SCHEME OF EXAMINATION

&

SYLLABI

OF

MASTER'S OF OCCUPATIONAL THERAPY
(First Year and Second Year)

IN MUSCULOSKELETAL DISORDERS

Affiliated to

Guru Gobind Singh Indraprastha University
KASHMERI GATE, DELHI.

W.E.F. ACADEMIC SESSION 2007-2008
GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, DELHI.

MASTER OF OCCUPATIONAL THERAPY (MOT)

MUSCULOSKELETAL DISORDERS

FIRST YEAR

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PRACTICALS

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TOTAL CREDITS : 55

**NUES stands for Non – University Examination Subject.
GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, DELHI.

MASTER OF OCCUPATIONAL THERAPY (MOT)

MUSCULOSKELETAL DISORDERS

SECOND YEAR

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PRACTICALS

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<td>Dissertation</td>
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TOTAL CREDITS : 55

**NUES stands for Non – University Examination Subject.

- Additional contact hours constitute a part of clinical training and practicals.
- The total number of credits essential for award of degree are 100.
Course Objective: To enhance the ability of the Occupational Therapist to conduct scientific studies thereby addressing the concerns of a commitment to inquiry, knowledge development and responsible (knowledge based) clinical practice and to construct valid and reliable assessment tools capable of yielding data of scientific value.

Following are the topics to be included:

SECTION I
RESEARCH METHODOLOGY

1. Research in Occupational Therapy
   Introduction to Research Methodology
   Research – Definition, Concept, Purpose, Approaches
   Role of Computers in Research

2. Research Fundamental
   Define Measurement
   Measurement Framework
   Scale of Measurement
   Pilot Study
   Types of Variables
   Reliability & Validity
   Drawing Tables, Graphs, Master Chart etc.

3. Writing a Research Proposal, Critiquing a Research Article
   Defining a Problem
   Review of Literature
   Formulating a question, Operational Definition
Inclusion & Exclusion Criteria
Forming groups
Data collection & Analysis
Results, Interpretation, conclusion, discussion
Informed Consent
Limitations
4. Research Design
Principle of Designing
Design, instrumentation & analysis for qualitative research
Design, instrumentation & analysis for quantitative research
Design, instrumentation & analysis for quasi-experimental research
Design models utilized in Occupational Therapy

5. Research Ethics

SECTION II
BIOSTATISTICS

1. Biostatistics
   Introduction
   Definition
   Types
   Application in Occupational Therapy

2. Data
   Definition
   Types
   Presentation
   Collection methods

3. Measures of central value
   Arithmetic mean, median, mode, relationship between them
   Partitioned values-Quartiles, Deciles, Percentiles
   Graphical determination
4. **Measures of Dispersion**
   Range
   Mean Deviation
   Standard Deviation

5. **Normal Distribution Curve**

6. **Co-relation analysis**
   Bivariate distribution:
   Scatter Diagram
   Co-efficient of correlation
   Calculation & interpretation of co-relational co-efficient
   T-test, Z-test, P-value

7. **Regression analysis**
   Lines of regression
   Calculation of Regression co-efficient

8. **Sampling**
   Methods of Sampling
   Sampling distribution
   Standard error
   Type I & II error

9. **Probability (In Brief)**

10. **Hypothesis Testing**
    Null Hypothesis
    Alternative hypothesis
    Acceptance & rejection of null Hypothesis
    Level of significance

11. **Parametric & Non – Parametric tests**
APPLICATION OF OCCUPATIONAL THERAPY IN REHABILITATION

Course Code MOT (O) 102 CREDITS – 10

Section 1:

APPLICATION OF OCCUPATIONAL THERAPY THEORY

Course Objectives: To enhance the abilities of the Occupational Therapist to choose the appropriate evaluations and treatment procedures based on the philosophy of occupational therapy.

1. Development of Occupational Therapy knowledge
2. Organization and use of knowledge
3. Emerging Paradigm
4. Model Base
5. Bridging the gap between theory and practice
6. Therapeutic roles and functions
7. Clinical Reasoning, Assessment and Diagnosis, Planning and Intervention
8. O.T Process Model
9. Service Program
10. Critical Analysis of the various approaches used

Section 2:

ASSISTIVE TECHNOLOGY

Course Objectives: To enhance the capabilities of the occupational therapist in maximizing the client's/patient's function in occupational performance areas by using appropriate technology.

1. Introduction and definitions of technology
2. Competencies required by occupational therapist
3. Matching Technology to Human needs
4. Role of Assistive Technology in Rehabilitation
5. Technological Applications:
   - Seating System
   - Self-care aids
   - Educational and Vocational aids
   - Interface switches and mounting aids
   - Recreational aids
   - Visual aids
   - Communication aids
   - Aids for the tactiley impaired
   - Pointing and Writing aids
   - Manipulatory and Mobility aids
   - Upper, lower extremity and spinal orthoses and upper and lower prostheses (emphasizing application of CAD/CAM technology)
   - Environmental Controlled units

6. Service Delivery models

7. Societal & Professional issues regarding technology service delivery

8. Mandate to Occupational Therapy Profession and Professionals

9. Concept of Telemedicine / Rehabilitation and Information Technology

10. Current practice and recent advances (including material technology)

11. Future of technology and O.T.

Section 3:
ENVIRONMENTAL ADAPTATIONS

Course Objectives: To enhance the capabilities of the Occupational Therapist in optimizing the client's / patient's performance of a desired task in the environmental context.

1. Introduction
2. Regulations concerning accessibility to physical environment
3. Elimination of environmental barriers
4. Determination of personal role choice
5. Designs for maximizing performance within the environment
6. Working conditions
ROLE OF OCCUPATIONAL THERAPY IN PHYSICAL DYSFUNCTIONS

Course Code MOT (O) 103                  CREDITS – 10

Course Objectives: To enhance the Occupational Therapist’s capability to evaluate it’s effectiveness following program planning, development, implementation and organization in various environment of practice.

Section 1:

a) Common neurological, neurosurgical conditions (including structural disorders of nervous system, infectious disorders, degenerative disorders)
b) Adults with developmental disabilities (alternative living situations, occupational performance considerations
c) Aging & elderly population (general aspects, pathophysiology of human aging, assessment & management of the elderly with disability, aging with a disability rehabilitation & care, educational & legal aspects.
d) Cancer
e) H.I.V. & A.I.D.S
f) Leprosy

Section 2:

a) Common Orthopaedic conditions (including fractures and dislocations)
b) Arthritic Conditions
c) Sports Health (Impact of regular training on human biological system assessment of physical and functional capacities, Environmental consideration, process and implementation of training, special considerations in training, prevention & management of sports injuries, safety & hygiene in sports psychology, organization and administration considerations, scope of OT in Sports, Current and Future trends).
d) Trauma Care
e) Thermal Injuries
f) Amputations
g) Cardio-Respiratory Conditions
h) Women’s Health (identifying areas of concern with regards to O.T profession adolescence, Child-bearing years, mature woman, the elderly woman)
Course Objectives: To enhance the Occupational Therapist's capability to evaluate the OT program effectiveness following planning, development, implementation and Organization in various environment of practice.

a) Disorders diagnosed in infancy, childhood or adolescence  
b) Delirium, Dementia, Amnestic and other cognitive disorders  
c) Mental disorders due to a genera medical condition  
d) Substance related disorders  
e) Schizophrenia and other Psychotic disorders  
f) Mood disorders  
g) Anxiety disorders  
h) Somatoform disorders  
i) Eating disorders  
j) Adjustment disorders  
k) Personality disorders  
l) Frames of References  
m) Practice Models used in Mental Health  
n) Group Therapy: Types and Goals  
o) Role of Motivation in Mental Health  
p) Stress and Pain Management
**ASSESSMENT & MANAGEMENT (PRACTICAL)**

**Course Code MOT (O) 151**                  **CREDITS – 15**

**Course Objectives:** On completion of the study of this subject the student should be able to:

- Perform a thorough Occupational Therapy assessment using appropriate evaluative tools.
- Plan an individualized goals using goal attainment scales for Orthopaedic conditions covered in the first year.
- To determine the effectiveness of planning, implementation & termination of appropriate intervention strategies in treatment.
- Apply Effective Occupational Therapy treatment techniques, compare & contrast the efficacy of different treatment approaches.
- Communicate the status to the patient with other rehabilitation team members & patient's attendants.

Following are the topics to be included but not limited to -

Practical Training in the Occupational Therapy assessment & treatment for conditions covered in the first year.

**Practical Examination** -

- Practical examination will be divided into two parts:
  1) Two Long Case
  2) One Short Case
Course Objectives: On completion of the study of this subject the student should be able to

- Understand the Dynamics of teaching & learning
- Plan effective teaching sessions in Physiotherapy

Following are the topics to be included but not limited to:

1. **Education**
   - Introduction
   - Educational Philosophy – Idealism Naturalism, Pragmatism
   - Aims of Education
   - Functions of Education
   - Formal, Informal and non-formal education
   - Agencies of Education
   - Current issues and Trends in Higher Education
   - Issue of quality in higher education
   - Autonomy and Accountability
   - Privatization of Education

2. **Concept of Teaching and Learning**
   - Meaning and scope of educational psychology
   - Meaning and relationship between teaching and learning
   - Learning Theories
   - Dynamics of behavior
   - Individual differences

3. **Curriculum**
Meaning and concept
Basis of curriculum formulation
Framing objectives for curriculum
Process of curriculum development and factors involved
Evaluation of curriculum

4. **Method and techniques of teaching**
   - Lecture
   - Demonstration
   - Discussion
   - Seminar
   - Assignment
   - Project
   - Case Study

5. **Planning for teaching**
   - Bloom's taxonomy of instructional objectives
   - Writing instructional objectives in behavioral terms
   - Unit Planning
   - Lesson Planning

6. **Teaching aids**
   - Types of teaching aids
   - Principles of selection, preparation and use of audio-visual aides

7. **Measurement and Evaluations**
   - Nature of educational measurement: meaning, process, types of tests
   - Construction of an achievement test and its analysis
   - Standardized test
   - Introduction of some standardized tools, important test of intelligence, aptitude and personality
   - Continuous and comprehensive evaluation

8. **Guidance and counseling**
Meaning & concepts of guidance and counseling
Principles of guidance and counseling

9. **Awareness Programme**

Awareness and guidance to the common people about health and disease.
Course Objectives: On completion of the study of this subject the student should be able to
◆ Understand the basic issues of Management & Administration
◆ Practice as an informed professional on Legal & Ethical Issues

SECTION 1
Service Delivery and Management

Course Objectives: To enhance the ability of the Occupational Therapist to implement the principle of Management and Administration in the context of increasing interaction between the Health-Care facility and the community.

1. Health Care Delivery System (including in health prevention and promotion)
2. Values and Motivation
   ◆ Core Values and attitudes of Occupational Therapy practice
   ◆ Standard of Practice
   ◆ Personal Values
   ◆ Changing the focus from valuation to obligation
   ◆ Dealing with Moral Issues
   ◆ Professional Guidance
   ◆ Conflicting values and Motivation
   ◆ Organizational, Personal & Professional Guidance (Organizational Self-View, Fundamental Documents)
3. Organizing and Engaging people in work setting
   ◆ Achieving Organizational vision through people
   ◆ Concept of Productivity
   ◆ Leadership
   ◆ Organizational Leadership: Roles, Responsibilities & Competencies
   ◆ Theories about managing people, Managing styles
   ◆ Work teams

4. Dealing with Differences (Values, Diversity concerns)
5. **Organizational Structure and control for business success characteristics of business**

   Structures (Legal structure, Tax status, Operating Structure)

   - Organizational structure (Organizational chart, hierarchy in Organizations, Organizational Patters), Product Strategy Decisions
   - Policies and Procedures
   - Re-organization
   - Human Resource Development in relation to operating structure

6. **Financial Management (Fiscal Management and Cost Accounting)**

7. **Marketing**

   - Market Orientation, Segmentation, Consumer Research
   - Basics of Marketing
   - Marketing Plan
   - Marketing Strategies in health care
   - Promotional Considerations (Communication methods & Media the marketing campaign)

8. **Facility Planning**

   - Designing values based facility
   - Strategic Planning
   - Design Decisions
   - Planning steps and process
   - Planning for Growth

9. **Information Management**

   - Management and flow of information in an organization
   - Use of Data
   - Documentation (Personal, Technological, Financial considerations and Realistic expectations)

10. **Outcome Management**

11. **Risk Management**

12. **Recruitment**

13. **Consultancy**

14. **Entrepreneurship: Ownership and Private Practice**

15. **Social & Industrial Legislation**
16. Management Junction & Strategy
17. Alternate Practice Model
18. Developing on Academic discipline

SECTION II

Legal and Ethical Issues

1. Legal / Legislative issues concerning:
   - Occupational Therapy Profession
   - Persons with Disability

2. Ethical Issues (Principles of AIOTA & WFOT)
   - Code of ethics
   - Future Planning
Course Objectives: On completion of the study of this subject the student should be able to:-

- Perform thorough Occupational Therapy assessment & list deficiencies
- Design individualized goals for the patient
- Rationalize the outcome of the assessment
- Document systematic, meaningful, accurate written records of the patient
- To formulate a rationalized treatment plan for the patient
- Implement physiotherapy treatment
- Compare & contrast the outcome of various treatment approaches
- Document the status to the patient as written records

SECTION 1:
1. Context of ortho O.T. Practice
2. Relationship with other services providers
3. General Orthopaedic Health care
4. Diagnostic imaging and other investigations
5. Differential Diagnosis
6. Theoretical basis underlying clinical decisions
7. Principles and techniques of O.T Assessment
   - History
   - Examination and measurement
   - OT Diagnosis
8. Selection and Application of treatment
9. Psychosocial Aspects
10. Service Design and management in various practice settings (includes OT in acute care, critical care and long term management)
11. Assistive technology – pertaining to Orthopaedic disorders

SECTION 2:
Biomechanics and Kinesiology

OCCUPATIONAL THERAPY IN MUSCULOSKELETAL CONDITIONS - II
Following are the topics to be included but not limited to:

1) Metabolic and endocrine disorders
2) Bone infections
3) Congenital deformities
4) Developmental conditions
5) Diseases of joint
6) Tumours of Musculoskeletal system
7) Neuromuscular disorders
8) Fibrous diseases
9) Vascular disorders
10) Skeletal injuries
11) Tendon injuries
12) Soft tissue condition
13) Major traumatic condition
14) Thermal injuries
15) Sports injuries
16) Cumulative trauma disorders
17) Amputation and prosthetics

OT in Orthopaedic Surgical Conditions
- Orientation and general principles of Orthopaedic surgery
- Various orthopaedic surgical procedures
- OT Management, pre and post surgery of common orthopaedic surgical conditions

ASSESSMENT & MANAGEMENT (PRACTICAL)
Objective: On completion of the study of this subject the student should be able to:

- Perform a thorough Occupational Therapy assessment using appropriate evaluative tools.
- Plan an individualized goals using goal attainment scales for Orthopaedic Conditions covered in the first year.
- To determine the effectiveness of planning, implementation & termination of appropriate intervention strategies in treatment.
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Following are the topics to be included but not limited to:-

Practical Training in the Occupational Therapy assessment & treatment for conditions covered in the first year.

Practical Examination:-

Practical examination will be divided into two parts:-

- Two Long Cases
- One Short Case
Student will select a topic in his/her area of interest, in consultation with a supervisor/Guide, qualified for the purpose as recommended by the council/University for and carry out an independent dissertation, which will involve making research proposal, conduct of the work as per the documented methodology, statistical analysis, dissertation writing. The work will build on the knowledge acquired through study of research methodology and Biostatistics. Each candidate shall submit three type written copies of a dissertation and it should be submitted well in advance before the date of written, oral, clinical and practical examination, Acceptance of the dissertation by the examiners should be a pre-condition to sit in the annual examination.

Evaluation of the dissertation will be done by the examiner(s) appointed by Vice Chancellor of the University.