



National Curriculum and Credit Framework

NEP (2020) SYLLABUS

FOR
FOUR YEARS UNDERGRADUATE COURSE
IN

PHYSICAL EDUCATION AND SPORTS

7th Semester



BANKURA UNIVERSITY

BANKURA

WEST BENGAL

PIN 722155

**Course Structure with Credit Distribution: U.G. 4 Years Programme with Single Major (NEP 2020)**

Category of Course (Credit)	Major Course(4)		Minor Course (4)	Multidisciplinary (3)	Ability Enhancement Course (2)	Skill Enhancement Course (3)	Value Added Course	Summer Internship (2)	Research Project/ Dissertation(12)	Total Credit / No. of Course
SEM	DSC	DSE	(4)	(3)	(2)	(3)		(2)		
I	1X4=4	-	1X4=4	1X3=3	1X2=2	1X3=3	1X4=4	-	-	20/6
II	1X4=4	-	1X4=4	1X3=3	1X2=2	1X3=3	1X4=4	-	-	20/6
CERTIFICATE Course	Credit -8		Credit -8	Credit -6	Credit -4	Credit -6	Credit -8	Additional (4 Credit)	-	40
III	2X4=8	-	1X4=4	1X3=3	1X2=2	1X3=3	-	-	-	20/6
IV	4X4=16	-	1X4=4	-	1X2=2	-	-	-	-	22/6
DIPLOMA Course	Credit -32		Credit -16	Credit -9	Credit -8	Credit -9	Credit -8	Additional (4 Credit)	-	82
V	4X4=16	-	1X4=4	-	-	-	-	-	-	22/5
VI	4X4=16	-	1X4=4	-	-	-	-	-	-	20/5
DEGREE Course	Credit -64		Credit -24	Credit -9	Credit -8	Credit -9	Credit -8	Credit -2	-	124
VII	4X4=16	-	1X4=4	-	-	-	-	-	-	20/5
VIII	4X4=16*	-	1X4=4	-	-	-	-	-	12*	20/5
HONS Course	Credit -96		Credit -32	Credit -9	Credit -8	Credit -9	Credit -8	Credit -2	-	164
HONS Course	Credit -84		Credit -32	Credit -9	Credit -8	Credit -9	Credit -8	Credit -2	Credit -12	

**SYLLABUS STRUCTURE FOR PHYSICAL EDUCATION AND SPORTS*****B.A Four Years UG Course: 7th Semester***

Course Code	Course Title	Course Type	Credit	Marks Division			Total Marks	No. of Hour (L-T-P)
				Int. Ass	Prac	E.S.E		
A/PHES/ 701/ MJC-17	Basics of Research and Applied Statistics in Physical Education and Sports	Major	4	10	--	40	50	4-0-0
A/PHES/ 702/ MJC-18	Sports Nutrition and Diet	Major	4	10	--	40	50	4-0-0
A/PHES/ 703/ MJC-19	Talent Identification and Sports	Major	4	10	--	40	50	4-0-0
A/PHES/ 704/ MJC-20	Major Sports, Games and Yoga Specialization	Major	4	10	40	--	50	0-0-8
A/PHES/ 705/ MN-7	Sports Nutrition, Talent Identification in Sports and Major Game <i>(Not for Major Students of Phy. Edu & Sports)</i>	Minor	4	10	15	25	50	3-0-2
SEMESTER			TOTAL:	20	50	200	250	

PHES= Physical Education and Sports (Subject Code) C= Core Course, E/H/MIL= English/ Hindi/ Modern Indian Language, H/MIL/E= Hindi/ Modern Indian Language/ English, AECC-E= Ability Enhancement Compulsory Course-English, AECC-ENV= Ability Enhancement Compulsory Course-Environmental Science, Int. Ass= Internal Assessment, ESE= End-Semester Examination, L= Lecture, T= Tutorial, and P=Practical, Prac= Practical, Theo= Theory.

Program Outcomes (Attribute wise)

1. **Disciplinary Knowledge and Skills:** The organization of physical and sports activities will develop sense of discipline in the students.
2. **Skilled Communicator:** Neuromuscular learning and activation requires good communicable skills on the part of the leader organizing them, which shall be developed in the students in course of their graduation program. Ability will be developed to express thoughts and ideas effectively, demonstrate the ability to listen carefully, read and write analytically, and present complex information in a clear and concise manner to different groups. Skills will be developed in verbal and non-verbal communication, preparation and presentation of documents/reports/PPTs. Skills of interpersonal communication and ability to work with diverse population groups, able to use ICT in a variety of learning situations, demonstrate ability to access, evaluate, and use a variety of relevant information sources and develop digital literacy as applicable to the professional needs will also be developed.
3. **Critical Thinker and Problem Solver:** Ability to employ critical thinking and efficient problem solving skills through development of new strategies are expected attributing factors.
4. **Sense of Inquiry:** Capability for asking relevant/appropriate questions relating to the issues and problems in the field of physical education, fitness and rehabilitation.
5. **Leadership:** The orientation in organization of health and sports promoting physical activities develops appropriate leadership capabilities in the students.
6. **Skilled Manager:** Capable of identifying or mobilizing appropriate resources required for organizing fruitful training and coaching programme for athletes of various sports.
7. **Digitally Literate:** Capable of using computer for keeping the health-related data base of the trainees. Formulating appropriate training programme for individuals as per their need. Capable of employing modern library search tools to locate, retrieve, and evaluate Physical Education & Sports related information.
8. **Ethical Awareness and Reasoning:** Avoiding unethical behavior and promoting fair play. Discouraging the use of drugs for performance enhancement. Promoting sports for the development of all round personality of the participants.
9. **Lifelong Learners:** Capable of self-paced and self-directed learning aimed at personal development.
10. **Pursuit of Excellence:** To have a positive attitude towards developing one's own potentials (both biological & cultural) and talents.
11. **Respect for Diversity:** An empathy with other's views and needs as well as respect for their elder's opinion, race or religion and also able to value different cultures and traditions.
12. **Sense of Justice and Equity:** To able to recognize social justice and act justly; to have a sense of fairness in life especially in sporting situation.
13. **Cooperation and Team Work:** Ability to work effectively and respectfully with diverse teams; facilitate cooperative or coordinated effort on the part of a group and or a team in the interests of a common cause and work efficiently as a player.



Physical Education and Sports

SEMESTER -VII

Course Type – MAJOR -17

Course Code: A/PHES/701/MJC-17

Course Title: BASICS OF RESEARCH AND APPLIED STATISTICS IN PHYSICAL EDUCATION AND SPORTS

Total Marks = 50 {Theory Marks: 40: Internal Assessment: 10}

Contact Hours per week: 4 (4 Credits)

Examination Duration: 2 hours

COURSE OUTCOMES-

- 1) Understand the basic framework of research process.
- 2) Classification of research as per need.
- 3) Describe the research process and research methods.
- 4) Identify various sources of information for literature review and data collection.
- 5) Know how to organize, manage, and present data.
- 6) Use and apply a wide variety of specific statistical methods.
- 7) Formulate research problem and construct of tables and graphs.
- 8) Understand statistical models used in physical education and sports.

THEORY PART: (Total Marks -40)

UNIT-I: INTRODUCTION TO RESEARCH

- 1.1 Concept and Definition of Research, Scope of Research in Physical Education & Sports
- 1.2 Need and importance of Research in Physical Education and Sports
- 1.3 Classification of Research: Analytical, Descriptive, Experimental, Qualitative and Meta Analysis
- 1.4 Research Problem, Meaning of the term, Location and Criteria of Selection of a Research Problem, Formulation of a Research Problem, Research Ethics

UNIT-II: SURVEY OF RELATED LITERATURE

- 2.1 Need for surveying related literature, Literature Sources, Library Reading
- 2.2 Research Proposal, Meaning and Significance of Research Proposal.
- 2.3 Process of Preparation of Research proposal/project.
- 2.4 Method of formulation of Research Report – a) Preliminary Part: Title Page, Certificate/Approval Page, Acknowledgement, Abstract, Contents; b) Main Part – Introduction, Review of Literature, Methodology, Analysis and Interpretation of Data, Discussion of Findings, Summary, Conclusion, and Recommendations; c) Supplementary Part: References/ Bibliography, Appendices, Glossary, Index

UNIT-III: BASICS OF STATISTICAL ANALYSIS

- 3.1 Statistics: Meaning, Definition, Nature, Importance, characteristics and types of data
- 3.2 Class Intervals: Raw Score, Continuous and Discrete Series data, Class Distribution, Construction of Tables
- 3.3 Normal Curve; Meaning of probability- Principles of normal curve – Properties of normal curve. Divergence from normality – Skewness and Kurtosis.
- 3.4 Graphical Presentation of Class Distribution: Histogram, Frequency Polygon, Frequency Curve, Cumulative Frequency Polygon, Ogive, Pie Diagram

UNIT- IV: STATISTICAL MODELS IN PHYSICAL EDUCATION AND SPORTS

- 4.1 Measures of Central Tendency: Mean, Median and Mode-Meaning, Definition, Importance, Advantages, Disadvantages and Calculation from Group and Ungrouped data
- 4.2 Percentiles and Quartiles: Meaning, importance, computing from group and ungroup data
- 4.3 Measures of Variability: Meaning and importance of measures of Variability, Type of Measure of Variability – Range, Quartile Deviation, Mean Deviation, Standard Deviation and computing from group and ungroup data.
- 4.4 Concept of Type I error and Type II error – Level of Significance, Testing of Hypothesis – Type and calculation of ‘t’ test, ‘F’ Test, ANOVA, ANCOVA, Correlation (Pearson Product Method).

QUESTION PATTERN

END SEMESTER EXAMINATION				Internal Marks	Total Marks
Descriptive Type					
NUMBER OF QUESTIONS TO BE ANSWERED			TOTAL	10	50
02 Mark Question	05 Marks Question	10 Marks Question			
5 Out of 8	4 Out of 6	1 Out of 2			
02X5 = 10	05X4 = 20	10X1 = 10			

SUGGESTED READINGS:

- 1 Best, J.W. (1963). *Research in education*. U.S.A.: Prentice Hall
- 2 Bompa, T. O. & Haff, G. G. (2009). *Periodization: theory and methodology of training*, 5th ed. Champaign, IL: Human Kinetics.
- 3 Brown, L. E., & Ferrigno, V. A. (2005). *Training for speed, agility and quickness*, 2nd ed. Champaign, IL: Human Kinetics.
- 4 Brown, L.E. & Miller, J., (2005). *How the training work*. In: *Training Speed, Agility, and Quickness*. Brown, L.E. & Ferrigno, V.A & Ferrigno, V.A., eds. Champaign, IL: Human Kinetics.
- 5 Carl, E. K., & Daniel, D. A. (1969). *Modern principles of athletes training*. St. Louis: St. Louis's Mosby Company.
- 6 Clark, H. H., & Clark, D. H. (1975). *Research process in physical education*. Englewood cliffs, New Jersey: Prentice Hall, Inc.
- 7 Garrett, H.E. (1981). *Statistics in psychology and education*. New York: Vakils Feffer and Simon Ltd.
- 8 Oyster, C. K., Hanten, W. P., & Llorens, L. A. (1987). *Introduction to research: A guide for the health science professional*. Landon: J.B. Lippincott Company.
- 9 Thomas, J.R., & Nelson J.K. (2005). *Research method in physical activity*. U.S.A: Champaign, IL: Human Kinetics Books.
- 10 Thomas, J.R., Nelson, J.K. & Silverman, S.J. (2011). *Research method in physical activity*. U.S.A: Champaign, IL: Human Kinetics Books.
- 11 Uppal, A. K. (1990). *Physical fitness: how to develop*. New Delhi: Friends Publication.
- 12 Verma, J. P. S(2000). *A text book on sports statistics*. Gwalior: Venus Publications
- 13 Khan, Md Ali, Acharya Subrata (2026), *Sikkhaya Rashi Bigyan*, Alpona Publisher, Kolkata
- 14 Singh, N. Pratap, Mondal, Avijeet (2022), *Dissertation*, KSK Publishers & Distributers, New Delhi



Physical Education and Sports

SEMESTER -VII

Course Type – MAJOR -18

Course Code: A/PHES/702/MJC-18

Course Title: SPORTS NUTRITION AND DIET**Total Marks = 50** {Theory Marks: 40: Internal Assessment: 10}

Contact Hours per week: 4 (4 Credits)

Examination Duration: 2 hours

COURSE OUTCOMES-

1. *Explain basic concepts of nutrition and nutrients.*
2. *Analyze the dietary needs of athletes and physically active individuals.*
3. *Prepare simple balanced diet plans for sports persons.*
4. *Identify nutritional deficiency diseases and preventive measures.*
5. *Apply knowledge of sports nutrition for improved performance and health.*

THEORY PART: (Total Marks - 40)**UNIT- I : FUNDAMENTALS OF NUTRITION**

- 1.1 Concept and definition of nutrition, Classification of nutrients
- 1.2 Importance of nutrition in sports performance
- 1.3 Macronutrients and micronutrients, Food groups and nutrients
- 1.4 Role and Deficiency of carbohydrates, proteins and fats, Vitamins and minerals, Water and electrolyte balance, fibre, Phytonutrients.

UNIT- II : BALANCED DIET AND ENERGY REQUIREMENT

- 2.1 Concept and principles of balance diet, Components of balance diet
- 2.2 Calculation of Caloric Intake and Output and energy metabolism, Basal metabolic rate (BMR)
- 2.3 Nutritional requirements for children, adolescents and adults
- 2.4 Nutritional needs for athletes, Factors influencing dietary needs in sports

UNIT- III : SPORTS NUTRITION AND DIET PLANNING FOR ATHLETES

- 3.1 Importance of nutrition in sports, Diet planning before, during and after competition
- 3.2 Ergogenic aids and supplements in sports
- 3.3 Steps of energy supply from different types of nutrients, carbohydrates, fat and protein in sports
- 3.4 Hydration and dehydration in sports, Weight control and body composition in sports

UNIT-IV : NUTRITION, HEALTH AND DISEASE

- 4.1 Malnutrition and undernutrition, Overnutrition and obesity
- 4.2 Nutritional deficiency diseases: a) Anaemia, b) Rickets c) Goiter d) Protein-energy malnutrition
- 4.3 Food safety and hygiene, Protein supplements and energy drinks
- 4.4 Traditional Indian dietary practices and health

**QUESTION PATTERN**

END SEMESTER EXAMINATION Descriptive Type				Internal Marks	Total Marks
NUMBER OF QUESTIONS TO BE ANSWERED			TOTAL		
02 Mark Question	05 Marks Question	10 Marks Question			
5 Out of 8	4 Out of 6	1 Out of 2	40	10	50
02X5 = 10	05X4 = 20	10X1 = 10			

SUGGESTED READINGS:

1. Williams, M. H. *Nutrition for Health, Fitness and Sport*. McGraw-Hill.
2. Anderson, L., Young, L., & Prior, N. *Nutrition: An Applied Approach*. Pearson.
3. Whitney, E., & Rolfes, S. R. *Understanding Nutrition*. Cengage Learning.
4. Benardot, D. *Advanced Sports Nutrition*. Human Kinetics.
5. Jeukendrup, A., & Gleeson, M. *Sport Nutrition: An Introduction to Energy Production and Performance*. Human Kinetics.
6. Burke, L., & Deakin, V. *Clinical Sports Nutrition*. McGraw-Hill.
7. Maughan, R., & Burke, L. *Sports Nutrition*. Wiley-Blackwell.
8. Bamji, M. S., Rao, N. P., & Reddy, V. *Textbook of Human Nutrition*. Oxford & IBH.
9. Mudambi, S., & Rajagopal, M. V. *Fundamentals of Foods and Nutrition*. New Age International.
10. Srilakshmi, B. *Nutrition Science*. New Age International.
11. Swaminathan, M. *Handbook of Food and Nutrition*. BAPPCO.
12. Gopalan, C., Rama Sastri, B., & Balasubramanian, S. *Nutritive Value of Indian Foods*. National Institute of Nutrition.
13. *Dietary Guidelines for Indians*. National Institute of Nutrition.
14. *Indian Food Composition Tables*. National Institute of Nutrition.

Physical Education and Sports

SEMESTER – VII

Course Type – MAJOR -19

Course Code: A/PHES/703/MJC-19

Course Title: TALENT IDENTIFICATION IN SPORTS AND GAMES

Total Marks = 50 {Theory Marks: 40: Internal Assessment: 10}

Contact Hours per week: 4 (4 Credits)

Examination Duration: 2 hours

COURSE OUTCOMES-

- 1) *Understand the concept and importance of talent identification in sports and games*
- 2) *Explain methods and models of talent identification in sports and games.*
- 3) *Conduct and apply talent identification tests and measurements.*
- 4) *Analyze factors influencing Game-sports talent.*
- 5) *Design talent identification and development programmes.*
- 6) *Understand long-term athlete development and talent promotion systems.*

THEORY PART: (Total Marks - 40)

UNIT-I: INTRODUCTION OF TALENT IDENTIFICATION IN SPORTS AND GAMES

- 1.1 Meaning and definition of Talent Identification in Sports and Games,
- 1.2 Aim and Objectives of talent identification programs, Importance of talent identification
- 1.3 Difference between Talent Identification, Talent Selection and Talent Manifestation
- 1.4 Role of schools, colleges, universities, and sports organisations in identifying Talent in Sports

UNIT-II: FACTORS INFLUENCING SPORTS TALENT

- 2.1 Physical and Physical Fitness factors – Height, Weight, Body Composition, Strength, Speed, Endurance, Flexibility, Agility
- 2.2 Physiological factors – Aerobic Capacity, Anaerobic Capacity, Heart Rate, VO₂ Max
- 2.3 Psychological factors – Motivation, Confidence, Concentration, Competitive Spirit
- 2.4 Genetic and environmental factors affecting sports talent, Socio-economic and cultural factors influences on sports performance.

UNIT-III: METHODS AND TESTS FOR TALENT IDENTIFICATION

- 3.1 Scientific approaches to talent identification: Anthropometric measurements (Height, Arm Span, Upper and Lower Extremity, Leg Length, etc.)
- 3.2 Physical fitness tests for identifying talent: Physical Fitness-based and Skill-based testing methods
- 3.3 Use of sports science and technology (AI, Data Analytics, Digital assessment) in talent identification
- 3.4 Observation and scouting techniques

UNIT-IV: TALENT IDENTIFICATION PROGRAMMES AND MODELS

- 4.1 National and international talent identification programmes. Role of sports academies and training centres
- 4.2 Talent identification in Athletic and different games and sports.
- 4.3 Problems and challenges in talent identification, Strategies for improving talent identification systems



- 4.4 National Talent Identification and Development Programme; (NTID)- Australia, Long-Term Athlete Development Model (LTAD) – IOC, National Sports Talent Contest (NSTC) -SAI, KIRTI-Khelo India Talent Identification Programme, TOPS(Target Olympic Podium Scheme)

QUESTION PATTERN

END SEMESTER EXAMINATION Descriptive Type				Internal Marks	Prac. Marks	Total Marks
NUMBER OF QUESTION TO BE ANSWERED			TOTAL			
01 Mark Question	05 Marks Question	10 Marks Question				
5 Out of 8	2 Out of 4	1 Out of 2	25	10	15	50
01X5 = 05	05X2 = 10	10X1 = 10				

SUGGESTED READINGS:

1. *Talent Identification and Development*, Author: Dr. Ajmer Singh, Publisher: Kalyani Publishers
2. *Talent Identification in Sports*, Author: Dr. B. P. Singh, Publisher: Friends Publications (India)
3. *Identification and Development of Sports Talent*, Author: Dr. P. K. Nayak, Publisher: Khel Sahitya Kendra
4. *Sports Talent Identification*, Author: Dr. V. K. Sharma, Publisher: Friends Publications (India).
5. *Talent Identification and Development in Sports*, Author: Dr. Ramesh Chandra, Publisher: Sports Publication
6. *Faazil Mohammed Khan – A Handbook on Sports Training and Talent Identification – Orange Books Publication.*
7. *Baker, Joseph; Cobley, Stephen; Schorer, Jörg – Talent Identification and Development in Sport – Routledge (Taylor & Francis).*
8. *Baker, Joseph et al. – Routledge Handbook of Talent Identification and Development in Sport – Routledge.*



Physical Education and Sports

SEMESTER -VII

Course Type – MAJOR - 20

Course Code: A/PHES/704/MJC-20

Course Title: MAJOR SPORTS, GAMES AND YOGA SPECIALIZATION**Total Marks = 50** {Theory Marks: 00: Practical Marks: 40 Internal Assessment: 10}

Contact Hours per week: 8 (4 Credits) Examination Duration: N.A.

COURSE OUTCOMES-

- 1) *Historical Knowledge: A broad understanding of how four major sports originated and developed globally.*
- 2) *Rules Literacy: The ability to understand and explain the core rules and regulations of Major Sports and Games.*
- 3) *Tactical Awareness: A theoretical foundation in the basic strategies and systems of play for each sport.*
- 4) *Analytical Skill: The capacity to analyse game situations, identify infractions, and understand officiating decisions.*
- 5) *Comparative Perspective: An appreciation for the different structures, formats, and governance models across sports.*
- 6) *Ethical Understanding: A recognition of the importance of fair play and the “Spirit of the game” in all sports.*

PRACTICAL PART: (Total Marks -40) (Preparation of Specialization Record Book is Compulsory which will be evaluated by both Internal and External Examiners)

Choose Any One Discipline of Games or Sports with the consultation of the Internal Faculty of the Department

Football/Cricket/Volleyball/Badminton/Kho-Kho/Kabaddi/Track and Field

Unit 1: Historical development of the game

- 1.1 Origin and History of the Game and Historical development of the game in India
- 1.2 Name of the national and international organizations associated with the game
- 1.3 Name of tournaments in state/national, and international tournaments
- 1.4 Past 10 years record of the national tournaments (**Football:** ISL, Durand Cup, Santosh Trophy/**Cricket:** Ranji trophy, Vijay Hazare trophy, IPL/ **Volleyball:** Senior nationals, Junior nationals/ **Badminton:** Indian national badminton championship, Yonex sunrise all India ranking tournament/ **Kho-Kho:** Senior nationals/ **Kabaddi:** PKL/ **Track and Field:** National Games
- 1.5 Name of the winners and runners up of international tournaments (Last 10 years) **Football :** FIFA world cup, Champions Trophy, Afcon Cup, Copa America, **Cricket:** World cup 50 overs and 20 over/ **Volleyball:** Olympics and world Championship **Badminton:** Olympics and BWF World Championship/ **Kho-Kho:** Kho-Kho World Cup and South Asian Games/ **Kabaddi:** IKF Kabaddi World Cup and Asian Games/ **Track and Field:** Olympics, World Athletic Championship and Common wealth games
- 1.6 National and International Awards in Football/ Cricket/Volleyball/Badminton/Kho-Kho/Kabaddi/Track and Field and name of the awardees (last 10 years)



- 1.7 Name of the important coaches national/international (n=10) along with name of famous players in state/national /international players (last 10 years)
- 1.8 Name of ten standard text/reference books along with their authors
- 1.9 Position of our state and nation in various respective competitions

Unit 2 : Rules and Regulations and development of officiating abilities

- 2.1 As per FIFA (name of all the 17 rules)/MCC/FIVB/BWF/IKKF/IKF/World Athletics All rules in details along with all current changes and interpretation and development of officiating ability.
- 2.2 Knowledge of essential equipment's and field of play

Unit 3: Developmental aspects of performance factors and preparation of training program and training schedule

- 3.1 Physical fitness (performance related)
- 3.2 Skill and technique (with and without ball)
- 3.3 Development of game ability along with knowledge of strategy and tactics
- 3.4 Knowledge and system of the game and players position in the field of play
- 3.5 Psychological aspects (will power, personality, self-concept, anxiety, courage, conviction, determination and intelligence)
- 3.6 Development of training program and training schedule
- 3.7 Model of standard training program and training schedule
- 3.8 Techniques of skill analysis (muscular, biomechanical and psychological) and match/game analysis including identification of faults and due corrections
- 3.9 Single, double and multiple periodisation programs including micro, meso and macro cycle

Unit 4: Criteria of Selection of talented players and Common Sports injuries related to Football/Cricket/ Volleyball/Badminton/Kho-Kho/Kabaddi/ Track and Field (talent search/identification program)

- 4.1 Testing techniques of physical fitness, skill, tactical and game ability and psychological factors (anxiety, stress, will power, courage, determination, intelligence)
- 4.2 Name and model of standard training schemes running at the state and national levels
- 4.3 Common Injuries and their managements related to specialized sports

Note: Students must prepare a standard record book in which all the above aspects will be reflected.

YOGA

Unit 1 Philosophy and History Development of Yoga: Origins and History -Tracing yoga from the Indus Valley Civilization through the Vedic and Upanishadic periods, Yoga Philosophy: The meaning of yoga as union, and its relation to basic Hindu beliefs and Indian philosophy, Paths of Yoga: Introduction to different styles like Karma Yoga, Bhakti Yoga, Jnana Yoga, and Raja Yoga, Key Texts: Overview of foundational scriptures like the Vedas, Upanishads, Bhagavad Gita, and Patanjali's Yoga Sutras, national and international tournaments, and famous yoga practitioners and Important Results (state, national and international competitions). Name of ten text/reference books in yoga with name of authors.



- Unit 2 The Practice Area, Equipment, and Periodization :** Practice Area Specifications: Detailed analysis of ideal Yoga practice conditions, including a शान्त, clean, and well-ventilated space with sufficient lighting. Explanation of spacing requirements to ensure safe movement and concentration. Equipment Standards: Study of essential equipment such as Yoga mats, blocks, straps, cushions, and appropriate clothing. Comparison of traditional practice (bare floor or cloth mat) with modern Yoga accessories. preparation of a training module for the yoga. Rules and regulations for evaluation of performance in yoga.
- Unit 3 Fundamental Principles and Practices of Yoga :** Session Structure & Duration: Explanation of a standard Yoga session structure, including, asanas, pranayama, and meditation/relaxation, duration and sequencing for beginners and advanced practitioners, Types of Practices & Roles: Analysis of different components such as Asanas, Pranayama, Meditation, and Kriyas. Understanding the role of practitioner, instructor, and environment in effective practice. Emphasis on synchronization of breath with movement and awareness, preparation of training program and training schedule in yoga
- Unit 4 Contraindications, Scientific Parameters, and Yogic Systems:** Precautions & Contraindications: Categorization of conditions where specific asanas or practices should be avoided, Explanation of safety guidelines and the importance of proper supervision, Physiological & Biomechanical Principles: Scientific analysis of Yoga's effects on the body, Yogic Systems & Practices: Study of integrated practice approaches combining physical, mental, and spiritual elements for overall well-being.

Note: Students must prepare a standard record book in which all the above aspects will be reflected.

SUGGESTED READINGS:

1. *Football's Past Revisited* edited by Graham Curry (Routledge, 2024)
2. *Football Facts* by Ava Thompson (Publifye, 2025)
3. *Coaching Football Professionals* – Biru Mal – Friends Publications (India)
4. *Back to the Roots: A Definitive Guide to Grassroots Football Development* – Shaji Prabhakaran – Roli Books
5. *Coaching Cricket* – Devendra Balayan – Khel Sahitya Kendra
6. *Coaching Beyond: My Days with the Indian Cricket Team* – R. Sridhar & R. Kaushik – Rupa Publications
7. *Revised Question Bank on The Laws of Cricket* by M. R. Singh (2023)
8. *The Wisden Book of Cricket Laws* by Don Oslear
9. *Coaching Volleyball Successfully* by William J. Neville (USVBA)
10. *Coaching Youth Volleyball (4th ed.)* by American Sport Education Program
11. *Volleyball* – V. K. Sharma – Friends Publications (India)
12. *Teaching and Coaching Volleyball* – S. K. Pahwa – Khel Sahitya Kendra
13. *Volleyball Skills and Rules* – Ramesh Chandra – Sports Publication
14. *Recall of Basic Skills and Rules* (Oak National Academy)
15. *Badminton Handbook* by Bernd-Volker Brahms
16. *Kho Kho*, Author: Dr. Ajay Vasantrao Gulhane & Dr. Amit Arjun, Publisher: Sports Publication, New Delhi
17. *Teaching and Coaching Kho-Kho*, Author: S. K. Pahwa, Publisher: Khel Sahitya Kendra, New Delhi
18. *Teaching and Coaching Kabaddi*, Author: Dr. Ramesh Chandra, Publisher: Sports Publication, New Delhi
19. *Kabaddi*, Author: C. V. Rao, Publisher: Starling Publication Limited
20. *The Sports Book (6th ed.)* by Ray Stubbs (DK Publishing, 2024)
21. *Light on Yoga* – B. K. S. Iyengar – HarperCollins India
22. *Asana Pranayama Mudra Bandha* – Swami Satyananda Saraswati – Bihar School of Yoga
23. *Yoga Education* – Dr. Nagendra – Vivekananda Kendra
24. *Track and Field*, Author: Dr. Vishwajit A. Thakare, Publisher: Laxmi Book Publication
25. *Track Athletics (Skills & Tactics)*, Author: Lokesh Thani, Publisher: Sports Publication, New Delhi
26. *Track and Field Athletics*, Various Physical Education Authors, Publisher: Khel Sahitya Kendra, New Delhi



Physical Education and Sports

SEMESTER – VII

Course Type – MINOR -7

Course Code: A/PHES/705/MN-7

Course Title: Talent Identification in Sports, Sports Nutrition and Major Game

Total Marks = 50 {Theory Marks: 25: Practical Marks: 15, Internal Assessment: 10}

Contact Hours per week: 5 (3+1 =4 Credits)

Examination Duration- 1:15 Hours

COURSE OUTCOMES-

1. Understand the concept and importance of talent identification in sports.
2. Explain methods and models of talent identification.
3. Conduct and apply talent identification tests and measurements.
4. Analyze factors influencing sports talent.
5. Explain basic concepts of nutrition and nutrients.
6. Analyse the dietary needs of athletes and physically active individuals.
7. Prepare simple balanced diet plans for sports persons.
8. Identify nutritional deficiency diseases and preventive measures.
9. To learn the basic skills related to the different ball games and also the racket games.
10. Improvement of physical attributes along with the mental capacity of an individual leading towards the ultimate goal of overall development.
11. To enhance the neuro-muscular coordination along with other physical factors.
12. To learn about the rules and regulation of different ball and racket games.

THEORY PART: (Total Marks - 25)

UNIT - I INTRODUCTION TO TALENT IDENTIFICATION IN SPORTS

- 1.1 Meaning, definition, aim, Objectives and Importance of Talent Identification in Sports,
- 1.2 Factors influencing Sports talent - Physical, Physical Fitness, Physiological, Psychological factors, Genetic and environmental factors
- 1.3 Difference between Talent Identification, Talent Selection and Talent Manifestation
- 1.4 Role of Schools, Colleges, Universities and sports organizations in identifying talent in sports

UNIT – II METHODS AND TESTS AND CHALLENGES FOR TALENT IDENTIFICATION

- 2.1 Scientific approaches to talent identification. Anthropometric measurements (height, arm span, leg length, etc.)
- 2.2 Physical fitness tests for identifying talent: Physical Fitness-Based and Skill-Based Testing Methods
- 2.3 Use of sports science and technology (AI, Data Analytics, Digital assessment) in talent identification
- 2.4 Problems and challenges in talent identification, Strategies for improving talent identification systems

UNIT -III FUNDAMENTALS OF NUTRITION

- 3.1 Concept and definition of nutrition, Classification of nutrients
- 3.2 Importance of nutrition in sports performance
- 3.3 Macronutrients and micronutrients, Food groups and nutrients
- 3.4 Functions of carbohydrates, proteins and fats, vitamins and minerals, water and electrolyte balance, fibre and phytonutrients.

UNIT - IV SPORTS NUTRITION AND DIET PLANNING FOR ATHLETES

- 3.1 Importance of nutrition in sports, diet before, during and after competition
- 3.2 Ergogenic aids and supplements, concept and principle of balanced diet, components of balanced diet
- 3.3 Steps of energy supply from different type of nutrients carbohydrate fat and protein in sports
- 3.4 Hydration and dehydration in sports, food safety and hygiene, protein supplements and energy drinks

PRACTICAL PART: (Total Marks -15) (Preparation of Record Book is Compulsory which will be evaluated by both Internal and External Examiners)

BALL GAME AND RACKET SPORTS (ANY ONE)**FOOTBALL**

1. Kicking Skills: Instep kick, Inside kick, Lofted kick (Half volley and Full volley) in-swing and out-swing kicks
2. Receiving Skills: With Sole of the foot, Inside and Outside of the foot, with Thigh and Chest.
3. Dribbling: Inside dribbling, Outside dribbling and Zig-zag dribbling.
4. Heading: Standing and Jumping and Throw-in: In Standing and in Running Condition
5. Goal keeping – Static and Dynamics Condition
6. Game practice and practical knowledge of rules and regulations

VOLLEYBALL

1. Service: Under arm service, Over Head service, Side arm service, Floating service
2. Pass: Under Arm Pass and Over Head Pass
3. Spiking and Blocking, Rotation and Movement of Libero
4. Game practice with practical knowledge of rules and regulations

CRICKET

1. Batting skill: The grip, The stance, back lift, front foot defence, Front foot drive (off and on drive), Back foot defence, Back foot drive (off and on drive), Pull shot, Square Cut
2. Bowling skills: Grip, Approach Run, Delivery Style and Follow Through, Out-swing, In-swing, Leg spin, Off spin
3. Fielding and catching: collection of ball, throwing, defensive and offensive fielding, different types of catching
4. Game practice with application of Rules and Regulations;

BADMINTON

1. Racket parts, Racket grips, Shuttle grip
2. Service: Short service, Long service, Long high service
3. Shots: Over head shot, Defensive clear shot, Attacking clear shot, Drop shot, Smash.
4. Game practice with practical knowledge of rules and regulations.

INDIAN GAME AND GYMNASTICS (ANY ONE)

KABADDI

1. Raiding Skills: Touching with hands, Use of Leg, toe touch, squat leg thrust, side kick, mule kick, arrow fly kick, crossing of baulk line, crossing the bonus line.
2. Holding Skills: Wrist, Hand and Waist Catch. Techniques of various chain formation.
3. Additional Skills in Raiding: Escaping Techniques from various holds, techniques of escaping from various chain formations.
4. Game practice with Practical Knowledge of rules and regulations.

KHO- KHO

1. Skills in Chasing: Sit on the box (parallel & Bullet toe methods), Get up from the box (proximal & Distal foot method), Give Kho (Simple, early, late and judgment), Tiger Jump, Pole turn, pole dive, Trapping, Hammering, Rectification of foul
2. Skills in Running: Chain play, Ring play, Ring play and chain & ring mixed play
3. Game Practice with practical knowledge of rules and regulations

GYMNASTICS

1. Roll in Acro Skill: Forward Roll, Backwards Roll, Sideways Roll, Dive Roll, Hand Stand Followed by Roll
2. Static Pose in Gymnastics: T- Balance, Frog Balance, Forward Split, Arching/ Bridge, Headstand
3. Basic Acro Skill: Round Off, Cartwheel, Front Walkover, Hand Spring, Head Spring, Neck Spring, Somersault

QUESTION PATTERN

END SEMESTER EXAMINATION				Internal Marks	Prac. Marks	Total Marks
Descriptive Type						
NUMBER OF QUESTIONS TO BE ANSWERED			TOTAL			
01 Mark Question	05 Marks Question	10 Marks Question				
5 Out of 8	2 Out of 4	1 Out of 2	25	10	15	50
01X5 = 05	05X2 = 10	10X1 = 10				

Guideline for Record Book – Content of Record Book- History, Major Rules Regulation, National and International level Tournament, Name of famous National and International Players, Major Skill (Fundamentals with Picture).

SUGGESTED READINGS:

1. *Talent Identification and Development*, Author: Dr. Ajmer Singh, Publisher: Kalyani Publishers
2. *Talent Identification in Sports*, Author: Dr. B. P. Singh, Publisher: Friends Publications (India)
3. *Identification and Development of Sports Talent*, Author: Dr. P. K. Nayak, Publisher: Khel Sahitya Kendra
4. *Sports Talent Identification*, Author: Dr. V. K. Sharma, Publisher: Friends Publications (India)
5. *Benardot, D. Advanced Sports Nutrition. Human Kinetics.*
6. *Burke, L., & Deakin, V. Clinical Sports Nutrition. McGraw-Hill.*
7. *Maughan, R., & Burke, L. Sports Nutrition. Wiley-Blackwell.*
8. *Mudambi, S., & Rajagopal, M. V. Fundamentals of Foods and Nutrition. New Age International.*
9. *Srilakshmi, B. Nutrition Science. New Age International.*
10. *Dietary Guidelines for Indians. National Institute of Nutrition.*
11. *Indian Food Composition Tables. National Institute of Nutrition*