MANONMANIAM SUNDARANAR UNIVERSITY,
TIRUNELVELI-12

# SYLLABUS

## UG - COURSES – AFFILIATED COLLEGES

Course Structure for B. Sc. Physical Education
(Choice Based Credit System)

(with effect from the academic year 2023-2024 onwards )

| Semester-VI | | | | |
|---|---|---|---|---|
| **Part** | **Subject Status** | **Subject Title** | **Subject Code** | **Credit** |
| III | CORE | CARE, PREVENTION OF ATHLETIC INJURIES AND REHABILITATION | | 4 |
| III | CORE | THEORIES OF MAJOR GAMES - III (CRICKET, BASKETBALL, VOLLEYBALL, FOOTBALL AND HOCKEY) | | 4 |
| III | CORE | RESEARCH AND ELEMENTARY STATISTICS | | 4 |
| III | ELECTIVE | MAJOR GAMES - III (CRICKET, BASKETBALL, VOLLEYBALL, FOOTBALL AND HOCKEY) (Practical) | | 3 |
| III | ELECTIVE | PROJECT | | 3 |
| IV | NAAN MUDHALVAN | SPORTS TECHNOLOGY * | | 2 |
| | | EXTENSION ACTIVITY | | 1 |

**Total Marks: 100 Internal Exam: 25 marks + External Exam: 75 marks**

A. **Scheme for internal Assessment**:
Maximum marks for written test: **20 marks**
**3 internal tests**, each of **I hour** duration shall be conducted every semester.
To the average of the **best two** written examinations must be added the marks scored in. The **assignment** for 5 marks.

The break up for internal assessment shall be:
Written test- 20 marks; Assignment -5 marks Total - 25 marks

**B. Scheme of External Examination**
**3 hrs.** examination at the end of the semester
A – Part : 1 mark question two - from each unit
B – Part : 5 marks question one - from each unit
C – Part : 8 marks question one - from each unit

- **Conversion of Marks into Grade Points and Letter Grades**

| S.No | Marks | Letter Grade | Grade point (GP) | Performance |
|---|---|---|---|---|
| 1 | 90-100 | O | 10 | Outstanding |
| 2 | 80-89 | A+ | 9 | Excellent |
| 3 | 70-79 | A | 8 | Very Good |
| 4 | 60-69 | B+ | 7 | Good |
| 5 | 50-59 | B | 6 | Above Average |
| 6 | 40-49 | C | 5 | Pass |
| 7 | 0-39 | RA | - | Reappear |
| 8 | 0 | AA | - | Absent |

- **Cumulative Grade Point Average (CGPA)**

$$\mathbf{CGPA} = \frac{\mathbf{\Sigma\,(GP \times C)}}{\mathbf{\Sigma C}}$$

- **GP** = Grade point, **C** = Credit
- CGPA is calculated only for Part-III courses
- CGPA for a semester is awarded on cumulative basis

- **Classification**
  a) First Class with Distinction : CGPA $\geq$ 7.5*****
  b) First Class : CGPA $\geq$ 6.0
  c) Second Class : CGPA $\geq$ 5.0 and $<$ 6.0
  d) Third Class : CGPA$<$ 5.0

# CARE, PREVENTION OF ATHLETIC INJURIES AND REHABILITATION

**Learning outcomes:**

- Understand the Prevention, Treatment and Rehabilitation of Athletic Injuries
- To learn them to deal with injuries, therapeutic modes.
- To educate the importance and principles of sports medicine.
- To understand the knowledge of basic rehabilitation.
- To identify the head, neck, and spine injuries and its exercise.

**Unit-I**

i. Types of Movements, Concentric, exocentric(Isotonic),Static(Isometric)and Isokinetic exercises. Posture and body mechanics–Standards of Standing posture, values of good posture, draw back and causes of poor posture.

**Unit-II**

i. Posture Tests–Examination of the spine. New York State posture Rating Chart Test, Organization of special classes for postural correction.
ii. Some common deviation in posture–normal curvature of the spine and its utility, kyphosis, lordosis, kypholordosis, flatback, scolosis (C and S curve, functional and structural round shoulders). Knock knees, bowlegs, flatfoot, causes for these deviations and treatment including exercise.

**Unit-III**

i. A brief history of massage and remedial exercise5
ii. Muscle relaxation as Anaid to massage
iii. Points to be considered in giving massage
iv. Physiological effects of massage
v. Classification of the manipulations used in massage and their specific uses on the Human body a stroking manipulation.
vi. Effleurage, Stroking, Kneading, Friction, Hacking, Clapping, Beating and Pounding.

**Unit-IV**

i. Common athletic injuries and their treatment
ii. Sprains
iii. Strains
iv. Contusions
v. Abrasions
vi. Type of fractures and their management

**Unit-V**

Principles of applying heat/cold, ultra-violet rays, infra-red rays, contrast bath ultra sonic

**Book for References:**


1. Corrective Physical Education, Rathborne J.I.W.B. Saunders and co., London 1995. Manual of massage and movement, Prof E.M.Naro Faber and Faber Ltd.
2. The rapeutic Exercise for body Alignment and Education, by Williammareuam and Catherine Worthingham, WB. Saunders and Co., 1965
3. Massage and Medical Gymnastics, M.V. Lace J. & A.Churchill Ltd., 1951.
4. Preventive and Corrective Physical Education Stafford and Kelly, NewYork. The Ronald Press, 1968.


# THEORIES OF MAJOR GAMES - III (CRICKET, BASKETBALL, VOLLEYBALL, FOOTBALL AND HOCKEY)

**Learning outcomes:**

- To acquire practical knowledge in Basketball, Cricket, Hockey
- To learn skills and tactics in Basketball, Cricket, Hockey
- To practice in advanced skills in Basketball, Cricket, Hockey &
- To understand the strategic in Basketball, Cricket, Hockey

**Unit-I**

History of the Games: World, India - Organizational Chart (Working Federation): World, Asia, India, State – Major Competitions – Talent identification.

**Unit-II**

Fundamental Skills: Types, Drills and Lead-up activities to develop skills – Scientific principles applied in sports and games.

**Unit-III**

Meaning and definition of Tactics and Strategy - Systems of Play – Aspects of coaching, Leadup Games, evaluation – pre and post-match preparation.

**Unit-IV**

Warm-up, Cool-down, Factors influencing performance, Fitness components, Exercises and training methods to develop fitness.

**Unit-V**

Rules and their Interpretations - Method of officiating and Scoring - Layout and Maintenance of play fields.

**Books for References:**


1. Tyson, F. (1985). The Cricket Coaching Manual. Victorian Cricket Association.
2. Mohinder, A., (1950). Learn to Play Good Cricket.New Delhi: Surjeet publications.
3. Dhanraj V. Hubert. (1971). Volleyball: A modern approach.Patiala: SAINSNIS.
4. Larche, & Harry, F, (1969). Techniques to Football Coaching. London: A.S. Barnes and company.
5. Horat, W., (1970). The Science of Hockey. London: Pelham Books.
6. Milford, D. S. (1949). Hockey Practice and Tactics, London Mnolds and Company.
7. Colberk, A.L. Modern Basketball - A Fundamental Analysis of Skills and Tactics. London, NicholesKayl


# RESEARCH AND ELEMENTARY STATISTICS

**Learning outcomes**

- Demonstrate knowledge of statistics and the terms like data, papulation and sample.
- Demonstrate knowledge of descriptive statistical methods and normal curve.
- Demonstrate knowledge of the properties of scales and graphs.
- Demonstrate the ability to perform data analysis.

**Unit-I**

**INTRODUCTION**

Definition for Research–Need, importance and scope of research in Physical Education–Basic research–Applied research.

**Unit-II**

**FORMULATION AND DEVELOPMENT OF RESEARCH PROBLEM**

Location of research problem–Criteria ins electing the research problem–Hypothesis–Research proposal.

**Unit-III**

**HISTORICAL RESEARCH**

Definition of Historical research– Steps in historical research–Sources of Historical data-primary and secondary sources of data–Historical criticism and internal.

**Unit-IV**

**INTRODUCTION TO STATISTICS**

Meaning and Definition of Statistics, Nature, Need for and Importance of Statistics, Types of Statistics - Data: Quantitative and Qualitative data

**Unit-V**

**MEASURE OF CENTRAL TENDENCY**

Frequency Distribution – Measure of Central Tendency, Mean, Median and Mode Definition- Computation of mean, median and mode from the ungrouped data - Specific characteristics and use of measure of Measure of Central Tendency

**Books for References:**


1. David, C. H., & Clarke, H. H., (1984). Research Processes in Physical Education, Eaglewood Cliffs: Prentice Hall INC.
2. Gupta, (1982). Advanced Practical Statistics, New Delhi : S.S Chand & Co.
3. Wilks, S.S., (1984). Elementary Statical Analysis. Calcutta: Deford& IBH publishing Co., Calcutta.
4. Karikalan, I., (2017). Elementary statistics in Physical Education. Shree Publications, Tuticorin


# ELECTIVE – VII - PRACTICAL - XII: MAJOR GAMES-III (CRICKET, BASKETBALL, VOLLEYBALL, FOOTBALL AND HOCKEY)

**Learning outcomes:**

- To acquire practical knowledge on games
- To obtain the experience in Skills, strategy, tactics and advance skills.

**Unit-I**

General and Specific Conditioning Exercises

**Unit-II**

Fundamental Skills (Offensive Skills, Defensive Skills)

**Unit-III**

Techniques and Tactics

**Unit-IV**

Lead up games and System of Play

**Unit-V**

Method of Officiating Play field, Equipment specifications and Scoring

**Books for References:**


1. Dr.Anil Sharma O.P.Sharma. Rules of games, sports publication, An sari Road New Delhi.
2. Dr.P.Mariayyah. Sports & Games, Sports Publication Raja Street, Coimbatore.
3. Rao C.V. (1971). Kabaddi. Patiala NIS Publication.
4. Monika, A., 2005, “Kabaddi”, Sports Publications, First edition, New Delhi
5. Thakur, J.K., 2013 “Measurement of Playing Field", Sports Publications, New Delhi

# PROJECT

Students will visit the districts of the state to do survey on availability of sports infra-structure in concerned schools (or) Observe the tournaments conducted at District, State, National and University level and submit an individual project report and will be assessed by a viva voce for 2credits.

# NAAN MUDHALVAN / SPORTS TECHNOLOGY

**Learning outcomes:**

- Understand the fundamental concepts of technology using in Sports
- Understand the science of sports materials used in sports and games
- To attain the knowledge of playfield surface
- To discuss about various modern equipment
- To elaborate on the steps and stages of training gadgets

**Unit-I**

Importance of technology in Sports: 9 Meaning, Definition - General Principles and purpose of instrumentation in sports - Technological impacts on sports.

**Unit-II**

Science of Sports Materials: 9 Adhesives - Nano glue - Nano Moulding Technology - Nano turf - Foot wear production - Factors and applications in sports - Constraints - Foams - Polyurethane - Polystyrene - Styrofoam - closed cell and open-cell foams - Neoprene - Foam - Smart Materials: Shape Memory Alloy (SMA) - Thermo chromic film - High - density modeling foam.

**Unit-III**

Surfaces of Playfields: 9 Modern surfaces for playfields - Construction and installation of sports surfaces - Types of materials: synthetic, wood, polyurethane - Artificial turf - Modern technology in the construction of indoor and outdoor facilities - Use of computer and software in Match Analysis and Coaching.

**Unit-IV**

Modern Equipment's: 9 Playing Equipment's - Balls: Types, Materials and Advantages – Bat / Stick / Racquets: Types, Materials and Advantages - Clothing and shoes: Types, Materials and Advantages - Measuring equipment's: Running, Throwing and Jumping Events - Protective Equipment: Types, Materials and Advantages - Sports equipment with Nano technology and Advantages.

**Unit-V**

Training Gadgets: 9 Basketball: Ball Feeder - Mechanism and Advantages; Cricket: Bowling Machine - Mechanism and Advantages; Tennis: Serving Machine - Mechanism and Advantages; Volleyball: Serving Machine - Mechanism and Advantages; Lighting Facilities: Method of erecting Flood Light and measuring luminous; Video Coverage: Types, Size, Capacity; Place and Position of Camera in Live coverage of sporting events; Use of computer and software in mater analysis and coaching

**Book for References:**


1. Brar, R.S. et al. Teaching Methodology and Educational Technology in Physical Education, Kalyani Publisher: New Delhi, 2008.
2. Bosco, James S. "Sports Technology", New Jersy, Prentice Hall Inc., 1983.
3. Hoover, Kenneth H. The Professional Teacher‟s Handbook, Boston, Allyn and Bacoon, 1972.
4. Krik, David. Physical Education and Curriculum Study, Kent, Croom Helm, 1988.
5. Mohanty, J. Educational Technology, New Delhi, 1992.


# EXTENSION ACTIVITY

NCC, NSS, YRC, RRC, Sports and Games