PRAVARA INSTITUTE OF MEDICAL SCIENCES
(DEEMED TO BE UNIVERSITY)
Loni, Tal. Rahata, Dist. Ahmednagar 413736
NAAC Re-accrediated with 'A' Grade

SYLLABUS
Post Graduate Degree in Sports Physiotherapy
(Dr. APJ Abdul Kalam College of Physiotherapy)
(Academic Council Meeting Dated 25th August, 2022)

SYLLABUS
Sports Physiotherapy
MPT I
Syllabus will be the same as other specialties
MPT II
Paper-I Sports Physiotherapy-I

Sr. No.	Topic	Didactic Hours (200)
1	Introduction to Sports sciences & exercise physiology	5 Hrs
2	Terminology, methodology, rules, equipment, infrastructure of some common sports like Cricket, Football, Basketball, Tennis, Hockey, Track & Field, Aquatic Sports.	10Hrs
3	Body composition & analysis. Kinanthropometric evaluation	5Hrs
4	Principles of Sports Biomechanics & Biomechanics of injury. Physics in sports: Biomechanics Of Running, Throwing, Swimming, Jumping. Advances In Biomechanics assessment: 2D, 3D	20 Hrs
5	Advanced Cardio Respiratory Exercise Physiology. Kinesiological EMG	10 Hrs
6	Principles of Strength training	5 Hrs
7	Fitness & strength testing in sports	10 Hrs
8	Sports specific conditioning, Sports specific Agility training	15 Hrs

Sr. No.	Topic	Didactic Hours (200)
10	Protective equipments in Sports including Orthotic aids. Functional Bandages - Bandaging techniques and material, Indications, contraindications for athletic shoes and the modifications	05 Hrs
11	Introduction to Sports Medicine	5 Hrs
12	Introduction to Sports Injuries, Principles of Tissue healing	5 Hrs
13	Soft tissue injuries of Lower limb (Hip, thigh, Knee, leg, ankle, foot problems & injuries)	10 Hrs
14	Soft tissue injuries of Upper limb (Shoulder, arm, elbow, forearm, wrist, hand problems & injuries)	10 Hrs
15	Fractures & Dislocations , Spinal injuries	10 Hrs
16	Psychological aspects in Sports, Doping & performance enhancing drugs.	10 Hrs
17	Introduction to Sports Medicine, Introduction to Sports Injuries	10 Hrs
18	Head injury in sports, Overuse injuries in Sports	10 Hrs
19	Specific issues in Females, pediatric & elderly athletes	10 Hrs
20	On-field assessment & decision making	10 Hrs
21	Injury prevention in sports	10 Hrs
22	Pharmacotherapeutics and its relevance with physiotherapy	05 Hrs

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Practical Contents Paper -I

Sr. No.	Topic	Hrs (350)
1	Surface anatomy • Palpation of soft tissue & Bony landmarks of Upper extremity • Palpation of soft tissue & Bony landmarks of Lower extremity • Palpation of soft tissue & Bony landmarks of spinal column • Clinical and video graphic assessment of movement • Movement assessment (ROM, flexibility and strength) in child, adult and elderly	60 Hrs
2	Physical Assessment – History, physical examination, special tests and outcome. Assessment of lower limb: Pelvis, hip, thigh, knee, leg, ankle and foot, Assessment of upper limb: Shoulder girdle, shoulder, arm, elbow, forearm, wrist and hand	60 Hrs
3	Evaluation of Physical Fitness: Assessment of strength, power, endurance (muscular & cardiac), VO2 max, flexibility, reaction time and pulmonary functions. Kinanthropometric evaluation	50 Hrs
4	On and Off the field evaluation of head, neck and spine injuries in contact sports like football, field hockey, boxing and wrestling. Emergency on field assessment and management for head neck and spine injuries in sports, Basic life support.	80 Hrs
5	Orthotics and Prosthetics prescription, checkouts and Training.	40 Hrs
6	Compression and Traction Intervention/procedure/techniques. Application of electro physical agents	30 Hrs
7	Application of Kinesiotaping in various musculoskeletal impairments to improve joint alignment, Kinesiotaping for muscles and fascia to improve mobility and function	30 Hrs

Paper-II Sports Physiotherapy-II

Sr. No.	Topic	Didactic Hours (200)
1	Principles of Sports Injury Management	5 Hrs
2	Management of Sporting Emergencies including emergency procedures, advanced assessment skills, care & management	15 Hrs
3	Initial management of Acute sports injuries. Bleeding, Splinting, Stretcher use-Handling and transfer. Cardio pulmonary Resuscitation; Shock management, Internal and External	15 Hrs
4	Pharmacological management of Sports injuries.	15 Hrs
5	Fluid Balance & electrolyte disturbance correction. Heat stroke and Heat illness	10 Hrs
6	Overview of Surgical management (including Arthroscopic surgery) for Sports injuries.	10 Hrs
7	Injury & Sports specific management	15 Hrs
8	Management of overuse injuries in sports	15 Hrs
9	Electrophysiological Agents in sports rehabilitation	15 Hrs
10	Rehabilitation of Sports injuries.	20 Hrs
11	Manual Therapy Techniques in Sports Physiotherapy	20 Hrs
12	Management of special population – paraplegic & physically challenged athletes	15 Hrs
13	Sports medicine coverage during Sports events	10 Hrs
14	Traveling with a Sports team as a Physiotherapist.	10 Hrs
15	Musculoskeletal screening of Athletes – Pre season, In-season & Post –season	10 Hrs

Practical Contents Paper -II:

Sr. No.	Topic	Hrs (350)
1	Fitness evaluation of biometric abilities, performance mapping, preadolescent and post adolescent injury assessment and management for Pediatric & Adolescent	**50 Hrs**
2	Fitness evaluation of biometric abilities, performance mapping, preadolescent and post adolescent injury assessment and management for Geriatric and Female Athlete's	**50 Hrs**
3	Assessment of psychological indicators of sports performance using Stress inventory scales and achievement motivation scales	**40 Hrs**
4	Assessment of sports injuries , case documentation and presentations on medical aspects of sports injuries	**80 Hrs**
5	Case presentations on pain assessment using biopsychosocial model of pain , use of questionnaires in pain assessment, impact of patient education on pain perception, behavioral modification to pain	**50 Hrs**
6	Comprehensive fitness evaluation of school and college level athletes and prepare programs for their sports and/or health specific fitness, effects of contextual motor tasks on skill acquisition and learning	**30 Hrs**
7	Performance assessment: • Evaluate and prescribe Resistance training (weight training) on healthy and assess the response • Evaluate and prescribe high intensity training (functional training) on healthy and assess the response • Evaluate and prescribe aerobic training on healthy and assess the response. Sports biomechanics 2 D motion analysis of different sports movements including running, football, badminton etc. Technique analysis for badminton serves, football kick etc. to identify any trainable factors for injury prevention in Novice, Sub-elite and Elite players	**30 Hrs**
8	Skills Practice on mannequin: Adult and child CPR	**20 Hrs**

CLINICAL POSTING

Acute Care & Rehabilitation in Sports Injuries: Indoor and Outdoor patients.
Students will undergo Field Training with Sportsmen of the University.
They will attend Sports clinic in the College/hospital.
Field Training at other sports academy/centers.
The students will accompany sports team for National/State/University level sporting competitions.
Students will not refuse clinical postings even during the vacations.

Scheme of Examination

I Year MPT

Sr. No.		Total Marks	Minimum Marks required for Passing
1.	Theory	300	150
2.	Practical	150	75

Theory Examination

- There shall be three theory papers of 100 marks each
- Each paper shall be of three hours duration
- All the questions are compulsory

Section I	Long Essay Question 1 x 20	20 Marks
	Short Essay Questions 3 x 10	30 Marks
Section II	Long Essay Question 1 x 20	20 Marks
	Short Essay Questions 3 x 10	30 Marks

Practical Examination - 150 Marks

Short Case I - Speciality	50marks
Short Case II - General	50marks
Spots(Based Screening of various Systems)	30marks
Teaching skills	20 marks

II Year MPT

Sr. No.	Theory	Total Marks	Minimum Marks required for Passing
1.		200	100
2.	Practical	350	175

Theory Examination

- There shall be two theory papers of 100 marks each
- Each paper shall be of three hours duration
- All the questions are compulsory

Qn.1	Long Answer Question	1 x30	30 Marks
Qn.2	Long Answer Question 1 x 30	30 Marks	30 Marks
Qn.3	Solve any four out of five SAQ	4 X 10	40 Marks

Practical Examination - 350 Marks

Long Case Speciality I	150 Marks
Long Case Speciality II	150 Marks
Dissertation VIVA	50 Marks
Total	**350 Marks**

Recommended Books & Journals

Books

1) Orthopedic Sports Medicine, DeleeDrez Miller, 3rd edition: 2009, Saunders Elsevier
2) Sports Physiotherapy, Maria Zuluaga, Christopher Briggs, John Carlisle.
3) Sports Injury Assessment and Management, David C Reid.
4) Orthopedic and sports physical therapy, Terry R.Macone:3rd edition, 1997: Mosby.
5) Post surgical orthopedic sports rehabilitation knee and shoulder, Robert C. Maske: 2006: Mosby Elsevier.
6) Sports injuries diagnosis and management, Christopher N. Norris: 2nd & 3rd edition: 1998: BH.
7) Sports medicine secrets, Hanley and belters, 2nd edition: 2001: jaypee.
8) Sports injuries prevention and their treatment, Lass Peterson: 1st edition: 2001: Martin dunitz.
9) Sports medicine problem and practical management, Eugene sherry, 1st edition:1997: GMM.
10) Exercise and sports science, Garrett, Kirkendall: 2000: Lippincott Williams And Wilkins.
11) ACSM'S essentials of sports medicine, Robert E. salhi, fredymassimino: 1997: Mosby.
12) Sports medicine in primary care , Rob jonson M.D: 2000: saunders company.
13) Morris B. Mellion: Office Sports Medicine, Hanley & Belfus.
14) Richard B. Birrer: Sports Medicine for the primary care Physician, CRC Press.
15) Torg, Welsh & Shephard: Current Therapy in Sports Medicine III – Mosby
16) Zulunga et al: Sports Physiotherapy, W.B. Saunders
17) Brukner and Khan: Clinical Sports Medicine, McGraw Hill
18) Reed: Sports Injuries – Assessment and Rehabilitation, W.B. Saunders
19) Gould: Orthopaedic Sports Physical Therapy, Mosby
20) C. Norris: Sports Injuries – Diagnosis and Management for Physiotherapists, Heinmann
21) D. Kulund: The Injured Athlete, Lippincott
22) Nicholas Hershman: Vol. I The Upper Extremity in Sports Medicine.
    a. Vol. II The Lower Extremity and Spine in Sports Medicine.
    b. Vol. III The Lower Extremity and Spine in Sports Medicine.
    c. Mosby.
23) Lee & Dress: Orthopaedic Sports Medicine - W.B Saunders
24) K. Park: Preventive and Social Medicine - Banarsi Dass Bhanot – Jabalpur

25) Fu and Stone: Sports Injuries: Mechanism, Prevention and Treatment, Williams and Wilkins
26) Scuderi, McCann, Bruno: Sports Medicine – Principles of Primary Care, Mosby
27) Lars Peterson and Per Renstron: Sports Injuries – Their prevention and treatment, Dunitz
28) Kapandji: Physiology of Joints Vol. I, II & III, W.B. Saunders
29) White and Punjabi – Biomechanics of Spine – Lippincott
30) D. Kulund: The Injured Athlete, Lippincott.
31) Verma and Mokha: Nutrition, Exercise and Weight Reduction, Exercise Science Publication Society
32) Grafiti: Psychology in Contemporary Sports, Prentice Hall.

Journals

1) American Journal of Sports Exercises
2) Journal of Orthopaedic & Sports Physical Therapy (JOSPT).
3) American Journal of Sports Medicine.
4) British Journal of Sports Medicine.
5) American Journal of Sports Exercises.

DISSERTATION

1. Every candidate pursuing M.P.T 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 a dissertation.
2. The dissertation is aimed to train a postgraduate student in research method and techniques. It includes identification of a problem, formation of a hypothesis, search and review of literature, getting acquainted with recent advances, designing of a research study, collection of data, statistical analysis of results, discussion and drawing conclusion.
3. Every candidate shall submit to the Registrar of the University in the prescribed proforma, a synopsis containing particulars of proposed dissertation work within four 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.
4. Such synopsis will be reviewed and the dissertation topic will be registered by the University.
5. Thesis Topics will be submitted 4 months after admission.
6. The ethics committee (College level) approval is mandatory.

7. Complete dissertation should be submitted 4 months before final examination.
8. The dissertation should be written under the following headings:
    i. Introduction
    ii. Need for the study
    iii. Aims or Objectives of study
    iv. Review of Literature
    v. Material and Methods
    vi. Results
    vii. Discussion
    viii. Conclusion
    ix. Limitation
    x. Clinical Implication- Suggestion
    xi. Summary
    xii. Tables
    xiii. Annexure
9. The written text of dissertation shall be not less than 50 pages excluding references, tables, questionnaires and other annexure. It should be neatly typed in double line spacing on one side of paper (A4 size, 8.27" x 11.69"), Times New Roman, size 12, and bound properly. Spiral binding should be avoided. The dissertation shall be certified by the guide, head of the department and head of the institution.
10. Dissertation thus prepared shall be submitted to the controller of Examination, six months before final examination on or before the dates notified by the University.
11. The dissertation shall be valued by examiners appointed by the University. Approval of dissertation work is an essential precondition for a candidate to appear in the University examination.
12. The presentation and submission of dissertation will be as per the guidelines set by the Controller of Examinations.

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Registrar
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