Curriculum and Credit Framework
As per NEP 2020

For

B.Sc. (SPORTS SCIENCE)
(To be effective from the Academic Session 2024-25)

Gurugram University, Gurugram
(A State Govt. University Established Under Haryana Act 17 of 2017)

11/4/25

Table of Contents

Table of Contents

Background

MISSION Our mission is to equip students with a comprehensive understanding of Sports Science, fostering a robust foundation in physical education, health sciences, and athletic training. We are dedicated to developing skilled professionals who can effectively promote physical activity, enhance overall health, and improve athletic performance. Through a curriculum that integrates theoretical knowledge with practical application, research, and innovative teaching methods, we aim to address the diverse needs of individuals and communities. Our programme seeks to advance the science of sports, uphold ethical standards in athletics, and contribute to the well-being of society by preparing graduates who are capable of leading, educating, and implementing evidence-based practices in the field of sports science.

ABOUT THE PROGRAM The Bachelor of Science (B.Sc.) in Sports Science is a comprehensive undergraduate programme designed to provide students with a thorough understanding of the scientific principles underpinning physical education, exercise physiology, sports psychology, biomechanics, and sports management. This programme is ideal for individuals passionate about sports and physical activity and seeking to pursue careers in athletic training, coaching, fitness, and sports science research.

Key Components of the Programme:

1. **Core Curriculum**: Students engage with fundamental subjects including Exercise Physiology, Sports Psychology, Biomechanics, Kinesiology, Sports Nutrition, and Applied Anatomy and Physiology. These courses provide a solid foundation in the biological, psychological, and mechanical aspects of sports and exercise.
2. **Practical Experience**: The programme includes hands-on learning through laboratory work, practical assignments, and field experience. Students have opportunities to work in various settings such as sports teams, fitness centers, and rehabilitation clinics to apply their knowledge in real-world scenarios.
3. **Research and Innovation**: Emphasis is placed on developing research skills and conducting studies that contribute to the advancement of sports science. Students learn to design and implement research projects, analyze data, and apply findings to improve sports performance and health outcomes.
4. **Ethics and Leadership**: The programme instills a strong sense of ethical responsibility and leadership. Students explore issues related to fair play, doping, and the moral dimensions of sports, preparing them to act as advocates for ethical practices in the field.
5. **Community and Health Impact**: Graduates are trained to develop and promote physical activity programmes that address public health concerns and cater to diverse community needs. The programme highlights the role of sports science in enhancing health, preventing diseases, and improving quality of life.
6. **Specialized Knowledge and Skills**: The curriculum includes advanced topics such as Sports Management, Sports Bio-Mechanics, and injury prevention and management. Students gain expertise in developing individualized fitness plans and managing sports facilities.
7. **Career Preparation**: The programme prepares students for various career paths including sports coaching, fitness training, sports therapy, and research. Career services and internships provide practical experience and professional networking opportunities.

Overall, the B.Sc. Sports Science programme aims to produce well-rounded professionals equipped with the knowledge, skills, and ethical grounding to excel in the dynamic and growing field of sports science.

Programme Educational Objectives (PEOs)

PEO	Description
PEO-1	**Comprehensive Knowledge Dissemination**: The course is designed to equip students with the knowledge and skills necessary for teaching and advancing Sports Sciences at various educational levels, creating a solid foundation for future educators in this field.
PEO-2	**Promotion of Health and Positive Lifestyles**: The programme emphasizes the importance of Physical Education in promoting health, stress management, and a positive lifestyle, aiming to instill these values in society at large.
PEO-3	**Leadership and Ethical Sportsmanship**: Students are trained to address challenges in sports, including issues like doping, while upholding the virtues of fair play, integrity, and ethical competition, fostering leadership qualities through practical experiences.
PEO-4	**Innovative Teaching and Research**: Through research and innovative teaching methods, the programme aims to enhance performance standards in sports and develop effective strategies to meet individual and societal needs in Physical Education.
PEO-5	**Holistic Development and Social Integration**: Graduates are expected to contribute to public health, provide wholesome leisure activities, and foster social integration and fair play, both at individual and community levels, while also meeting the fitness needs of corporate sectors through scientifically-backed programmes.

Programme Outcomes

PO	Description
PO-1	**Mastery of Sports Sciences**: Graduates will demonstrate a comprehensive understanding of Physical Education and Sports Sciences, enabling them to effectively educate and train individuals at various levels, and contribute to the academic and practical aspects of the field.
PO-2	**Promotion of Health and Well-being**: Students will be able to design and implement physical education programmes that promote health, reduce stress, and encourage positive lifestyle choices, thereby enhancing the well-being of individuals and communities.
PO-	**Leadership and Ethical Decision-Making**: Graduates will develop strong

PO	Description
3	leadership abilities and ethical decision-making skills, particularly in addressing challenges such as doping in sports, ensuring fair play, and maintaining the integrity of the sporting community.
PO-4	**Research and Innovation in Sports Education**: Students will acquire the skills to conduct research and apply innovative teaching methods to improve sports performance, meet the needs of diverse populations, and contribute to the advancement of Physical Education. 1.
PO-5	**Social Responsibility and Community Engagement**: Graduates will be equipped to contribute to the social integration and development of communities through Physical Education, fostering fair play, teamwork, and healthy lifestyles while also meeting the fitness and health needs of corporate sectors.

Programme Specific Outcomes

PSO	Description
PSO-1	**Promotion of Physical Activity and Health**: The programme emphasizes the importance of physical activity, yoga, and sports in combating non-communicable diseases (NCDs), helping students to advocate for and spread awareness about their benefits to public health.
PSO-2	**Comprehensive Knowledge in Sports Sciences**: Graduates will gain expertise in various aspects of Physical Education, Health Education, Yoga, and Sports Sciences, including Exercise Physiology, Sports Psychology, Biomechanics, Sports Management, Kinesiology, Applied Anatomy, Physiology, and Sports Nutrition, along with knowledge of various sports disciplines.
PSO-3	**Teaching and Coaching Proficiency**: The course prepares students to effectively teach and coach in diverse environments, both in classrooms and on the field, through practical assignments that cover theoretical knowledge, practical application, and coaching techniques.
PSO-4	**Research and Technological Aptitude**: Students will develop a foundational understanding of research methods, computer applications, and scientific approaches, fostering a research-oriented mindset and technical skills relevant to professional practice in physical education and related fields.
PSO-5	**Leadership, Health Management, and Specialized Knowledge**: The programme cultivates leadership qualities, teamwork, entrepreneurship, and organizational skills, while also providing students with knowledge in first aid, injury management, disease prevention, health promotion, weight and

PSO	Description
	stress management, and overall personality development.

Graduate Attributes

After successful completion of the course the students are required to have accrued the skills of reasoning. Critical thinking, good levels of communication, research methodology and it's implementation in the society for the all-round and harmonious development of the personality of every member of the society. The attributes expected out of the graduates of B.Sc. (Physical Education,Health Education and Sports) are summarized below:

1. **Foundation and Implementation of Knowledge**: The programme provides a strong foundation in Sports Sciences, emphasizing the scientific implementation of these concepts to address societal needs, promote lifelong education, and enhance public health.
2. **Problem-Solving and Health Management**: Graduates will develop the ability to identify and solve issues related to fitness, health, and yogic practices, including creating individualized plans for managing non-communicable diseases (NCDs) and addressing postural disorders through rehabilitative exercises.
3. **Planning and Facility Development**: Students will gain the skills to develop and implement plans for physical education and sports facilities tailored to rural and urban needs, ensuring that installations and equipment meet the specific requirements of different communities.
4. **Ethical and Inclusive Approach**: The programme emphasizes the importance of designing Physical Education and sports programmes that cater to individual characteristics, prioritize disadvantaged groups, and protect against abuses such as doping and violence, while promoting fair play and maintaining the integrity of sports.
5. **Research, Innovation, and Education**: Graduates will understand the critical role of research and evaluation in advancing Sports Sciences, and will be prepared to develop innovative teaching methods, educate stakeholders about appropriate training practices, and disseminate information on research findings and best practices in the field.

Qualification descriptors

A student will be conferred with the degree of B.Sc. (Physical Education, Health Education and Sports)after successful completion of the course. The degree provides a student with specialized knowledge inthe disciplines of physical education, health education, yoga and allied sports sciences and sports inparticular. This course creates strong foundation for all form of teachers training courses in physicaleducation & sports sciences at various levels.

Scheme of subjects (with Course ID)

Scheme of B.Sc. Sports Science

(Scheme UG A4: Undergraduate Programmes(Interdisciplinary)

Semester 1

Course Code	Course Title	Course ID	L	T	P	L	T	P	Total Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
Core Course(s)														
CC-ID1	Foundation of Physical Education & Sports Sciences	240/SS/CC1ID1	4	-	-	4	-	-	4	30	70	-	-	100
CC-ID2	Basic Anatomy & Physiology	240/SS/CC1ID2	3	-	2	3	-	1	4	25	50	5	20	100
CC-ID3	Sports Training	240/SS/CC1ID3	4	-	-	4	-	-	4	30	70	-	-	100
Minor/ Vocational Course(s)														
MIC-1	Strength & Conditioning Program Design	240/SS/MIC1ID1	1	-	2	1	-	1	2	5	20	5	20	50
Multidisciplinary Course(s)														
MDC-1	One from Pool								3					75
Ability Enhancement Course(s)														
AEC-1	One from Pool								2					50
Skill Enhancement Course(s)														
SEC-1	Wellness Lifestyle	240/SS/SEC1ID1	2	-	1	2	-	1	3	15	35	5	20	75
Value-added Course(s)														
VAC-1	One from Pool								2					50
Total Credits									**24**					**600**

SYLLABUS of Course Undergraduate B.Sc. Sports Science Program

Semester-I

Name of Subject: **Foundations of Physical Education and Sports Sciences.**	**Maximum Theory Marks: 100 (30+70)**
Subject Code:**240/ SS/CC1ID1**	

Objective: -The overall objective of the course is: students will be able to understand and apply the principles, foundations, and historical perspectives of physical education, integrate play theories and recreation into educational programs, and explore career opportunities and professional preparation in the field of physical education.

Overall Learning Outcomes:

1. **Understanding of Physical Education Principles:** Students will be able to define and explain the scope, importance, and objectives of physical education, and describe how it integrates with the broader educational system and various educational philosophies (Idealism, Naturalism, Realism, Pragmatism, Existentialism).
2. **Foundations of Physical Education:** Students will be able to articulate the biological, psychological, and sociological foundations of physical education, including concepts related to growth and development, learning theories, and the socialization process.
3. **Movement and Wellness Concepts:** Students will be able to explain the meaning and importance of movement, fundamental movement qualities, and their role in educational programs, as well as understand the concept and significance of wellness movements.
4. **Historical Perspectives and Career Opportunities:** Students will be able to analyze the historical development of physical education from ancient to modern times, including the Olympic movement, and identify professional preparation programs, sports career avenues, and national awards and honors in the field of physical education.

Course Contents:

UNIT-I (Understanding of Physical Education Principles)	
i. Meaning, Definitions, Scope, importance of physical education in society. ii. Aim and Objectives of Physical Education and their relation with education. iii. Play Theories & Recreation. Place of physical education in the present system of education. iv. Philosophies of education and their application in Physical Education- Idealism, Naturalism, Realism Pragmatism and Existentialism.	
UNIT-II (Foundations of PhysicalEducation)	

i. ii. iii.	Biological foundation – Introduction, Growth and Development and Body types. Psychological Foundation – Introduction, Learning process and theories. Sociological Foundation – Introduction, Socialization process.	
	UNIT-IIIMovement and Wellness Concepts)	
i. ii.	Meaning & concepts of movement, qualities of the movements, fundamental movements, Need and importance of movement in educational programs. Concept and role of wellness movement.	
	UNIT-IV (Historical Perspectives and Career Opportunities)	
i. ii. iii. iv.	Modern and Ancient Historical perspectives of Physical Education: Greece, Rome and India. Olympic movement and Olympic Games (Ancient and Modern). Professional preparation in Physical education-YMCA, LNIPE, IGIPESS, SAI, NSNIS, Programme – NSO, NCC, NSS. Sports Career Avenues, National Sports awards and Honors.	

Instruction for Examiners/ Paper Setters:

Question Paper will be divided into two parts A and B. The Examiner is required to set 5 questions for Part-A and 8 questions for Part-B setting at least one question from each unit from each of the four units of the syllabus. Thequestions of Part-A shall carry 5 marks each and questions for Part-B shall carry 10 marks each. A student isrequired to attempt any 4 questions from Part-A and 5 questions from Part-B. It is mandatory for an examiner toset two sets of question papers (English Version as well as Hindi Version).

SUGGESTED READINGS

1. Gupta, R. (2013). *Health and physical education.* Pinnacle India Education Publisher.
2. Kamlesh, M. L. (2013). *Physical education and exercise sciences: An objective approach.* Friends Publication.
3. Lumpkin, A. (2007). *Introduction to physical education, exercise science, and sports studies.* McGraw Hill.
4. Uppal, A. K., & Gautam, G. P. (2008). *Health and physical education.* Friends Publication.
5. Vanaik, A., & Tyagi, S. (2018). *Encyclopedia of Olympic movement.* Friends Publication.
6. Vanaik, A. (2005). *Sharirik shiksha ke maulik adhar.* Friends Publication.
7. Wuest, D. A., & Bucher, C. A. (2003). *Foundations of physical education, exercise science, and sports.* McGraw Hill Companies, Inc

Name of Subject:**Anatomy and Physiology**	**Maximum Theory Marks: (25+50)**
Subject Code:**240 SS/CC1ID2**	**Maximum Practical Marks: (5+20)**

Objective: - The overall objective of the course is: students will be able to understand and explain the structure and functions of the human body's anatomical systems, including tissues, organs, and systems, and apply this knowledge to practical assessments and analyses of human physiology.

1. **Learning Outcome: -Comprehensive Understanding of Anatomy and Physiology:** Students will be able to define and describe the anatomical structures and physiological functions of the human body, including cells, tissues, organs, and systems.
2. **Detailed Knowledge of Body Systems:** Students will be able to explain the structure and function of major body systems (muscular, cardiovascular, respiratory, digestive, nervous, endocrine, excretory, and reproductive), including their interactions and physiological processes.
3. **Application of Anatomical Knowledge:** Students will be able to apply their understanding of anatomical and physiological principles to practical scenarios, such as measuring vital signs and analyzing body movements.
4. **Practical Skills in Human Anatomy and Physiology:** Students will be able to perform practical assessments, including pulse rate measurement, blood pressure monitoring, and the study of anatomical models, to demonstrate their understanding of human anatomy and physiology.

Course Contents:

UNIT-I (Introduction to Anatomy and Physiology)	
i. Definition of Anatomy & Physiology, Cell-microscopic structure & functions of its organelle. Tissue-classification & functions. ii. Organs, systems of the body, Bone- classification and structure, joints-classification, Structure of synovial joints. Movements at various joints.	
UNIT-II (Muscular and Cardiovascular Systems)	
i. Muscular System -Classification, Structure, functions & properties of Skeletal Muscle, Smooth Muscle & Cardiac Muscle. ii. Types of muscular contractions, Name of various muscles acting on various joints. iii. Cardio-vascular system Structure of heart, cardiac cycle, blood pressure, cardiac output, composition & function of blood, Athlete's heart.	

UNIT-III (Respiratory and Digestive Systems)	
i. Respiratory system-structure and function, second wind, oxygen debt. ii. Digestive system-structure & function, balanced diet, metabolism & maintenance of body temperature.	
UNIT-IV (Nervous, Endocrine, Excretory, and Reproductive Systems)	
i. Nervous system-structure of brain, spinal cord, Autonomic nervous system, reflex action. ii. Endocrine system- role of various endocrine glands, Structure& function of human eye & ear. iii. Excretory system-structure & function, including structure & function of skin. iv. Reproductive system- structure & function of male & female Reproductive system.	
Practicals	
i. Counting of pulse rate ii. Measurement of blood pressure iii. Study of various bones of human body with the help of Skeletal iv. Study of different body system with the help of models v. Study of various movements of the joints.	

Instruction for Examiners/ Paper Setters:

Examiner will set one compulsory and eight other questions, two from each unit. All questions carry equal marks. The compulsory question should be of 10 marks and should cover entire syllabus. Students should attempt four other questions i.e. one from each unit. It is mandatory for an examiner toset two sets of question papers (English Version as well as Hindi Version).

SUGGESTED READINGS

1. Jain, A. K. (2002). *Anatomy & physiology for nurses*. Arya Publishers.
2. Moried, E. N. (2007). *Essentials of human anatomy & physiology* (8th ed.). Dorling Kindersley.
3. Prives, M., & Others. (2004). *Human anatomy* (Vols. I & II). Paragon.
4. Seeley, R., & Others. (2008). *Anatomy & physiology*. McGraw Hill.
5. Tortora, G. J. (2003). *Principles of anatomy & physiology*. John Wiley & Sons.
6. William, C. S. (2000). *Essentials of human anatomy & physiology*. Benjamin.
7. Wilson, T. W., & Waugh, A. (1996). *Anatomy & physiology in health & illness*. Churchill Livingstone.

Name of Subject:**FUNDAMENTALS OF SPORTS TRAINING**	**Maximum Theory Marks: 100 (30+70)**
Subject Code:**240 SS/CC1ID3**	

Objective: - the overall objective of the course is: students will be able to understand and apply the fundamental principles of sports training, including the development of strength, endurance, speed, and flexibility, as well as technical preparation, periodization, and competition strategies to enhance athletic performance.

Learning Outcome: -

1. **Understanding of Sports Training Principles:** Students will be able to define and explain the importance, aim, objectives, characteristics, and principles of sports training, and understand the concepts of training load, adaptation, and recovery.
2. **Development of Physical Capacities:** Students will be able to identify and apply various methods for developing strength, endurance, speed, and flexibility, including understanding their significance and factors affecting their performance.
3. **Technical and Tactical Preparation:** Students will be able to define and differentiate between technique, skill, and style, and implement effective technique training and tactical preparation strategies in sports training.
4. **Application of Periodization and Competition Strategies:** Students will be able to design and apply periodization plans and competition preparation strategies, including understanding the need for different types of periodization and preparing athletes effectively for competition.

Course Contents:

UNIT-I (Understanding of Sports Training Principles)	
i. Importance, definition, Aim and objectives, Characteristics and Principles of Sports training. ii. TRAINING LOAD, ADAPTATION AND RECOVERY: Concept of load & Adaptation and Factors affecting of load & adaptation.	
UNIT-II (Development of Physical Capacities)	
i. STRENGTH: Types of strength (maximum strength; explosive strength and Strength endurance etc.) & Determining Factors affecting strength performance and Methods of strength training. ii. ENDURANCE: Definition and significance of endurance, forms of endurance and Methods to develop endurance.	
UNIT-III (Technical and Tactical Preparation)	
i. SPEED: Definition, types factors determining speed, Methods to develop speed abilities	

ii.	FLEXIBILITY: Definition, Factors affecting flexibility; Methods used to develop flexibility	
UNIT-IV (Application of Periodization and Competition Strategies)		
i. ii. iii. iv. v.	TECHNICAL PREPARATION: Definition and meaning of technique, skill and style Technique training & its implication in various phases; Tactics and its aim, Principal of Tactical Preparation. Periodization: Need & types of periodization Competition: Preparation for competition, number & frequency, competition preparation.	

Instruction for Examiners/ Paper Setters:

Question Paper will be divided into two parts A and B. The Examiner is required to set 5 questions for Part-A and 8 questions for Part-B setting at least one question from each unit from each of the four units of the syllabus. Thequestions of Part-A shall carry 5 marks each and questions for Part-B shall carry 10 marks each. A student isrequired to attempt any 4 questions from Part-A and 5 questions from Part-B. It is mandatory for an examiner toset two sets of question papers (English Version as well as Hindi Version).

SUGGESTED READINGS

1. Baechle, T. R., & Earle, R. W. (2000). *Essentials of strength training and conditioning*. Human Kinetics.
2. Bompa, T. O. (1994). *Theory and methods of training: A key to athletic performance* (3rd ed.). Kandwall Hunt Publication Co.
3. Bompa, T. O., & Hett, G. G. (2009). *Periodization: Theory and methodology of training*.
4. Dick, F. W. (1999). *Sport training principles*. A & C Black.
5. Newton, H. (2006). *Explosive lifting for sports*. Human Kinetics.
6. Singh, H. (1991). *Science of sport training*. D.V.S. Pub.

Name of Subject:**STRENGTH &CONDITIONING PROGRAM DESIGN**	**Maximum Theory Marks:25 (5+20)**
Subject Code:**240 SS/MIC1ID1**	**Maximum Practical Marks:25 (5+20)**

Objective:

The objective of this course is to provide an understanding, practices and practical skills to the learners about Strength and Conditioning, Load and Adaptation, Warming-Up and Limbering Down, Strength and Conditioning Programme Design.

Learning Outcomes:

1. The learners will be able to understand the concept and applications of Strength and Conditioning.
2. The learners will be able to understand the concept and applications of Load and Adaptations.
3. The learners will be able to understand and analyse the popular trends and updated research in the sports industry, specifically in the area of strength and conditioning.
4. The learners will be able to design strength and conditioning programme.

Course Contents:

UNIT-I (Introduction to Strength and Conditioning)	
i. Meaning and Concept of Strength and Conditioning. ii. Aim and Objectives of Strength and Conditioning. iii. General Principles of Strength and Conditioning.	
UNIT-II (Load and Adaptation)	
i. Training Load- Definition and types of training load. ii. Principles of training load (Frequency, Intensity, Density, and Volume). iii. Relationship between load and adaptation. Over load and critical load. iv. Concept of load and factor affecting of load and adaption.	
UNIT-III (Strength Training)	
i. Strength – Definition, types and their characteristics. ii. Types of muscular contraction. iii. Development of strength using own body weight and external resistance, field tests for measuring strength. iv. Core Strength and Functional training	
UNIT-IV (Warming-Up and Limbering Down&Strength and Conditioning Programme Design	
i. Concept of Warming-Up and Limbering Down ii. Importance of Warming-Up and Limbering Down iii. Types of Stretching- Static Stretching Techniques and Dynamic Stretching Techniques	

iv.	Exercise Selection, Training Frequency, Exercise Order, Training Load and Repetitions, Volume, Rest Periods.	
v.	Means and Methods of Training (Resistance Training).	
vi.	Plyometric Training, Circuit Training, Free Weight Training Methods, Bodyweight Training Methods, Core Stability and Balance Training Methods.	
PRACTICALS		
i.	Design a Warming Up Exercise Programme.	
ii.	Design a Limbering Down Exercise Programme.	
iii.	Prepare a Strength and Conditioning Programme for a specific games/sport.	
iv.	Demonstrate Exercises for Core Stability and Balance (any five).	

Instructions for Paper setters/Examiners: Question Paper will comprise of 6 questions covering all units carrying 5 marks each out of which only 4 questions have to be attempted. It is mandatory for an examiner to set two sets of question papers (English Version as well as Hindi Version).

SUGGESTED READINGS

a. Arnheim, Danial D. & Arnheim, Helene (1987) Essentials of Athletic Training Toronto Times Mirror.
b. Arnheim, Danial D. (1985) Modern Principles of Athletic Training. Toronto Time Mirror.
c. Bunn, John W. (1955) Scientific Principles of Coaching Englewood Cliffs N. J. Prentice Hall, Inc.
d. Dick, Frank W. (1980) Sports Training Principles London: Lepus Books.
e. Haff, G.G. (2016) Essentials of Strength Training and Conditioning Human Kinetics.
f. Hare, Dietrich (1982) Principles Sports Training, Berlin: Sportverlag.
g. Jensen, Clayne R & Fisher, Garth A. (1979) Scientific Basis of Athletic Conditioning Philadelphia: Lea & Febiger
h. Joan A. (1987) Coaching – an Effective Behavioural Approach, Toronto: Time Mirror
i. Novich, Max M. & Taylor Buddy (1983) Training and Conditioning of Athletes Philadelphia: Lea & Febiger
j. Sands, W.A., Wurth, J.J., Hewit, J.K. (2012) Basics of Strength and Conditioning Manual The National Strength and Conditioning Association.
k. Shaw, D. (2020) Sports Training Sports Publication.
l. Shaw, D. (2021) Athletic Care and Rehabilitation Sports Publications.
m. Singh, Hardayal (1991) Science of Sports Training New Delhi: D.A.V. Publication
n. Uppal A. K. (2010) Principles of Sports Training Friends Publications (India)
o. Uppal A. K. (2013) Science of Sports Training Friends Publications (India)

Name of Subject: **Wellness Lifestyle**	**Maximum Theory Marks: 50 (15+35)**
Subject Code:**240 SS/SEC1ID1**	**Maximum Practical Marks: 25 (5+20)**

Objective: - the overall objective of the course is: students will be equipped with the knowledge and skills to promote and manage physical fitness and wellness, including evaluating fitness components, providing effective counseling, addressing substance abuse, and implementing stress management techniques.

Learning Outcome: -

1. **Understanding Fitness and Wellness:** Students will be able to define and describe the components of physical fitness and wellness, and perform measurements and evaluations of physical fitness.
2. **Providing Effective Counseling:** Students will be able to demonstrate the role of a fitness counselor in motivating individuals and understand the impact of physical activity on promoting wellness.
3. **Addressing Substance Abuse and Weight Management:** Students will be able to identify the hazards of substance abuse, understand its impact on physical fitness and wellness, and apply weight management strategies to enhance overall wellness.
4. **Implementing Stress Management Techniques:** Students will be able to apply techniques for meditation, anger management, and stress management, and recognize their role in promoting health and wellness.

Course Contents:

UNIT-I (Unit I: Introduction to Fitness and Wellness)	
i. Introduction of physical fitness, components of physical fitness. ii. Introduction, meaning and components of wellness. iii. Measurement and evaluation of physical fitness.	
UNIT-II (Fitness and Wellness Counseling)	
i. Fitness and wellness counseling – role of fitness counselor in motivating the people. ii. Physical activity and wellness - role of physical activity for the promotion of wellness.	
UNIT-III (Substance Abuse and Weight Management)	
i. Substance abuse and their hazards, Role of prevention of substance	

abuse in wellness and physical fitness. ii. Weight Management and its role in wellness.	
UNIT-IV (Stress Management and Recreation)	
i. Meditation, anger management and stress management. ii. Role of recreation, meditation and stress management in the promotion of health and wellness.	
Practicals	
i. Fitness Assessment ii. Wellness evaluation iii. Case study	

Instructions for Paper setters/Examiners: Question Paper will be divided into two parts A and B. The Examiner is required to set 8 questions for Part-A and 6 questions for Part-B setting at least one question from each unit from each of the four units of the syllabus. Thequestions of Part-A shall carry 2 marks each and questions for Part-B shall carry 5 marks each. A student isrequired to attempt any 5 questions from Part-A and 5questions from Part-B. It is mandatory for an examiner to set two sets of question papers (English Version as well as Hindi Version).

SUGGESTED READINGS

1. American college of sports medicine. (2005). ACSM'S Health-Related Physical Fitness AssessmentManual., London, Lippincott.
2. Anspaugh, D. J. & Others (2003). Wellness, Boston McGraw Hills,
3. Corbin C.B, G.J. Welk, W.R. Corbin and K.A. Welk (2008). Fitness & Wellness Concepts.
4. Corbin, C.B. & Others. (2006) Concepts of Fitness and Wellness, Boston, McGraw Hill,
5. Edward A. Taub, F. Murad and Oliphant D. 2007.The Wellness Solution,
6. Hoeger, W.K. And S.A, Principles And Labs For Physical Fitness And Wellness, Australia: Thomson, 2006
7. Kennedy, Carol, A. & Yoke, M.M., (2008). Methods of Group Exercise Instruction N.Y. HumanKinetics,
8. Lang, Annette. (2007). Morning Strength Workouts, U.S. Human kinetic,
9. Robin, J. (2005). The Great Physicians Rx for Health & Wellness: Seen Keys to Unlocking YourHealth Potential. Nelson Books, Thomson Nelson Publishers, Nashville, Tennessee, USA.
10. Savard, M. and C. Svec (2005). The body Shape Solution to Weight Loss and Wellness. AtriaBooks, Sydney, Australia.
11. Taub, E.A., F. Murad and D. Oliphant (2007). The Wellness Solution based on Nobel Prize Science.World Almanac Library Publishers, Milwaukee, Wisconsin, USA.
12. Tomkinson, G.R. & Olds, T.S. (2007). Pediatric Fitness, London Karger.
13. Trudeau, K. (2007). The Weight – Loss Cure. Alliance Publishing Group, Inc., Elk Grove Village,Illinois, USA.
14. Uppal and Gautam. (2008). Health and Physical Education, Friends Publication.

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
Core Course(s)														
CC-ID4	Health Education & Rehabilitation	240/SS/CC2ID1	4	-	-	4	-	-	4	30	70	-	-	100
CC-ID5	Sports Management	240/SS/CC2ID2	4	-	-	4	-	-	4	30	70	-	-	100
CC-ID6	Track & Field	240/SS/CC2ID3	3	-	2	3	-	1	4	25	50	5	20	100
Minor/ Vocational Course(s)														
MIC-2	Coaching Pedagogy & Practice	240/SS/MIC2ID1	1	-	2	1	-	1	2	5	20	5	20	50
Multidisciplinary Course(s)														
MDC-2	One from Pool								3					75
Ability Enhancement Course(s)														
AEC-2	One from Pool								2					50
Skill Enhancement Course(s)														
SEC-2	Sports Industry & Marketing	240/SS/SEC2ID1	2	-	2	2	-	1	3	15	35	5	20	75
Value-added Course(s)														
VAC-2	One from Pool								**2**					**50**
Total Credits									**24**					**600**

Name of Subject:**HEALTH EDUCATION**	**Maximum Theory Marks: (30+70)**
Subject Code:**240 SS/CC2ID1**	

Objective: -The overall objective of the course is:Students will be able to understand and apply the fundamental concepts of health education, hygiene, nutrition, disease prevention, contemporary health issues, and first aid, while evaluating the roles of various health agencies and rehabilitation modalities in promoting and maintaining individual and community health.

Learning Outcome: -

1. **Understanding Health and Wellness Concepts:** Students will be able to define health and wellness, describe their dimensions and interrelationships, and explain the importance of health at individual, family, community, and national levels.
2. **Applying Health Education Principles:** Students will be able to outline the scope, aims, and objectives of health education, identify effective methods and media used in health education, and apply principles to promote public health.
3. **Managing Nutrition and Disease Prevention:** Students will be able to explain the importance of balanced diets, identify essential nutrients and their sources, and distinguish between communicable and non-communicable diseases, including their causes, prevention, and management strategies.
4. **Implementing First Aid and Rehabilitation:** Students will be able to perform basic first aid procedures, understand the role of international health agencies, and apply rehabilitation modalities for physical and mental health recovery.

Course Contents:

UNIT-I (Health, Hygiene, and Health Education)	
i. Health-meaning, dimensions of health and their interrelationships, importance of health for individual, family, community and nation; factors influencing health, spectrum of health, concept and components of wellness. ii. Health Education- meaning, scope, aims and objectives, principles, methods and media used in health education. iii. Hygiene- personal hygiene, food hygiene, environmental hygiene-meaning, need and importance; associated practices related to maintenance and promotion of health.	
UNIT-II (Nutrition and Disease Prevention)	
i. Foods and Nutrition- Misconceptions about food, essential body nutrients- functions, food sources, balanced diet, diet prescription. ii. Communicable and Non-communicable diseases-Distinction between communicable and noncommunicable diseases. iii. Communicable diseases-Definition, mode of spread and prevention, Cause, Mode of spread and prevention of diarrhea diseases, typhoid,	

malaria, STD Respiratory diseases. iv. Non-communicable diseases-- Meaning, causes and prevention of diabetes, CVD, cancers, renal diseases and respiratory diseases.	
UNIT-III (Contemporary Health Issues and Population Education)	
i. Contemporary health problems of college youth- Alcohol, drugs, tobacco (chewing, sniffing, smoking)- their harmful effects substance abuse management. ii. Population education- importance of small family, methods of controlling conception, signs and symptoms of pregnancy, home and hospital delivery, care of the infant, importance of breast feeding, immunization, oral rehydration therapy.	
UNIT-IV (First Aid, Health Agencies, and Rehabilitation)	
i. Definition of first aid, DRABCH of first aid, CPR, first aid for, hemorrhage, fractures, sprain and strain (PRICER), Drowning snake bite, poisoning, heat stroke and heat exhaustion. ii. Internationals health agencies- WHO, UNICEF, Red Cross- their constitution and role in promoting health. iii. School Health Service, Components of school health. iv. Rehabilitation – definition, physical and mental rehabilitation. v. Rehabilitation Modalities – cold, heat, water, radiation, Hydrotherapy, cryotherapy, thermotherapy – superficial heat – I R Lamp, Wax bath, deep heat- short wave diathermy, microwave diathermy, u/s therapy, inferential therapy, TENS, nerve muscle stimulator.	

Instruction for Examiners/ Paper Setters:

Question Paper will be divided into two parts A and B. The Examiner is required to set 5 questions for Part-A and 8 questions for Part-B setting at least one question from each unit from each of the four units of the syllabus. Thequestions of Part-A shall carry 5 marks each and questions for Part-B shall carry 10 marks each. A student isrequired to attempt any 4 questions from Part-A and 5 questions from Part-B. It is mandatory for an examiner toset two sets of question papers (English Version as well as Hindi Version).

SUGGESTED READINGS

1. Anspaugh, D. J., Ezell, G., & Goodman, K. N. (2006). *Teaching today's health.* Mosby Publishers.
2. Balayan, D. (2007). *Swasthya shiksha evam prthmik chikitsa.* Khel Sahitya.
3. Chopra, D., & Simon, D. (2001). *Grow younger, live longer: 10 steps to reverse aging.* Three Rivers Press.
4. Dewan, A. P. (1996). *School health manual.* Nature Cure and Yoga Health Centre.
5. Dixit, S. (2006). *Swasthya shiksha.* Sports Publication.
6. Donatelle, R. J. (2005). *Health: The basics* (6th ed.). Oregon State University.
7. Floyd, P. A., Mimms, S. E., & Yeilding, C. (2003). *Personal health: Perspectives and lifestyles.* Thomson Wadsworth.
8. Hales, D. (2005). *An invitation to health.* Thomson-Wadsworth.

9. Park, K. (2007). *Park's text book of preventive & social medicine*. Banarsi Das Bhanot & Company.
10. Snehlata. (2006). *Shareer vigyan evam swasthya raksha*. Discovery Pub. House.
11. Uppal, A. K., & Gautam, G. P. (2008). *Health & physical education*. Friends Publication.

Name of Subject:**SPORTS MANAGEMENT**	**Maximum Theory Marks: 100 (30+70)**
Subject Code:**240 SS/CC2ID2**	

Objective:-The overall objective of the course is: students will be able to understand and apply the principles and practices of sports management, including the historical perspective, scope, and functions of sports management, effective planning and organization of sports competitions, and the roles and responsibilities of sports managers in various settings.

Learning Outcome:-

Understanding Sports Management: Students will be able to define sports management, describe its historical development in India, and explain its nature, scope, aims, objectives, and necessary skills.

Applying Management Principles: Students will be able to identify and apply the guiding principles of sports management, including leadership skills and resource identification, and understand the functions of sports management such as planning, organizing, staffing, direction, controlling, and coordination.

Planning and Supervision: Students will be able to articulate the importance and principles of planning in sports management, outline the steps involved in the planning process, and employ effective supervision techniques and methods in sports management.

Understanding Roles and Procedures: Students will be able to detail the job specifications of sports managers, understand career avenues and professional preparation, and manage sports goods procurement and distribution effectively within sports and physical education departments

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Course Contents:

UNIT-I (Introduction to Sports Management)	
i. Meaning, concept and definition of sports management, Historical perspective of sports management in India. ii. Nature and scope of sports management, Aims and objectives of sports management, skills of sports management.	
UNIT-II (Principles and Functions of Sports Management)	
i. Guiding principles of sports management, Leaderships, Identification of resources ii. Process or function of Sports Management (Planning, Organizing, Personnel / Staffing, Direction, Controlling, Coordination)	

UNIT-III (Planning and Supervision in Sports Management)	
i. Definition and meaning of planning, Need and importance of planning, Principle of planning, Steps involved in planning process. Organization and conduct of competition at various levels (State level competition, Inter college competition, National level Competition) ii. Techniques of supervision in sports management, Methods of supervision / Role of a coach/manager.	
UNIT-IV (Job Specifications and Procedures in Sports Management)	
i. Job specification of sports manager in professional and state regulated sports bodies, managers, physical educational professional, career avenues and professional preparation, Tournaments/Competitions, Types of Tournaments, Fixture, Seeding, Structure and functions of S.A.I., University Sports Council and A.I.U. ii. Purchase: List of Consumable and Non- Consumable sports goods and equipment in the Department of physical education, Procedure to purchase sports goods and equipment in the department of physical education, stock entry, storing and distribution.	

Instruction for Examiners/ Paper Setters:

Question Paper will be divided into two parts A and B. The Examiner is required to set 5 questions for Part-A and 8 questions for Part-B setting at least one question from each unit from each of the four units of the syllabus. The questions of Part-A shall carry 5 marks each and questions for Part-B shall carry 10 marks each. A student is required to attempt any 4 questions from Part-A and 5 questions from Part-B. It is mandatory for an examiner to set two sets of question papers (English Version as well as Hindi Version).

SUGGESTED READINGS

1. Allen, L.A. (1988) Management & Organization. Kogakusha Co. Tokyo.

2. Hert, Renis(1961) New Patterns of Management, McGraw Hill,.

3. Sandhu, K. Sports Dynamics: Psychology, Sociology and Management

4. Sivia, G.S (1991). Sports Management in Universities, New Delhi: A.I.U. Deen Dayal Upadhyaya Marg.

Name of Subject: **TRACK & FIELD**	**Maximum Theory Marks: 75 (25+50)**
Subject Code:**240 SS/CC2ID3**	**Maximum Practical Marks: 25 (5+20)**

Objective: - the overall objective of the course is: students will be able to understand and apply various training methods and technical skills related to track and field events, including the historical context, techniques for specific events, and practical aspects of coaching and performance optimization.

Learning Outcome: -

1. **Understanding Track & Field Fundamentals:** Students will be able to describe the historical development of track and field with a focus on India, identify various training methods, and understand the calculations involved in standard athletics tracks.
2. **Applying Techniques for Field Events:** Students will be able to measure and set up equipment for field events such as the long jump, triple jump, and discus throw, and implement techniques for optimizing performance in these events.
3. **Optimizing Sprinting and Relay Techniques:** Students will be able to apply appropriate techniques for sprinting, including starting block setup and finishing techniques, and effectively execute various baton exchange methods in relay races.
4. **Enhancing Long Distance Running:** Students will be able to demonstrate correct running style and techniques for long distance running, focusing on body position, foot placement, and running tactics to improve performance.

Course Contents:

UNIT-I (Introduction to Track & Field and Training Methods)	
i. Introduction of track & field and historical review with special reference to India. ii. Training Methods- Weight Training, Circuit Training, Cross-Country, Sand Running. iii. Calculations of staggers, straight and radius of standard athletics tracks of 200m and 400m distance.	
UNIT-II (Techniques for Long Jump and Sprinting)	

i. ii.	Long Jump- Measuring of run way and fixing of check marks, various techniques used in broad jump. Sprinting- fixing of the starting blocks, various finishing techniques used in sprints	
	UNIT-III (Relay Races)	
i.	Relays- hold of the baton, various types of baton exchange (visual and non-visual), and Fixing Up runners for different relay races.	
	UNIT-IV (Field Events and Long -Distance Running)	
i. ii. iii. iv. v. vi.	Triple Jump: Approach run, take-off and landing for hop, step and jump, flying phase, landing and follow up action. Discus throw: Hand hold, initial stance, preliminary swings, turn, delivery stance, delivery action, reverse action. Javelin throw:Grip and Stance, Approach Run and Delivery Technique, Flight Path and Landing Zone, Recovery and Follow-Up Shot put:Shot Put Grip and Stance, Technique for Putting the Shot,Glide Technique, Spin Technique Hammer Throw: Hammer Grip and Stance, Technique for the Hammer Throw, Windup and Release Phases and Rotation Technique. Long distance running: Correct running style emphasizing on proper body position and foot placement, proper arm and leg action, running tactics etc.	
	Practicals	
i. ii. iii. iv.	Various types of Crouch Start Finishing Techniques in Track Event Baton Exchange in Relay event Long Jump, Triple Jump, Discus Throw, Technique	

Instructions for paper setters/Examiners: Examiner will set one compulsory and eight other questions, two from each unit. All questions carry equal marks. The compulsory question should be of 10 marks and should cover entire syllabus. Students should attempt four other questions i.e. one from each unit. It is mandatory for an examiner toset two sets of question papers (English Version as well as Hindi Version).

SUGGESTED READINGS

1. Chauhan VS (1999). Khel Jagat Mein Athletics. A.P. Pub, Jalandhar.
2. Fox EL (1998). Physiological Basis of Physical Education and Athletics Brown Pub.
3. Gothi E (2004). Teaching & Coaching Athletics. Sport Pub., New Delhi.
4. Gupta R. (2004). Layout & Marking of Track & Field. Friends Publications. India. New Delhi.
5. Handbook- Rules and Regulation. International Athletic Federation (2018-19 / latest wheneverpublished).
6. Herb Amato, DA ATC et al (2002). Practical Exam Preparation Guide of Clinical Skills of AthleticTraining. Slack Incorporated. 1st ed., USA.

7. Kumar, Pardeep. (2008). Historical Development of Track & Field. Friends Publication. New Delhi
8. Maughan, R. and Gluson, M. (2004). The Biomechanical Basics of Athletic Performance. OxfordUniversity Press, U.K.
9. Prentice, W. and Arnheim, D. (2005). Arnheim"s Principles of Athletic Training 12th Ed. McGrawHill. in place of Knight (1988).
10. Renwick GR (2001). Play Better Athletics. Sports Pub, Delhi.
11. Shrivastav AK. Abhay Kumar (1997). Athletics. S & S Parkashan.
12. Singh Granth (1998). Track and Field Athletics. Ashoka, Delhi.
13. Thani Lokesh (1995). Skills and Tactics-Track Athletics. Sports Pub. Delhi.

Name of Subject: **COACHING PEDAGOGY PROCESS &PRACTICE**	**Maximum Theory Marks: 25 (5+20)**
Subject Code:**240 SS/MIC2ID1**	**Maximum Practical Marks: 25 (5+20)**

Learning objective:

The objective of this course is: students will be able to design, implement, and evaluate effective coaching strategies that enhance athlete development and performance, while maintaining ethical standards and fostering positive relationships with athletes.

Learning outcomes:

1. Students will be able to create and articulate a personal coaching philosophy, incorporating ethical considerations and professional standards to guide their coaching practices.
2. Students will be able to design, implement, and evaluate coaching strategies that enhance skill development, physical conditioning, and overall athletic performance, tailored to the needs and stages of athlete development.
3. Students will be able to demonstrate effective communication and leadership skills, fostering positive relationships and a supportive environment for athletes, while promoting teamwork and motivation.
4. Students will be able to integrate advanced coaching techniques, including the use of sports science, data analytics, and mental skills training, to optimize athlete performance and address emerging trends in the field of coaching.

Course Contents:

UNIT-I (Foundations of Coaching)	
i. Definition, Scope, Historical development of coaching and Roles & responsibilities of a coach. ii. Coaching Philosophies and styles. iii. Understanding Athlete Development. iv. Ethics & Professionalism in Coaching.	
UNIT-II (Coaching Methodologies and Techniques)	
i. Teaching and learning in coaching. ii. Skill Acquisition and Motor Learning. iii. Training Program & Design. iv. Performance analysis and improvement.	
UNIT-III (Communication and Leadership in Coaching)	

i. ii. iii. iv.	Effective Communication skills Leadership in Coaching. Building Relationships with athletes. Coaching Diverse Populations.	
UNIT-IV (Practical Application and Advanced Topics in Coaching)		
i. ii. iii. iv.	Developing a coaching Plan Sports Psychology for coaching Injury Prevention and Management Emerging trends in Coaching.	

Instructions for Paper setters/Examiners: Question Paper will comprise of 6 questions covering all units carrying 5 marks each out of which only 4 questions have to be attempted.It is mandatory for an examiner to set two sets of question papers (English Version as well as Hindi Version).

SUGGESTED READINGS

1. Gilbert, W. (2017). *Coaching better every season: A year-round system for athlete development and program success*. Human Kinetics.
2. Schmidt, R. A., & Lee, T. D. (2019). *Motor learning and performance: From principles to application* (6th ed.). Human Kinetics.
3. Bompa, T. O., & Buzzichelli, C. (2019). *Periodization training for sports* (4th ed.). Human Kinetics.
4. Whitmore, J. (2017). *Coaching for performance: Growing human potential and purpose* (5th ed.). Nicholas Brealey Publishing.
5. Owen, A. (2015). *The science of coaching: Concepts and applications*. Meyer & Meyer Sport.

Name of Subject: **SPORTS INDUSTRY & MARKETING**	**Maximum Theory Marks: 50 (15+35)**
Subject Code:**240 SS/SEC2ID1**	**Maximum Practical Marks: 25 (5+20)**

Learning objective:
The objective of this course is: students will be able to analyze and apply key concepts of sports marketing to effectively promote sports organizations, events, and products in a dynamic and competitive environment.

Learning outcomes:

1. Students will be able to explain the structure, economic impact, and current trends of the sports industry, and identify the roles and responsibilities of various stakeholders within it.
2. Students will be able to develop comprehensive sports marketing strategies, including market research, branding, and sponsorship plans, to enhance the visibility and appeal of sports organizations and events.
3. Students will be able to design and implement effective digital marketing campaigns and event promotion strategies, utilizing social media and other digital tools to engage sports fans and stakeholders.
4. Students will be able to identify and address legal and ethical issues in sports marketing, develop strategies for professional growth in the sports industry, and create a capstone project that demonstrates their understanding and application of course concepts.

Course Contents:

UNIT-I (Foundations of the Sports Industry)	
i. Overview of the sports industry ii. Economic impact of the sports. iii. Structure and governance of sports organisations iv. Current trends and challenges in sports industry	
UNIT-II (Sports Marketing Essentials)	
i. Introduction to sports marketing ii. Market research and consumer behavior	

iii. Branding and sponsorship in sports. iv. Integrated marketing communication in sports	
UNIT-III (Digital and Event Marketing in Sports)	
i. Digital marketing strategies in sports ii. Social media marketing iii. Event management and promotion iv. E-sports and emerging trends	
UNIT-IV (Legal Ethical and Career Considerations in Sports Marketing)	
i. Legal and regulatory issues ii. Ethical issues in sports marketing iii. Career opportunities in sports industry and marketing.	
PRACTICALS	
i. Survey ii. Create marketing plan iii. Create social media campaign	

Instructions for Paper setters/Examiners: Question Paper will be divided into two parts A and B. The Examiner is required to set 8 questions for Part-A and 6 questions for Part-B setting at least one question from each unit from each of the four units of the syllabus. Thequestions of Part-A shall carry 2 marks each and questions for Part-B shall carry 5 marks each. A student isrequired to attempt any 5 questions from Part-A and 5questions from Part-B. It is mandatory for an examiner to set two sets of question papers (English Version as well as Hindi Version).

SUGGESTED READINGS

1. Shank, M. D., & Lyberger, M. R. (2014). *Sports marketing: A strategic perspective* (5th ed.). Routledge.
2. Blair, R. D. (2011). *Sports economics*. Cambridge University Press.
3. Seymour, A., & Blakey, P. (2020). *Digital marketing in sport: Theory and practice*. Routledge.
4. Greenwell, M. (2018). *Event management for sport directors: Managing sport events*. Human Kinetics.
5. Regalado, S. O., & Fields, S. K. (2014). *Sport and the law: Historical and cultural intersections*. University of Arkansas Press.