills in evaluation, 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 persons with Mental Illness. It also trains the students on various theories, Frames of references & approaches used in Occupational Therapy intervention for Mental Health population.

Course Objectives:

The course also addresses the importance of evidence-based practice, including 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 Growth and Development, Clinical Conditions in Occupational Therapy, Assessment and Intervention of Psychosocial Issues, Theories of Mental Health Rehabilitation.

Course Learning Outcomes:

The overall goal of the course is to provide a conceptual framework for the study of Mental Health Occupational Therapy 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 patients with Mental illness.

COURSE CONTENT:

Description of the various clinical conditions including Epidemiology, Etiology, clinical features, course, treatment, prognosis on the bases of DSM- V and ICD. Application of Evidence based Occupational Therapy approaches and treatment in the following conditions:

UNIT I: Occupational therapy for the Neurodevelopmental Disorders

- a. Intellectual Developmental Disorders
- b. Communication Disorders
- c. Autism Spectrum Disorder
- d. Specific Learning Disorder
- e. Motor Disorders
- f. Tic Disorders

UNIT II: Occupational therapy for the Schizophrenia Spectrum and Other Psychotic Disorders

- a) Schizophrenia
- b) Bipolar and Related Disorders
- c) Anxiety Disorders
- d) Obsessive-Compulsive and Related Disorders
- e) Dissociative Disorders
- f) Somatic Symptom and Related Disorders
- g) Feeding and Eating Disorders
- h) Elimination Disorders
- i) Sleep-Wake Disorders
- j) Sexual Dysfunctions
- k) Gender Dysphoria
- l) Substance-Related and Addictive Disorders
- m) Personality Disorders

UNIT III: Occupational therapy for the Neurocognitive Disorders

- a. Neuro Psychiatric aspects of CVA, Tumor, Head Trauma, Multiple sclerosis, headache, demyelinating disorders, infectious disorders endocrine disorders and Epilepsy.
- b. Dementia, Delirium, amnesic and other cognitive disorders due to a general medical condition

UNIT IV: Occupational therapy for the Medication-Induced Movement Disorders and other Adverse Effects of Medication

- a) Medication-Induced Parkinsonism
- b) Antipsychotic Medication and Other Dopamine Receptor Blocking Agent-Induced Parkinsonism
- c) Neuroleptic Malignant Syndrome
- d) Medication-Induced Acute Dystonia
- e) Medication-Induced Acute Akathisia
- f) Tardive Dyskinesia
- g) Tardive Dystonia
- h) Tardive Akathisia
- i) Medication-Induced Postural Tremor

UNIT V: Occupational therapy for the other Conditions that May Be a Focus of Clinical Attention

- a) Suicidal Behaviour and Non suicidal Self-Injury
- b) Abuse and Neglect
- c) Child Sexual Abuse
- d) Child Psychological Abuse
- e) Spouse or Partner Violence, Sexual and Neglect, Abuse and Neglect
- f) Relational Problems
- g) Occupational Problems (Work Related Problems)

UNIT VI: Family involvement in Mental Health Occupational Therapy.

UNIT VII: Vocational Rehabilitation in Mental Health Occupational Therapy

Occupational Therapy process of Vocational Rehabilitation



Competency Based Curriculum of Occupational Therapy

(Intellectual property of National Commission for Allied and Healthcare Professions, Ministry of Health and Family Welfare)

UNIT VIII: Forensic Occupational therapy:

- a. Team: It including clinical and forensic psychiatry and mental health professionals, geriatricians and internists, attorneys and courts, regulators, and other professionals working with the patients having Mental Illness
- b. Its include clinical forensic evaluation, regulations and laws, civil commitment, different forms of capacity, guardianship, patient rights, medical-legal issues related to treatment, long term care and telemedicine, risk management, patient safety , sociopathy and aggression, offenders and the adjudication process, criminal evaluations, corrections, ethics, culture, cognitive impairment, substance abuse, trauma, high risk behaviour, and forensic mental health training and research.
- c. Understanding the relationship between clinical issues, laws and regulations, and managing risk and improving safety, will help to serve the patients with Mental Illness.
- d. Recognize relationship between deteriorating functional structure & the potential for abuse & reflect.
- e. Incorporate preventive strategies in the treatment plan
- f Understanding the legal aspects of various provisions from admission to discharge of Mentally ill patient in a Psychiatric hospital.

UNIT IX: Alternate practice settings in Mental Health from Occupational Therapy perspective:

- a) Day care centres
- b) Community Services
- c) Preventive model
- d) Long term care in Rehab Setting

UNIT X: Documentation in Mental Health Occupational Therapy

Occupational Therapy planning, monitoring and progress

MOT 203: Current & Future Trends in OT for Mental Health

Examination: At the end of Second year of MOT

Theory Exam: 100 Marks

IA: 50 Marks

Instruction hours: 100

(Lecture / Tutorials Hours - 75 and Practical Hours- 25, Clinical hours: 290)

Course Description:

It involves the training in the use of various theories Frames of references & approaches used in Occupational Therapy intervention of patients diagnosed with Mental Illness.

Course Objectives (competency statements) –

The objectives of this course are:

- a. To understand the Mental Health process –current and future trends
- b. To discuss latest treatment methods in Mental Health Occupational Therapy
- c. Document and Monitor the progress of implemented recent approaches
- d. To identify possible treatment technique applicable to improve Occupational Performance

Course Outcomes:

Explain the recent knowledge in the field of Mental Health Occupational Therapy

- a. Illustrate & describe the recent diagnostic and assessment tools to identify specific impairments in patients diagnosed with Mental Illness
- b. Illustrate & describe the recent treatment approach, techniques in Mental Health Occupational Therapy

Course Content:

UNIT I: Advancements in the Occupational Therapy management of Self Awareness and Self Control

- i. Values
- ii. Interests
- iii. Self Concept
- iv. Anger Management

UNIT II: Advances in management of issues related to Engagement in Occupation

- a. Role performance
- b. Communication and Interaction skills
- c. Assertiveness
- d. Self Expression

UNIT III: Advances to improve Self-Management skills

- a. Coping skills
- b. Stress Management
- c. Managing grief
- d. Loss Time management
- e. Mindfulness Practise

UNIT IV: Advance techniques to improve Cognitive skills and Psychological skills

- a. Reality Orientation
- b. Remotivation
- c. Yoga
- d. Brain gym
- e. Computer softwares to improve Cognition
- f. CBT
- g. DBT
- h. Mindfulness

UNIT V: Advance techniques to improve Sensory and Motor Functions

- 1. Tactile and Awareness Processing
- 2. Olfactory and Gustatory Awareness Processing
- 3 Therapeutic exercise Program
- 4 Snoezelen room

UNIT VI: Advances in rehabilitation and adjunctive intervention in Occupational therapy

1. Relaxation techniques
2. Virtual reality
3. Mirror therapy
4. Mental / motor imagery
5. Biofeedback
6. rTM, TMS, MECT, Physical Agent Modalities
7. FES and NMES

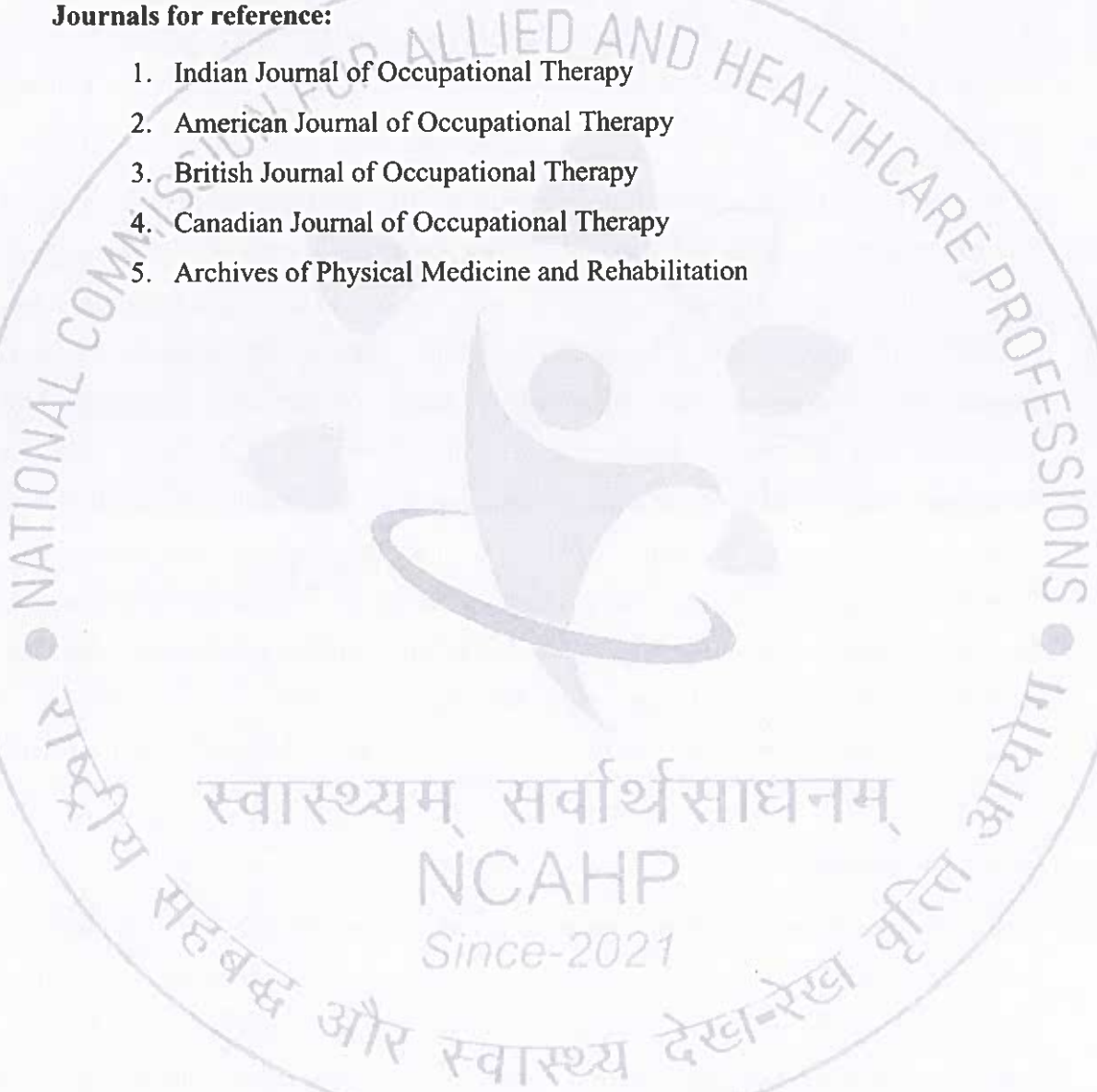
Recommended texts:

- Clifford T, Morgan, Richard A. King, John. R. Weisz, John Schopler (1996), Introduction to Psychology. 7th ed. McGraw Hill International Edition; New Delhi.
- Bem, S. and De Jong, H. L. (2006). Theoretical issues in psychology: An Introduction. London: Sage.
- Baron, R.A., Byrne, D. (2005). Social psychology, 10th Edn. New Delhi: Prentice Hall of India.
- Hjelle, L.A. and Ziegler, D.J. (2002). Personality theories: Basic assumptions, research, and applications, 3rd Edition. New Delhi: McGraw-Hill.
- Murphy, K.R., & Davidshofer, C.O. (1998). Psychological testing: Principles and Applications. 4th Edition. New Jersey: prentice Hall International.
- Sternberg, R.J. (1996). Cognitive psychology. New York: Harcourt Brace College Publishers.
- Capuzzi, D. & Gross, R. D. (2008). Counselling and Psychotherapy: Theories and Interventions. California: Sage publications.
- Occupational Therapy and Mental Health edited by Jennifer Creek, Lesley Lougher
- Frames of Reference in Psychosocial Occupational Therapy by Mary Ann Bruce, Barbara Borg

- Occupational Therapy in short Term Psychiatry by Moya Willson
- Occupational therapy in Long Term Psychiatry by Moya Willson
- Willard & Spackman's Occupational Therapy
- Mental Health Concepts and Techniques for the Occupational Therapy Assistant by Mary Beth Early

Journals for reference:

1. Indian Journal of Occupational Therapy
2. American Journal of Occupational Therapy
3. British Journal of Occupational Therapy
4. Canadian Journal of Occupational Therapy
5. Archives of Physical Medicine and Rehabilitation



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Masters in Occupational Therapy (MUSCULOSKELETAL SCIENCES) MOT (MSK)

Course Description

This course focuses on the role of occupational therapy for establishing diagnosis and Independent Clinical decision making, in patients with **Musculoskeletal** conditions in both Acute & Chronic care clinical settings (in-patient, out-patient and home care), for both short & long-term wellness, safety and management including community-based programs (socialization, day treatment, adult day care programs), and alternative housing environments.

In order to understand the needs of patients with musculoskeletal conditions (diseases & injuries), the course addresses the disease process and its anatomical, physiological, sociological, and psychological implications, with attention to heterogeneity and person's strengths and capabilities. The students should learn about common illnesses, impairments, disabilities and rehabilitation needs of patients suffering from musculoskeletal diseases or injuries. They will develop and demonstrate skills in evaluation, 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 patients suffering from musculoskeletal conditions. It also trains the students on various theories, Frames of references & approaches used in Occupational Therapy intervention of musculoskeletal conditions,

Course Objectives:

The course also addresses the importance of evidence-based practice, life- long learning and professional development, the benefits of collaborative OT with other rehabilitation team professionals and the relationships between policy, legislation and practice. Students should develop both skill & proficiency in Assessment, establishing OT diagnosis and treatment planning & Intervention of illness, impairment, disability or handicap as well as develop the ability to address associated Psychosocial Issues for restoring function and enhance /improve quality of life by quality service delivery, care & follow up.

Program Goals:

1. **Develop Clinical Competence:** To equip students with advanced clinical skills in occupational therapy, specifically in the context of musculoskeletal sciences.
2. **Promote Evidence-Based Practice:** To cultivate the ability to integrate current research and evidence into clinical decision-making in musculoskeletal sciences.
3. **Foster Leadership and Advocacy:** To prepare students to assume leadership roles and advocate for the advancement of occupational therapy in musculoskeletal sciences & rehabilitation settings.

Competency Domains and Learning Outcomes:

Domain 1: Clinical Assessment and Evaluation

• Learning Outcomes:

- Conduct comprehensive interview, history taking and evaluations in multiple settings
- Conduct comprehensive assessments of clinical & functional status
- Apply specialized evaluation techniques relevant to musculoskeletal injuries and rehabilitation
- Apply specialized standardized evaluation tools relevant to clinical features
- Analyze assessment findings to formulate client / patient-centered treatment plans
- Explain the importance of quality of life issues within their context and their relationship to cultural, religious and Ethnic issues

Domain 2: Intervention Planning and Implementation

• Learning Outcomes:

- Design evidence-based & individually tailored intervention plans tailored to patient's needs and goals.
- Implement therapeutic techniques, procedures and modalities specific to musculoskeletal conditions.
- Modify treatment plans based on ongoing assessment and client progress.
- Ability to implement treatment plans & intervention in multiple settings.

- Formulate treatment plans (including discharge planning) in consultation with patient / families members as applicable utilizing behavioral objectives.
- Demonstrate knowledge of community programs
- Formulate treatment plans to address quality of life issues of concern

Domain 3: Inter professional Collaboration

- **Learning Outcomes:**

- Collaborate effectively with other professionals of healthcare service providers.
- Participate in multidisciplinary teams to optimize intervention outcomes.
- Communicate occupational therapy perspectives and contributions in musculoskeletal rehabilitation settings
- Understand the high-risk group with regard to medication interactions, including how physiologic changes influence medication effects
- Communicate occupational therapy perspectives and contributions in variety of clinical setting

Domain 4: Professionalism and Ethical Practice

- **Learning Outcomes:**

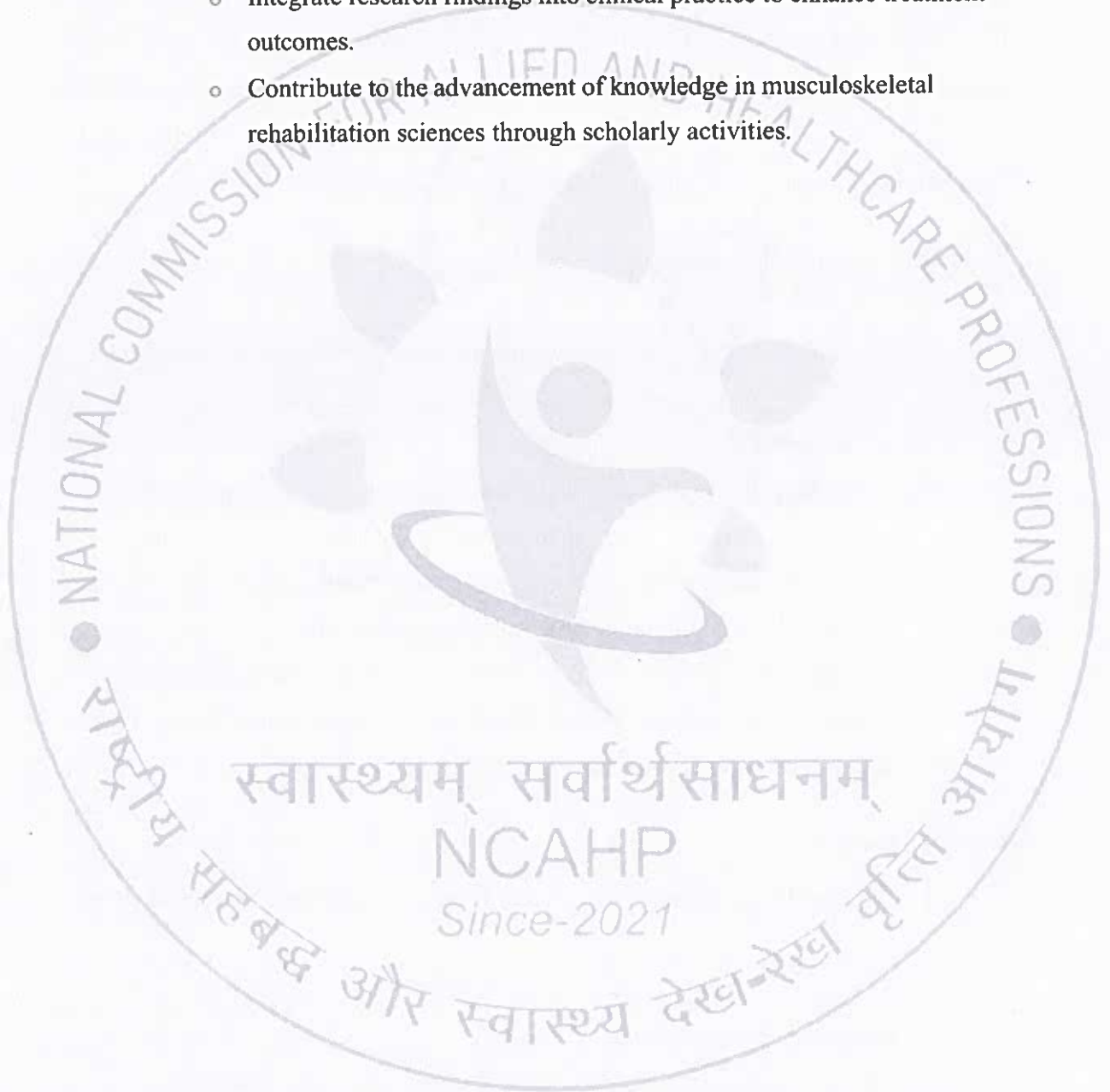
- Demonstrate ethical decision-making and adherence to professional standards in musculoskeletal rehabilitation.
- Articulate how ethical considerations in musculoskeletal practice relate to the Code of Ethics regulations by NCAHP
- Engage in reflective practice to continuously improve clinical skills and professional conduct.
- Advocate for the rights and well-being of patients through ethical practice and advocacy efforts.
- Knowledge of how demographics and policy influences healthcare



Domain 5: Research and Evidence-Based Practice

- **Learning Outcomes:**

- Critically appraise research literature relevant to occupational therapy practice in musculoskeletal sciences
- Integrate research findings into clinical practice to enhance treatment outcomes.
- Contribute to the advancement of knowledge in musculoskeletal rehabilitation sciences through scholarly activities.



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MOT 104: Basic Medical Sciences & Theoretical foundation of Occupational Therapy in Musculoskeletal Sciences

Paper Description:

The overall goal of the course is to provide a conceptual framework for the study of musculoskeletal sciences as it relates to occupational therapy and to assist occupational therapy students to develop the skills and knowledge needed to understand major issues in theory, research, and practice related to musculoskeletal conditions. It involves the training in the use of various theories Frames of references & approaches used in Occupational Therapy intervention of musculoskeletal conditions.

Objectives (competency statements) –

The objectives of this course are:

- 1) Integrate prior knowledge of anatomical, physiological, sensory and motor changes for purposes of occupational therapy intervention
- 2) To understand the disease process
- 3) Understand the cultural diversity and heterogeneity and its impact upon assessment, treatment planning, implementation and discharge planning
- 4) To identify, implement & document the appropriate frames of reference used for the specific condition in musculoskeletal conditions
- 5) Use the latest technology for assessment , intervention and documentation
- 6) Explain the role of occupational therapy for promoting health & well-being and the prevention of disease and disability

Expected Outcomes:

1. Illustrate the diagnostic tools to identify health problems in musculoskeletal conditions
2. State various frames of references, theories & approaches used in musculoskeletal conditions
3. Able to understand the disease process, its implication on functional performance areas



CONTENTS

UNIT I Associated Medical Conditions

- 1 Trauma & Associated medical condition (Cardiopulmonary, Neurological & Psychosocial complications)
- 2 Lifestyle Diseases (Obesity, Hypertension, Diabetes) and common associated surgical conditions like hernia, varicose veins etc.
- 3 Occupational diseases & their functional implications

UNIT II Theoretical foundation of Occupational Therapy Practice

- 1 Principles of exercise physiology and measurers. Monitoring physiological responses to exercise
- 2 Wellness Programme Psychosocial aspects of disability
- 3 International classification of functioning (ICF)
- 4 Regulations concerning accessibility to physical environment
- 5 Review of Work Physiology & ergonomics (Work hardening & conditioning and design work readiness program)
- 6 Frames of References and Models in OT practice in musculoskeletal conditions (Such as Biomechanical FOR, Rehabilitative FOR, MOHO, Occupational Performance FOR etc.)

UNIT III: Occupational Therapy Practice Framework (OTPF)

Application of Domain and Process components to formulate client centred occupational Therapy Program

UNIT IV: International classification of functioning (ICF) Understanding ICF

Application of ICF for cardiopulmonary conditions

UNIT V:

Ethical consideration in Musculoskeletal Occupational Therapy Practice Considerations for Socio-cultural norms & spirituality

Ethical guidelines to be followed

UNIT VI: Govt. Schemes & Policy PwD Acts & Legislation

Liaising with stake holders for fund generation under corporate social responsibility in community welfare schemes like PMJAY, RBSK etc. for equipment's & research in musculoskeletal condition

UNIT VII: Disability Evaluations Overview of Disability certification process

Guidelines for Disability certification for Benchmark disabilities PwD Acts & Legislation

Second Year MOT

Paper MOT 201 Advanced Occupational Therapy Diagnostic & Prognostic skills in Musculoskeletal Sciences”

Course Description:

1. A better understanding & process of the various diagnostic procedures used in Occupational Therapy for musculoskeletal conditions
2. Will enable for clinical & functional diagnosis & critical decision on planning Occupational Therapy intervention

Objectives: (Competency statements)

1. Elicit and interpret clinical signs and symptoms & interpret clinical tests and special investigations commonly used in establishing diagnosis
2. Illustrate the diagnostic tools
3. Understand the appropriate use of assessment tools for specific musculoskeletal conditions
4. Able to administer the specific tool for screening the other associated issues in various musculoskeletal conditions
5. Describe, administer & interpret Specialized tools of OT assessment in various musculoskeletal conditions
6. Administer the tools for assessing progress in patients.
7. Establishment of clinical diagnosis
8. Make Critical decision and selection of outcome measures

CONTENTS

UNIT I History Taking, General Assessment and Documentation

- 1 History Taking, observational assessment, examination supplementing medical notes and investigation for establishing provisional clinical diagnosis
- 2 Documentation (Initial assessment & Follow up)

UNIT II: Application of clinical biomechanics for identifying & managing clinico-pathological functional impairments

UNIT III: Applied basic sciences in context to OT (anatomy, physiology, biomechanics & kinesiology of Joints & Soft tissue, and imaging techniques

UNIT IV: Application of Contextual Models & framework in OT practice [such as Canadian Model of Occupational Performance and Engagement (CMOP-E), **Person-Environment-Occupation-Performance (PEOP) Model**, Model of Human Occupation (MOHO) etc.]

UNIT V:: Radiological, Biochemical & other relevant Lab Investigations: Diagnostic imaging & other investigation(X Ray, CT Scan, MRI, F-MRI, PET Scan, LFT, KFT, Genetic profile etc.

UNIT VI: Electrophysiological studies such as EMG, NCV etc.

UNIT VII Clinical & Functional Assessment scales/Tools

- **Clinical correlation & interpretation of various provocative / stress tests** for examination of Upper & Lower Extremity, & Trunk
- **Various Standardized Assessment Tools** applicable to clinical setups/settings
- **Pain assessment** in musculoskeletal conditions (such as Numeric Rating Scale (NRS), VAS, McGill Pain Questionnaire etc.)
- **Hand function Assessment** (such as Sollerman hand function test, Jebsen-Taylor Hand Function Test, Box and Blocks Test, Nine-Hole Peg Test (NHPT), Minnesota Manual Dexterity Test (MMDT) etc.
- **Functional & ADL Assessment Tools** [such as **Barthel Index (BI)**, Katz Index of Independence in Activities of Daily Living, Functional Independence Measure (FIM), Lawton Instrumental Activities of Daily Living (IADL) Scale, Functional Reach Test, Duke Mobility protocol etc.]
- **Physical & Functional Capacity Evaluation** [Physical Abilities Assessment (Strength, ROM, endurance etc.; Functional Capacity Assessment (ADL & Work Specific assessment and Psychosocial and Cognitive Factors (Pain, psychosocial & cognitive)]
- **Balance Dysfunction** examination, assessment tools & scales, their application [such as Berg Balance Scale (BBS), Tinetti Performance-Oriented Mobility Assessment (POMA), Timed Up and Go Test (TUG), Dynamic Gait Index (DGI) etc.]

- **Posture & Gait Assessment** [such as Functional Gait Assessment (FGA), **Timed Up and Go Test (TUG)**, Postural Assessment Scale for Stroke Patients (PASS), Dynamic Gait Index (DGI), Tinetti Performance-Oriented Mobility Assessment (POMA) etc.]
- **Ergonomic Assessment Tool** [Such as Job analysis based on ergonomic principles [such as Rapid Entire Body Assessment (REBA), Rapid Upper Limb Assessment (RULA), Occupational Repetitive Action (OCRA) Checklist, Strain Index (SI), Ergonomic Workplace Analysis (EWA), Position Analysis Questionnaire (PAQ), Functional Job Analysis (FJA), Task Inventory etc.]
- **Identifying barriers & facilitators for implementing Evidence Based occupational therapy Practice** [such as SWOT Analysis, Barrier and Facilitator Mapping, Adapted Fresno Test of Competence in Evidence-Based Practice (EBP), Occupational Therapy Evidence-Based Practice Questionnaire (OT-EBPQ), Occupational Therapy Practice Framework: Domain and Process (OTPF) etc.]

UNIT VIII application of Diagnostic & Prognostic indicators to OT Practice

- Assessment of need and Prescription of assistive technology aids & appliances such as orthotic & prosthetic devices in musculoskeletal conditions
- Critical analysis of the various approaches used (e.g. Specific techniques, evaluations etc.)
- OT Practice Issues in community including adults with developmental disabilities, Community based services & CBR
- Current trends in screening/evaluation of various Musculoskeletal Condition

MOT 202: Advanced Occupational Therapy Processes & Practices in Musculoskeletal Sciences

Course Description

This course focuses on the role of occupational therapy in musculoskeletal conditions rehabilitation various practice settings from Acute to chronic care, long-term care programs, and wellness & safety programs. Students learn about common impairments and disabilities and rehabilitation needs of older persons. Students will develop and demonstrate skills in evaluation, treatment planning and implementation, documentation, and discharge planning (including collaborative client and family education), to enhance / improve the quality of life

Objectives:

The course also addresses the importance of evidence-based practice, including occupational therapy, life- long learning and professional development, the benefits of collaborative OT- OTA partnerships and the relationships between policy, legislation and practice. This course builds upon prior course work, particularly Growth and Development, Clinical Conditions in Occupational Therapy, Assessment and Intervention of Psychosocial Issues, Theories of Adult Rehabilitation.

Expected Outcomes:

The overall goal of the course is to provide a conceptual framework 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 musculoskeletal conditions.

Advanced Occupational Therapy Principles & intervention in Musculoskeletal Sciences

UNIT I: Management strategies in different Medical & Surgical Conditions

1. Trauma Care & Resource Matrix
2. Acute care management strategies (including ICU, CCU, NICU etc.) & Ventilatory muscle retaining strategies in OT Practice
3. OT management in Plastic Surgery conditions including tendon transfer & grafts, amputation & reconstructive surgeries

4. OT management in various musculoskeletal (Orthopaedic) conditions (Fractures & dislocations)
5. OT management in Benign & Malignant tumours of musculoskeletal system
6. Hand Rehabilitation & Surgeries (To e-transfer, tendon & nerve repair, Fractures etc.)
7. Cumulative Trauma Disorders (Repetitive strain Injuries)
8. OT management for Joint Replacement surgeries (Arthroplasty)
9. OT management in Sports & Soft tissue injuries
10. OT management in Paediatric Musculoskeletal Conditions including Congenital anomalies
11. OT management in Peripheral nerve injuries
12. Spinal Cord Injury and OT management
13. OT Management in Infective & Arthritic Conditions
14. OT Management in Traumatic Brain Injury
15. Scar management, Tendon Injuries & Tendon Transfer Surgeries and OT management
16. OT management in Geriatric musculoskeletal Conditions
17. OT management in Metabolic bone diseases
18. Pain management, strengthening & conditioning strategies via. splinting, positioning, mobilizing, Task Simulation and neuromuscular education

UNIT II Management Strategies

1. OT Planning & Monitoring
2. Graded Multisensory stimulation, in both Acute Care (including ICU) & Chronic Care
3. In-hand manipulation Skill training
4. Arousal strategies and Cognitive Retraining Strategies
5. Managing Pain in musculoskeletal conditions
6. Manipulation & Functional mobilization technique (using direct & indirect technique & Strategy)
7. Stress management & relaxation strategy
8. Applicable of OT techniques strategies for musculoskeletal conditions (such as sensorimotor & Motor relearning approaches, PNF technique, NFDR etc.)

9. Ergonomics, its types & Application to OT Practice
10. Work station designs for maximizing performance within the environment
11. Work Assessment and Work surface adaptations & accommodation
12. Management of Balance Dysfunction
13. Chronic conditions, Job analysis, Workplace accommodations, promoting health & Safety, Injury Prevention & management and return to work Programs
14. OT management strategies for Occupational diseases
15. Neuromuscular Taping Techniques
16. Disaster Management

MOT 203: Current & Future Trends in Occupational Therapy Practice in Musculoskeletal Sciences

Examination: At the end of First year of

Paper Description: It involves the training in the use of Frames of references & approaches, current trends & latest advancements applicable to musculoskeletal conditions to improve / enhance function and quality of life

Objectives (competency statements) –

The objectives of this course are:

- Understand, demonstrate & apply and document the Frames of reference musculoskeletal conditions
- Develops proficiency in applying current trends
- Develop & innovative skills to clinical practice

Expected Outcomes:

1. Understand & apply current trends & innovative ideas for managing disease process
2. State various frames of references, theories & approaches used in musculoskeletal conditions

Course Content:

UNIT I Current trends in rehabilitation such as Assistive technology, aids & appliances in musculoskeletal conditions including prosthetic & orthotic devices like splints, callipers, etc.

UNIT II Current practice & Recent advances (including material technology)

UNIT III Advanced trends in rehabilitation Environmental controlled units and Universal Design

UNIT IV Latest Advancements in Rehabilitation Technology

- Adjuncts to OT Practice (For preparing the patient for occupational therapy) such as Physical agent modalities (PAMOT), Pilates, Yoga & meditation etc.
- Application of Artificial Intelligence into OT Practice
- Stem Cell therapy (in SCI, Tissue Healing etc.)

- Robotic technology & its application in musculoskeletal conditions
- Advances in computer applications in O.T
- Concept of telemedicine /rehabilitation & information technology
- Environmental control units & their application to OT Practice

UNIT V Latest Rehab Equipment's (such as Virtual Reality, EMG Biofeedback, FES etc.)

UNIT VI Future of technology & O.T. Practice

Suggested Books and Journals for Reading

Textbooks

1. Musculoskeletal Examination and Joint Injections Techniques by David P. Bahs and Stanley Hoppenfeld
2. Physical Examination of the Shoulder: An Evidence-Based Approach by Ryan J. Warth, Peter J. Millett
3. Clinical Orthopaedic Examination by Ronald McRae
4. Apley's System of Orthopaedics and Fractures by Louis Solomon, David Warwick, Selvadurai Nayagam "Therapeutic Exercise for Musculoskeletal Injuries" by Peggy A. Houglum
5. "Orthopedic Physical Assessment" by David J. Magee
6. "Examination of Orthopedic and Athletic Injuries" by Chad Starkey, Sara D. Brown, and Jeff Ryan
7. "Functional Performance in Older Adults" by Bette R. Bonder
8. Pain Management in Rehabilitation" by Kimberly M. Spence, et al.
Therapeutic Exercise: Foundations and Techniques" by Carolyn Kisner and Lynn Allen Colby"Virtual Reality for Physical and Motor Rehabilitation" edited by Patrice L. (Tamar) Weiss, Emmanuel Keshner, and Mindy Levin
9. "Regenerative Medicine and Biomaterials for the Repair of Connective Tissues" edited by Charles Archer and James Ralphs
10. "Pain-Free Biomechanics: Clinician's Guide" by Craig Liebenson
11. "Mindfulness for Health: A Practical Guide to Relieving Pain, Reducing Stress and Restoring Wellbeing" by Vidyamala Burch and Danny Penman
12. Craig's Orthopedic Manual of Physical Assessment
13. Adams's Outline of Orthopaedics" by David L. Hamblen and Hamish Simpson

14. Rockwood and Wilkins' Fractures in Children," edited by Peter M. Waters and James H. Beaty,
15. Skeletal Trauma: Basic Science, Management, and Reconstruction - Edited by Bruce D. Browner, Jesse B. Jupiter, Christian Krettek, and Paul A. Anderson,
16. Fracture Management for Primary Care - Written by M. Patrice Eiff and Robert L. Hatch
17. Basic Biomechanics by Susan J. Hall
18. Clinical Biomechanics of the Spine by Augustus A. White III and Manohar M. Panjabi
19. Biomechanics: Principles and Applications by Daniel J. Schneck and Joseph D. Bronzino
20. Orthopaedic Physical Therapy Secrets by Jeffrey D. Placzek and David A. Boyce
21. Occupational Therapy for Physical Dysfunction" by Mary Vining Radomski and Catherine A. Trombly Latham
22. Pedretti's Occupational Therapy: Practice Skills for Physical Dysfunction Heidi McHugh Pendleton, Winifred n by Schultz-Krohn
23. Orthopaedic Rehabilitation: Mark D. Broutman, S. Brent Brotzman

Journals:

1. Journal of Bone and Joint Surgery
2. Journal of Orthopaedic Research
3. **Clinical Orthopaedics and Related Research**
4. Foot & Ankle International
5. Spine
6. Journal of Arthroplasty
7. Journal of Pediatric Orthopaedics
8. Journal of Hand Surgery

MOT: Masters in Occupational Therapy (Cardiopulmonary Sciences)

Abbreviation: MOT (CPMS)

Course Description

This course focuses on the role of occupational therapy for establishing diagnosis and Independent Clinical decision making, in patients with Cardiopulmonary condition in both Acute & Chronic care clinical settings (in-patient, out-patient and home care), for both short & long-term wellness, safety and management including community-based programs (socialization, day treatment, adult day care programs), and alternative housing environments etc. In order to understand the needs of patients with cardiopulmonary conditions (diseases & injuries), the course addresses the disease process and its anatomical, physiological, sociological, and psychological effects, with attention to heterogeneity and person's strengths, limitations and capabilities. Students also learn about common illnesses, impairments, disabilities and rehabilitation needs of patients. They will develop and demonstrate skills in evaluation, treatment planning & its implementation and therapeutic adaptations, documentation, and discharge planning (in collaboration with patient and their family member). They will also demonstrate knowledge of assistive technology devices, equipment, and work & environmental modifications strategy as per functional status, clinical conditions and MET levels to improve / enhance the quality of life of patient population. It also trains the students on various theories, Frames of references & approaches applicable to Occupational Therapy treatment & intervention processes in cardiopulmonary conditions,

Course Objectives:

The course also addresses the importance of evidence-based practice, including occupational therapy, life- long learning and professional development, the benefits of collaborative OT with other rehabilitation team professionals and also understand the relationships between policy, legislation and practice. This course enhances the skills of Occupational Therapy professionals for Assessment and Intervention of illness, impairment, disability or handicap as well as associated Psychosocial Issues for restoring function to enhance /improve quality of life by providing quality service delivery, care & follow up.

Program Goals:

- **Develop Clinical Competency:** To equip students with advanced clinical skills in occupational therapy, specifically in the context of cardiopulmonary health sciences.
- **Promote Evidence-Based Practice:** To cultivate the ability to integrate current research and evidence into clinical decision-making in cardiopulmonary health sciences.
- **Foster Leadership and Advocacy:** To prepare students to assume leadership roles and advocate for the advancement of occupational therapy in cardiopulmonary health sciences & rehabilitation settings.

Competency Domains and Learning Outcomes:

Domain 1: Clinical Assessment and Evaluation

- **Learning Outcomes:**
 - Conduct comprehensive interview, history taking and evaluations in multiple settings
 - Conduct comprehensive assessments of clinical & functional status
 - Apply specialized evaluation techniques relevant to cardiopulmonary conditions and their rehabilitation
 - Apply specialized standardized evaluation tools relevant to clinical features
 - Analyze assessment findings to formulate client / patient-centered treatment plans
 - Explain the importance of quality of life issues within their context and their relationship to cultural, religious and Ethnic issues

Domain 2: Intervention Planning and Implementation

- **Learning Outcomes:**
 - Design evidence-based & individually tailored intervention plans tailored to patient's needs and goals.
 - Implement therapeutic techniques, procedures and modalities specific to cardiopulmonary conditions.
 - Modify treatment plans based on ongoing assessment and client progress.

- Ability to implement treatment plans & intervention in multiple settings.
- Formulate treatment plans (including discharge planning) in consultation with patient / families members as applicable
- Demonstrate knowledge of community programs
- Formulate treatment plans to address quality of life issues of concern

Domain 3: Inter professional Collaboration

- **Learning Outcomes:**

- Collaborate effectively with other professionals of healthcare service providers.
- Participate in multidisciplinary teams to optimize intervention outcomes.
- Communicate occupational therapy perspectives and contributions in cardiopulmonary clinical and rehabilitation settings
- Understand the high-risk group with regard to medication interactions, including how physiologic changes influence medication effects
- Communicate occupational therapy perspectives and contributions in variety of clinical setting

Domain 4: Professionalism and Ethical Practice

- **Learning Outcomes:**

- Demonstrate ethical decision-making and adherence to professional standards in cardiopulmonary rehabilitation.
- Articulate how ethical considerations in musculoskeletal practice relate to the Code of Ethics regulations by NCAHP
- Engage in reflective practice to continuously improve clinical skills and professional conduct.
- Advocate for the rights and well-being of patients through ethical practice and advocacy efforts.
- Knowledge of how demographics and policy influences healthcare

Domain 5: Research and Evidence-Based Practice

• Learning Outcomes:

- Critically appraise research literature relevant to occupational therapy practice in cardiopulmonary sciences
- Integrate research findings into clinical practice to enhance treatment outcomes.
- Contribute to the advancement of knowledge in cardiopulmonary rehabilitation sciences through scholarly activities.



MOT 104: Basic Medical Sciences & Theoretical foundation in Occupational Therapy for Cardiopulmonary Sciences

Paper Description:

The overall goal of the course is to provide a conceptual framework for the study of Cardiopulmonary sciences as it relates to occupational therapy and to assist occupational therapy students to develop the skills and knowledge needed to understand major issues in theory, research, and practice related to Cardiopulmonary conditions. It involves the training in the use of various theories Frames of references & approaches applicable to Occupational Therapy intervention processes applicable to Cardiopulmonary conditions.

Objectives (competency statements) –

The objectives of this course are:

- 1) Integrate prior knowledge of anatomical, physiological, sensory and motor changes for purposes of occupational therapy intervention
- 2) To understand the disease process
- 3) Understand the cultural diversity and heterogeneity and its impact upon assessment, treatment planning, implementation and discharge planning
- 4) To identify, implement & document the appropriate frames of reference used for the specific cardiopulmonary conditions
- 5) Use the latest technology for assessment, intervention and documentation
- 6) Explain the role of occupational therapy for promoting health & well-being and the prevention of disease and disability

Expected Outcomes:

- Illustrate the diagnostic tools to identify health problems in cardiopulmonary conditions
- State various frames of references, theories & approaches used in cardiopulmonary conditions
- Able to understand the disease process, its implication on functional performance areas



CONTENTS

UNIT I Overview of Basic Science

Review of Anatomy, Embryology, Physiology and Epidemiology of cardio-vascular, pulmonary and lymphatic system

UNIT II Theoretical foundation of Occupational Therapy Practice

1. Principles of exercise physiology and measurers and monitoring physiological responses to exercise
2. Review of Work Physiology & ergonomics (Work hardening & conditioning and design work readiness program)
3. Examination of Biophysical Fitness (Anthropometric and biophysical measurement and body composition, Flexibility tests & its interpretation, Muscle strength & Endurance testing, Agility tests and coordination tests)
4. Psychosocial Aspects of Acute & Chronic Illnesses (Addressing psychological and social factors affecting individuals with chronic cardiopulmonary conditions and their families)
5. Introduction to ventilators, mode of ventilation, their classification and understanding, interpretation and augmenting the variables using facilitatory & inhibitory strategies in cardiopulmonary conditions
6. Measurers of function and Quality of Life
7. Critical analysis of the various approaches used (e.g. Specific techniques, evaluations etc.)

UNIT III Overview of Associated Medical Conditions

1. Cardiovascular and Pulmonary Anatomy and Pathophysiology (Overview of medical conditions affecting the cardiovascular and pulmonary systems, including heart disease, respiratory disorders (COPD, asthma), and related comorbidities)
2. Associated medical condition (Vascular, Surgical, Musculoskeletal, Neurological & Psychosocial complications)
3. Obstructive & restrictive Pulmonary Diseases [Bronchitis (Acute& Chronic), Emphysema, Asthma, Bronchiectasis, Cystic Fibrosis]
4. Systemic Hypertension, its complication
5. Pulmonary Thrombo-embolism
6. Congenital conditions of cardiopulmonary system

7. Lifestyle Diseases (Obesity, Hypertension, Diabetes)
8. Occupational diseases affecting cardiopulmonary health
9. Major manifestations of Lung Diseases (Respiratory failure & sleep disorder, Dyspnoea etc.
10. Polysomnography & sleep Disorders

UNIT IV MODELS & FOR applicable to OT Practice

- a. Frames of References and Models of Practice in cardiopulmonary conditions (such as Occupational Performance FOR, Rehabilitative FOR, Psychosocial FOR etc.) UNIT IV: Occupational Therapy Practice Framework (OTPF)
- b. Application of Domain and Process components to formulate client centered occupational Therapy Program

UNIT V: International classification of functioning (ICF) & ICD

1. Understanding ICF
2. Application of ICF for cardiopulmonary conditions
3. ICD 10 coded diagnosis

UNIT VI: Ethical concerns, Govt. Schemes & Policy

1. Ethics in Cardiopulmonary Rehabilitation
2. Confidentiality, concerns and precautions
3. Consideration of Socio-cultural norms & spirituality
4. PwD Acts & Legislation
5. Liaising with stake holders for fund generation under corporate social responsibility in community welfare schemes like PMJAY etc. for equipment's & research in cardiopulmonary condition

UNIT VII: Documentation, Clinical reasoning skill & Evidence based practice in Cardiopulmonary conditions

Second Year MOT 2

Paper MOT 201 Advanced Occupational Therapy Diagnostic & Prognostic skills in Cardiopulmonary Sciences

Course Outcome:

- a. A better understanding & process of the various diagnostic procedures used in Occupational Therapy in cardiopulmonary conditions
- b. Will enable for clinical & functional diagnosis & critical decision on planning Occupational Therapy intervention

Objectives: (Competency statements)

- Elicit and interpret clinical signs and symptoms & interpret clinical investigations, stress tests and special investigations commonly used in establishing diagnosis
- Illustrate the diagnostic tools
- Understand the appropriate use of assessment tools for specific cardiopulmonary conditions
- Able to administer the specific tool for screening the other associated issues in various cardiopulmonary conditions
- Describe, administer & interpret and develop Specialized tools of OT assessment
- Administer the tools for assessing progress in patients.
- Establish clinical diagnosis
- Make Critical decision and selection of outcome measures

CONTENTS

UNIT I History Taking, General Assessment and Documentation:

1. History Taking, observational assessment, examination supplementing medical notes and investigation for correlating clinical diagnosis
2. Documentation (Initial assessment & Follow up)

UNIT II: Identification of clinico-pathological functional impairments:

1. Application of clinical biomechanical and neurophysiological principles for identifying & managing Clinico-pathological functional impairments of cardiopulmonary condition
2. Examination of Clinical Signs & symptoms in cardiopulmonary conditions

UNIT III: Application of Contextual Models & framework in OT practice

UNIT IV: Radiological, Biochemical & other relevant Lab Investigations:

Diagnostic imaging & other investigation [Cardiac computed Tomography (CAT scan), ECG, ECHO, TMT, Pulmonary Function Test (PFT), CT Angioplasty, Angiography, X Ray, Venous Doppler, Cardiac Magnetic Resonance Imaging (MRI), PET Scan, LFT, KFT, PT-INR, Genetic profile etc.]

UNIT V: Clinical & Functional Assessment scales/Tools

1. **Functional assessment tools for Cardiac rehabilitation** [such as Six-Minute Walk Test (6MWT), St. George's Respiratory Questionnaire (SGRQ), Duke Activity Status Index (DASI), Functional Independence Measure (FIM), Incremental Shuttle Walk Test (ISWT), Minnesota Living with Heart Failure Questionnaire (MLHFQ)]
2. **Functional assessment tools for Pulmonary rehabilitation** [such as Six-Minute Walk Test (6MWT), Chronic Respiratory Disease Questionnaire (CRQ), Dyspnea Scales (e.g., Modified Borg Scale, Pulmonary Function Tests (PFTs), Incremental Shuttle Walk Test (ISWT)]
3. **Pain assessment (Type, nature & distribution)**
4. **MET level:** Basics, classification of Activities based on MET level (Clinical correlation, interpretation & application)
5. **Physical & Functional Capacity and Endurance Evaluation** [Physical Abilities Assessment (Strength, ROM, endurance etc.; Functional Capacity Assessment (ADL & Work Specific assessment and Psychosocial and Cognitive Factors (Pain, psychosocial & cognitive)]

6. **Posture & gait Assessment** in relation to cardiopulmonary conditions [such as Functional Gait Assessment (FGA), **Timed Up and Go Test (TUG)** etc.]
7. **Functional & ADL Assessment Tools**, [Functional Independence Measure (FIM), Step test, Laboratory tests: maximal Oxygen Uptake-VO₂ Peak-aerobic Capacity etc.]

UNIT VI Interpretation and clinical correlation of Spirometry, ABG Analysis & Pulse Oximetry, PFT, ECG, Chest X Ray, Capnography etc. and tools / strategy for Cardiopulmonary monitoring

UNIT VII Application of Diagnostic & Prognostic indicators to OT Practice

- Assessment of need and Prescription of assistive technology aids & appliances such as orthotic & prosthetic devices in musculoskeletal conditions
- Cardiopulmonary examination and clinical correlation & interpretation of various stress tests & procedures
- Assessment and Evaluation in Cardiopulmonary OT (Techniques and tools for assessing functional abilities and limitations related to cardiopulmonary conditions)
- Identifying stressors and their assessment
- Identifying barriers & facilitators for implementing Evidence Based occupational therapy Practice
- Evidence Based Practice & Clinical reasoning skill development and its application

NCAHP
Since-2021

MOT 202: Advanced Occupational Therapy Process & Practices in Cardiopulmonary Sciences

Paper Description

This course focuses on the role of occupational therapy in cardiopulmonary conditions in various practice settings from Acute to chronic care, long-term care programs, including wellness & safety programs. Students learn about common impairments and disabilities and rehabilitation needs. They will develop and demonstrate skills in evaluation, treatment planning and implementation, documentation, and discharge planning (including collaborative client and family education), to enhance / improve the quality of life

Objectives:

The course also addresses the importance of evidence-based practice, including occupational therapy, life- long learning and professional development, the benefits of collaborative OT- OTA partnerships and the relationships between policy, legislation and practice.

Expected Outcomes:

The overall goal of the course is to provide a conceptual framework and to assist occupational therapy post graduate students to develop the skills and knowledge to understand the disease process, assess and implement intervention strategies in cardiopulmonary conditions.

CONTENTS

Advanced Occupational Therapy Principles & intervention in Cardiopulmonary Sciences

UNIT I: Management strategies in different Medical & Surgical Conditions

1. Acute Care Management strategies (in ICU, CCU, NICU etc.) in Cardiopulmonary conditions
2. Cardiopulmonary Rehabilitation management in associated Medical & Surgical Conditions
3. Breathlessness (Dyspnoea) assessment and Endurance Training
4. Designing OT Intervention considering MET level based on Assessment,
5. Prescription, Monitoring & Progression in cardiopulmonary Rehabilitation

6. Ventilatory muscle retaining and application of facilitatory & inhibitory techniques & strategies in neonates, children, adult & elderly with cardiopulmonary conditions in OT Practice
7. OT management & Rehabilitation of lifestyle diseases such as obesity, systemic hypertension etc.
8. Strategies for managing Diabetes & Systemic hypertension & Lifestyle modification
9. Assessment & management strategies after thoraco-abdominal surgeries
10. Varicose veins, Lymphoedema & its management

UNIT II Management Strategies for Health Promotion, Rehabilitation & Improving quality of Life

1. Synchronizing thoraco-abdominal musculature via. Core muscle strengthening, resistance & endurance training methods in cardiopulmonary rehabilitation
2. Safety considerations, monitoring, progression, patient & family education and individually tailored Rehab Program in Cardiopulmonary Rehabilitation
3. Comprehensive rehabilitation strategies integrating physical activity, breathing exercises, energy conservation & work simplification techniques, and lifestyle modifications in Cardiopulmonary Rehabilitation
4. OT perspective for managing functional implications of aspiration and associated conditions (*such as aspiration pneumonia etc.*) & its cause
5. Application of MET level based activity configuration strategy into OT practice
6. Graded Multisensory stimulation & facilitation, Arousal and Cognitive training Strategies in both Acute Care (including ICU) & Chronic Care
7. Ventilatory muscles training and functional lung drainage Strategies (using specific positioning strategy and specialized techniques, procedures & OT approaches including activity and lifestyle modification) for managing respiratory conditions
8. Cognitive behavioural strategies, relaxation techniques, meditation etc. for psychosocial Rehabilitation in Cardiopulmonary conditions
9. Common complications of various cardiopulmonary conditions and their management using specialized neurophysiological techniques & procedures

10. Patient & Family education, counselling & guidance in various cardiopulmonary conditions
11. Health Promotion and Wellness programs in cardiopulmonary rehabilitation
12. Preventive cardiac rehabilitation-Risk factors and life-style modification, stress management and coping strategies
13. Critical analysis of the various approaches used (e.g. Specific techniques, evaluations etc.)
14. OT perspectives in cardiac rehabilitation-An integrated approach, clinical implications and improvement of 'Quality Of Life'
15. structured exercise, patient education, psychosocial counsell
16. Application of Basic ergonomics principles based on MET level

MOT 203: Current & Future Trends in Occupational Therapy Practice in Cardiopulmonary Sciences

Examination: At the end of First year of MOT

Theory Exam: 100 Marks IA: 50 Marks

Instruction hours: 100

(Lecture / Tutorials Hours – 75 and Practical Hours- 25, Clinical hours: 290)

Paper Description: It involves the training in the use of Frames of existing references & approaches, current trends & latest technology advancements applicable to cardiopulmonary conditions to improve / enhance function and quality of life.

Objectives (competency statements) –

The objectives of this paper are:

1. To Understand, demonstrate, apply and document the Frames of reference for cardio-pulmonary conditions.
2. Develops proficiency in applying current trends
3. Develop & enhance clinical skill
4. Develop new innovative techniques & strategy for assessment, intervention as well as for establishing diagnosis.

Expected Outcomes:

1. Understand & apply current trends & innovative ideas for managing disease process
2. Develop skill to apply various frames of references, theories, assessment strategies and treatment approaches in view of current trends & latest advancements in cardiopulmonary conditions

Paper Contents:

UNIT I: Current trends of rehabilitation & practice in cardiopulmonary rehabilitation

UNIT II Current practice Models & tools in cardiopulmonary care (such as person Centered Model, Technology enhanced practice (TEP) model,

UNIT III Assistive technology, aids & appliances (sensors & tracking technology like smart watches), Optical photoplethysmography, Holter monitor, Environmental controlled units and Universal Design in Cardiopulmonary conditions

UNIT IV Latest Advancements in Rehabilitation Technology

1. Application of Artificial Intelligence into OT Practice (AI algorithms etc.)
2. Robotic technology & its application
3. Advances in computer applications in O.T
4. Adjuncts to OT Practice (For preparing the patient for occupational therapy) such as Physical agent modalities (PAMOT), Pilates, Yoga & meditation etc.
5. Stress management and relaxation techniques
6. Concept of & technology

UNIT V Emerging Trends in OT

1. Incorporation of telemedicine/tele-health/tele-rehabilitation and information technology for managing cardiopulmonary diseases and disorders
2. Innovative treatment approaches in cardiopulmonary rehabilitation
3. Diet & Nutrition consideration for managing & preventing cardiopulmonary conditions including lifestyle diseases
4. Recent advances and evidence based practice in Respiratory OT training techniques and respiratory devices
5. Aqua therapy in Cardiopulmonary rehabilitation
6. Optimizing recovery and reducing recurrence
7. Fitness training and cardiopulmonary adaptation strategies among the children, adult & elderly population

UNIT VI Latest Rehab Equipment's

(such as Virtual Reality, EMG Biofeedback, FES etc.)

UNIT VII Future of technology & O.T. Practice

Suggested Books and Journals for Reading

Textbooks

1. Cardiac rehabilitation manual by Josef Niebauer (Editor). Call Number: RC682 .C37 2017. ISBN: 9783319477374. Publication Date: 2017.
2. Cardiovascular Prevention and Rehabilitation in Practice by Jennifer Jones (Editor); John Buckley (Editor); Gill Furze (Editor), ISBN: 1118458680, Publication Date: 2020
3. Cardiac rehabilitation : a workbook for use with group programmes by Julian Bath ISBN:9780470518724
4. Exercise Leadership in Cardiac Rehabilitation for High Risk Groups by Morag Thow, ISBN: 9780470744437, Publication Date: 2009
5. Cardiac rehabilitation manual by Josef Niebauer (Editor), 2017, ISBN: 9783319477374
6. The rehabilitation specialist's handbook by Serge H. Roy, 2013, ISBN: 9780803639065
7. "Orthopedic Physical Assessment" by David J. Magee
8. Pain Management in Rehabilitation" by Kimberly M. Spence, et al. Therapeutic Exercise: Foundations and Techniques" by Carolyn Kisner and Lynn Allen Colby
9. "Regenerative Medicine and Biomaterials for the Repair of Connective Tissues" edited by Charles Archer and James Ralphs
10. "Mindfulness for Health: A Practical Guide to Relieving Pain, Reducing Stress and Restoring Wellbeing" by Vidyamala Burch and Danny Penman
11. Clinical Exercise Physiology 5th Edition With HKPropel Access **Exercise Management for Chronic Diseases and Special Populations** by Jonathan K Ehrman, Paul M. Gordon, Paul S. Visich, Steven J. Keteyian
12. Joint structure and function: A Comprehensive analysis, / Pamela K. Levangie, Cynthia C. Norkin
13. **Basic Biomechanics** by Susan J. Hall, 2016,
14. Cardiovascular and pulmonary physical therapy, Third Edition by William DeTurk, ISBN:9781259837951 Publication Date: 2018, ISBN: 9780702047312

15. **Clinical Biomechanics of the Spine** by Augustus A. White III and Manohar M. Panjabi
16. **Biomechanics: Principles and Applications** by Daniel J. Schneck and Joseph D. Bronzino
17. "Occupational Therapy for Physical Dysfunction" by Mary Vining Radomski and Catherine A. Trombly Latham
18. Pedretti's Occupational Therapy: Practice Skills for Physical Dysfunction
19. Willard and Spackman's Occupational Therapy, Author(s): Glen Gillen Ed.D., OTR, FAOTA, Catana Brown PhD, OTR, FAOTA,
ISBN/ISSN:9781975174880

Journals:

1. Archives of Physical Medicine and Rehabilitation
2. Journal of Cardiopulmonary Rehabilitation and Prevention
3. American Journal of Cardiology
4. Medical Journal of Australia
5. Indian Journal of Occupational Therapy
6. British Medical Journal

Master of Occupational Therapy in Hand MOT (Hand)

MOT 104: Basic Medical Sciences & Theoretical foundation in Occupational Therapy for Hand

Course Description: This course involves training in the use of various theories, frames of references, and approaches used in Occupational Therapy intervention for individual having upper extremity dysfunction including hand.

Course Objectives:

- To understand Functional anatomy of the Upper extremity.
- To learn about Evolution & Development of Hand Function
- To review medical aspects of Upper extremity dysfunction.
- To understand about various Govt. Initiatives and Ethical guidelines pertaining to practice in the specified domain.

Course Outcomes:

- Explain Functional Anatomy of Upper limb
- Explain the development of Hand function.
- Review medical aspects and conditions relevant to upper extremity dysfunction

Able to practice within the domain with understanding of Ethical principles and basic knowledge base for Client Centred Practice.

Course Content

UNIT I Functional Anatomy of Upper limb

- Describe anatomy & kinesiology of hand
- Describe anatomy & kinesiology of the wrist
- Describe anatomy & kinesiology of the elbow and forearm
- Describe anatomy & kinesiology of the Shoulder

UNIT II Evolution & Development of Hand Function

- Describe evolution of Hand
- Describe the development of hand function

UNIT III Disability evaluation, return to job & workmen's compensation

- Disability evaluation of upper limb
- Disability evaluation of hand
- Functional capacity evaluation, Physical capacity evaluation, job evaluation, work site evaluation.
- Work hardening & work conditioning programs and work simulators.
- Functional analysis indices & workmen's compensation act as per prevalent legislation

UNIT IV Evidence based practice

- Evidence based practice in hand rehabilitation
- Integrating clinical expertise and Systematic Research

UNIT V Special Techniques of Therapist's intervention:

- Use of physical agents in hand rehabilitation
- Nerve mobilization & nerve gliding
- Elastic Taping (Kinesiotaping & Dynamic taping)
- Manual Therapy in the management of upper extremity Musculoskeletal Disorders
- The use of Yoga Therapy in hand rehabilitation
- Biofeedback in Hand rehabilitation
- Recent advances in hand rehabilitation: VR and robotic device

UNIT V Orthotic interventions

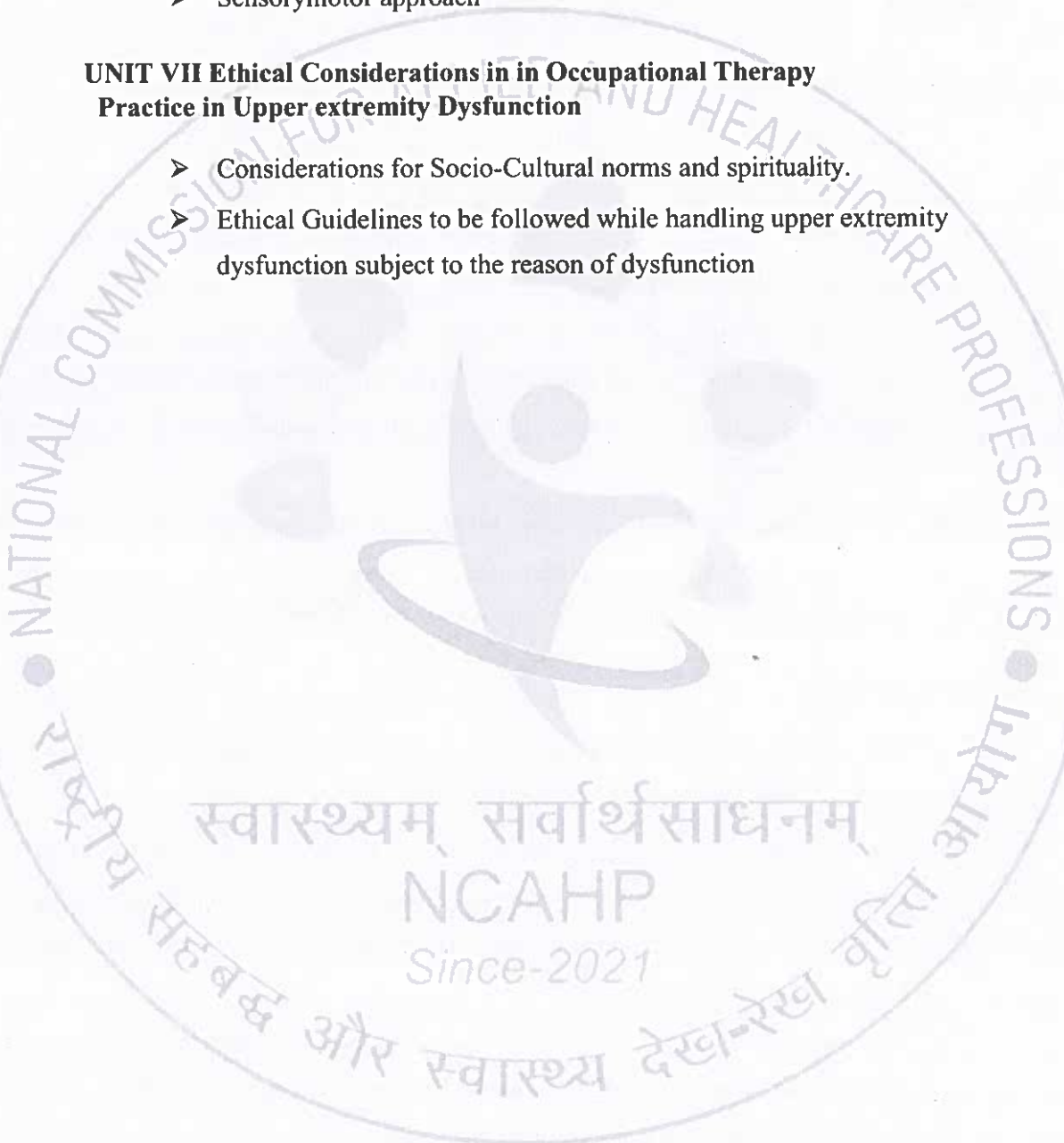
- Foundations of orthotic interventions
- The forces of Dynamic Orthotic positioning
- Orthoses for mobilization of joints
- Tissue remodeling & contracture correction using serial plaster casting & orthotic positioning
- Soft orthoses: Indication & techniques
- Functional fracture bracing
- Upper extremity prostheses
- Assistive and Adaptive devices for upper limb

UNIT VI Models and Frame of reference

- Biomechanical frame of reference
- Rehabilitative Frame of Reference
- Kinesiotherapeutic and Physiological approaches
- Sensorymotor approach

UNIT VII Ethical Considerations in Occupational Therapy Practice in Upper extremity Dysfunction

- Considerations for Socio-Cultural norms and spirituality.
- Ethical Guidelines to be followed while handling upper extremity dysfunction subject to the reason of dysfunction



MOT 201: Advanced Occupational Therapy Diagnostic & Prognostic skills in Hand

Course Description:

This course deals with methods of assessment and screening, evaluating components of function in Upper extremity dysfunction including hand.

Course Objectives

- The candidate will have a better understanding of the Functional anatomy of Hand, the Biomechanical principle and its application, the investigative procedures involved in various upper extremity and hand disorder and application of recent trends.
- The candidate will be able to identify deficits in performance components, context, and areas, select, administer, score, and interpret the upper extremity impairments and deficits using standardized / non standardized assessments or evaluation tools.
- The candidate will be able to delineate appropriate approaches; conventional and contemporary depending on the desired outcomes and the Evidence-Based interventions for the clients with functional deficits and impairments.

Course outcome:

- The candidate will be master in Functional anatomy of Hand and Biomechanical analysis of upper extremity dysfunction.
- The candidate will develop the ability to identify deficits in performance components, context, and areas, select, administer, score, and interpret the upper extremity impairments and deficits using standardized / non standardized assessments or evaluation tools.
- The candidate will be able to clinically reason out appropriate approaches; conventional and contemporary depending on the desired outcomes and the Evidence-Based interventions for the clients with functional deficits and impairments.

Course Content:

UNIT I Medical-diagnostic evaluation

- Investigation procedures used in musculoskeletal,, neurological and congenital disorder of upper extrimity
- Biopsy, Densitometry, Arthroscopy, etc.,
- Biomarkers specific to upper extrimity disorders
- Principles, Techniques and interpretation of biochemical and Pathological investigations
- Recent advances in Medical/diagnostic assessment and evaluation

UNIT II Radiological evaluation

- X ray
- MRI
- CT scan
- Ultra sound

UNIT III Neurophysiological evaluation

- EMG (Qualitative and Quantitative EMG)
- NCV (Conventional Methods)

UNIT IV OT evaluation

- Clinical examination of each joint of Upper extrimity.
- Upper quarter screen
- Sensibility testing
 - Semmes-Weinstein monofilaments test
 - Two-point discrimination test
 - Moberg's pickup test
 - Other useful tests for sensibility testing
- Functional tests
 - Hand dynamometer, Pinch meter
 - Box and block test
 - Nine-hole peg test

➤ Outcome measurement in Upper extremity practice

● Standardized Test:

Jebsen Taylor hand function test, Minnesota manual dexterity test (MMDT), Purdue pegboard test, Baltimore therapeutic equipment (BTE), Minnesota handwriting assessment (MHA) etc.

● Other outcome measure:

Disability of arm, shoulder and hand (DASH) and Quick-DASH, Upper extremity functional scale (UEFS),

Michigan hand questionnaire (MHQ), Patient-related wrist evaluation (PRWE)

● Disease specific measures:

Brachial plexus outcome measure (BPOM), The brachial assessment tool (BrAT), Active movement scale (AMS) for OBPI,

Arthritis impact measurement scale, Boston questionnaire etc

UNIT V Occupational Therapy Practice Framework (OTPF)

- Application of Domain and Process components to formulate Client Centred Occupational Therapy Program

UNIT VI ICF

- Understanding ICF
➤ Application of ICF in Upper extremity dysfunction including Hand

UNIT VII Documentation in Occupational Therapy Hand dysfunction

- SOAP

MOT 202: Advanced Occupational Therapy Process and Practice in Hand

Course Description:

The Course aims to train Occupational Therapy Students in understanding Evidence based practice and application of best practices in Occupational Therapy in Hand

Course Objectives

- The objectives of this course are to provide the candidate with expertise in advanced knowledge with respect to the investigations and intervention strategies for Upper extremity and hand disorder based on physiological, biomechanical and functional anatomical foundation.
- The candidate will be able to acquire in depth knowledge about various neurological, musculoskeletal and congenital, cumulative upper extremity and hand conditions, and will be able to plan and implement occupational therapy intervention for the same

Course Outcomes

- The candidate will be expert in advanced knowledge with respect to the investigations and intervention strategies for Upper extremity and hand disorder based on physiological, biomechanical and functional anatomical foundation.
- The candidate will acquire in depth knowledge about various neurological, musculoskeletal and congenital, cumulative upper extremity and hand conditions, and will be able to plan and implement occupational therapy intervention for the same

Course Content

UNIT I skin & soft tissue conditions

- Wound classification & management
- Management of skin grafts & flaps
- Fingertip injuries
- Soft tissue tumors of the forearm & hand
- Management of Dupuytren's disease
- Management of upper extremity burns
- Rehabilitation of hand after cold injuries

UNIT II Fractures of hand

- Extra articular fractures of the hand and it's management
- Intra articular fractures of the hand and it's management

UNIT III Tendon injuries & Tendinopathies

- Flexor tendon injuries
- Extensor tendon injuries
- Management of common upper extremity tendinopathies
 - Lateral and Medial epicondylitis
 - Flexor and Extensor tendinopathies
 - De Quervain tenosynovitis
 - Trigger finger
- Rehabilitation for Tendon transfers of upper limb

UNIT IV Nerve injuries

- Nerve response to injury and repair
- Rehabilitation of peripheral nerve injury
- Sensory re-education
- Carpal tunnel syndrome
- Cubital tunnel syndrome
- Brachial plexus injury
- Thoracic outlet syndrome
- Surgical reconstruction of nerve injuries & its rehabilitative management

UNIT V Vascular & Lymphatic Disorders

- Vascular disorders of the upper extremity
- Edema management
- Management of upper extremity Lymphadema

UNIT VI Common injuries of upper extremity

- Common wrist injuries
- Common elbow injuries
- Common shoulder injuries
- Common deformities of Hand

- Stiff hand
- Volkmann's ischemic contracture
- Skier Thumb

UNIT VII Complex traumatic conditions

- Complex injuries of hand
- Re-vascularization and replantation of hand and it's management
- Amputation & prosthesis of upper extremity
- Electrical injuries to the upper extremity
- Psychological effects of upper extremity disorders

UNIT VIII Arthritis

- Rheumatoid Arthritis
- Osteoarthritis
- Psoriatic Arthritis
- Joint replacements in wrist and hand & it's rehabilitation

UNIT IX Pain

- Understanding pain mechanisms
- Pain management
- Complex regional pain syndrome

UNIT X Other special population

- Management of congenital hand anomalies
- Tendon injuries in children
- Upper extremity musculoskeletal surgery in the child with Cerebral Palsy
- Hemiplegia
- Tetraplegia
- The geriatric hand rehabilitation
- Treatment of injured athlete
- Focal hand dystonia
- Psychosocial aspects of arm illness

UNIT XI The injured worker

- Pathophysiology of work-Related Musculoskeletal disorders
- Approaches to management of work related musculoskeletal disorders
- Analysis & design of jobs for upper limb musculoskeletal disorders
- Upper limb functional capacity evaluations
- Work oriented programs
- Therapeutic management of Musicians' hand
- Principles and application of ergonomics in hand rehabilitation and work related musculoskeletal disorders of upper extremity

UNIT XII Adjunct to Special Techniques of Occupational Therapist's intervention

- Use of physical agents in hand rehabilitation
- Nerve mobilization & nerve gliding
- Manual Therapy in the management of upper extremity Musculoskeletal Disorders
- The use of Yoga Therapy in hand rehabilitation

UNIT XIII Recent advances in OT practice in Hand Rehabilitation

- Biofeedback in Hand rehabilitation
- Use VR and robotic device and FES in hand rehabilitation:
- Use of Upperlimb functional Occupational Training system
- Use of 3D printer in fabricating the orthoses and adoptive devices.

MOT 203: Current & Future Trends in Occupational Therapy Practice in Hand

Course Description:

The Course aims to train Occupational Therapy Students in developing awareness related to the latest Research, Innovations and Technology in Occupational Therapy in Hand.

Course Objectives

- To train students with the latest developments in field of Hand Therapy.
- To train Occupational Therapy Post Graduates in blending conventional Occupational Therapy interventions and newer technologies for formulating Client centred Occupational Therapy.

Course Outcomes

- Illustrate the use of recent advances in routine Occupational therapy interventions
- To adopt best practices in Occupational therapy using latest Technology and adjuncts. University Examination at the end of Second year

Course Content.

1. Neuroplasticity and Rehabilitation

Understanding how neuroplasticity can be harnessed in rehabilitation to improve motor recovery in Hand with neurological impairments such as stroke

2. Wearable Technology and Sensors

The role of wearable devices in monitoring and enhancing rehabilitation outcomes. This includes smart gloves, motion sensors, and wearable electromyography (EMG) devices

3. Robotic Rehabilitation Devices

Advances in robotic exoskeletons and assistive devices that aid in repetitive motion exercises and precise motor training.

4. Virtual and Augmented Reality

The application of VR and AR in creating immersive rehabilitation environments that engage patients and improve adherence to therapy protocols

5. Bionic Hands and Prosthetics

Developments in myoelectric prosthetics and bionic hands that provide improved dexterity and control for amputees.

6. Cortical Implants and Brain-Machine Interfaces

Exploring how cortical implants can restore hand function by translating brain signals into movements, including systems like BrainGate and research from Neuralink

7. Functional Electrical Stimulation (FES)

The use of FES to stimulate paralyzed muscles, helping restore movement and improve motor control in individuals with spinal cord injuries or stroke

8. Hand Therapy Apps and Tele-rehabilitation

The rise of digital health solutions and mobile applications that support remote hand therapy and continuous patient engagement

9. Light and Laser Therapies

Innovations in photobiomodulation (light therapy) for reducing inflammation and promoting tissue healing in hand rehabilitation

10. Advances in Diagnostic Technologies

The integration of advanced diagnostic tools such as musculoskeletal ultrasound and nerve conduction studies in hand rehabilitation practice

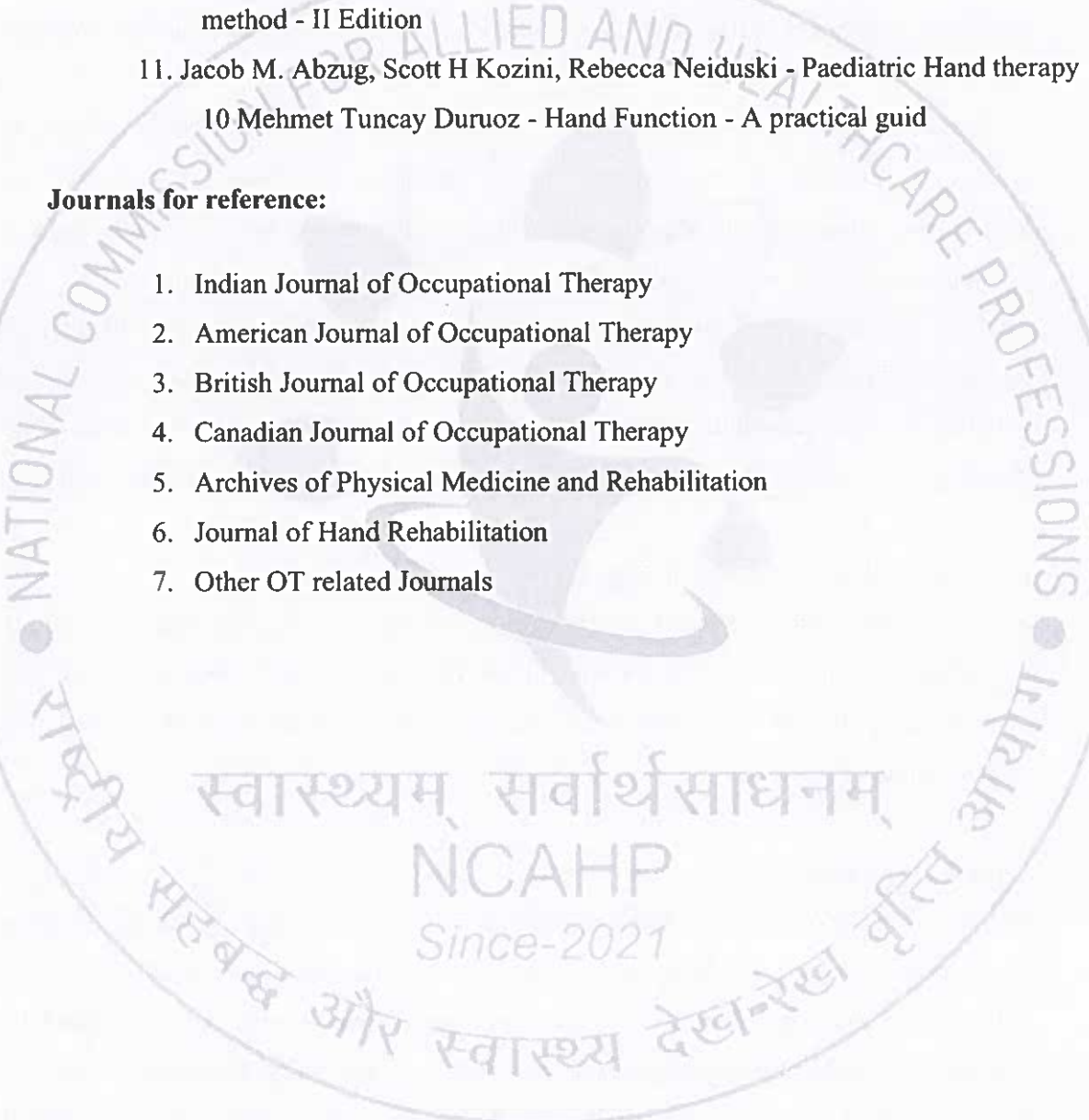
Books recommended-

1. Skirven Osterman, Fedorczyk, Amandio, Feldscher- Rehabilitation of the hand and upper extremities -VII Editio
2. Hunter, Macklin , Callahan - Rehabilitation of the hand and upper extremity - V Edition
3. Charles E. Giangarra, Robeert C. Manske, S. Brent Brotzman - Clinic orthopedic rehabilitation - IV Edition
4. Raout Tubiana, Jean- Michel Thomine, Evelyn Mackin - Examination of the hand and wrist
5. Rebecca J. Saunders - Hand and Upper extremity rehabilitation - IV Edition

6. Mary Vining Radomski, Catherine A Trombly- Occupational therapy for physical dysfunction
7. Pedretti's practice skills for physical dysfunction - VII Edition
8. Cynthia Cooper - Fundamentals of hand therapy - II Edition
9. MaryLnn Jacobs, Noelle Austin- Splinting the hand and upper extremity
10. Fess Philips - Fundamental concepts --Hand splinting in principles and method - II Edition
11. Jacob M. Abzug, Scott H Kozini, Rebecca Neiduski - Paediatric Hand therapy
- 10 Mehmet Tuncay Duruoz - Hand Function - A practical guid

Journals for reference:

1. Indian Journal of Occupational Therapy
2. American Journal of Occupational Therapy
3. British Journal of Occupational Therapy
4. Canadian Journal of Occupational Therapy
5. Archives of Physical Medicine and Rehabilitation
6. Journal of Hand Rehabilitation
7. Other OT related Journals



Masters in Occupational Therapy (Rehabilitation Sciences) MOT (REHAB)

Course Description

This course focuses on the role of occupational therapy for establishing diagnosis and Independent Clinical decision making, for rehabilitation of in patients in both Acute & Chronic care clinical settings (in-patient, out-patient and home care), for both short & long-term wellness, safety and management including community-based programs (socialization, day treatment, adult day care programs), and alternative housing environments etc. In order to understand the needs of patients with cardiopulmonary conditions (diseases & injuries), the course addresses the disease process and its anatomical, physiological, sociological, and psychological effects, with attention to heterogeneity and person's strengths, limitations and capabilities for Rehabilitation.

Students also learn about common illnesses, impairments, disabilities and rehabilitation needs of patients. They will develop and demonstrate skills in evaluation, treatment planning & its implementation and therapeutic adaptations, documentation, and discharge planning (in collaboration with patient and their family member). They will also demonstrate knowledge of assistive technology devices, equipment, and work & environmental modifications strategy as

per functional status & clinical conditions to improve / enhance the quality of life of patient population. It also trains the students on various theories, Frames of references & approaches applicable to Occupational Therapy treatment & intervention processes for rehabilitation

Course Objectives:

The course also addresses the importance of evidence-based practice, including occupational therapy, life- long learning and professional development, the benefits of collaborative OT with other rehabilitation team professionals and also understand the relationships between policy, legislation and practice. This course enhances the skills of Occupational Therapy professionals for Assessment and Intervention of illness, impairment, disability or handicap as well as associated Psychosocial Issues for restoring function to enhance /improve quality of life by providing quality service delivery, care & follow up.

Program Goals:

- a. Develop Clinical Competency: To equip students with advanced clinical skills in occupational therapy
- b. Promote Evidence-Based Practice: To cultivate the ability to integrate current research and evidence into clinical decision-making.
- c. Foster Leadership and Advocacy: To prepare students to assume leadership roles and advocate for the advancement of occupational therapy in health sciences & rehabilitation settings.

Competency Domains and Learning Outcomes:

Domain 1: Clinical Assessment and Evaluation

• Learning Outcomes:

- Conduct comprehensive interview, history taking and evaluations in multiple settings
- Conduct comprehensive assessments of clinical & functional status
- Apply specialized evaluation techniques relevant to rehabilitation
- Apply specialized standardized evaluation tools relevant to clinical features
- Analyze assessment findings to formulate client / patient-centered treatment plans
- Explain the importance of quality of life issues within their context and their relationship to cultural, religious and Ethnic issues

Domain 2: Intervention Planning and Implementation

• Learning Outcomes:

- Design evidence-based & individually tailored intervention plans tailored to patient's needs and goals.
- Implement therapeutic techniques, procedures and modalities for rehabilitation
- Modify treatment plans based on ongoing assessment and client progress.
- Ability to implement treatment plans & intervention in multiple settings.
- Formulate treatment plans (including discharge planning) in consultation with patient / families members as applicable
- Demonstrate knowledge of community programs
- Formulate treatment plans to address quality of life issues of concern

Domain 3: Inter professional Collaboration

- **Learning Outcomes:**
 - Collaborate effectively with other professionals of healthcare service providers.
 - Participate in multidisciplinary teams to optimize intervention outcomes.
 - Communicate occupational therapy perspectives and contributions in rehabilitation settings
 - Understand the high-risk group with regard to medication interactions, including how physiologic changes influence medication effects
 - Communicate occupational therapy perspectives and contributions in variety of clinical setting

Domain 4: Professionalism and Ethical Practice

- **Learning Outcomes:**
 - Demonstrate ethical decision-making and adherence to professional standards in rehabilitation.
 - Articulate how ethical considerations in musculoskeletal practice relate to the Code of Ethics regulations by NCAHP
 - Engage in reflective practice to continuously improve clinical skills and professional conduct.
 - Advocate for the rights and well-being of patients through ethical practice and advocacy efforts.
 - Knowledge of how demographics and policy influences healthcare

Domain 5: Research and Evidence-Based Practice

- **Learning Outcomes:**
 - Critically appraise research literature relevant to occupational therapy practice
 - Integrate research findings into clinical practice to enhance treatment outcomes.
 - Contribute to the advancement of knowledge in rehabilitation sciences through scholarly activities.

MOT First Year

MOT 104: Basic Medical Sciences & Theoretical foundation in Occupational Therapy in Rehabilitation sciences

Course Description

The overall goal of the course is to provide a conceptual framework for the study of rehabilitation sciences as it relates to occupational therapy and to assist occupational therapy students to develop the skills and knowledge needed to understand major issues in theory, research, and practice. It involves the training in the use of various theories, frames of references & approaches applicable to Occupational Therapy intervention processes applicable.

Objectives (competency statements) –

The objectives of this course are:

- 1) Integrate prior knowledge of anatomical, physiological, sensory and motor changes for purposes of occupational therapy intervention
- 2) To understand the disease process
- 3) Understand the cultural diversity and heterogeneity and its impact upon assessment, treatment planning, implementation and discharge planning
- 4) To identify, implement & document the appropriate frames of reference used
- 5) Use the latest technology for assessment, intervention and documentation
- 6) Explain the role of occupational therapy for promoting health & well-being and the prevention of disease and disability

Expected Outcomes:

- 1) Illustrate the diagnostic tools to identify health problems in rehabilitation
- 2) State various frames of references, theories & approaches used in rehabilitation
- 3) Able to understand the disease process, its implication on functional performance areas

Contents

- Trauma & Associated medical condition (Cardiopulmonary, Neurological & Psychosocial complications)
- Lifestyle Diseases (Obesity, Hypertension, Diabetes etc.)
- Occupational diseases & OT management
- Impairment, Disability & Handicap
- ICD 10
- International classification of functioning (ICF) coding
- Types of Institutional based service setting serving people with disability
- Rehabilitation types, settings, Institutions, team
- Rehabilitation processes (Preventive, curative/ restorative or adaptive /compensatory)
- Wellness Programme
- Principles of exercise physiology and measurers. Monitoring physiological responses to exercise.
- Physical & Functional Capacity Evaluation
- Occupational therapy strategies for documentation & management in rehabilitation
- Socio-Cultural aspects in OT practice
- Understanding of primary, secondary and tertiary stages of disability prevention
- Disability types and legislative framework for benchmark disabilities (RPwD Act, Mental health Act etc.)
- Special provisions for PwD (National Trust & other welfare schemes)
- Accessibility & architectural barriers
- Liaison & Communication among healthcare professionals
- Clinical reasoning skill development and its application
- Disability evaluation
- Critical analysis of the various approaches used (e.g. Specific techniques, evaluations etc.)

- Rehabilitation across the life span: Paediatric, adult onset & geriatric conditions
- Disaster Management
- Regulatory Agencies and Legal Issues of concern.
- Industrial health & rehabilitation in OT practice
- Physical agent modalities as an adjunct to OT practice



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Paper MOT 201 Advanced Occupational Therapy Diagnostic & Prognostic skills in Rehabilitation Sciences

University Examination: At the end of Second year of MOT

Theory Exam: 100 Marks IA: 50 Marks

(Will not be added to University Examination)

Instruction hours: 100

(Lecture / Tutorials Hours – 75 and Practical Hours- 25)

Clinical hours: 290

Course Description:

- 1) A better understanding & process of the various diagnostic procedures used in Occupational Therapy
- 2) Will enable for clinical & functional diagnosis & critical decision on planning Occupational Therapy intervention

Objectives: (Competency Statements)

- Elicit and interpret clinical signs and symptoms & interpret clinical investigations, stress tests and special investigations commonly used in establishing diagnosis
- Illustrate the diagnostic tools
- Understand the appropriate use of assessment tools for rehabilitation
- Able to administer the specific tool for screening the other associated issues
- Describe, administer & interpret and develop Specialized tools of OT assessment
- Administer the tools for assessing progress in patients.
- Establish clinical diagnosis
- Make Critical decision and selection of outcome measures

Contents

- History Taking, observational assessment, examination supplementing medical notes and investigation for establishing provisional clinical diagnosis
- Understanding diagnostic & prognostic indicators of various disability conditions
- Assessment & treatment techniques applicable to Occupational therapy practice
- Disability Evaluation, functional analysis indices and workmen's compensation act as per legislation
- Work assessments
- Driving Evaluations
- Job analysis based on ergonomics principles
- Balance Dysfunction examination, assessment scales, their application
- Hand, Posture & Gait Assessment
- Various Standardized Assessment Tools in clinical setups/settings
- Hand function Assessment
- Functional & ADL Assessment Tools
- Pain assessment & management strategies in various medical conditions
- Knowledge & Practice skill for using various standardized evaluation scales & investigative procedures used in neurological, degenerative & congenital conditions
- Assessment & evaluation of Home, school, work place
- General fitness strategies

MOT 202: Advanced Occupational Therapy Process & Practice in Rehabilitation Sciences

Course Description

This course focuses on the role of occupational therapy for rehabilitation in various practice settings from Acute to chronic care, long-term care programs, including wellness & safety programs. Students learn about common impairments and disabilities and rehabilitation needs. They will develop and demonstrate skills in evaluation, treatment planning and implementation, documentation, and discharge planning (including collaborative client and family education), to enhance / improve the quality of life

Objectives:

The course also addresses the importance of evidence-based practice, including occupational therapy, life- long learning and professional development, the benefits of collaborative OT- OTA partnerships and the relationships between policy, legislation and practice.

Expected Outcomes:

The overall goal of the course is to provide a conceptual framework and to assist occupational therapy post graduate students to develop the skills and knowledge to understand the disease process, assess and implement intervention strategies for rehabilitation.

Contents

- Functional approaches & critical analysis of various approaches used (e.g. Specific techniques, evaluations etc.) in Occupational Therapy
- Trauma Care & Resource Matrix
- Rehabilitation in Geriatric conditions
- Rehabilitation of Plastic Surgery conditions including tendon transfer & grafts, amputation & reconstructive surgeries
- Balance training & Fall Prevention
- Hand Rehabilitation & Surgeries
- Practice skills using Biomechanical and Rehabilitative Frames of References
- Wellness Programme
- Palliative care and Hospice Care

- Prescription, designing, fabrication, Fitting, functional training and check out of prosthetic & orthotic devices & assistive devices
- Mobility aids & appliances:- Prescription & training
- Wheel chair Prescription & training (advanced manoeuvres)
- Work simulations and work hardening
- Psychological aspects of adaption and adjustment during rehabilitation of the disabled
- OT Practice Issues in community including adults with developmental disabilities, Community based services & CBR
- Identifying barriers & facilitators for implementing Evidence Based occupational therapy Practice
- Management of work related musculoskeletal disorders
- Psychosocial aspects of disability
- Universal accessibility design
- Environmental modifications
- Obesity and life style diseases
- Rehabilitation surgeries & OT Management
- Burns assessment & management
- Rehabilitation of Adult Cerebral palsy
- Rehabilitation of patients with Medical & surgical conditions such as SCI, Burns, Rheumatologic conditions, Arthroplasty, Acute & Chronic Respiratory conditions, Parkinsonism, Stroke, Polytrauma etc.
- Application of biomechanics & bioengineering in Rehabilitation
- Falls and Fractures
- Vocational Fitness Programs

MOT 203: Current & Future Trends in Occupational Therapy Practice for Rehabilitation Sciences

Examination: At the end of First year of

Course Description:

It involves the training in the use of Frames of existing references & approaches, current trends & latest technology advancements applicable to improve / enhance function and quality of life.

Objectives (competency statements) –

The objectives of this paper are:

- 1 Understand, demonstrate & apply and document the Frames of reference
- 2 Develops proficiency in applying current trends
- 3 Develop & enhance clinical skill
- 4 Develop new innovative techniques & strategy for assessment, intervention as well as for establishing diagnosis

Expected Outcomes:

1. Understand & apply current trends & innovative ideas for managing disease process
2. Develop skill to apply various frames of references, theories, assessment strategies and treatment approaches in view of current trends & latest advancements in rehabilitation

Course Contents:

- Advanced & current trends in rehabilitation
- Assistive technology, aids & appliances in musculoskeletal conditions
- Environmental controlled units and Universal Design
- Latest Advancements in Rehabilitation Technology
- Application of Artificial Intelligence into OT Practice
- Robotic technology & its application
- Advances in computer applications in O.T.
- Concept of telemedicine /rehabilitation & information technology
- Ergonomics, its types & Application to OT Practice
- Environmental control units & their application to OT Practice
- Modalities Adjunct to OT Practice

- Latest Rehab Equipment's including Virtual Reality, EMG Biofeedback, FES etc.
- Liaising with stake holders for fund generation under corporate social responsibility in community welfare schemes like PMJAY, RBSK etc. for equipment's & research for community based rehabilitation
- Work station designs for maximizing performance within the environment
- Work Assessment and Work surface adaptations & accommodation
- Chronic conditions, Job analysis, Workplace accommodations, conditioning & Safety, Injury Prevention & management and return to work Programs
- Community & Institutional based outreach rehabilitation programs & schemes
- Vocational Rehabilitation; evaluation & management

Recommended Text Books & Journals

International:

1. "Occupational Therapy: Principles and Practice" by Mary Ann McColl
2. "Willard and Spackman's Occupational Therapy" by Barbara Schell and Glen Gillen
3. "Occupational Therapy in Community-Based Practice Settings" by Marjorie E. Scaffa
4. "Case-Smith's Occupational Therapy for Children and Adolescents" by Jane Clifford O'Brien and Heather Kuhaneck
5. "Occupational Therapy with Elders: Strategies for the COTA" by Rene Padilla, Sue Byers-Connon, and Helene Lohman

Indian:

1. "Essentials of Occupational Therapy" by Kamala R. Gupta
2. "Rehabilitation Techniques in Occupational Therapy" by Neelam R. Bhardwaj
3. "Occupational Therapy in India" by Vinod Kumar Sinha
4. "Handbook of Occupational Therapy" by Nirupama Aggarwal
5. "Community Rehabilitation: Concepts and Strategies" by Neeta Kumar

Journals

International:

1. American Journal of Occupational Therapy (AJOT)
2. British Journal of Occupational Therapy (BJOT)
3. Australian Occupational Therapy Journal
4. Scandinavian Journal of Occupational Therapy
5. Journal of Occupational Rehabilitation

Indian:

1. Indian Journal of Occupational Therapy (IJOT)
2. Journal of Rehabilitation Council of India
3. Indian Journal of Physical Medicine and Rehabilitation
4. Journal of Disability Management and Rehabilitation
5. Indian Journal of Physiotherapy and Occupational Therapy - An International Journal

Chapter 5:

Job Description for all levels

NATIONAL COMMISSION FOR ALLIED AND HEALTHCARE PROFESSIONS

स्वास्थ्यम् सर्वार्थसाधनम्
NCAHP
Since-2021

राष्ट्रीय सहबद्ध और स्वास्थ्य देखरेख वृत्ति आयोग

Job Description for all levels

1. Level 6

- **Responsibilities:**

- Assess patients' physical, emotional, and social needs.
- Develop individualized treatment plans to improve patients' ability to perform daily activities.
- Implement therapeutic interventions, including exercises, adaptive equipment, and techniques.
- Educate patients and families on home programs and adaptive strategies.
- Maintain accurate patient records and document progress.
- Collaborate with other healthcare professionals to ensure comprehensive patient care.
- Stay updated with the latest practices and developments in occupational therapy.

- **Qualities Expected:**

- Strong hold on subject knowledge and clinical skills
- Strong communication and interpersonal skills.
- Ability to work independently and as part of a team.

2. Level 7

- **Responsibilities:**

- Oversee and mentor junior occupational therapists.
- Handle more complex patient cases.
- Develop and implement advanced therapeutic programs.
- Conduct training sessions for staff on new techniques and equipment.
- Lead research projects to improve treatment methods and outcomes.
- Participate in departmental planning and development.
- Advanced certification in specialized areas (e.g., hand therapy, pediatrics).
- Leadership and supervisory skills.
- Strong clinical and research skills.

3. Level 8

- **Responsibilities:**

- Manage the daily operations of the occupational therapy department.
- Develop and implement departmental policies and procedures.
- Ensure compliance with regulatory standards and accreditation requirements.
- Coordinate with other department heads for integrated patient care.
- Monitor departmental budgets and resources.
- Oversee the recruitment, training, and evaluation of staff.
- Facilitate professional development and continuing education for staff.

- **Qualities Expected:**

- Extensive clinical and supervisory experience.
- Strong organizational and management skills.
- Knowledge of healthcare regulations and accreditation processes.
- Excellent communication and leadership abilities.

4. Level 9

- **Responsibilities:**

- Provide strategic leadership and vision for the occupational therapy department.
- Develop long-term goals and objectives for the department.
- Oversee the implementation of innovative treatment programs and services.
- Foster a collaborative and inclusive work environment.
- Represent the department in organizational meetings and external forums.
- Drive quality improvement initiatives and best practices.
- Monitor departmental performance and outcomes.
- Proven track record of leadership and innovation.
- Ability to drive change and implement new strategies.
- Strong analytical and problem-solving skills.
- Excellent public speaking and advocacy skills.

5. Level 10

- **Responsibilities:**

- Lead the overall strategic direction and administration of occupational therapy services.
- Develop and implement organizational policies and procedures.
- Ensure the highest standards of patient care and service delivery.
- Manage departmental budgets, staffing, and resources.
- Establish partnerships with other healthcare providers and organizations.
- Advocate for the profession and promote occupational therapy within the community.
- Oversee research initiatives and academic collaborations.
- Report to the executive leadership on departmental performance and strategic goals.

- **Qualities expected:**

- Significant experience in senior management roles.
- Expertise in healthcare administration and policy.
- Strong leadership and strategic planning skills.
- Excellent communication, negotiation, and networking abilities.
- Commitment to advancing the field of occupational therapy.

These descriptions can vary depending on the specific healthcare setting and organization. The roles typically build upon each other, with increasing levels of responsibility, expertise, and leadership as one moves up the hierarchy.

References:

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- xvii. Syllabus for BOT & MOT, Dr MGR Tamil Nadu University, Tamil Nadu
Syllabus for MOT, West Bengal university of Health Sciences, West Bengal
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Annexures



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Annexure 1

Allied and Healthcare Professions

Allied and healthcare professionals includes individuals involved with the delivery of health or healthcare related services, with qualification and competence in therapeutic, diagnostic, curative, preventive and/or rehabilitative interventions. They work in multidisciplinary health teams in varied healthcare settings including doctors (physicians and specialist), nurses and public health officials to promote, protect, treat and/or manage a person ('s) physical, mental, social, emotional, environmental health and holistic well-being.

The wide variation in the understanding of the concept of allied and healthcare professional, better known as 'paramedic', the nomenclature, and functions has led to the poor image of allied and healthcare sciences in India. The use of the word paramedic itself limits the activities of AHPs in the system. Hence, it is imperative to adequately compensate these professionals based on their qualifications and specialties. Despite a huge demand for services from this sector, allied and healthcare sciences is highly fragmented. As per the report 'From Paramedics to Allied Health Sciences', in total 138 courses of varied levels were identified during the process. Although it is estimated that there may be many more courses which are yet to be identified.

Considering the lack of regulatory mechanism following 15 core professional groups (accounting for around 44 professions) has been enlisted below (**The list is illustrative of the allied and healthcare professions. In future there may be addition or removal of certain professions based on the state of their regulation and standardization**). It also needs a mention that most of these professions are not restricted to the professional groups under which they have been categorized, their role may extend to other professional services too. Similarly, the categorization is an indicative categorization, however this may evolve over time based on deeper understanding of the roles and responsibilities of each professional group:

Healthcare Professions

1. Optometry
2. Physiotherapy
3. Occupational Therapy
4. Nutrition Sciences
5. Physician Associate and Assistants
6. Allied Health Professions
7. Cardiology, Vascular and Pulmonary Technology
8. Medical Laboratory Sciences

9. Medical Radiology and Imaging Technology
10. Neurosciences Technology
11. Non- direct and Administrative services
12. Primary Care and Community services
13. Radiation Therapy
14. Renal Technology
15. Surgical and Anesthesia related Technology
16. Trauma Care Services

The above mentioned groups account for over 44 job profiles in the allied and healthcare space, which are as follows-

A Healthcare Professions

1. Optometry
 - a. Optometrist
2. Physiotherapy
 - a. Physiotherapist
3. Occupational Therapy
 - a. Occupational Therapist
4. Nutrition Sciences
 - a. Nutritionist
 - b. Dietitian
5. Physician Associate and Assistants
 - a. Physician Associates and Assistants

B Allied Health Professions

1. Surgical and anesthesia related technology
 - a. Anesthesia Assistants and Technologist
 - b. OT Technologist
 - c. Endoscopy Technologist

2. Medical Laboratory Sciences
 - a. Cyto-Technologist
 - b. Dermatology/STD /Leprosy Lab Technologist
 - c. Forensic Technologist
 - d. Hemato-Technologist
 - e. Histopath-Technologist
 - f. Phlebotomist
 - g. Medical and Clinical Lab Technologist
3. Medical Radiology and Imaging Technology
 - a. Radiographer
 - b. Radiologic /Imaging Technologist
 - c. Diagnostic Medical Sonographer
4. Renal Technology
 - a. Urology Technologist
 - b. Dialysis Therapy Technologist
5. Radiation Therapy
 - a. Radiotherapy Technologist
 - b. Medical Dosimetrist
 - c. Nuclear Medicine Technologist
6. Trauma Care Services
 - a. Emergency Medical Technologist (paramedic)
 - b. Critical Care/ICU Technologist
7. Neurosciences Technology
 - a. EEG/END Technologist
 - b. EMG Technologist
 - c. Neuro Lab Technologist
 - d. Sleep Lab Technologist

8. Cardiology, Vascular and Pulmonary Technology
 - a. Cardiovascular Technologist
 - b. ECG Technologist
 - c. ECHO Technologist
 - d. Perfusionist
 - e. Pulmonary Function (PFT) Technologist
 - f. Respiratory Therapist
9. Non- direct and Administrative Services
 - a. Biomedical Engineers and Technologist
 - b. Medical Assistant
 - c. Medical Secretaries
 - d. Medical Transcriptionist
 - e. Health Information Management Technologist
10. Primary Care and community services
 - a. Blood Bank Technologist
 - b. Counselor- Integrated Behavioral Health Counselors, Palliative counselors etc.
 - c. Sanitary Health Inspectors

Annexure 2

Occupational Therapy Clinical Assignment Card

Name of the student: _____ Semester no: _____

Sr. No.	Place of the assignment	Period of Assignment	Signature Staff	Grade	Remarks

This is to certify that Mr./Ms.....student of semester..... of Occupational Therapy has successfully completed all the clinical assignments during the academic year



BOT CLINICAL FIELDWORK EVALUATION FORM

Demographic Data

Name of the student	
Semester	
Placement period	
Placement Area	
Date of Initial Evaluation	
Date of Mid Evaluation	
Date of Final Evaluation	

Evaluation

Topic	Initial	Mid	Final	Remarks
Professional Attitude				
	Punctuality			
	Uses initiative			
	Personal appearance			
	Relationship with staff (subordinates, peers and seniors)			
	Response to criticism			
Communication Skills				
	Establishes relevant rapport with patient and family			
	Ask Relevant questions			
	Communicates effectively with patients and relatives at appropriate levels			
Evaluation and treatment planning				
	Obtain relevant data			
	Identifies problems areas to be treated			
	Formulates appropriate treatment procedure – a) Immediate b) Long term			

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Topic	Initial	Mid	Final	Remarks
Treatment Implementation:				
	Uses treatment techniques appropriately			
	Re-evaluates and upgrades appropriately			
Records and Report				
	Maintains regular Relevant records: (Assessments)			
	Oral communication on: (Evaluation)			
Organization & Admin. Ability:				
	Accepts responsibility			
	Care of materials			
Assignments				
	Clinical Practice Files:			
	a) Time of Submission			
	b) Relevant information			
	c) Quality of presentation			
	d) Extra assignments			
	Case presentation			
	a) Time of Submission			
	b) Use of initiative			
Grading: 5 - Excellent 4 - Good 3 - Average 2 - Below average 1 - Poor				

Clinical Hours

Max. Clinical Hours	Hours Absent	Hours Made Up	Total Clinical Hours

Overall Assessment Rating

Percentage	Recommendation (✓ appropriately)
	Passes with 50% & above
	Fails- less than 50%. Posting to be repeated

Date & Signature of Student	
Date & Signature of Staff	
Date & Signature of Principal	



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Annexure 3

Occupational Therapy Clinical Module (Adult with Physical Dysfunctions/ Disabilities)

Level 1 (First year)

Area: OPD, Orthopaedic, Surgical & Medical wards

Competency:

At the end of their clinical posting in the first year, students should be able to demonstrate skills to identify Occupational profile of patients with physical conditions & learn the gross muscle testing & goniometry on normal individuals

Objective:

To learn the skills of identifying patient's occupational profile before and after their physical conditions.

The placement of Goniometers & positions of limbs for measurement of ROM & Muscle testing.

Learning needs:

- To learn the skills of developing rapport with the patients
- To understand the components of demographic details and history taking
- To differentiate activity and occupation
- To understand the concept of "Occupation" in person's life
- To understand the OTPF – Domain and Process relevant to physical conditions
- To identify the Occupational profile of patient's with physical conditions
- To learn the placement of Goniometers & positions of limbs for measurement of ROM & Muscle strength

(Second year) Level 2.1

Area: OPD : Orthopaedic, Surgical, Medical & Neurological cases Competences:

At the end of their one month posting, students should be able to demonstrate skills to evaluate factors affecting ADL, IADL, Education, Work, Leisure and Social participation in patients with orthopaedic conditions such as amputation, RA, OA, back pain and other neurological conditions.

Learning Objective:

To learn the skills to evaluate client factors, performance skills and contexts affecting ADL, IADL, Education, Work, Leisure and Social participation in patients with orthopaedic conditions such as amputation, RA, OA, back pain and other neurological conditions reporting to Occupational Therapy outpatient set up.

Client factors:

1. Range of Motion including factors that limits the movement (such as TCDs, Pain)
2. Muscle Power including Voluntary motor control (General)
3. Reflexes
4. Muscle tone
5. Sensation (General)
6. Perception

Performance skills:

1. Functional abilities
2. Hand functions

Weekly goals:

Week 1:

To learn and demonstrate assessing the ROM (TCDs), individual muscle testing and voluntary motor control

Week 2:

To learn and demonstrate assessing the reflexes and muscle tone

Week 3:

To learn and demonstrate assessing the sensation & perception

Week 4:

To learn and demonstrate assessing the functional abilities including balance and hand functions

Assignments:

- Levels of amputation in upper and lower extremity; types of amputation
- Assessment methods of muscle strength; muscle tone; voluntary control; reflexes and coordination
- Regulation of muscle tone
- Individual MMT of any one patient

(Second year) Level 2.2

Area: OPD, Orthopaedic, Surgical, Medical & Neurological cases

Competency:

At the end of their one month posting, students should be able to demonstrate skills to evaluate factors affecting ADL, IADL, Education, Work, Leisure and Social participation in patients with SCI, TBI, Stroke and other chronic neurological conditions.

Learning Objective:

To learn the skills to evaluate client factors, performance skills and contexts affecting ADL, IADL, Education, Work, Leisure and Social participation in participation in patients with SCI, TBI, Stroke and other chronic neurological conditions.

Client factor:

- Muscle power (Myotome) and sensory evaluation (Dermatome), ASIA scale
- Level of consciousness (including the scales GCS; RLA; CRS – R and WHIM)
- Voluntary motor control (Brunstrom stages)

Performance skills:

- Functional outcomes (ADL, Functional abilities and transfers) in SCI
- Hand functions in tetraplegia (including tenodesis grasp)



Weekly goals:

Week 1:

To learn and demonstrate skills in assessing the myotome and dermatome in patients with SCI and to determine the level and severity using ASIA scale.

Week 2:

To learn and demonstrate skills in assessing the ADL, functional abilities and hand functions in patients with SCI

Week 3:

To learn and demonstrate skills in assessing the level of consciousness (coma, unresponsive wakefulness syndrome, minimal conscious state and emergence from MCS) in patients with TBI.

Week 4:

To learn and demonstrate skills in assessing the voluntary control in patients with stroke

Assignments:

- Goal setting in SCI (including functional outcomes)
- Secondary complications in SCI
- Coma and related conditions and Theories and principles of coma stimulation

(Second year) Level 2.3

Area: OPD : Orthopaedic, Surgical, Medical & Neurological cases Competency:

At the end of their one month posting, students should be able to demonstrate skills to evaluate factors affecting ADL, IADL, Education, Work, Leisure and Social participation in patients with SCI, TBI, Stroke and other neurological conditions.

Learning objectives:

To learn the skills to evaluate client factors, performance skills and contexts affecting ADL, IADL, Education, Work, Leisure and Social participation in patients with SCI, TBI, Stroke and other neurological conditions.

Client factors:

- Revise module 2.1 & 2.2
- Cognitive - perceptual skills

Performance skills:

- Functional abilities and transfers in patients with brain injury
- Evaluation of Basic and instrumental ADL

Weekly Goals:

Week 1: Revise module 2.1

Week 2: To learn and demonstrate skills in assessing the cognitive and perceptual skills in patients with brain injury

Week 3: To learn and demonstrate skills in assessing the functional abilities and transfers in patients with brain injury

Week 4: To learn and demonstrate skills in assessing the basic and instrumental ADL (including MBI, SCIM)

Assignments:

- Goal setting in TBI (based on RLA stages)
- Cognitive perceptual skills and evaluation
- Secondary complications in Stroke and TBI

(Second year) Level 2.4

Area: Neurology Competency:

At the end of their one month posting, students should be able to demonstrate skills to evaluate factors affecting ADL, IADL, Education, Work, Leisure and Social participation in patients with Parkinson's disease, MND, MS, GBS , and other neurological conditions.

Learning objectives:

To learn the skills to evaluate client factors, performance skills and contexts affecting ADL, IADL, Education, Work, Leisure and Social participation in patients with Parkinson's disease, MND, MS, GBS and other neurological conditions.

Client Factors

- Cranial nerves testing
- Tonal abnormalities (Spasticity, Flaccidity, Rigidity, Dystonia)

Performance skills:

1. Co-ordination (Equilibrium & non equilibrium test)
2. Functional abilities

Weekly goals:

Week 1: To learn and demonstrate skills in performing cranial nerve testing

Week 2: To learn and demonstrate skills in assessing co-ordination

Week 3: To learn and demonstrate skills in assessing tonal abnormalities and the signs and symptoms of Parkinson's diseases, MND, MS and GBS.

Week 4: To learn and demonstrate skills in assessing milestones, functional abilities and balance in neurological conditions.

Assignment:

- Cranial nerve testing
- Cerebellar signs and co-ordination assessment
- Condition specific assignments

Level 3 (Third year) Area: (acute care management)

Competency:

At the end of their one month posting, students should be able to demonstrate skills to implement interventions and procedures to promote or enhance safety and performance in ADL, IADL, Education, Work, Leisure and Social participation in patient with brain injury, SCI and other acute neurological conditions

Learning Objective:

To learn the skills to implement interventions and procedures to promote or enhance safety and performance in ADL, IADL, Education, Work, Leisure and Social participation in patient with brain injury, SCI and other acute neurological conditions

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Weekly goals:

Week 1: To learn and demonstrate skills in administering OT intervention strategies in patients with SCI during their acute stage.

- prevention of secondary complications;
- educating the significant caregivers about the condition, safety precautions;
- to train in basic skills such as functional abilities and ADL

Week 2: To learn and demonstrate skills in administering OT intervention strategies in patients with TBI during their acute stage

- OT interventions for patients in RLA stage 1-4
- Prevention of secondary complications
- Positioning to ensure safety and functions
- Techniques and strategies to use for cognitive training

Week 3: To learn to demonstrate skill in administering OT intervention strategies in patients with stroke during their acute care

- Evaluation, prevention and management of shoulder subluxation
- Management of shoulder hand syndrome
- Approaches, techniques and strategies to improve voluntary control

Week 4: To train and demonstrate skills in writing Occupational specific goals in SCI, TBI and stroke

- SMART goals to be incorporated in Long term and short term goals

Assignment:

Develop a protocol for sensory stimulation program / managing agitation for a patient with TBI

Level 3 (Third year)

Area: Rehab (Long term care management) Competency:

At the end of their one month posting, students should be able to demonstrate skills to implement interventions and procedures to promote or enhance safety and performance in ADL, IADL, Education, Work, Leisure and Social participation in patient with brain injury and SCI

Learning Objectives:

To learn the skills to implement interventions and procedures to promote or enhance safety and performance in ADL, IADL, Education, Work, Leisure and Social participation in patient with brain injury, SCI

Weekly goals:

Week 1: To learn and demonstrate skills in administering OT intervention strategies in patients with SCI (Paraplegia)

- Strategies to work with achieving functional outcomes (ADL, mobility and transfers) in paraplegia according to their level and severity

Week 2: To learn and demonstrate skills in administering OT intervention strategies in patients with SCI (Tetraplegia)

- Strategies to work with achieving functional outcomes (ADL, mobility and transfers) in patients with tetraplegia

Week 3: To learn and demonstrate skills in administering OT intervention strategies in patients with brain injury

- Interventions to work on positioning, functional abilities and balance in patients with brain injury
- Approaches and techniques to work on cognitive retraining
- Strategies to facilitate voluntary control and ADL independence

Week 4: To train and demonstrate skills in writing Occupational specific goals in SCI, TBI and stroke

- SMART goals to be incorporated in Long term and short term goals

Assignments:

1. Types, indication, selection and measurement of mobility aids including wheelchair
2. Cognitive retraining strategies for a specific patient with brain injury / stroke

Level 3 (Third year)

Area: All OPDs Except Psychiatry

Competency:

At the end of their one month posting, students should be able to demonstrate skills to implement interventions and procedures to promote or enhance safety and performance in ADL, IADL, Education, Work, Leisure and Social participation in patients with amputation, RA, OA, Back/neck pain.

Learning Objective:

To learn the skills to implement interventions and procedures to promote or enhance safety and performance in ADL, IADL, Education, Work, Leisure and Social participation in patients with amputation, RA, OA, Back/neck pain.

Weekly Goals:

Week 1: To learn and demonstrate skills in administering OT intervention strategies for patients with RA

- Deformities and its pathophysiology
- OT intervention for patients with RA including orthotic management
- OT in other types of arthritis

Week 2: To learn and demonstrate skills in administering OT intervention strategies for patients with upper and lower limb amputation

- Pre prosthetic, prosthetic training and prosthetic checkouts.

Week 3: To learn and demonstrate skills in administering OT intervention strategies in patients with chronic back/neck pain

- OT intervention for pain management
- Proper positioning and body mechanics to be followed
- Techniques to facilitate independence in the clients roles and occupations

Week 4: To train and demonstrate skills in writing Occupational specific goals in amputation, RA, OA, back and neck pain.

- SMART goals to be incorporated in Long term and short term goals
- Reviewing OT management for Orthopaedical conditions such as burns, THR, TKR, Brachial plexus injury, fracture management and CRPS

Assignments:

- Design any Two splints commonly used in RA
- Checkout for upper and lower limb prostheses

Level 3 (Third year) Area: Neurology

Competency:

At the end of their one month posting, students should be able to demonstrate skills to implement interventions and procedures to promote or enhance safety and performance in ADL, IADL, Education, Work, Leisure and Social participation in patients with PD, GBS, MND, MS and other neurological conditions.

Learning Objective:

To learn the skills to implement interventions and procedures to promote or enhance safety and performance in ADL, IADL, Education, Work, Leisure and Social participation in patients with PD, GBS, MND, MS and other neurological conditions.

Weekly Goals:

Week 1: To learn and demonstrate skills in administering OT intervention strategies for patients with Parkinson's Disease (PD) including fall prevention protocols

Week 2: To learn and demonstrate skills in administering OT intervention strategies for patients with Multiple sclerosis (MS)

Week 3: To learn and demonstrate skills in administering OT intervention strategies for patients with Guillaine Barre Syndrome (GBS) and Motor neuron disease (MND).

Week 4: To train and demonstrate skills in writing Occupational specific goals in PD, GBS, MND, MS and other neurological conditions.

- SMART goals to be incorporated in Long term and short term goals
- Reviewing OT management for peripheral neuropathies and Muscular dystrophy
- Plan a fall prevention protocol for a patient with Parkinson's disease
- Management of Spasticity, flaccidity, rigidity and dystonia
- Strategies to improve co-ordination

Level 4 (Fourth year) Area: OPD

Competency:

At the end of their one month posting, students should be able to demonstrate skills to implement rehabilitation strategies for patients with RA, OA, haemophilia, amputation, burns, cancer and cardiac conditions.

Learning objective:

To learn the skills to implement rehabilitative strategies such as

- i) Training in self care, home management, and community reintegration
- ii) Education and training of individuals and family members
- iii) Modification of environments and adaptation of processes
- iv) Application of physical agent modalities to enhance performance skills

To carry out specialized assessment including standardized tools and scales specific to ADL, hand function, cognitive – perceptual skills, home evaluation and leisure.

Weekly Goals:

Week 1: To provide appropriate rehabilitation strategies for patients with amputation/ Arthritis/Ankylosing spondylitis/other conditions

Case assessment: Hand functions and ADL for a patient with RA/AS; ADL for a patient using upper or lower extremity prostheses

Week 2: To provide appropriate rehabilitation strategies for patients with Haemophilia,

Case assessment: ADL (FISH) for a patient with hemophilia

Week 3: To provide appropriate rehabilitation strategies for patients with intra cranial/ intra spinal tumors

Case assessment: Cognitive – perceptual skills and ADL for a patient with a Tumour

Week 4: To learn and understand the application of physical agent modalities

1. Disability evaluation for a person with disability (RA and amputation)
2. Adjuvant therapies used in OT
3. Occupational Therapy and physical agent modalities
4. Design a home program for a patient with RA

Level 4 (Fourth year) Area: OPD, Neurology & community rehab

Competency:

At the end of their one month posting, students should be able to demonstrate skills to implement rehabilitation strategies for patients with TBI, stroke and SCI.

Learning objective:

To learn the skills to implement rehabilitative strategies such as

- i) training in self care, home management, and community reintegration
- ii) education and training of individuals and family members
- iii) modification of environments and adaptation of processes
- iv) training in assistive technology
- v) assessment, recommendation, and training in techniques to enhance functional mobility including wheelchair and community mobility

To carry out specialized assessment including standardized tools and scales specific to ADL, hand function, cognitive – perceptual skills, home evaluation and leisure.

Weekly Goals:

Week 1: To provide appropriate rehabilitation strategies for patients with SCI

- Different aids for self care and communication for patients with tetraplegia

Case assessment: Hand functions and ADL for a patient with tetraplegia

Week 2: To provide appropriate rehabilitation strategies for patients with SCI

- Strategies and training for IADL task for a patient with paraplegia
- Strategies and training for community ambulation and participation
- Functional mobility using wheelchair and other aids

Case assessment: Plan any one practical session to perform an IADL task for a patient with paraplegia

Week 3: To provide appropriate rehabilitation strategies for patients with TBI / Stroke

- Occupational Therapy and Assistive technology
- Adjuvant therapy for managing stroke

Case assessment: Assessment of Cognitive – perceptual skills and ADL

Week 4: To provide appropriate rehabilitation strategies for patients with TBI / Stroke / SCI

Case assessment: Vocational or pre – vocational assessment

Assignment:

1. Occupational therapy and assistive technology

Level 4 (Fourth year) Area: Peripheral posting (One week each in Neurology IP, Orthopaedics, Cardiology, Geriatrics)

Competency:

At the end of their one month posting, students should be able to demonstrate skills to implement rehabilitation strategies for patients with neurological, orthopaedical (burns, THR, TKR), cardiological and geriatric conditions.

Learning objective:

To learn the skills to implement rehabilitative strategies such as

- i) Training in self care, home management, and community reintegration
- ii) Education and training of individuals and family members
- iii) Modification of environments and adaptation of processes
- iv) Assessment, recommendation, and training in techniques to enhance functional mobility including wheelchair and community mobility

To carry out specialized assessment including standardized tools and scales specific to ADL, hand function, cognitive – perceptual skills, home evaluation and leisure.

Weekly Goals:

Week 1: To provide appropriate rehabilitation strategies for patients with neurological conditions

Case assessment: Hand functions and ADL for a patient with PD/ GBS/ MND/
Others

Week 2: To provide appropriate rehabilitation strategies for patients with burns/ hip or knee replacement

Case assessment: ADL assessment for a patient with burns

Week 3: To provide appropriate rehabilitation strategies for any one Geriatric condition

Case assessment: Assessment of Cognitive – perceptual skills and ADL

Week 4: To provide appropriate rehabilitation strategies for a patient with myocardial infarction or post op management

Case assessment: ADL assessment for a patient with myocardial infarction

Assignment:

Role of OT in cardiology

(Second year) Level 2.1 Occupational Therapy unit Clinical Module

Area: OPD : Orthopaedic, surgical, Medical & neurological cases

Competences:

At the end of their one month posting, students should be able to demonstrate skills to evaluate factors affecting ADL, IADL, Education, Work, Leisure and Social participation in patients with orthopaedic conditions such as amputation, RA, OA, back pain and other neurological conditions.

Learning Objective:

To learn the skills to evaluate client factors, performance skills and contexts affecting ADL, IADL, Education, Work, Leisure and Social participation in patients with orthopaedic conditions such as amputation, RA, OA, back pain and other neurological conditions reporting to Occupational Therapy outpatient set up.

Client factors:

1. Range of Motion including factors that limits the movement (such as TCDs, Pain)
2. Muscle Power including Voluntary motor control (General)
3. Reflexes
4. Muscle tone
5. Sensation (General)
6. Perception

Performance skills:

1. Functional abilities
2. Hand functions

Weekly goals:

Week 1: To learn and demonstrate assessing the ROM (TCDs), individual muscle testing and voluntary motor control

Week 2: To learn and demonstrate assessing the reflexes and muscle tone

Week 3: To learn and demonstrate assessing the sensation & perception

Week 4: To learn and demonstrate assessing the functional abilities including balance and hand function

Assignments:

- Levels of amputation in upper and lower extremity; types of amputation
- Assessment methods of muscle strength; muscle tone; voluntary control; reflexes and coordination
- Regulation of muscle tone
- Individual MMT of any one patient

(Second year) Level 2.2 Occupational Therapy Clinical Module

Area: OPD, Orthopaedic, surgical, Medical & neurological cases Competency:

At the end of their one month posting, students should be able to demonstrate skills to evaluate factors affecting ADL, IADL, Education, Work, Leisure and Social participation in patients with SCI, TBI, Stroke and other chronic neurological conditions.

Learning Objective:

To learn the skills to evaluate client factors, performance skills and contexts affecting ADL, IADL, Education, Work, Leisure and Social participation in patients with SCI, TBI, Stroke and other chronic neurological conditions.

Client factor:

1. Muscle power (Myotome) and sensory evaluation (Dermatome), ASIA scale
2. Level of consciousness (including the scales GCS; RLA; CRS – R and WHIM)
3. Voluntary motor control (Brunstrom stages)

Performance skills:

1. Functional outcomes (ADL, Functional abilities and transfers) in SCI
2. Hand functions in tetraplegia (including tenodesis grasp)

Weekly goals:

Week 1:

To learn and demonstrate skills in assessing the myotome and dermatome in patients with SCI and to determine the level and severity using ASIA scale

Week 2:

To learn and demonstrate skills in assessing the ADL, functional abilities and hand functions in patients with SCI

Week 3:

To learn and demonstrate skills in assessing the level of consciousness (coma, unresponsive wakefulness syndrome, minimal conscious state and emergence from MCS) in patients with TBI.

Week 4:

To learn and demonstrate skills in assessing the voluntary control in patients with stroke

Assignments:

1. Goal setting in SCI (including functional outcomes)
2. Secondary complications in SCI
3. Coma and related conditions and theories and principles of coma stimulation



Annexure 4

1. Example of a learning experience in Elective 1

Elective 1 / 2	1
Name of Elective	Haemophilia Management
Location of hospital Lab or research facilities	Haemophilia clinic & Occupational Therapy OPD
Name of internal preceptor(s)	XYZ
Name of external preceptor if applicable	NA
Learning objectives of elective	<ol style="list-style-type: none"> 1. Observation of evaluation of haemophilic patients in acute phase 2. Planning of Occupational Therapy Intervention 3. Design and Fabrication of protective devices and orthoses according to patients needs 4. Counselling patients regarding joint protection and precautions for prevention of injuries.
Number of students that can be accommodated in this elective	4
Prerequisites for elective	Basic knowledge of the type and progression of the disease process
List of activities of student participation	<ol style="list-style-type: none"> 1. Attend Haemophillia clinic and observe clinical evaluation 2. Select patients for O T Intervention 3. Educate patient for home care management 4. Implement exercise program in O T OPD 5. Decide material and fabricate orthoses and devices according to patients needs 6. Present at least 2 of the worked up cases
Learning Resources	<ol style="list-style-type: none"> 1. Davidson's Principles and Practice of Medicine 2. Occupational Therapy for Physical Dysfunction by Radomski M, Trombly Latham C
Log book entry required	<ol style="list-style-type: none"> 1. Documentation of worked up cases 2. Documentation of presentation done 3. Completion of posting signed by preceptor with a "meets expectation '(M)' grade"

Elective 1 / 2	1
Assessment	Formative: Attendance; day-to-day participation in departmental activity; performance of assigned tasks and presentation of worked up case in department
Other comment	

2. Example of a learning experience in Elective 2

Elective 1 / 2	2
Name of Elective	Gericare
Location of hospital Lab or research facilities	Geriatric clinic and Occupational Therapy OPD
Name of internal preceptor(s)	ABC
Name of external preceptor if applicable	NA
Learning objectives of elective	<ol style="list-style-type: none"> 1. Observation of evaluation of Geriatric patients in the clinic 2. Identifying patients for Occupational Therapy Services 3. Planning Restorative Therapy for specific physical condition 4. Plan O T Management for cognitive deficits 5. Identify required environmental modifications using Preventive and Accommodative approach 6. Counselling patients regarding fall prevention and energy conservation
Number of students that can be accommodated in this elective	4
Prerequisites for elective	Handling skills and Communication with the Elderly
List of activities of student participation	<ol style="list-style-type: none"> 1. Attend the geriatric clinic, observe and identify the case for O T management 2. Implement exercise protocol for physical conditions 3. Teach cognitive management techniques 4. Administer standardised tests to identify psychological problems 5. Evaluate environmental barriers and provide support

Elective 1 / 2	2
	<ol style="list-style-type: none"> 6. Teach patient safety methods and fall prevention techniques 7. Counsel the caregiver regarding management of medication, exercise protocol, fall prevention and engage in activity. 8. Present at least 2 of the worked up cases
Learning Resources	Willard and Spackman 's Occupational Therapy
Log book entry require	<ol style="list-style-type: none"> 1. Documentation of worked up cases 2. Documentation of presentation done 3. Completion of posting signed by preceptor with a "meets expectation '(M)' grade"
Assessment	<p>Formative: Attendance; day-to-day participation in departmental activity; performance of assigned tasks and presentation of worked up case in department</p>
Other comment	

Annexure 5

Log book Format for UG Students including Interns Bachelor in Occupational Therapy (BOT)

Details of the student

Name of the Student		
Roll No		
University Registration No		
Address Mob No		
Mob No		
Mob no of the parent		
Email id of the parent		

CERTIFICATE

This is to certify that Mr./Ms _____ has undergone rotatory clinical postings in the below mentioned areas during the..... year of the BOT program, (academic year/Internship).

The performance after assessment of various competencies and other criteria are found to be

Clinical Posting :

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

Head of the Department (Sign and Seal)

CONCLUSION AND FEEDBACK

1. Student's feedback

2. Faculty feedback

3. Parent's Note

Head of the Department



Logbook (MOT)

Sr. No	Particular	Points of assessment (Total points =50)	Minimal Standards
1	Clinical Work Posting	Punctuality, Regularity, Maintenance of Case Record or Documentation, Presentation of cases, assessment, Management, Rapport with Patient and team members, and follow-up of patient	Compulsory Rotational Clinical fieldwork of 6weeks to 8 weeks in all Two years
Gradation: 1= Below Average, 2= Average, 3= Good, 4= Very Good, 5= Excellent			
2	Title synopsis/ Dissertation (TOPIC)	Interest shown in selecting the topic, Appropriate review, Discussion with Guide and other faculty, Quality of protocol, Preparation of Proforma, Periodic Consultation with guide/ co-guide, Regular collection of case material, Depth Analysis/ Discussion, Quality of Write-up	Selection of Title in first three months of admission and submission to Institutional Ethics Committee Submission of approved synopsis Collection of Data for 12 months from the date of approval Compiling of Data Submission of the dissertation three months prior to the examination
Gradation: 1= Below Average, 2= Average, 3= Good, 4= Very Good, 5= Excellent			
3	Case Presentation/ Seminar/Group Discussion	Completeness of history, Physical findings, Investigations, Differential diagnosis, Management, Demonstration of skills, Theoretical Background, Appropriate answers to the questions asked	2 Cases/ Discussion/ Seminar in each clinical posting
Gradation: 1= Below Average, 2= Average, 3= Good, 4= Very Good, 5= Excellent			

Sr. No	Particular	Points of assessment (Total points =50)	Minimal Standards
4	Participation in Teaching Activities	Communication of the purpose of the talk, evokes audience interest in the subject, sequences of ideas, the use of practical example and/or illustration, Speaking style, Attempts audience participation, Answers question asked by the audience, Rapport of speaker with his audience, Use of audio visual aids, Summary of the main points at the end	Minimum 5 demonstration/ classroom teaching each year
Gradation: 1= Below Average, 2= Average, 3= Good, 4= Very Good, 5= Excellent			
5	Journal Articles Presented		Minimum 1 per posting
6	CME/COTE/ Workshops attended Institute, National, International		Minimum 2 in Allied subjects & 2 in speciality subjects
7	Conferences attended-		Minimum 2
8	Paper Presented	Desirable	
9	Published research articles	Desirable	

Fellowship Module in Occupational Therapy on Elective subjects as described in "Elective Modules" in chapter 4

The Institutions running BOT/MOT Courses approved by State Council / NCAHP & affiliated by their respective recognized universities can start this fellowship Module.

The details of proposals as per the elective subjects may be formulated as & when required by the concerned universities with the permission of NCAPH.

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