

Mahatma Gandhi University
of
Medical Sciences & Technology
Jaipur

Syllabus
Master of Occupational Therapy (MOT)
Orthopedics
(2 Years Postgraduate Degree Course)

Edition 2018-19

Notice

1. The University reserves the right to make changes in the Rules/Regulations/ Syllabus/Books/Guidelines/Fees-Structure or any other information at any time without prior notice. The decision of the University shall be binding on all.
2. The Jurisdiction of all court cases shall be Jaipur Bench of Hon'ble Rajasthan High Court only.

**RULES & REGULATIONS OF
MASTER OF OCCUPATIONAL THERAPY (MOT)
(2 Years Postgraduate Degree Course)**

Name of the course: Master of Occupational Therapy (M.O.T.)

Specialization: Master of Occupational Therapy in Orthopaedics.

DURATION OF THE COURSE:The duration of Master of Occupational Therapy (M.O.T) course shall be (2) two continuous academic years on a full time basis in each specialization.

MOT Part-I (1 st year)	0 to 12 Month
MOT Part-II (2 nd year)	13 to 24 Month

MEDIUM OF INSTRUCTION:English shall be the medium of instruction.

COURSE OUTLINE:

- 1) The Master Degree in Occupational Therapy is a two year full time program consisting of classroom teaching, self-academic activities and clinical posting.
- 2) In Part-I MOT, theoretical basis of Occupational Therapy is refreshed along with research methodology, Education technology and biostatistics. The students are rotated in all areas of clinical expertise during this period. They are required to choose their study for dissertation and submit a synopsis.
- 3) In Part-II MOT, the students will be posted in their area of specialty.
- 4) They are required to complete and submit their dissertation. The learning program includes seminars, journal reviews, case presentations, case discussions and classroom teaching. Some of the clinical postings are provided at other reputed centres in the country in order to offer a wider spectrum of experience.
- 5) The students are encouraged to attend conference, workshop & seminar to enhance their knowledge during the course of study. University examinations are held at the end of first year and at the end of second year.

GOALS OF THE COURSE:

The Master of Occupational Therapy course is intended to help prepare students for assumption of responsibility in positions of leadership in Occupational Therapy as:

- 1) Preparation of a postgraduate student towards his/her professional autonomy with self-regulating discipline at par with global standards.
- 2) Formation of base of the professional practice by referral as well as first contact mode using evidence based practice.
- 3) Imparting research basis in order to validate techniques & technology in practice to Occupational Therapy.

- 4) Acquainting a student with concept of quality care at the institutional as well as the community levels.
- 5) Inculcation of appropriate professional relationship in multidisciplinary set up, patient management and co-partnership basis.
- 6) Preparation of students to address problems related to health education and community Occupational Therapy.
- 7) Practising the concept of protection of rights of the community during referral as well as first contact practice.
- 8) Incorporation of concept of management in Occupational Therapy.
- 9) Experience in clinical training and undergraduate teaching partly.
- 10) Providing the honest, competent and accountable Occupational Therapy services to the community.

Eligibility

Candidates who have passed B.Sc. (OT) or BOT degree from institutions where the mode of study is a full time program, with minimum 3½ years / 4 ½ years duration from this university or any other university in India or abroad as equivalent with not less than 50% of marks in aggregate and have completed 6 months of compulsory rotatory internship in Occupational Therapy.

OR

Candidates who have passed BOT through Bridge Course or through Lateral Entry after completing their Diploma in Occupational Therapy from institutions where the mode of study is a full time program from this university or any other university in India or abroad as equivalent with not less than 50% of marks in aggregate and have completed 6 months of compulsory rotating internship in Occupational Therapy.

INTAKE OF STUDENTS:

The intake of students to the course shall be in accordance with the availability of the Guide. The guide and the student ratio should be 1:5

REGISTRATION

A candidate admitted to this course shall register with this University by remitting the prescribed fee along with the application form for registration duly filled in and forwarded to the University through the Head of the Institution within the stipulated time.

Enrolment: Candidates admitted to the Master of Occupational Therapy course shall be enrolled with the university by remitting the prescribed fee along with the application form for enrolment duly filled in and forwarded to the university through Principal of the College within stipulated date. Candidate already enrolled with this University need not be enrolled again provided he/she has not taken migration certificate from this University.

Syllabus: The curriculum and the scheme of examination for the course shall be as prescribed by the University from time to time.

Commencement of the Course: The Course shall commence from the 1st August of every Academic year.

Conduction of the University Examination: University examination shall be conducted twice in a year; that is Main and Supplementary Examination.

Attendance:

1. No candidate shall be permitted to appear in M.O.T. Part-I/II university examination unless he/she has attended the course for the prescribed period and produces the necessary certificate of attendance and satisfactory conduct from the Principal of the College.
2. A candidate is required to compulsorily attend 75% of the theory classes and also 75% of the practical classes held annually in each of the prescribed subject(s) separately, those not fulfilling the above criteria will not be eligible to appear for the university examination in the concerned subject(s).

Scheme of Examination:

There shall be Internal Assessment Examinations in Theory as well as Practical at the College level. These shall carry 30% of total marks assigned to Theory as well as Practical Examination.

At the end of every academic year, after completion of the course of study there shall be University Theory & Practical Examination. These shall carry 70% of total marks assigned to Theory as well as Practical Examination.

Internal Assessment Examination:

1. Theory and practical paper(s): 30% of total marks shall be allotted to the Internal Assessment for each subject. Three internal assessment examinations will be held in each subject (Theory and Practical separately) before the commencement of the theory university examination (Main) in each academic year. Every candidate shall be required to obtain at least 40% marks in the aggregate of any best of two out of the three internal assessment tests in each subject. Candidates failing to secure 40% marks in the aggregate of best two internal assessment tests in any subject shall not be allowed to appear in concerned subject(s) in the ensuing university main examination. In case the examination forms have already been filled and submitted in the university, the Principal will detain such students from appearing in the University examination of concerned subject(s). Mode and number of internal assessment tests will be determined at the level of the Principal of the college. The candidates shall be required to obtain at least 40% marks in each subject in an improvement internal assessment test to qualify and appear in the university forthcoming supplementary examination.
2. A candidate may improve his/her internal assessment marks whenever he/she reappears. In case the candidate does not opt for improvement or doesn't improve,

his/her earlier internal assessment marks would be conveyed by the Principal to the university.

University Examination:

1. There shall be two examinations of MOT Part-I & Part-II Course in one academic year, the Main examination and subsequent Supplementary examination.
2. A candidate who has completed a regular course of study prescribed for MOT Part-I for one academic year shall be eligible to appear at MOT Part-I examination.
3. A candidate failing in any number of subjects at the main examination shall be allowed to appear in the failing subjects at the ensuing supplementary examination.
4. A candidate not passing MOT Part-I supplementary examination shall be allowed to clear his/her still un-cleared papers in the ensuing main/supplementary examination(s).
5. A candidate who has not passed even a single subject (theory & practical) of MOT Part-I supplementary examination shall not be promoted to MOT Part-II course.
6. A candidate who has passed one or more subject(s) of MOT Part-I main/supplementary examination will be promoted to MOT Part-II course. After completion of regular course of study for one academic year of MOT Part-II course he/she shall be eligible for MOT Part-II examination only after passing all the due papers of MOT Part-I i.e. a candidate shall be eligible to appear for MOT Part-II examination only when all the prescribed papers of MOT Part-I examination have been passed by him/her, even though he/she has attended all the theory and practical classes of MOT Part-II course.
7. A candidate will be permitted to avail any number of attempts to pass all the papers of MOT Part-I and Part-II course but he/she will be required to complete the entire MOT course within four years of his/her admission to MOT Part-I course.

Paper Setter/Examiner

1. All the examiners, paper setters, Theory examination answer books evaluators, Internal and External Examiners for Practical examinations shall be appointed by the President of the University.
2. Qualification of the Paper setter / Examiner: Masters degree (MOT) with 3 years of full time teaching experience from recognized university. Distance Education Degree holder can not work as the faculty or Examiner.
3. Examiner / Paper setter: Paper setter can be an examiner

Duration, Distribution of marks and Pattern of Question papers

1. The question paper shall cover the entire syllabus of the subject.
2. Each subject (Theory & Practical) shall carry 30% marks for internal assessment and 70% marks for the University examination.

3. Duration of Examination: Each written paper of University examination of 70 marks shall be of 3 hours duration.

4. Pattern of question papers :

All questions shall be required to be attempted. There may be internal choice(s) in the questions :

(a) Paper carrying 70 Marks:

Long answer (essay type) questions (2 out of 4) 2x15= 30

Short answer questions (4 out of 6) 4x10= 40

Practical (including Viva)

There will be internal assessment examinations spread over the academic year at the College level and University examination at the end of the academic year. These shall be related to assessments, investigations and physiotherapy management. Internal assessment examinations shall carry 30% and the University examination shall carry 70% of total marks assigned to practical including viva-voce.

Mode Long case assessment, Short case, written, Demonstration, Investigations & Viva

Duration Upto 120 minutes per candidate

Examiner 02 (One internal and one external from the panel of Examiners from University)

DISSERTATION

Every candidate pursuing MOT degree course is required to carry out work on a selected research project under the guidance of a recognized postgraduate teacher. The results of such a work shall be submitted in the form of dissertation.

The dissertation is aimed to train a graduate student in research methods and techniques. It includes identification of a problem, formulation of a hypothesis search and review of literature getting acquainted with recent advances, designing of a research study, collection of data, critical analysis, and comparison of results and drawing conclusions.

Every candidate shall submit to the Registrar of university in the prescribed Form, a synopsis containing particulars of proposed dissertation work within 6 months from the date of commencement of the course on or before the dates notified by the university. The synopsis shall be sent through the proper channel i.e. the Head of the Department and the Principal of the College. Before submitting the synopsis, it shall be ensured by the Principal of the College that it has been cleared by the Ethics Committee. The university will register the dissertation topic. No change in the dissertation topic or guide shall be made without prior approval of the university.

Guide will be only a facilitator, advisor of the concept and responsible in correctly directing the candidate in the methodology and not responsible for the outcome and results.

The dissertation should be written under the following headings.

1. Introduction
2. Aims or objectives of study
3. Review of literature
4. Material and methods
5. Results
6. Discussion
7. Conclusion
8. References
9. Appendices

The written text of dissertation shall not be less than 50 pages and shall not exceed 100 pages excluding references, tables, questionnaires and other annexures. It should be neatly typed in double line spacing on one side of paper (A4 size, 8.27" x 11.69") and bound properly maroon color with golden color typed. Spiral binding should be avoided. The Guide, Head of the Department and Principal of the College shall certify the dissertation.

- I. Four copies of dissertation thus prepared shall be signed by the candidate and the guide and then submitted for evaluation to the Principal of the college, one month before the commencement of final theory paper University examination.
- II. The dissertation shall be examined by minimum of two examiners one Internal and one External.
- III. Evaluation of the dissertation would be done jointly by the external and internal examiners, who will be appointed by the President of University.
- IV. The examiners appointed for the practical shall also take viva-voce based on the dissertation of the candidate to assessing depth of knowledge, logical reasoning, confidence & oral communication skill. Special emphasis shall be given to dissertation work during the MOT Part-II course.
- V. The marks of viva-voce examination shall be included in the clinical examination.
- VI. A candidate will be required to secure minimum 50% marks to pass viva-voce examination of dissertation.
- VII. Even if the candidate fails in the Theory/Practical University Examination his / her dissertation marks shall still be carried over to the subsequent examinations.

Guide

Criteria for recognition of MOT teacher / guide:

1. Guide should be at least Assistant Professor having qualification of M.Sc. (OT)/MOT in the concern subject/ Specialty.
2. The guide student ratio should be 1:5

Change of Guide

In the event of registered guide leaving the college for any reason or in the event of death of guide, guide may be changed with prior permission from the University.

Criteria for Pass:

1. In order to pass an examination a candidate must secure 50% marks in each theory subject (inclusive of internal assessment) and practical(inclusive of internal assessment) & viva-voce separately. In case of Section A & Section B of a Paper, students will have to secure 50% marks combined to pass the paper.
2. To pass MOT Part-II examination, a candidate will also be required to secure minimum 50% marks in dissertation & its viva-voce examination.

Grace Marks:

No grace marks will be awarded in University Postgraduate examinations including Master of Occupational Therapy.

Revaluation/Scrutiny

Revaluation of answer books is not permissible. Scrutiny of marks in any number of papers/subjects shall be permissible as per University Rules.

Migration/Transfer of Candidates:

Migration/transfer of a candidate from another recognized University to this University or vice versa shall not be considered.

Vacation: The Principal of the College may declare vacation in an academic year to the students as per the academic calendar.

Selection of Generic Elective and skills Enhancement Courses

Every student has to select any one elective subject out of seven elective subjects mentioned below at the beginning of the academic year during his/her course duration. The Examination of these subjects shall be conducted at the college level.

Sr. No.	Subject	Teaching hours		
		Theory	Practical	Total
1.	Information and Communication Technology in Health Education	45	15	60
2.	Clinical Nutrition	45	10	55
3.	Health Care	50	-	50
4.	Constitution of India	45	-	45

Distribution of marks

S. No.	Subject	Theory	Internal Assessment	Total
1.	Information and Communication Technology in Health Education	70	30	100
2.	Clinical Nutrition	70	30	100
3.	Health Care	70	30	100
4.	Constitution of India	70	30	100

A candidate can appear in the elective subject examinations to be conducted at the college level before the University examinations at the end of I year or II year. Only such candidates shall be eligible to fill University examination form of II year (final year) who have passed their elective subject. It shall be mandatory to obtain 50% marks in the aggregate of prescribed total marks (i.e. 50 out of 100) to pass the elective subjects. Marks of all such candidates who have passed their elective subject shall be sent in the following format by the Principal of the college to the University while sending their examination forms of II year (final year) :

S.No.	University Roll No.	Name of the student	Father's Name	Name of elective subject	Marks obtained	Result

Those candidates who do not pass their elective subjects shall not be eligible to submit their II year (final year) University examination form and accordingly they will not be permitted to appear in the University examination of II year (final year) of the course.

Marks obtained by the candidates in their elective subject shall be mentioned separately in the marks sheets of the University examinations. These marks shall not be counted for preparing the merit list.

SUBJECTS OF STUDY
Master of Occupational Therapy (MOT)
(Orthopaedics)
(Two Years Program)

MOT Part –I (Common to all Branches)

Sl. No	Subject	Teaching Hours	
		Theory	Clinical / Practical Hours
1	Basic Sciences – Anatomy & Physiology	75	25
2	Biostatistics and Research Methodology	100	50
3	Occupational Therapy Process and Practice-I	100	100
4	Occupational Therapy Process and Practice-II	100	100
5	Teaching Practice	-	100
6	Seminar / case presentation / Journal Review	-	100
7	Clinical Practice	-	1100
	Total	375	1575

Total Hours=375+1575=1950

SUBJECTS OF STUDY
Master of Occupational Therapy (MOT)
(Orthopaedics)
(Two Years Program)

MOT Part –II

Sl. No	Subject	Teaching Hours	
		Theory	Clinical / Practical Hours
1	Advance Occupational Therapy in Orthopaedics -I	100	650
2	Advance Occupational Therapy in Orthopaedics -II	100	650
3	Dissertation	-	200
4	Seminar / case presentation / Journal Review	-	100
	Total	200	1600

Total hours=200+1600=1800

Grand Total Hours=1950+1800=3750

Distribution of Marks
Master of Occupational Therapy (MOT)
MOT Part – I(Orthopedics)

Course Code	Subject	Written-100			Practical-100			Grand Total
		Theory	I.A	Total	Practical	I.A	Total	
15010	Basic Sciences – Anatomy & Physiology	70	30	100	-	-	-	100
15020	Biostatistics and Research Methodology	70	30	100	-	-	-	100
15030	Occupational Therapy Process and Practice-I	70	30	100	70	30	100	200
15040	Occupational Therapy Process and Practice-II	70	30	100	70	30	100	200
TOTAL		280	120	400	140	60	200	600

Distribution of Marks
Master of Occupational Therapy (MOT)
MOT Part – II(Orthopedics)

Paper Code	Subject	Written			Practical			Grand total
		Theory	I.A	Total	Practical	I.A	Total	
16030	Advance Occupational Therapy in Orthopedics-I	70	30	100	70	30	100	200
16040	Advance Occupational Therapy in Orthopedics- II	70	30	100	70	30	100	200
	Dissertation & Viva	-	-	-	200		200	200
TOTAL		140	60	200	340	60	400	600

Practical Examination Pattern

MOT-Part-I Occupational Therapy Paper

Long case	-	Detailed OT evaluation, goal setting and Management.
Short case	-	To diagnose the patient with investigations.

MOT-Part-II Clinical Specialty Paper – I

Long case	-	For Discussion of differential diagnosis and conclusion of provisional diagnosis
Short case	-	Evaluation of performance components (higher cortical evaluation, voluntary control, sensory, balance, soft neurological signs etc...)

Clinical Specialty Paper – II

2 short cases	-	Evaluation of Occupational performance area (ADL, Hand function, vocational, Home making evaluation)
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Master of Occupational Therapy Part-I

Paper-I COMMON TO ALL BRANCHES

BASIC SCIENCES – ANATOMY & PHYSIOLOGY(15010)

Theory: 100 marks (University examination: 70, Internal Assessment: 30)

Theory – 75 Hrs
Practical – 25 Hrs

Unit -I Neuro Anatomy

1. Neuro anatomy of brain
2. Neuro anatomy of Spinal cord
3. Neuron anatomy of peripheral and cranial nerves.

Unit -II Neuron Physiology

1. Neuro Physiology of nervous system
2. Patho physiology of various conditions
3. Functions of nervous system

Unit-III Work Physiology

1. Principles of exercise
2. Energy expenditure for various activities.
3. Importance of work physiology in O.T

Unit IV Applied Anatomy &Applied Physiology

1. Disorders of nervous system
2. Application in O.T
3. Common investigative procedures used.

Unit- V General Anatomy

1. Anatomy of upper limb
2. Anatomy of lower limb
3. Anatomy of trunk

Unit -VI General Physiology

1. Physiology of respiratory system
2. Physiology of CVS
3. Patho Physiology of respiratory system & CVS

PAPER-II
BIostatistics & Research Methodology (15020)

Theory: 100 marks (University examination: 70, Internal Assessment: 30)

Theory – 100 Hrs

Practical – 50 Hrs

1. SYLLABUS:

1.1 Theory

Part-A

UNIT-1

- (1) Introduction to – uses of statistical methods in Occupational Therapy – Measurement, measurement scales, variable and their measurement – Symbolising data and operations.

Unit-2

- (1) Describe methods of presenting statistical data – Learn methods of tabulations; calculation of central tendency and dispersion; linear regression and correlation, presentation of data in diagrammatic and graphic form.

Unit-3

- (1) Learn probability and sampling including probability as a mathematical system, population and samples; sampling distribution, sampling methods, surveys in research.

UNIT-4

- (1) Learn vital and health statistics including – point and interval estimation for proportion mean; hypothesis testing, sample tests of significance; inferential techniques normal $1, x^2$.

UNIT-5

- (1) Understand and use of vital and health statistics in the practice of Occupational Therapy. This includes learning sources and methods of collection and recording and computation of commonly used vital and health statistics and estimate population using arithmetic progression method.

UNIT-6

- (1) Learn research process and methods including - overviews of scientific methods steps in the research process selection and statement of problem – formulation of Hypothesis– basic principles and methods of research design.

UNIT-7

- (1) Learn data collection methods, scales and techniques of psychological measures. Learn reliability, validity and criteria of assessing – measuring the tools; analysis and interpretation of research data, role of computers.

UNIT-8

- (1) History of Occupational Therapy research before 1960 & 1960 – present.

UNIT-9

- (1) Critiquing of OT studies – Historical studies – review the instruments and tools used – Review studies pertaining to Occupational Therapy education – Occupational Therapy administration and Occupational Therapy Practice.

UNIT-10

- (1) Qualitative Research Methods:
 - (a) Developing the instrument (Delphi technique)
 - (b) Focus groups
 - (c) Independent interview
 - (d) Key informant interview

UNIT-11

- (1) Formation of scales, tools & Questionnaires or Batteries:
- (2) Standardization of scales, tools & Questionnaires or Batteries:

PART – B

- (1) Practical application of research process.
 - a) Selection and statement of problem & hypothesis
 - b) Review of literature
 - c) Selection of research approach
 - d) Selection of data gathering and developing the data gathering instrument.
 - e) Developing data analysis plan.
 - f) Selection of sample.
 - g) Identifying assumptions and limitations of the study
 - h) Designing the data gathering plan.
 - i) Pilot study.

UNIT-1

- (1) Conducting the study – implementing the data gathering plan, implementing the data analysis plan.

UNIT-2

- (1) Preparing the research report – writing the report – documenting findings– presentation of study for discussion.

PAPER – III
OCCUPATIONAL THERAPY PROCESS AND PRACTICE-I (15030)

Theory: 100 marks (University examination: 70, Internal Assessment: 30)

Practical: 100 marks (University examination: 70, Internal Assessment: 30)

Theory – 100 hours

Practical – 100 hours

1. SYLLABUS

1.1 Theory

(1) Practice Issues in Occupational Therapy

1. Evidence based practice
2. Administration and leadership
3. Documentation
4. Fiscal management
5. Code of ethics
6. Quality assurance
7. Teaching technology
8. Ergonomic approaches
9. Socio-cultural and spiritual influences in occupational therapy
10. Recent investigative and evaluation procedures.
11. Disability evaluation, applicability of law and legislation.
12. Clinical reasoning
13. Alternative practice models
14. Role of occupational therapist as a consultant
15. Current basis and contemporary approaches in occupational therapy.
16. Advances in computer application in occupational therapy

(2) Occupational Therapy Management Context.

1. Management functions and strategies
2. Prevention of injuries and physical dysfunction

3. Safety issues in health care settings
4. Applications of ergonomics principles
5. Specific clinical intervention to promote occupational functions in:
 - a) General conditions:
 - I. Geriatrics
 - II. Infections in adults
 - III. Wellness programme
 - IV. Hospice care
 - V. Psychosocial aspects of women and child health
 - VI. Community based rehabilitation
 - b) Musculoskeletal disorders related to :
 - I. Rheumatology
 - II. Orthopedic conditions
 - III. Hand injuries
 - IV. Burns
 - V. Prosthesis and Orthosis

PAPER – IV
OCCUPATIONAL THERAPY PROCESS AND PRACTICE-II (15040)

Theory: 100 marks (University examination: 70, Internal Assessment: 20)
Practical: 100 marks (University examination: 70, Internal Assessment: 20)

Theory: 100 Hrs
Practical: 100 Hrs

1. SYLLABUS

1.1 Theory

- (1) Cardio – respiratory rehabilitation related to :
 1. Cardiac and pulmonary conditions
 2. Industrial health
 3. Strength training and work fitness in athletics
 4. Energy conservation and work hardening
- (2) Neurosciences related to
 1. Cognitive rehabilitation
 2. Neuropathological conditions
 3. Neurodegenerative disorders
- (3) Developmental disability
 1. Neonatology
 2. Genetic conditions
 3. Paediatric neurological conditions
- (4) Mental health
 1. Common psychiatric conditions

MOT-PART-I
COMMON TO ALL BRANCHES

Seminar / Case presentation / Journal Review

Course Hours-100

MOT IN ORTHOPAEDICS

PAPER – I

ADVANCED OCCUPATIONAL THERAPY IN ORTHOPAEDICS- I

Theory: 100 marks (University examination: 70, Internal Assessment: 30)

Practical: 100 marks (University examination: 70, Internal Assessment: 30)

Course hours: Theory : 100 Hrs

Practical: 650 Hrs

1. Syllabus

UNIT-1

Review knowledge in Osteology and myology

UNIT-2

Biomechanics : Basic concept in biomechanics
 Upper limb
 Lower limb,
 Spine
 Gait

UNIT-3

Evaluation of the musculo-skeletal systems:

- A. Cervical spine
- B. The shoulder
- C. Elbow
- D. Forearm, wrist and hand
- E. Thoracic spine
- F. Lumbar spine
- G. Hip
- H. Knee
- I. Ankle and foot
- J. Assessment of posture
- K. Assessment of gait

UNIT-4

Evaluation of range of motion, muscle strength and endurance

UNIT-5

Treatment to prevent and improve limitation of range of motion

UNIT-6

Treatment to increase muscle strength

UNIT-7

PNF – Techniques relevant to orthopedic conditions

UNI- 8

Rehabilitation Frames of reference

UNIT-9
Treatment to increase endurance

UNIT-10
Supportive treatment in Orthopaedic conditions

UNIT-11
Therapeutic media:
A. Activity selection and analysis
B. Activity adaptation

UNIT-12
Biofeedback

UNIT-13
MAS and sling suspension

UNIT-14
Orthotics

UNIT-15
Prosthetics

UNIT-16
Wheelchair measurement and prescription, wheel chair adaptation,
power wheel chair

UNIT-17
Ergonomics, Growth and Anthropometric measures

UNIT-18
Work hardening

UNIT-19
ADL

UNIT-20
Resettlement

UNIT-21
Investigations: CT, MRI, X-ray

UNIT-22
General principles of surgical techniques and approaches

Seminar / Case presentation / Journal Review
Industrial Visit – 1 week (Heavy industries – automobile, textile)

MOT IN ORTHOPAEDICS

PAPER – II

ADVANCED OCCUPATIONAL THERAPY IN ORTHOPAEDICS-II

Theory: 100 marks (University examination: 70, Internal Assessment: 30)

Practical: 100 marks (University examination: 70, Internal Assessment: 30)

Course hours: Theory: 100 Hrs

Practical: 650 Hrs

1. Syllabus:

UNIT-1

- Infections
- General principles of infections
- Osteomyelitis
- Infectious arthritis
- Tuberculosis and other unusual infections

UNIT-2

- Tumours
- Malignant and benign tumours of bone
- Soft tissue tumours

UNIT-3

- Arthrodesis of lower and upper extremity

UNIT-4

- Arthroplasty of upper and lower extremity

UNIT-5

- Amputation of upper and lower extremity

UNIT-6

- Fractures
- General principles of fracture treatment
- Fracture of lower and upper extremities
- Fracture and dislocation in children
- Malunited fractures
- Delayed union and non-union of fractures.
- Other Complications and its prevention and management

UNIT-7

- Dislocations
- Acute dislocation
- Recurrent dislocation

UNIT-8

- Traumatic disorders of joints
- Hip, ankle and knee injuries
- Shoulder and elbow injuries

UNIT-9

Non-traumatic bone and joint disorders

UNIT-10

Congenital anomalies

Lower and upper extremity and trunk

UNIT-11

Nervous system disorders

Peripheral nerve injuries

Cerebral palsy

Paralytic disorders

Inherited progressive muscular disease.

UNIT-12

Hand

Acute injuries

Tendon

Fracture

Dislocation and ligamentous injury

Nerve injury

Wrist injuries

Amputation

Paralytic hand

Cerebral palsy hand

Arthritis

Volkman's ischaemic disorder

Dupuytren's contracture

Carpal tunnel and ulnar tunnel syndrome

UNIT-13

Spine

Spinal fractures

Spinal dislocations

Spinal fracture dislocation

Arthrodesis of spine

Scoliosis and kyphosis

Low back pain and intervertebral disc disorder

Infections of the spine

Other disorders of the spine

UNIT-14

Developing trends in Occupational Therapy management of Orthopaedic conditions.

Seminar / Case presentation / Journal Review

This question paper contains 1 printed page

**MOT Part I
15010**

Bas. Sciences . I

**Master of Occupational Therapy
Part – I(Main) Examination Month year**

**Paper –I
Basic Sciences- Anatomy & Physiology**

Time: Three Hours

Maximum Marks: 70

Student shall be allowed to take only one supplementary copy along with one main answer book

All the parts of one question should be answered at one place.

Different part of one question should not be answered at different places in the answer book.

Draw diagrams wherever necessary

Long answer question (Attempt any TWO Questions out of FOUR)

- | | | |
|-----|-------------------------------------------------------------------------------------------------------|----|
| Q1. | What are the types of synapses? Describe their properties. | 15 |
| Q2. | Describe Co ₂ carriage from tissues to lungs. Explain the chemical control of respiration. | 15 |
| Q3. | Describe boundaries and contacts of axilla. Describe brachial plexus in details. | 15 |
| Q4. | Describe right atrium of heart. Add a note on arterial. | 15 |

Short answer question (Attempt any FOUR Questions out of SIX)

- | | | |
|------|----------------------------------------|----|
| Q5. | Nervous system | 10 |
| Q6. | Muscles and nerve supply of lower limb | 10 |
| Q7. | Respiratory system | 10 |
| Q8. | Principal of exercise | 10 |
| Q9. | Cranial nerves | 10 |
| Q10. | Work physiology | 10 |

This question paper contains 1 printed page

**MOT Part I
15020**

Resc. Method. II

**Master of Occupational Therapy
Part- I (Main) Examination Month year**

**Paper – II
Biostatistics & Research Methodology**

Time: Three Hours

Maximum Marks: 70

Student shall be allowed to take only one supplementary copy along with one main answer book

All the parts of one question should be answered at one place.

Different part of one question should not be answered at different places in the answer book.

Draw diagrams wherever necessary

Long answer question (Attempt any TWO Questions out of FOUR)

- | | | |
|-----|------------------------------------------------------------------------------------------|----|
| Q1. | What is research? Discuss its importance in occupational therapy | 15 |
| Q2. | What is sampling? Explain the different types of sampling with examples. | 15 |
| Q3. | Discuss the research process in details. | 15 |
| Q4. | Discuss the qualitative and quantitative research. Compare and contrast between the two. | 15 |

Short answer question (Attempt any FOUR Questions out of SIX)

- | | | |
|------|-------------------------------|----|
| Q5. | Central tendency | 10 |
| Q6. | Random sampling with examples | 10 |
| Q7. | Types of error | 10 |
| Q8. | Parametric test | 10 |
| Q9. | Non-parametric test | 10 |
| Q10. | Co-relational studies | 10 |

This question paper contains 1 printed page

**MOT Part I
15030**

OT. Proc. & Prac.I. II

**Master of Occupational Therapy
Part- I (Main) Examination Month Year**

**Paper –III
Occupational Therapy Process and Practice-I**

Time: Three Hours

Maximum Marks: 70

Student shall be allowed to take only one supplementary copy along with one main answer book

All the parts of one question should be answered at one place.

Different part of one question should not be answered at different places in the answer book.

Draw diagrams wherever necessary

Long answer question (Attempt any TWO Questions out of FOUR)

- | | | |
|-----|-------------------------------------------------------------------------------------------------------|----|
| Q1. | What is clinical reasoning? Discuss its various type and why it is important in occupational therapy. | 15 |
| Q2. | Discuss the role of occupational therapy is consultant. | 15 |
| Q3. | What is documentation? And why it is important for occupational therapy. | 15 |
| Q4. | Discuss in detail about setting up of occupational therapy | 15 |

Short answer question (Attempt any FOUR Questions out of SIX)

- | | | |
|------|-----------------------------------------|----|
| Q5. | Clinical reasoning | 10 |
| Q6. | Evidence based practice | 10 |
| Q7. | Fiscal management | 10 |
| Q8. | PWD's Act | 10 |
| Q9. | Hospice care | 10 |
| Q10. | Occupational Therapy role in Geriatrics | 10 |

This question paper contains 1 printed page

**MOT Part I
15040**

OT. Proc. & Prac. II.-IV

**Master of Occupational Therapy
Part- I (Main) Examination Month Year**

Paper –IV

Occupational Therapy Process and Practice-II

Time: Three Hours

Maximum Marks: 70

Student shall be allowed to take only one supplementary copy along with one main answer book

All the parts of one question should be answered at one place.

Different part of one question should not be answered at different places in the answer book.

Draw diagrams wherever necessary

Long answer question (Attempt any TWO Questions out of FOUR)

- | | | |
|-----|------------------------------------------------------------------------------|----|
| Q1. | What is myocardial infection? Discuss the role of occupational therapy in it | 15 |
| Q2. | What is bronchial asthma? Discuss the role of occupational therapy in it | 15 |
| Q3. | Discuss the industrial rehabilitation in detail | 15 |
| Q4. | Discuss the role of occupational therapy in neurodegenerative conditions. | 15 |

Short answer question (Attempt any FOUR Questions out of SIX)

- | | | |
|------|-------------------------------------------------|----|
| Q5. | Mood disorders- occupational therapy management | 10 |
| Q6. | Role of occupational therapy in Parkinsonism | 10 |
| Q7. | Cognitive rehabilitation approaches | 10 |
| Q8. | Role of occupational therapy in NICU | 10 |
| Q9. | Spina bifida and its type | 10 |
| Q10. | Work hardening | 10 |

This question paper contains 1 printed page

**MOT Part II.
16010**

Adv. OT. Ortho. I

**Master of Occupational Therapy
Orthopedics
Part II (Main) Examination Month Year**

**Paper -I
Advanced Occupational therapy in Orthopedics-I**

Time: Three Hours

Maximum Marks: 70

Student shall be allowed to take only one supplementary copy along with one main answer book

All the parts of one question should be answered at one place.

Different part of one question should not be answered at different places in the answer book.

Draw diagrams wherever necessary

Long answer question (Attempt any TWO Questions out of FOUR)

- Q1. Discuss the occupational therapy approaches used in orthopaedics cases in detail. 15
- Q2. What is ergonomics? Discuss the role of it in occupational therapy 15
- Q3. What is work hardening? Explain the process in relation to a labourer 15
- Q4. Discuss the biomechanics of gait 15

Short answer question (Attempt any FOUR Questions out of SIX)

- Q5. Abnormal gait 10
- Q6. Biomechanical frame of reference 10
- Q7. Biofeedback 10
- Q8. Wheelchair measurement 10
- Q9. Anthropometric measurement 10
- Q10. Activity of daily livings 10

This question paper contains 1 printed page

**MOT Part II.
16020**

Adv. OT. Ortho. II

**Master of Occupational Therapy
Orthopedics
Part II (Main) Examination Month Year**

**Paper -II
Advanced Occupational therapy in Orthopedics-II**

Time: Three Hours

Maximum Marks: 70

Student shall be allowed to take only one supplementary copy along with one main answer book

All the parts of one question should be answered at one place.

Different part of one question should not be answered at different places in the answer book.

Draw diagrams wherever necessary

Long answer question (Attempt any TWO Questions out of FOUR)

- Q1. What is the difference between malignant and benign tumors?
Discuss the occupational therapy role in oncology 15
- Q2. Discuss the general principles of fracture treatment. Discuss the
occupational therapy in fracture 15
- Q3. What are the causes? Pathology and occupational therapy treatment
of osteomyelitis 15
- Q4. Discuss the congenital abnormalities in detail. Discuss the occupational
therapy management of the same 15

Short answer question (Attempt any FOUR Questions out of SIX)

- Q5. Arthritis 10
- Q6. Amputation 10
- Q7. Complications of fracture 10
- Q8. Low back pain 10
- Q9. Scoliosis 10
- Q10. Dupuytren's contracture 10

Elective Paper- Non – University Examination

INFORMATION AND COMMUNICATION TECHNOLOGY IN HEALTH EDUCATION

Theory Hours: 45hrs
Practical 15hrs
Total =60 hrs

Learning objectives

Upon successful completion of this subject, students should

1. To obtain the basic knowledge on computer, devices used in computers.
2. To know the uses of computers like MS office, Power point Presentations, Excel documents.
3. To know about uses of internet, its advantages in regular updating the knowledge in Occupational therapy profession.

SYLLABUS

Introduction

1. Introduction to computers-History of Computer, Generation of Computer, Classification of Computers, Input Devices, Output Devices, Central Processing Unit, Components of CPU, Memory Unit, Peripheral Devices
2. Introduction to M.S. Windows
3. Internet and its applications
4. MGUMST web forum & portal
5. Google Applications
6. Introduction to M.S. Office - Word, Power Point, Excel,
7. Publisher

The Digital Age

Computer and communications, the five operations of a computer-and communication system-input, processing, output, storage and communications as well as the corresponding categories of hardware, five major categories of computers, development I communication Technology.

Applications Software

Applications and systems software, ethics of copying software, four types of applications software, entertainment education and reference, productivity and business and specialized, key functions of word processors, spreadsheets, database managers, graphics programs and suites, group-ware, and internet web browsers.

Storage Devices

Units of storage capacity, primary and secondary storage, data compression, data storage on diskette, hard disks, optical disks, and magnetic tape and describe the purposes of storage media.

Communications

Usage of communications technology, telephone-related services, online information services, the internet

Multimedia

What is multimedia – Multimedia PC– Multimedia Hardware - Central processor – color display, Multimedia accessories – CD ROM – Digital Audio – Audio speakers
– Digital video– MIDI – deodisc Read/write storage device- Multimedia software

Radio propagation:

Use of computers in physical therapy – Application Packages used in statistical analysis.

Recommended books

1. Free T. Hotstetter, —Multimedia Literacy| M<egraw Hill,
2. Simon J. Gibbs, Dinoyosios C. Tsihriziz, —Multimedia programming|, Addison Wesley
3. John F.Koefgel Buford, —Multimedia Systems|, Addison Wesley
4. John Vince, —Virtual Reality Systems| Addison Wesley.
5. AndressF.Molisch, —Wideband Wireless digital communication| Pear Education Asia

CLINICAL NUTRITION

Theory Hours: 45hrs
Practical 10hrs
Total = 55 hrs

COURSE OBJECTIVE:

The objective of this course is that after 30 hours of L, D, P the student shall be able to understand the basic knowledge about Diet, balanced diet, metabolism, malnutrition, under nutrition, over nutrition, deficiency disease.

COURSE OUTCOME:

1. Become familiar about the nutritive values of food.
2. Explain about the food sources from which we obtain vitamins.
3. Become familiar with various compositions of food.
4. Well versed with digestion at each stages of digestive system.
5. Become familiar with different cooking methodologies.
6. Know and explain about food preparations by food manufacturer.
7. Explain thoroughly about the advantages and disadvantages of various convenience foods.

UNIT ISOURCES OF FOOD

1. Nutritive value of foods,
2. Food Sources from which key vitamins are derived

UNIT II DIGESTIVE SYSTEM

1. Digestion and absorption –Digestion at each stage of the digestive system
2. Dietary guidelines- Factors affecting food requirements. Planning and serving of family meals. Meals for all ages and occupations.

UNIT III COMPOSITION OF FOOD

Composition and value of the main foods in the diet - Milk, meat, fish, cheese, eggs, margarine and butter cereals (wheat, rice, maize, millets, oats) fruits and vegetables

UNIT IV PROCESSING OF FOOD

1. Cooking of food -Transfer of heat by conduction, convection and radiation.
2. Principles involved in the different methods of cooking – boiling, stewing, grilling, baking, roasting, frying, steaming, pressure cooking, cooking in a microwave oven.

FOOD PREPARATION

1. Convenience foods- Foods partly or totally prepared by a food manufacturer – dehydrated, tinned, frozen, ready to eat. Intelligent use of these foods.
2. Advantages and disadvantages

Text Book:

1. Agarwal, Textbook of human nutrition, JP, 1 Ed, 2014

Reference:

1. Kenneth F. Kiple, Kriemhild Coneè Ornelas, The Cambridge world history of food, Cambridge University Press, 1st ed, 2000

HEALTH CARE

Theory Hours: 50hrs

Total = 50 hrs

Introduction to Health

1. Definition of Health, Determinants of Health, Health Indicators of India, Health Team Concept.
2. National Health Policy
3. National Health Programmes (Briefly Objectives and scope) Population of India and Family welfare programme in India

Introduction to Nursing

1. What is Nursing? Nursing principles. Inter-Personnel relationships. Bandaging: Basic turns; Bandaging extremities; Triangular Bandages and their application.
2. Nursing Position, Bed making, prone, lateral, dorsal, dorsal re-cumbent, Fowler's positions, comfort measures, Aids and rest and sleep.
3. Lifting and Transporting Patients: Lifting patients up in the bed. Transferring from bed to wheel chair. Transferring from bed to stretcher.
4. Bed Side Management: Giving and taking Bed pan, Urinal: Observation of stools, urine. Observation of sputum, understand use and care of catheters, enema giving.
5. Methods of Giving Nourishment: Feeding, Tube feeding, drips, transfusion Care of Rubber Goods
6. Recording of body temperature, respiration and pulse, Simple aseptic technique, sterilization and disinfection. Surgical Dressing: Observation of dressing procedures

First Aid:

1. Syllabus as for Certificate Course of Red Cross Society of St. John's Ambulance Brigade.

Reference Books:

1. Preventive and Social Medicine by J.Park
2. Text Book of P & SM by Park and Park
3. Counseling & Communicate skills for medical and health, Bayne- Orient Longman Pvt. Ltd.

Constitution of Indian

Theory Hours: 40hrs

Total = 40 hrs

Unit-I:

Meaning of the term 'Constitution' Making of the Indian Constitution 1946- 1950.

Unit-II:

The democratic institutions created by the constitution Bicameral system of Legislature at the Centre and in the States.

Unit-III:

Fundamental rights and duties their content and significance

Unit – IV:

Directive Principles of States Policies the need to balance Fundamental Rights with Directive Principles.

Unit – V:

Special Rights created in the Constitution for: Dalits, Backwards, Women and Children and the Religious and Linguistic Minorities.

Unit-VI:

Doctrine of Separation of Powers legislative, Executive and Judicial and their functioning in India

Unit – VII:

The Election Commission and State Public Service commissions

Unit – VIII:

Method of amending the Constitution

Unit – IX:

Enforcing rights through Writs:

Unit – X:

Constitution and sustainable development in India

Reference Books:

1. J. C. Johari: The Constitution of India- A Politico-Legal Study-Sterling Publication, Pvt. Ltd. New Delhi.
2. J. N. Pandey: Constitution Law of India, Allahbad, Central Law Agency, 1998.
3. Granville Austin: The Indian Constitution – Corner Stone of a Nation-Oxford, New Delhi, 2000.