



# MANGALORE UNIVERSITY

## DEPARTMENT OF PHYSICAL EDUCATION

### MASTER OF PHYSICAL EDUCATION

#### Semester I Theory Course

#### MDH 402: PRINCIPLES AND METHODS OF SPORTS TRAINING

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |   |                   |   |         |          |     |          |      |
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| Number of credits :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 4 | Number of hours : | 4 | Marks : | Internal | -30 | External | - 70 |
| <b>Objectives / Learning Outcomes</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |   |                   |   |         |          |     |          |      |
| <ul style="list-style-type: none"> <li>To work as physical education teachers and coaches with greater efficiency.</li> <li>To train athletes and teams appropriately to their age in the selected sports discipline.</li> <li>To apply the acquired and in-depth knowledge as well as their methodical competences in practical sports training under different conditions.</li> <li>To analyse development tendencies in their selected sports discipline and to take this into consideration when planning their own training process;</li> <li>To choose appropriate and more effective training measures for the preparation of athletes for national and international competitions</li> <li>To act as multipliers in the selected sports discipline, e.g. by organizing training and further education courses for sports instructors in their home country.</li> <li>To promote further development of sports structures and acquisition of new target groups in the field of sport.</li> </ul> |   |                   |   |         |          |     |          |      |

#### UNIT I: Meaning of Sports Training and Concept of Load

- Sports training: Definition – Aim, Characteristics
- Principles of Sports Training
- Load - Definition, Characteristics of load.
- Overload – Meaning, Causes of Over Load, Symptoms of Overload, Remedial Measures
- Means of recovery
- Super Compensation

#### UNIT II: Components of Physical Fitness and Talent Identification

- Strength: Types of strength, Methods to improve Strength.
- Speed: Types of speed and methods to develop speed
- Endurance: Types of endurance and methods to develop endurance
- Flexibility: Types of flexibility and methods to develop flexibility
- Agility and coordinative ability: Types of coordinative abilities and methods to develop them.
- Talent Identification through Physical, Psychological, Physiological and Sociological aspects.

### UNIT III: **Methods and Means of training**

- Continuous method – Meaning, characteristics, types - Slow continuous, fast continuous
- Interval method – Meaning, characteristics, types – intensive interval, extensive interval
- Repetition method – Meaning and characteristics
- Circuit training – Meaning and types
- Fartlek training, sand training, Plyometrics, resistance training
- Means of training – Principle means – Physical Exercises: General, Specific and Competition
- Additional Means of training: Pedagogical measures Physiotherapeutic means, Psychological means, Physiological and Biomechanical means, natural means and material objects.

### UNIT IV – **Periodization, Training Plan and Competition Preparation**

- Periodisation – Meaning, types - Single, Double and Multiple Periodization, Preparatory Period, Competition Period and Transition Period.
- **Training Plan: Short Term and Long Term Plans,** Cycles - Macro Cycle, Meso-Cycle, Micro cycle, training session.
- Competition types, Technical and Tactical Preparation - Concept of Techniques, Tactics and Strategy.
- **Methods of developing Techniques and Tactics training, Control and evaluation of Tactical Knowledge.**

### **References:**

- Bunn, J.N. (1998) Scientific Principles of Coaching, New Jersey Engle Wood Cliffs, Prentice Hall Inc.
- Cart, E. Klafs & Daniel, D. Arnheim (1999) Modern Principles of Athletic Training St. Louis C.V. Mosby Company
- Daniel, D. Arnheim (1991) Principles of Athletic Training, St. Luis, Mosby Year Book
- David R. Mottram (1996) Drugs in Sport, School of Pharmacy, Liverpool: John Moore University
- Gary, T. Moran (1997) – Cross Training for Sports, Canada: Human Kinetics.
- Hardayal Singh (1991) Science of Sports Training, New Delhi, DVS Publications.
- Jensen, C.R. & Fisher A.G. (2000) Scientific Basic of Athletic Conditioning, Philadelphia.
- Ronald, P. Pfeiffer (1998) Concepts of Athletics Training 2<sup>nd</sup> Edition, London: Jones and Bartlett Publications
- Yograj Thani (2003), Sports Training, Delhi : Sports Publications.
- Thomas Kurz Science of Sports Training: How to Plan and Control Training for Peak Performance.