

**SYLLABI AND SCHEME OF
EXAMINATIONS
FOR
UNDERGRADUATE PROGRAMME
(INTERDISCIPLINARY IN BACHELOR OF
PHYSICAL EDUCATION, HEALTH
EDUCATION AND SPORTS)**

**(Based on Curriculum and Credit Framework and formative assessment guidelines
for UG Programs under NEP 2020)**



**MAHARSHI DAYANAND UNIVERSITY
ROHTAK (HARYANA)**

To be applicable on the students w.e.f. session 2026-27 (1st semester onwards)

CCFUGP FOR MAHARSHI DAYANAND UNIVERSITY ROHTAK
Credit Structure for Undergraduate Programmes (Interdisciplinary) in B.P.E.H.E.S

Semester	Discipline-Specific Courses (DSC) / Major Course	Minor (MIC)/ Vocational (VOC)/Skill Enhancement Courses (SEC)/ Internship	Multidisciplinary Courses (MDC)	Ability Enhancement Courses (AEC)	Dissertation	Value-Added Courses (VAC)	Total Credits
I	History and Foundation of Physical Education-I DSC-ID1 @4credits	Indigenous Games MIC1@4 credits	Haryana Culture MDC1 @ 3 credits	AEC1@2 credits	-----	Human Value & Ethics VAC1@ 2 credits	22
	Health Education DSC-ID2 @4credits	Artificial Intelligence in Sports SEC1@3credits					
II	Basic Anatomy – I DSC-ID3 @4credits	Haryana Olympic Games MIC2@4 credits	Introduction to Exercise MDC2 @ 3 credits	AEC2@2 credits	-----	Environment Study VAC2@ 2 credits	22
	Olympic MovementsDSC-ID4 @4credits	Marketing in Sports GoodsSEC2@3credits					
Students exiting the programme after second semester and securing 48 credits including 4 credits of summer internship will be awarded UG Certificate in the relevant Discipline/ Subject							
III	History and Foundation of Physical Education-II DSC-ID5@4 credits	Athletics Track Events MIC3@4 credits	Balance Diet MDC3 @ 3 credits	AEC3@2 credits	-----	-----	24
	Athletic Care DSC-ID6 @4 credits	Reporting of Importance Social Events SEC3@3credits					
	Exercise Physiology - I DSC-ID7 @ 4 credits						
IV	Physical Fitness DSC-ID8 @ 4 credits	Psychology determination in Sports MIC4(VOC)@4credits	-----	AEC4@2 credits	-----	Pranayama VAC4@ 2 credits	24
	Basic Anatomy – II DSC-ID9 @ 4 credits						
	Organization and Administration DSC-ID10 @ 4 credits						
	Basic Physiology -I DSC-ID11 @ 4 credits						
Students exiting the programme after fourth semester and securing 94 credits including 4 credits of summer internship will be awarded UG Diploma in the relevant Discipline/Subject							
V	Sports TrainingDSC-ID12 @ 4 credits	Football & Basketball MIC5(VOC)@4credits	-----	-----	-----	-----	24
	Exercise Physiology - II DSC-ID13 @ 4 credits						
	Kinesiology DSC-ID14 @ 4 credits						
	Sports Management DSC-ID15 @ 4 credits						
VI	Therapeutics Exercises DSC-ID16 @ 4 credits	Athletics & Rehabilitation MIC6(VOC)@4credits	-----	-----	-----	-----	20
	Test, Measurement and Evaluation - I DSC-ID17 @ 4 credits						
	Officiating and Coaching DSC-ID18 @ 4 credits						
	Sports Biomechanics DSC-ID19 @ 4 credits						
Students will be awarded 3-year UG Degree in relevant major Discipline/ Subject upon securing136 credits							
VII	Basic Physiology – II DSC-ID20 @ 4 credits	Use of Basic Digital Gadgets in Sports SEC4@4Credits or Event Management MIC7 (VOC)@4credits or Internship Internship@4credits#	-----	-----	-----	-----	24
	Sports Medicine – I DSC-ID21 @ 4 credits						
	Test, Measurement and Evaluation - II DSC-ID22 @ 4 credits						
	Sports Engineering DSC-ID23 @ 4 credits						
	Computer Application in Sports DSC-ID24 @ 4 credits						
VIII (4yr UGHon.)	Application Statics in Sports &Physical Education DSC-ID25 @ 4 credits	Basic Gymnastics SEC5@4Credits or Obesity & its RemediesMIC8 (VOC)@4credits or Internship Internship@4credits#	-----	-----	-----	-----	24
	Research Methodology in Physical Education DSC-ID26 @ 4 credits						
	Kinantropometry DSC-ID27 @ 4 credits						
	Sports Journalism DSC-ID28 @ 4 credits						
	Sports Medicine – II DSC-ID29 @ 4 credits						
VIII (4yr UG Hon. with Research)	Application Statics in Sports &Physical Education DSC-ID25 @ 4 credits	Basic Gymnastics SEC5@4Credits or Obesity & its RemediesMIC8 (VOC)@4credits or Internship Internship@4credits#	-----	-----	Research project/ Dissertation @ 12 credits	-----	24
	Research Methodology in Physical Education DSC-ID26 @ 4 credits						

#Four credits of internship earned by a student during summer internship after 2nd semester or 4th semester will be counted in 5th semester of a student who pursue 3year UG Programmes without taking exit option.

Syllabi and Scheme of Examinations for Discipline-Specific Courses (DSC) of

Under Graduate (Interdisciplinary) in B.P.E.H.E.S

Discipline-Specific Courses (DSC)	Type of Program	Nomenclature of Course	Course Code	Credits Distribution			Total Credits	Workload			Total Workload	Marks			Total Marks
				L	T	P		L	T	P		Theory		Practical	
								Internal	External						
DSC -ID1 @ 4 credits	1	History and Foundation of Physical Education - I	26PHSI401DS01	3	0	1	4	3	0	2	5	25	50	25	100
DSC -ID2 @ 4 credits		Health Education	26PHSI401DS02	3	0	1	4	3	0	2	5	25	50	25	100
DSC -ID 3 @ 4 credits	2	Basic Anatomy - I	26PHSI402DS01	3	0	1	4	3	0	2	5	25	50	25	100
DSC -ID 4 @ 4 credits		Olympics Movements	26PHSI402DS02	3	0	1	4	3	0	2	5	25	50	25	100
DSC -ID 5 @ 4 credits	3	History and Foundation of Physical Education - II	27PHSI403DS01	3	0	1	4	3	0	2	5	25	50	25	100
DSC -ID 6 @ 4 credits		Athletic Care	27PHSI403DS02	3	0	1	4	3	0	2	5	25	50	25	100
DSC -ID 7 @ 4 credits		Exercise Physiology - I	27PHSI403DS03	3	0	1	4	3	0	2	5	25	50	25	100
DSC -ID 8 @ 4 credits	4	Physical Fitness	27PHSI404DS01	3	0	1	4	3	0	2	5	25	50	25	100
DSC -ID 9 @ 4 credits		Basic Anatomy - II	27PHSI404DS02	3	0	1	4	3	0	2	5	25	50	25	100
DSC -ID 10 @ 4 credits		Organization and Administration	27PHSI404DS03	3	0	1	4	3	0	2	5	25	50	25	100
DSC -ID 11 @ 4 credits		Basic Physiology - I	27PHSI404DS04	3	0	1	4	3	0	2	5	25	50	25	100
DSC -ID 12 @ 4 credits	5	Sports Training	28PHSI405DS01	4	0	0	4	4	0	0	4	30	70	00	100
DSC -ID 13 @ 4 credits		Exercise Physiology - II	28PHSI405DS02	3	0	1	4	3	0	2	5	25	50	25	100
DSC -ID 14 @ 4 credits		Kinesiology	28PHSI405DS03	3	0	1	4	3	0	2	5	25	50	25	100
DSC -ID 15 @ 4 credits		Sports Management	28PHSI405DS04	2	0	2	4	2	0	4	6	15	35	50	100
DSC -ID 16 @ 4 credits	6	Therapeutics Exercises	28PHSI406DS01	4	0	0	4	4	0	0	4	30	70	00	100
DSC -ID 17 @ 4 credits		Test, Measurement and Evaluation - I	28PHSI406DS02	3	0	1	4	3	0	2	5	25	50	25	100
DSC -ID 18 @ 4 credits		Officiating and Coaching	28PHSI406DS03	3	0	1	4	3	0	2	5	25	50	25	100
DSC -ID 19 @ 4 credits		Sports Biomechanics	28PHSI406DS04	2	0	2	4	2	0	4	6	15	35	50	100

DSC -ID 20 @ 4 credits	7	Basic Physiology - II	29PHSI407DS01	3	0	1	4	3	0	2	5	25	50	25	100
DSC -ID 21 @ 4 credits		Sports Medicine - I	29PHSI407DS02	3	0	1	4	3	0	2	5	25	50	25	100
DSC -ID 22 @ 4 credits		Test, Measurement and Evaluation - II	29PHSI407DS03	4	0	0	4	4	0	0	4	30	70	00	100
DSC -ID 23 @ 4 credits		Sports Engineering	29PHSI407DS04	3	0	1	4	3	0	2	5	25	50	25	100
DSC -ID 24 @ 4 credits		Computer Applications in Sports	29PHSI407DS05	4	0	0	4	4	0	0	4	30	70	00	100
DSC -ID 25 @ 4 credits	8 (4yr. UG Hon.)	Application Statics in Sports & Physical Education	29PHSI408DS01	4	0	0	4	4	0	0	4	30	70	00	100
DSC -ID 26 @ 4 credits		Research Methodology in Physical Education	29PHSI408DS02	4	0	0	4	4	0	0	4	30	70	00	100
DSC -ID 27 @ 4 credits		Kinanthropometry	29PHSI408DS03	4	0	0	4	4	0	0	4	30	70	00	100
DSC -ID 28 @ 4 credits		Sports Journalism	29PHSI408DS04	3	0	1	4	3	0	2	5	25	50	25	100
DSC -ID 29 @ 4 credits		Sports Medicine - II	29PHSI408DS05	3	0	1	4	3	0	2	5	25	50	25	100
DSC -ID 25 @ 4 credits	8 (4yr. UG Hon. With Research)	Application Statics in Sports & Physical Education	29PHSI408DS01	4	0	0	4	4	0	0	4	30	70	00	100
DSC -ID 26 @ 4 credits		Research Methodology in Physical Education	29PHSI408DS02	4	0	0	4	4	0	0	4	30	70	00	100
Research Project/ Dissertation @ 12 credits	8 (4yr. UG Hon. With Research)	Research Project/ Dissertation	29PHS408PD01	0	0	0	12	0	0	0	12	0	0	300	300

L: Lecture; T: Tutorial; P: Practical

Note:

1. Course coding of Minor courses for Single Major Programs will be applicable for Multidisciplinary Programs/ Multidisciplinary Programs after 2nd semester irrespective of their offering in any semester.
2. The student who selects any Minor Course (MIC) of any discipline in first semester should study the Minor courses (MIC) in the same discipline in the subsequent semesters. However, while exercising the option for choosing Minor Vocational Course MIC (VOC), the student may opt the discipline either related to the discipline of Minor Course or the discipline of Major Course or any other discipline as per his/her choice.

**Syllabi and Scheme of Examinations for Discipline Specific Courses (DSC) of
Under Graduate (Interdisciplinary) in B.P.E.H.E.S**

Semester: I

Name of Program	B.P.E.H.E.S	Program Code	
Name of the Course	History and Foundation of Physical Education - I	Course Code	26PHSI401DS01
Hours per Week	03 Hours	Credits	03 (L:3,T:0,P:1)
Maximum Marks	75{External (term-end exam) – 50}, (Internal – 25)	Time of Examinations	03 Hours
<p>Note: The candidate will attempt five questions out of nine in total. Question No. 1, which is compulsory, will consist of five short-answer questions covering the entire syllabus, each carrying two marks. There will be four units, with each unit having two long questions. The candidate must attempt four questions, selecting one question from each unit, with each question carrying 10 marks.</p>			
<p>Course Learning Outcomes (CLO): After completing this course, the learner will be able to: CLO1: Understand the meaning, aims, objectives, and scope of Physical Education and clarify common misconceptions related to it. CLO2: Explain the development of Physical Education in Ancient India, including the Indus Valley, Vedic, Early Hindu, and Later Hindu periods. CLO3: Analyze the role of Physical Education during the Medieval period in India, with special reference to military training and traditional physical practices. CLO4: Evaluate the impact of the British period on Physical Education in India, including the introduction of Western sports, institutions, and changes in indigenous games.</p>			
<p>Unit 1: Introduction of Physical Education</p> <ul style="list-style-type: none"> • Meaning and definition of Physical Education • Aim and Objectives Physical Education • Need & Scope of Physical Education in modern society. • Misconceptions regarding Physical Education. • Physical Education as Arts or Science 			
<p>Unit 2: History of Physical Education in Ancient India</p> <ul style="list-style-type: none"> • Physical Education during Indus Valley Civilization (3250 BC – 2500 BC) • Physical Education during Vedic Period (2500 BC – 600 BC) • Physical Education during Early Hindu Period (600 BC – 320 AD) • Physical Education during Later Hindu Period (320 AD – 1000 AD) 			
<p>Unit 3: History of Physical Education in India during the Medieval Period</p> <ul style="list-style-type: none"> • Physical activities during Medieval Period (1000 AD – 1757 AD) • Martial training, archery, wrestling, horse riding • Role of physical training in military preparation • Contribution of rulers and traditional akharas 			
<p>Unit 4: History of Physical Education in Greece and Germany</p> <ul style="list-style-type: none"> • Physical Education in Different Greek City-States: Sparta, Athens • German Gymnastic Movement (Turnen) • Contribution of Germany to Modern Physical Education 			
<p>References:</p> <ol style="list-style-type: none"> 1. Srivastava, R. (2016). Physical Education and Sports in India: Past, Present, and Future. Sports Publication. 2. Jain, R. (2017). Physical Education and Health: Foundation, History, and Future Perspectives. Sports Publication. 3. Sharma, V. K. (2017). Foundations of Physical Education, Exercise Science, and Sport. Khel Sahitya Kendra. 4. Singh, A. (2018). History, Principles and Foundations of Physical Education. Friends Publications. 5. Chauhan, V. (2019). Modern Trends and Practices in Physical Education and Sports. Khel Sahitya Kendra. 			
Suggested Evaluation Methods	End Term Exam: 50 Marks Time = 3 hours		Internal Assessment: 25 Marks
	Five questions from entire syllabus = 5x2 marks = 10 marks One question from each Units (I to IV) = 4x10 marks = 40 marks		Class Presentation = 5 marks 2 Assignment/ Quiz = 10 marks Mid Term Test = 5 marks Whole Syllabus Test = 5 marks

Practical

Name of Program	B.P.E.H.E.S	Program Code	
Name of the Course	Practical (History and Foundation of Physical Education – 1)	Course Code	26PHSI401DS01
Hours per Week	2 Hours	Credits	01 (L:3,T:0,P:1)
Maximum Marks	25 Marks		
<p>Course Learning Outcomes (CLO): After completing this course, the learner will be able to: CLO 1: Accurately mark the play areas, perform basic, offensive, and defensive techniques, and apply correct rules, safety measures, and technical skills in both wrestling bouts and volleyball play. CLO 2: Participate effectively in simulated bouts and matches by using appropriate offensive and defensive strategies, coordination, and decision-making according to the rules of Wrestling and Volleyball.</p>			
<p>Practical Skills in Wrestling</p>			
<ul style="list-style-type: none"> • Wrestling Area and Dimensions: Knowledge of wrestling mat, competition area, safety zone, and standard dimensions. • Basic Techniques: Practicing fundamental wrestling skills such as stance, grip, movement, balance, and falls. • Offensive Techniques: Learning and practicing offensive moves like takedowns, throws, holds, and pins. • Defensive Techniques: Practicing defensive skills such as counters, escapes, reversals, and defensive positioning. • Bout Simulation: Participating in controlled practice bouts to apply learned techniques under rules. 			
<p>Practical Skills in Volleyball</p>			
<ul style="list-style-type: none"> • Court Marking and Dimensions: Knowledge of volleyball court layout, markings, net height, and equipment specifications. • Basic Techniques: Practicing fundamental skills such as service, passing, setting, spiking, and blocking. • Offensive Strategies: Engaging in drills focusing on attacking skills, team coordination, and spiking formations. • Defensive Strategies: Learning and practicing defensive skills including blocking systems, receiving, and court coverage. • Match Simulation: Participating in organized matches to apply learned skills and rules of the game. 			
<p>References:</p> <ol style="list-style-type: none"> 1. Kansal, D. K. (2021). Fundamentals of sports coaching and skill development. Khel Sahitya Kendra. 2. Singh, H., & Kumar, R. (2022). Practical guide to games and sports: Wrestling, volleyball and team sports. Friends Publications. 3. Sharma, O. P. (2020). Techniques and training in wrestling and volleyball. Sports Publications. 4. Verma, J. P., & Yadav, S. (2023). Applied sports skills and physical education. Kalyani Publishers. 5. Meena, R. S., & Beniwal, P. (2024). Practical manual for sports and games. Agam Prakashan. 			
Suggested Evaluation Methods	Practical: 25 marks		
	Evaluation through performance in Skill Test/Demonstration/ Viva Voce/ Practical Record File = 20 marks Attendance = 5 marks		

Semester: I

Name of Program	B.P.E.H.E.S	Program Code	
Name of the Course	Health Education	Course Code	26PHSI401DS02
Hours per Week	03 Hours	Credits	03 (L:3,T:0,P:1)
Maximum Marks	75{External (term-end exam) – 50}, (Internal – 25)	Time of Examinations	03 Hours
<p>Note: The candidate will attempt five questions out of nine in total. Question No. 1, which is compulsory, will consist of five short-answer questions covering the entire syllabus, each carrying two marks. There will be four units, with each unit having two long questions. The candidate must attempt four questions, selecting one question from each unit, with each question carrying 10 marks.</p>			
<p>Course Learning Outcomes (CLO): After completing this course, the learner will be able to: CLO1: explain the concept, objectives, dimensions, principles, scope, and need of Health and Health Education in modern society. CLO2: describe occupational health, identify workplace health hazards, and explain occupational diseases caused by physical and chemical factors. CLO3: identify major communicable diseases and explain their causes, symptoms, prevention, and treatment. CLO4: explain major non-communicable diseases and analyze their causes, symptoms, prevention, and management.</p>			
<p>Unit 1: Introduction of Health and Health Education</p> <ul style="list-style-type: none"> • Meaning and definition of Health & Health Education • Objectives of Health Education • Dimensions of Health Education • Scope of Health Education • Need & Principles of Health Education in modern society. 			
<p>Unit 2: Occupational Health</p> <ul style="list-style-type: none"> • Meaning and definition of Occupational Health • Scope of Occupational Health • Principles of Occupational Health. • Factors responsible for Occupational Health Hazards and Diseases: Physical Hazards, Chemical Hazards, Biological Hazards, Mechanical Hazards, Psycho – Social Hazards. • Occupational diseases caused by Physical and Chemical factors 			
<p>Unit 3: Communicable Diseases</p> <ul style="list-style-type: none"> • Meaning of Communicable Diseases • Name of various Communicable Diseases • Meaning, Causes, symptoms and Treatment of HIV/ AIDS • Meaning, Causes, symptoms and Treatment of Hepatitis A, B and C • Meaning, Causes, symptoms and Treatment of Tuberculosis and Chicken Pox • Meaning, Causes, symptoms and Treatment of COVID-19 			
<p>Unit 4: Non - Communicable Diseases</p> <ul style="list-style-type: none"> • Meaning of Non-Communicable Diseases • Name of various Non-Communicable Diseases • Meaning, Causes, symptoms and Treatment of various types cardiovascular disease • Meaning, Causes, symptoms and Treatment of various types of Typhoid and Attention Deficit Hyperactivity Disorder (ADHD) • Meaning, Causes, symptoms and Treatment of Type I and Type II Diabetes • Meaning, Causes, symptoms and Treatment of Arthritis 			
<p>References:</p> <ol style="list-style-type: none"> 1. Kumar, A., & Sharma, R. (2021). Human anatomy and physiology for physical education. Khel Sahitya Kendra. 2. Singh, H., & Verma, J. P. (2020). Anatomy and physiology in sports and exercise. Friends Publications. 3. Sharma, K., & Gupta, S. (2022). Applied anatomy for physical education and sports. Sports Publications. 4. Meena, R. S., & Beniwal, P. (2023). Essentials of anatomy and kinesiology. Agam Prakashan. 5. Kansal, D. K. (2021). Anatomy, physiology, and biomechanics in physical education. APH Publishing Corporation. 			
Suggested Evaluation Methods	End Term Exam: 50 Marks Time = 3 hours		Internal Assessment: 25 Marks
	Five questions from entire syllabus = 5x2 marks = 10 marks One question from each Units (I to IV) = 4x10 marks = 40 marks		Class Presentation = 5 marks 2 Assignment/ Quiz = 10 marks Mid Term Test = 5 marks Whole Syllabus Test = 5 marks

Practical

Name of Program	B.P.E.H.E.S	Program Code	
Name of the Course	Practical (Health Education)	Course Code	26PHSI401DS02
Hours per Week	2 Hours	Credits	01 (L:3,T:0,P:1)
Maximum Marks	25 Marks		
<p>Course Learning Outcomes (CLO): After completing this course, the learner will be able to: CLO 1: Accurately mark the playfields, perform basic offensive and defensive techniques, and apply game-specific skills such as raiding, tackling, chasing, and dodging. CLO 2: Participate effectively in simulated matches by using appropriate strategies, coordination, and decision-making according to the rules of Kabaddi and Kho-Kho.</p>			
<p>Practical Skills in Kabaddi</p> <ul style="list-style-type: none"> • Field Marking and Dimensions: Knowledge with the Kabaddi playfield and its dimensions. • Basic Techniques: Practicing fundamental skills such as raiding, tackling, and defending. • Offensive Strategies: Engaging in drills that focus on effective raiding techniques. • Defensive Strategies: Learning and practicing defensive formations and tactics. • Match Simulation: Participating in organized matches to apply learned techniques. 			
<p>Practical Skills in Kho-Kho</p> <ul style="list-style-type: none"> • Field marking and Dimensions: Knowledge with the Kho-Kho playfield and its dimensions. • Basic Techniques: Practicing fundamental skills such as chasing, dodging, and tagging. • Offensive Strategies: Engaging in drills focusing on effective chasing techniques. • Defensive Strategies: Learning and practicing defensive formations and techniques. • Match Simulation: Participating in organized matches to apply learned skills. 			
<p>References:</p> <ol style="list-style-type: none"> 1. Nandwani, R. (2021). Kabaddi: Techniques and Tactics. Sports Publications. 2. Sharma, P. (2020). Kho-Kho: Understanding the Game. Friends Publications. 3. Singh, A. (2022). Practical Coaching in Kabaddi and Kho-Kho. Khel Sahitya Kendra. 4. Gupta, S. (2021). Sport-Specific Training: Enhancing Performance in Kabaddi and Kho-Kho. Sports Publication. 5. Kumar, S. (2023). Fitness and Training for Indian Sports: Kabaddi and Kho-Kho Focus. Khel Sahitya Kendra. 			
Suggested Evaluation Methods	Practical: 25 marks		
	Evaluation through performance in Skill Test/ Demonstration/ Viva Voce/ Practical Record File = 20 marks Attendance = 5 marks		

Semester: II

Name of Program	B.P.E.H.E.S	Program Code	
Name of the Course	Basic Anatomy - 1	Course Code	26PHSI402DS01
Hours per Week	03 Hours	Credits	03 (L:3,T:0,P:1)
Maximum Marks	75{External (term-end exam) – 50}, (Internal – 25)	Time of Examinations	03 Hours
<p>Note: The candidate will attempt five questions out of nine in total. Question No. 1, which is compulsory, will consist of five short-answer questions covering the entire syllabus, each carrying two marks. There will be four units, with each unit having two long questions. The candidate must attempt four questions, selecting one question from each unit, with each question carrying 10 marks.</p>			
<p>Course Learning Outcomes (CLO): After completing this course, the learner will be able to: CLO1: Explain the concept and importance of anatomy in Physical Education. CLO2: Describe anatomical position, planes of the body, and basic anatomical terminology. CLO3: Identify the structure and functions of the skeletal system and joints. CLO4: Explain the role of muscles in movement and sports performance.</p>			
<p>Unit 1: Introduction to Anatomy</p> <ul style="list-style-type: none"> • Meaning and definition of Anatomy • Importance of Anatomy in Physical Education and sports • Levels of structural organization of the human body • Relationship between anatomy, movement, and physical activity 			
<p>Unit 2: Anatomical Position and Terminology</p> <ul style="list-style-type: none"> • Anatomical position of the human body • Planes of the body: sagittal, frontal, and transverse • Axes of the body • Basic anatomical terminology related to position, direction, and movement 			
<p>Unit 3: Skeletal System</p> <ul style="list-style-type: none"> • Classification of bones • Structure and functions of bones • Axial and appendicular skeleton • Types of joints and movements • Role of skeletal system in posture and movement 			
<p>Unit 4: Muscular System</p> <ul style="list-style-type: none"> • Types of muscles: skeletal, smooth, and cardiac • Structure and functions of skeletal muscles • Types of muscle contractions • Major muscles involved in physical activities and sports 			
<p>References:</p> <ol style="list-style-type: none"> 1. McArdle, W. D., Katch, F. I., & Katch, V. L. (2020). Exercise physiology: Nutrition, energy, and human performance (9th ed.). Wolters Kluwer India. 2. Tortora, G. J., & Derrickson, B. (2021). Principles of anatomy and physiology (16th ed.). Wiley India. 3. Marieb, E. N., & Hoehn, K. (2020). Human anatomy & physiology (11th ed.). Pearson India. 4. Kumar, A., & Sharma, R. (2022). Applied anatomy and physiology for physical education and sports. Khel Sahitya Kendra. 5. Hall, S. J. (2021). Basic biomechanics (8th ed.). McGraw Hill Education India. 			
Suggested Evaluation Methods	End Term Exam: 50 Marks Time = 3 hours		Internal Assessment: 25 Marks
	Five questions from entire syllabus = 5x2 marks = 10 marks One question from each Units (I to IV) = 4x10 marks = 40 marks		Class Presentation = 5 marks 2 Assignment/ Quiz = 10 marks Mid Term Test = 5 marks Whole Syllabus Test = 5 marks

Practical

Name of Program	B.P.E.H.E.S	Program Code	
Name of the Course	Practical (Basic Anatomy – I)	Course Code	26PHSI402DS01
Hours per Week	2 Hours	Credits	01 (L:3,T:0,P:1)
Maximum Marks	25 Marks		
<p>Course Learning Outcomes (CLO): After completing this course, the learner will be able to: CLO 1: Accurately recognize and label the names and anatomical positions of bones and joints using skeletal models and charts. CLO 2: Correctly determine the names and anatomical locations of major muscles using muscular models and charts and relate them to body movements.</p>			
<ul style="list-style-type: none"> • Action of Muscles: To study the action of major muscles involved in human movements during physical activities and sports. • Muscle Action in Movements: To understand muscle action in different body movements based on anatomical planes and axes. • Stretching Exercises: To perform and understand stretching exercises for major muscle groups. (Static Stretching, Dynamic Stretching) • Strengthening Exercises: To perform strengthening exercises for major muscles used in sports. (Bodyweight Exercises, Resistance Exercises) 			
<p>References:</p> <ol style="list-style-type: none"> 1. Snell, R. S. (2019). Clinical anatomy by regions (10th ed.). Wolters Kluwer. 2. Moore, K. L., Dalley, A. F., & Agur, A. M. R. (2018). Clinically oriented anatomy (8th ed.). Lippincott Williams & Wilkins. 3. Martini, F. H., Nath, J. L., & Bartholomew, E. F. (2018). Human anatomy (10th ed.). Pearson. 4. Alberts, B., Johnson, A., Lewis, J., Raff, M., Roberts, K., & Walter, P. (2015). Molecular biology of the cell (6th ed.). Garland Science. 5. Patton, K. T., & Thibodeau, G. A. (2020). Anatomy & physiology (10th ed.). Mosby. 			
Suggested Evaluation Methods	Practical: 25 marks		
	Evaluation through performance in Skill Test/Demonstration/ Viva Voce/ Practical Record File = 20 marks Attendance = 5 marks		

Semester: II

Name of Program	B.P.E.H.E.S	Program Code	
Name of the Course	Olympic Movements	Course Code	26PHSI402DS02
Hours per Week	03 Hours	Credits	03 (L:3,T:0,P:1)
Maximum Marks	75 {External (term-end exam) – 50}, (Internal – 25)	Time of Examinations	03 Hours
<p>Note: The candidate will attempt five questions out of nine in total. Question No. 1, which is compulsory, will consist of five short-answer questions covering the entire syllabus, each carrying two marks. There will be four units, with each unit having two long questions. The candidate must attempt four questions, selecting one question from each unit, with each question carrying 10 marks.</p>			
<p>Course Learning Outcomes (CLO): After completing this course, the learner will be able to:</p> <p>CLO1: Explain the origin, philosophy, major events, and decline of the Ancient Olympic Games. CLO2: Describe the revival of the Modern Olympic Games, Olympic symbols, ceremonies, and protocol. CLO3: Identify different types of Olympic Games (Paralympic, Winter, and Youth Olympics) and explain their history, symbols, and interrelationship. CLO4: Analyze India's performance in the Summer, Paralympic, Winter, and Youth Olympic Games.</p>			
<p>Unit 1: Origin of Olympic Movement</p> <ul style="list-style-type: none"> • Philosophy of Olympic movement • The significant stages in the development of the Ancient Olympic movement • Politics and Religion of Ancient Olympics, Opening ceremony, Different • Events of Ancient Olympics, Participants of Various events, Prizes for winners, • Decline and Termination of the ancient Olympics 			
<p>Unit 2: Modern Olympic Games</p> <ul style="list-style-type: none"> • Revival of Olympic Games • Olympic Symbols: Motto, Rings, Flag, Medals, Flame, Torch Relay and Anthem • Opening ceremony, Closing ceremony, medal ceremony • Olympic Protocol for member countries 			
<p>Unit 3: Different Olympic Games</p> <ul style="list-style-type: none"> • Paralympics Games: Brief History and symbols. Its relation with other Olympics • Winter Olympics: Brief History and symbols. Its relation with other Olympics • Youth Olympic Games: Brief History and symbols. Its relation with other Olympics 			
<p>Unit 4: Indian Performance in Different Olympic Games</p> <ul style="list-style-type: none"> • India's Performance in the Summer Olympic Games • India's Performance in the Paralympic Games • India's Performance in the Winter Olympic Games • India's Performance in the Winter Olympic Games 			
<p>References:</p> <ol style="list-style-type: none"> 1. Ajmeer Sing, Jagdish Bans, Jagtar Sing Gill, Rachpal Singh Brar and Nirmaljit Kaur Rathee (2004)- Essentials of Physical Education, New Delhi: Kalyani Publishers. 2. Burbank, J. M., Andranovich, G. D. & Heying Boulder, C. H. (2001). Olympic dreams: the impact of mega-events on local politics: Lynne Rienner Osborne, M. P. (2004). 3. Magictree House Fact Tracker: Ancient Greece and the Olympics: A Nonfiction Companion To Magic 4. Tree House: Hour of the Olympics. New York: Random House Books for Young Readers. 			
Suggested Evaluation Methods	End Term Exam: 50 Marks Time = 3 hours		Internal Assessment: 25 Marks
	Five questions from entire syllabus = 5x2 marks = 10 marks One question from each Units (I to IV) = 4x10 marks = 40 marks		Class Presentation = 5 marks 2 Assignment/ Quiz = 10 marks Mid Term Test = 5 marks Whole Syllabus Test = 5 marks

Practical

Name of Program	B.P.E.H.E.S	Program Code	
Name of the Course	Practical (Olympic Movements)	Course Code	26PHSI402DS02
Hours per Week	2 Hours	Credits	01 (L:3,T:0,P:1)
Maximum Marks	25 Marks		
<p>Course Learning Outcomes (CLO): After completing this course, the learner will be able to: CLO1: Prepare project files, posters, and presentations demonstrating understanding of Ancient and Modern Olympics, Olympic values, and their global significance. CLO2: Correctly recognize and explain the meaning of Olympic symbols and demonstrate knowledge of Olympic ceremonies and protocols through role play. CLO3: Present information clearly through charts, posters, seminars, and group discussions on various Olympic Games and related themes. CLO4: Examine India's Olympic achievements through case studies and assignments, relating athletes' performances to national and international sporting contexts.</p>			
<ol style="list-style-type: none"> 1. Preparation of Olympic Project File – Chart / file on Ancient Olympics, Modern Olympics, Symbols, or Indian Olympic performance. 2. Identification and Explanation of Olympic Symbols – Motto, Rings, Flag, Flame, Torch Relay, Anthem (oral or chart-based). 3. Poster or Chart Making – Theme: Olympic Values, Opening Ceremony, Indian Olympians, or Different Olympic Games. 4. Group Presentation / Seminar – Topics like Revival of Olympics, Paralympics, Youth Olympics, or India at Olympics. 5. Demonstration of Olympic Ceremonies (Role Play) – Opening ceremony, medal ceremony, Olympic protocol (flag, oath, anthem). 6. Case Study / Assignment on Indian Olympic Performance – Focus on medals, famous athletes, or recent Olympic achievements. 			
<p>References:</p> <ol style="list-style-type: none"> 1. Majumdar, B., & Mehta, N. (2020). Dreams of a Billion: India and the Olympic Games. HarperSport. ISBN 978-9353576004. 2. Majumdar, B., & Mehta, N. (2012). Olympics: The India Story. HarperCollins Publishers. ISBN 978-9350293386. 3. Natesh, S. (2021). India at the Olympics. HarperCollins Children's Books. ISBN 978-9354220173 4. Narayanan, C. (2025). Journey of a Nation: 75 Years of Indian Sports – Game, Guts, Glory. Rupa Publications. ISBN 978-93-5520-410-3 5. Bindra, A., & Brijnath, R. (2011). A Shot at History: My Obsessive Journey to Olympic Gold. HarperSport. ISBN 978-9350291122 			
Suggested Evaluation Methods	Practical: 25 marks		
	Evaluation through performance in Skill Test/Demonstration/ Viva Voce/ Practical Record File = 20 marks Attendance = 5 marks		

Semester: III

Name of Program	B.P.E.H.E.S	Program Code	
Name of the Course	History & Foundation of Physical Education - II	Course Code	27PHSI403DS01
Hours per Week	03 Hours	Credits	03 (L:3,T:0,P:1)
Maximum Marks	75{External (term-end exam) – 50}, (Internal – 25)	Time of Examinations	03 Hours
<p>Note: The candidate will attempt five questions out of nine in total. Question No. 1, which is compulsory, will consist of five short-answer questions covering the entire syllabus, each carrying two marks. There will be four units, with each unit having two long questions. The candidate must attempt four questions, selecting one question from each unit, with each question carrying 10 marks.</p>			
<p>Course Learning Outcomes (CLO): The learners will able to describe CLO1: Describe the growth and development of Physical Education in India after Independence, including government initiatives and institutional development CLO2: Assess the contribution of Haryana to Indian sports, its traditional games, socio-cultural importance, and current sports status. CLO3: Compare the systems of Physical Education in ancient Greece and Germany, highlighting their influence on modern Physical Education. CLO4: Explain the structure and philosophy of Physical Education in Russia and China, including state involvement and traditional practices.</p>			
<p>Unit 1: History of Physical Education in India during the British Period</p> <ul style="list-style-type: none"> • Physical Education under British rule (1757 – 1947) • Introduction of Western sports and gymnasiums • Role of British education system in Physical Education • Development of Physical Education institutions • Impact of British rule on indigenous games 			
<p>Unit 2: History of Physical Education in India after Independence</p> <ul style="list-style-type: none"> • Development of Physical Education after 1947 • Role of Government of India in sports development • Establishment of sports bodies and institutions • Inclusion of Physical Education in education system • Growth of competitive sports in India 			
<p>Unit 3: Development of Sports in Haryana</p> <ul style="list-style-type: none"> • Traditional Sports and Games of Haryana: Wrestling, Kabaddi, Kho-Kho • Haryana's Contribution to Indian Sports • Government Initiatives for Sports Development • Socio-Cultural Importance of Sports in Haryana • Present Status of Sports in Haryana 			
<p>Unit 4: History of Physical Education in Russia and China</p> <ul style="list-style-type: none"> • Physical Education system of Russia • State-controlled sports and Physical Education • Physical Education in China • Traditional Chinese physical activities (Kung Fu, Tai Chi) • Role of Physical Education in national fitness programs 			
<p>References:</p> <ol style="list-style-type: none"> 1. Srivastava, R. (2016). Physical Education and Sports in India: Past, Present, and Future. Sports Publication. 2. Jain, R. (2017). Physical Education and Health: Foundation, History, and Future Perspectives. Sports Publication. 3. Sharma, V. K. (2017). Foundations of Physical Education, Exercise Science, and Sport. Khel Sahitya Kendra. 4. Singh, A. (2018). History, Principles and Foundations of Physical Education. Friends Publications. 5. Chauhan, V. (2019). Modern Trends and Practices in Physical Education and Sports. Khel Sahitya Kendra. 			
Suggested Evaluation Methods	End Term Exam: 70 Marks Time = 3 hours		Internal Assessment: 30 Marks
	Five questions from entire syllabus = 5x2 marks = 10 marks One question from each unit (I to IV) = 4x10 marks = 40 marks		Class Presentation = 5 marks Assignment/ Quiz = 5 marks Mid Term Test = 10 marks Whole Syllabus Test = 10 marks

Practical

Name of Program	B.P.E.H.E.S	Program Code	
Name of the Course	Practical (History & Foundation of Physical Education - II)	Course Code	27PHSI403DS01
Hours per Week	02 Hours	Credits	01 (L:3,T:0,P:1)
Maximum Marks	25 Marks	Time of Examinations	03 Hours
<p>Course Learning Outcomes (CLO): After completing this course, the learner will be able to: CLO1: Recognize different types of sports injuries such as sprains, strains, fractures, and dislocations using charts, models, and case situations. CLO2: Identify causes, symptoms, and preventive measures of common sports injuries through practical observation and discussion. CLO3: Demonstrate correct use of first aid techniques, basic equipment, and the RICE method for effective initial management of sports injuries. CLO4: Perform fundamental rehabilitation exercises and analyze injury case studies to support recovery and informed return-to-play decisions.</p>			
<p>Practical Skills in Basketball</p>			
<ol style="list-style-type: none"> 1. Court Marking and Dimensions: Knowledge of basketball court layout including length and width of the court, center line, center circle, free-throw line, three-point line, key area, backboard, ring height, and safety zone. Understanding of standard measurements and equipment specifications. 2. Basic Techniques: Practicing fundamental basketball skills such as player stance, footwork, dribbling, passing (chest, bounce, overhead), receiving, and pivoting. 3. Offensive Techniques: Learning and practicing offensive skills including shooting (set shot, jump shot, lay-up), dribbling moves, fast break, screening, and offensive positioning. 4. Defensive Techniques: Practicing defensive skills such as defensive stance, man-to-man defense, zone defense, blocking, stealing, rebounding, and defensive footwork. 5. Match Simulation: Participating in practice matches to apply learned skills, team strategies, and rules of basketball under controlled conditions.. 			
<p>Practical Skills in Football</p>			
<ol style="list-style-type: none"> 6. Field Marking and Dimensions: Knowledge of football field layout including length and width of the field, goal area, penalty area, center circle, corner arc, touchlines, goalposts, and safety area. Understanding of standard field dimensions and equipment. 7. Basic Techniques: Practicing fundamental football skills such as player stance, running with the ball, passing (short and long), receiving, dribbling, and ball control. 8. Offensive Strategies: Learning and practicing offensive skills including shooting, heading, crossing, attacking movements, positioning, and combination play. 9. Defensive Strategies: Practicing defensive skills such as tackling, marking, interception, heading clearance, defensive positioning, and goalkeeping basics. 10. Match Simulation: Participating in organized practice matches to apply learned skills, teamwork, and rules of football in game situations. 			
<p>References:</p> <ol style="list-style-type: none"> 1. Dureha, D. K. (2012). Football: Skills, techniques and rules. Khel Sahitya Kendra. 2. Luxbacher, J. A. (2013). Soccer: Steps to success. Human Kinetics. 3. Wissel, H. (2012). Basketball: Steps to success. Human Kinetics. 4. Singh, A., & Singh, R. (2016). Basketball fundamentals and techniques. Friends Publications. 5. FIFA. (2023). Laws of the game. Fédération Internationale de Football Association. 6. FIBA. (2022). Official basketball rules. International Basketball Federation. 			
Suggested Evaluation Methods	Practical: 25 marks		
	Evaluation through performance in Skill Test/Demonstration/ Viva Voce/ Practical Record File = 20 marks Attendance = 5 marks		

Semester: III

Name of Program	B.P.E.H.E.S	Program Code	
Name of the Course	Athletic Care	Course Code	27PHSI403DS02
Hours per Week	03 Hours	Credits	03 (L:3,T:0,P:1)
Maximum Marks	75{External (term-end exam) – 50}, (Internal – 25)	Time of Examinations	03 Hours
<p>Note: The candidate will attempt five questions out of nine in total. Question No. 1, which is compulsory, will consist of five short-answer questions covering the entire syllabus, each carrying two marks. There will be four units, with each unit having two long questions. The candidate must attempt four questions, selecting one question from each unit, with each question carrying 10 marks.</p>			
<p>Course Learning Outcomes (CLO): After completing this course, the learner will be able to: CLO1: Explain the concept, importance, and role of athletic care in Physical Education and sports. CLO2: Identify common sports injuries, their causes, and basic symptoms. CLO3: Demonstrate basic first aid and immediate care techniques for sports injuries. CLO4: Understand injury prevention methods, rehabilitation principles, and safe return to sports activities.</p>			
<p>Unit 1: Introduction to Athletic Care</p> <ul style="list-style-type: none"> • Meaning and concept of Athletic Care • Importance of Athletic Care in sports and physical education • Role of Athletic Care in prevention of sports injuries • Responsibilities of a Physical Education teacher / coach in athletic care 			
<p>Unit 2: Common Sports Injuries</p> <ul style="list-style-type: none"> • Meaning of sports injuries • Causes of sports injuries • Types of sports injuries: Soft tissue injuries, Hard tissue injuries • Common sports injuries in games and athletics 			
<p>Unit 3: Prevention and First Aid of Sports Injuries</p> <ul style="list-style-type: none"> • Principles of injury prevention • Warm-up and cool-down in injury prevention • First aid management of common sports injuries • Use of basic first aid equipment • Role of rest, ice, compression, and elevation (RICE) 			
<p>Unit 4: Care, Rehabilitation, and Fitness Recovery</p> <ul style="list-style-type: none"> • Meaning and importance of rehabilitation • Care of injured athletes • Basic rehabilitation exercises • Return to play concept • Importance of fitness and conditioning in injury recovery 			
<p>References:</p> <ol style="list-style-type: none"> 1. Brukner, P., & Khan, K. (2020). Brukner & Khan's clinical sports medicine (5th ed.). McGraw Hill Education India. 2. McArdle, W. D., Katch, F. I., & Katch, V. L. (2021). Exercise physiology: Nutrition, energy, and human performance (9th ed.). Wolters Kluwer India. 3. Prentice, W. E. (2020). Rehabilitation techniques for sports medicine and athletic training (6th ed.). McGraw Hill Education India. 4. Singh, H., & Verma, J. P. (2022). Sports injuries and athletic care. Friends Publications. 5. Sharma, O. P., & Kumar, R. (2021). Principles of sports medicine and injury management. Khel Sahitya Kendra. 			
Suggested Evaluation Methods	End Term Exam: 50 Marks Time = 3 hours		Internal Assessment: 25 Marks
	Five questions from entire syllabus = 5x2 marks = 10 marks One question from each Units (I to IV) = 4x10 marks = 40 marks		Class Presentation = 5 marks 2 Assignment/ Quiz = 10 marks Mid Term Test = 5 marks Whole Syllabus Test = 5 marks

Practical

Name of Program	B.P.E.H.E.S	Program Code	
Name of the Course	Practical (Athletic Care)	Course Code	27PHSI403DS02
Hours per Week	02 Hours	Credits	01 (L:3,T:0,P:1)
Maximum Marks	25 Marks	Time of Examinations	03 Hours
Course Learning Outcomes (CLO):			
After completing this course, the learner will be able to:			
CLO1: Perform appropriate warm-up and cool-down exercises to reduce the risk of sports injuries.			
CLO2: Recognize different types of sports injuries such as sprains, strains, fractures, and dislocations using charts, models, and case situations.			
CLO3: Demonstrate correct use of first aid techniques, basic equipment, and the RICE method for effective initial management of sports injuries.			
CLO4: Perform fundamental rehabilitation exercises and analyze injury case studies to support recovery and informed return-to-play decisions.			
<ol style="list-style-type: none"> 1. Demonstration of Warm-up and Cool-down Exercises – Injury prevention-oriented routines. 2. Identification of Common Sports Injuries – Using charts, models, or case situations (sprain, strain, fracture, dislocation). 3. Practical Demonstration of First Aid Techniques – Bandaging, dressing, splinting, and wound care. 4. Demonstration of RICE Method – Practical application for sprain and strain management. 5. Use of Basic First Aid Equipment – Crepe bandage, ice pack, sling, antiseptic, splints. 6. Demonstration of Basic Rehabilitation Exercises – Range of motion, strengthening, flexibility exercises. 7. Case Study / Viva-Voce on Injury Management & Return to Play – Assessment of decision-making and theoretical understanding. 			
References:			
<ol style="list-style-type: none"> 1. Kansal, D. K. (2016). Textbook of sports medicine and athletic care. APH Publishing Corporation. 2. Verma, J. P. (2013). Sports injuries and rehabilitation. Friends Publications. 3. Singh, H. (2015). Sports training and sports medicine. Friends Publications. 4. Gaur, A., & Gaur, K. (2018). First aid and sports injuries. Khel Sahitya Kendra. 5. Sharma, O. P. (2014). Health education and sports medicine. Khel Sahitya Kendra. 6. Bucher, C. A., & Prentice, W. E. (2011). Fitness and wellness (Indian reprint). Tata McGraw-Hill Education. 			
Suggested Evaluation Methods	Practical: 25 marks		
	Evaluation through performance in Skill Test/Demonstration/ Viva Voce/ Practical Record File = 20 marks		
	Attendance = 5 marks		

Semester: III

Name of Program	B.P.E.H.E.S	Program Code	
Name of the Course	Exercise Physiology - I	Course Code	27PHSI403DS03
Hours per Week	03 Hours	Credits	03 (L:3,T:0,P:1)
Maximum Marks	75{External (term-end exam) – 50}, (Internal – 25)	Time of Examinations	03 Hours
<p>Note: The candidate will attempt five questions out of nine in total. Question No. 1, which is compulsory, will consist of five short-answer questions covering the entire syllabus, each carrying two marks. There will be four units, with each unit having two long questions. The candidate must attempt four questions, selecting one question from each unit, with each question carrying 10 marks.</p>			
<p>Course Learning Outcomes (CLO): After completing this course, the learner will be able to: CLO1: Explain the basic concepts, scope, and importance of Exercise Physiology in physical education and sports. CLO2: Describe the role of muscular and skeletal systems during exercise and physical activity. CLO3: Understand and explain the cardiovascular and respiratory responses to exercise. CLO4: Explain energy systems, recovery, and physiological adaptations resulting from regular exercise.</p>			
<p>Unit 1: Introduction to Exercise Physiology</p> <ul style="list-style-type: none"> • Meaning and definition of Exercise Physiology • Importance of Exercise Physiology in Physical Education and sports • Scope of Exercise Physiology • Basic concepts of work, exercise, and fatigue • Relationship between exercise and health 			
<p>Unit 2: Muscular and Skeletal System and Exercise</p> <ul style="list-style-type: none"> • Structure and functions of skeletal muscles • Types of muscle fibers • Muscle contraction during exercise • Role of skeletal system in movement • Effect of exercise on muscles and bones 			
<p>Unit 3: Cardiovascular and Respiratory Responses to Exercise</p> <ul style="list-style-type: none"> • Structure and functions of the heart • Blood circulation during rest and exercise • Structure and functions of respiratory system • Mechanism of breathing during exercise • Effects of exercise on heart and lungs 			
<p>Unit 4: Energy Systems and Physiological Adaptations</p> <ul style="list-style-type: none"> • Concept of energy and metabolism • Aerobic and anaerobic energy systems • Oxygen debt and recovery • Physiological adaptations due to regular exercise • Importance of exercise in physical fitness 			
<p>References:</p> <ol style="list-style-type: none"> 1. McArdle, W. D., Katch, F. I., & Katch, V. L. (2021). Exercise physiology: Nutrition, energy, and human performance (9th ed.). Wolters Kluwer India. 2. Kenney, W. L., Wilmore, J. H., & Costill, D. L. (2020). Physiology of sport and exercise (7th ed.). Human Kinetics India. 3. McConnell, A. K., & Clark, S. (2020). Applied exercise physiology (2nd ed.). Elsevier India. 4. Singh, H., & Verma, J. P. (2022). Exercise physiology and sports performance. Friends Publications. 5. Sharma, O. P., & Kumar, R. (2021). Foundations of exercise physiology for physical education and sports. Khel Sahitya Kendra. 			
Suggested Evaluation Methods	End Term Exam: 50 Marks Time = 3 hours		Internal Assessment: 25 Marks
	Five questions from entire syllabus = 5x2 marks = 10 marks One question from each Units (I to IV) = 4x10 marks = 40 marks		Class Presentation = 5 marks 2 Assignment/ Quiz = 10 marks Mid Term Test = 5 marks Whole Syllabus Test = 5 marks

Practical

Name of Program	B.P.E.H.E.S	Program Code	
Name of the Course	Practical (Exercise Physiology)	Course Code	27PHSI403DS03
Hours per Week	02 Hours	Credits	01 (L:3,T:0,P:1)
Maximum Marks	25 Marks	Time of Examinations	03 Hours
<p>Course Learning Outcomes (CLO): After completing this course, the learner will be able to: CLO1: Accurately record heart rate and blood pressure at rest and after exercise to understand acute cardiovascular responses to physical activity. CLO2: Measure respiratory rate, vital capacity, and evaluate endurance using Harvard Step Test or Queen's College Step Test. CLO3: Perform muscle strength and endurance tests and estimate recovery rate and oxygen debt through post-exercise pulse analysis. CLO4: Identify major muscles, bones, and energy systems and correlate their roles with practical exercise responses and performance.</p>			
<ol style="list-style-type: none"> 1. Measurement of Resting and Exercise Heart Rate – Before and after physical activity. 2. Measurement of Blood Pressure at Rest and Post-Exercise – Understanding cardiovascular response. 3. Measurement of Respiratory Rate and Vital Capacity – Using simple spirometry or manual counting. 4. Harvard Step Test / Queen's College Step Test – Assessment of cardiovascular endurance. 5. Demonstration of Muscle Strength and Endurance Tests – Push-ups, sit-ups, handgrip strength. 6. Estimation of Recovery Rate and Oxygen Debt – Pulse recovery after exercise. 7. Identification of Major Muscles, Bones, and Energy Systems (Viva/Chart-based) – Correlating theory with practical understanding. 			
<p>References:</p> <ol style="list-style-type: none"> 1. Singh, H. (2015). Sports physiology. Friends Publications. 2. Kansal, D. K. (2017). Applied physiology of physical education and sports. APH Publishing Corporation. 3. Verma, J. P. (2014). A textbook of exercise physiology. Friends Publications. 4. Sharma, O. P. (2016). Physiology of exercise and sports. Khel Sahitya Kendra. 5. Gaur, A., & Gaur, K. (2018). Physical education and exercise physiology. Khel Sahitya Kendra. 6. Fox, E. L., Bowers, R. W., & Foss, M. L. (2012). The physiological basis of physical education and athletics (Indian ed.). McGraw-Hill Education. 			
Suggested Evaluation Methods	Practical: 25 marks		
	Evaluation through performance in Skill Test/Demonstration/ Viva Voce/ Practical Record File = 20 marks		
	Attendance = 5 marks		

Semester: IV

Name of Program	B.P.E.H.E.S	Program Code	
Name of the Course	Physical Fitness	Course Code	27PHSI404DS01
Hours per Week	03 Hours	Credits	03 (L:3,T:0,P:1)
Maximum Marks	75{External (term-end exam) – 50}, (Internal – 25)	Time of Examinations	03 Hours
<p>Note: The candidate will attempt five questions out of nine in total. Question No. 1, which is compulsory, will consist of five short-answer questions covering the entire syllabus, each carrying two marks. There will be four units, with each unit having two long questions. The candidate must attempt four questions, selecting one question from each unit, with each question carrying 10 marks.</p>			
<p>Course Learning Outcomes (CLO): After completing this course, the learner will be able to: CLO1: Explain the concept, meaning, and importance of physical fitness for health and performance. CLO2: Describe the major components of physical fitness and their role in human movement. CLO3: Identify methods for developing strength, endurance, speed, and flexibility. CLO4: Apply basic physical fitness tests and understand the benefits of physical fitness in daily life and sports.</p>			
<p>Unit 1: Introduction to Physical Fitness</p> <ul style="list-style-type: none"> • Meaning and definition of Physical Fitness • Components of Physical Fitness (Strength, Endurance, Speed, Flexibility, Agility) • Importance of Physical Fitness in daily life • Physical Fitness and health • Physical Fitness in relation to sports performance 			
<p>Unit 2: Health-Related Physical Fitness</p> <ul style="list-style-type: none"> • Concept of health-related fitness • Components of health-related fitness: <ul style="list-style-type: none"> ❖ Cardiorespiratory endurance ❖ Muscular strength ❖ Muscular endurance ❖ Flexibility ❖ Body composition • Importance of health-related fitness for disease prevention 			
<p>Unit 3: Skill-Related Physical Fitness</p> <ul style="list-style-type: none"> • Meaning of skill-related fitness • Components of skill-related fitness: <ul style="list-style-type: none"> ❖ Speed ❖ Agility ❖ Balance ❖ Coordination ❖ Reaction time ❖ Power • Role of skill-related fitness in sports and games 			
<p>Unit 4: Development and Maintenance of Physical Fitness</p> <ul style="list-style-type: none"> • Principles of physical fitness training • General fitness exercises • Methods of developing strength, endurance, speed, and flexibility • Importance of regular exercise and physical activity • Safety measures during fitness training 			
<p>References:</p> <ol style="list-style-type: none"> 1. Corbin, C. B., & Lindsey, R. (2020). Concepts of physical fitness (13th ed.). McGraw Hill Education India. 2. Kenney, W. L., Wilmore, J. H., & Costill, D. L. (2020). Physiology of sport and exercise (7th ed.). Human Kinetics India. 3. Singh, H., & Verma, J. P. (2022). Physical fitness and conditioning for sports. Friends Publications. 4. Sharma, O. P., & Kumar, R. (2021). Principles and practices of physical fitness training. Khel Sahitya Kendra. 5. Kansal, D. K. (2021). Textbook of health and physical education. APH Publishing Corporation. 			
Suggested Evaluation Methods	End Term Exam: 50 Marks Time = 3 hours		Internal Assessment: 25 Marks
	Five questions from entire syllabus = 5x2 marks = 10 marks One question from each Units (I to IV) = 4x10 marks = 40 marks		Class Presentation = 5 marks 2 Assignment/ Quiz = 10 marks Mid Term Test = 5 marks Whole Syllabus Test = 5 marks

Practical

Name of Program	B.P.E.H.E.S	Program Code	
Name of the Course	Practical (Physical Fitness)	Course Code	27PHSI404DS01
Hours per Week	02 Hours	Credits	01 (L:3,T:0,P:1)
Maximum Marks	25 Marks	Time of Examinations	03 Hours
<p>Course Learning Outcomes (CLO): After completing this course, the learner will be able to: CLO1: Accurately measure height, weight, Body Mass Index (BMI), and assess body composition using simple and appropriate methods. CLO2: Conduct and interpret results of cardiorespiratory endurance tests such as the Harvard Step Test or 600 m run-walk test. CLO3: Administer muscular strength and endurance tests (push-ups, sit-ups, handgrip) and flexibility tests (sit-and-reach, shoulder flexibility) following standard procedures. CLO4: Perform and record speed, agility, power, balance, and reaction time tests using standardized methods. CLO5: Perform proper warm-up, conditioning exercises, and cool-down techniques while following safety measures during fitness training.</p>			
<ol style="list-style-type: none"> 1. Measurement of Basic Fitness Parameters – Height, weight, BMI, and body composition (simple methods). 2. Cardiorespiratory Endurance Test – Harvard Step Test / 600 m run-walk test. 3. Muscular Strength and Endurance Tests – Push-ups, sit-ups, handgrip strength test. 4. Flexibility Test – Sit and reach test / shoulder flexibility test. 5. Speed and Agility Tests – 50 m dash, shuttle run (4 × 10 m). 6. Skill-Related Fitness Tests – Standing broad jump (power), reaction time test, balance test. 7. Demonstration of General Fitness Exercises & Safety Measures – Warm-up, conditioning exercises, and cool-down. 			
<p>References:</p> <ol style="list-style-type: none"> 1. Kansal, D. K. (2016). <i>Test and measurement in sports and physical education</i>. APH Publishing Corporation. 2. Singh, H. (2015). <i>Physical fitness and wellness</i>. Friends Publications. 3. Verma, J. P. (2014). <i>Health, physical education and sports</i>. Friends Publications. 4. Sharma, O. P. (2017). <i>Physical fitness, health and wellness</i>. Khel Sahitya Kendra. 5. Gaur, A., & Gaur, K. (2018). <i>Physical education: Foundations and fitness</i>. Khel Sahitya Kendra. 6. Bucher, C. A., & Prentice, W. E. (2011). <i>Fitness and wellness</i> (Indian edition). Tata McGraw-Hill Education. 			
Suggested Evaluation Methods	Practical: 25 marks		
	Evaluation through performance in Skill Test/Demonstration/ Viva Voce/ Practical Record File = 20 marks Attendance = 5 marks		

Semester: IV

Name of Program	B.P.E.H.E.S	Program Code	
Name of the Course	Basic Anatomy - II	Course Code	27PHSI404DS02
Hours per Week	03 Hours	Credits	03 (L:3,T:0,P:1)
Maximum Marks	75{External (term-end exam) – 50}, (Internal – 25)	Time of Examinations	03 Hours
<p>Note: The candidate will attempt five questions out of nine in total. Question No. 1, which is compulsory, will consist of five short-answer questions covering the entire syllabus, each carrying two marks. There will be four units, with each unit having two long questions. The candidate must attempt four questions, selecting one question from each unit, with each question carrying 10 marks.</p>			
<p>Course Learning Outcomes (CLO): After completing this course, the learner will be able to: CLO1: Explain the structure and functions of the nervous system and its role in movement and sports performance. CLO2: Describe the endocrine system, major glands, hormones, and their role in physical activity and growth. CLO3: Explain the structure and functions of the respiratory system and its importance during exercise. CLO4: Understand the digestive and excretory systems and explain their role in nutrition, health, and physical fitness.</p>			
<p>Unit–I: Respiratory System</p> <ul style="list-style-type: none"> • Meaning and importance of the respiratory system • Structure and functions of respiratory organs • Mechanism of breathing (inhalation and exhalation) • Lung volumes and capacities (basic concept) • Role of respiratory system during physical activity and exercise 			
<p>Unit–II: Endocrine System</p> <ul style="list-style-type: none"> • Meaning and importance of the endocrine system • Major endocrine glands and their functions: <ul style="list-style-type: none"> ❖ Pituitary gland ❖ Thyroid gland ❖ Parathyroid gland ❖ Adrenal gland ❖ Pancreas • Role of hormones in growth, metabolism, and physical performance • Effect of exercise on the endocrine system 			
<p>Unit–III: Nervous System</p> <ul style="list-style-type: none"> • Meaning and functions of the nervous system • Divisions of nervous system: <ul style="list-style-type: none"> ❖ Central nervous system ❖ Peripheral nervous system ❖ Autonomic nervous system • Structure and function of neuron • Role of nervous system in coordination, movement, and sports performance 			
<p>Unit–IV: Digestive System</p> <ul style="list-style-type: none"> • Meaning and importance of digestive system • Structure and functions of digestive organs • Process of digestion and absorption of food • Role of digestive system in energy supply • Importance of digestion for health and physical performance 			
<p>References:</p> <ol style="list-style-type: none"> 1. Guyton, A. C., & Hall, J. E. (2021). Textbook of medical physiology (14th ed.). Elsevier India. 2. Tortora, G. J., & Derrickson, B. (2020). Principles of anatomy and physiology (16th ed.). Wiley India. 3. Marieb, E. N., & Hoehn, K. (2020). Human anatomy & physiology (11th ed.). Pearson India. 4. Singh, H., & Verma, J. P. (2022). Applied human physiology for physical education and sports. Friends Publications. 5. Sharma, O. P., & Kumar, R. (2021). Physiology and anatomy in sports and exercise. Khel Sahitya Kendra. 			
Suggested Evaluation Methods	End Term Exam: 50 Marks Time = 3 hours		Internal Assessment: 25 Marks
	Five questions from entire syllabus = 5x2 marks = 10 marks One question from each Units (I to IV) = 4x10 marks = 40 marks		Class Presentation = 5 marks 2 Assignment/ Quiz = 10 marks Mid Term Test = 5 marks Whole Syllabus Test = 5 marks

Practical

Name of Program	B.P.E.H.E.S	Program Code	
Name of the Course	Practical (Basic Anatomy - II)	Course Code	27PHSI404DS02
Hours per Week	02 Hours	Credits	01 (L:3,T:0,P:1)
Maximum Marks	25 Marks	Time of Examinations	03 Hours
<p>Course Learning Outcomes (CLO): After completing this course, the learner will be able to: CLO1: Identify, locate, and label the major organs of the respiratory system accurately using charts, models, or diagrams. CLO2: Demonstrate and explain the mechanism of breathing, including the role of the diaphragm, ribs, and intercostal muscles during inhalation and exhalation. CLO3: Measure and record respiratory rate and vital capacity at rest and after exercise, and interpret the effect of physical activity on respiration. CLO4: Observe, analyze, and explain changes in breathing pattern, depth, and chest expansion during different physical activities.</p>			
<ol style="list-style-type: none"> 1. Identification of Respiratory Organs – Identification and labeling of major respiratory organs (nose, pharynx, larynx, trachea, bronchi, lungs, diaphragm) using charts, models, or diagrams. 2. Demonstration of Breathing Mechanism – Practical demonstration of inhalation and exhalation showing the role of ribs, intercostal muscles, diaphragm, and lung expansion. 3. Measurement of Respiratory Rate at Rest – Counting breaths per minute under resting conditions to understand normal respiratory rhythm. 4. Measurement of Respiratory Rate After Exercise – Recording respiratory rate immediately after physical activity to study the effect of exercise on breathing. 5. Measurement of Lung Capacity (Vital Capacity) – Measurement of vital capacity using a simple spirometer, balloon method, or water displacement method. 6. Chest Expansion Measurement – Measurement of chest circumference during full inhalation and full exhalation using a measuring tape. 7. Observation of Respiratory System During Physical Activity – Observation and recording of changes in breathing pattern, depth, and rate during walking, jogging, or running activities. 			
<p>References:</p> <ol style="list-style-type: none"> 1. Kansal, D. K. (2021). Textbook of applied physiology for physical education and sports. Sports Publications. 2. Singh, H., & Singh, J. (2022). Physiology of exercise and sports performance. Friends Publications. 3. Verma, J. P. (2020). Exercise physiology: Theory and practical. Sunrise Publishers. 4. Sharma, K., & Sharma, R. (2023). Human anatomy and physiology for physical education. Khel Sahitya Kendra. 5. Kumar, A., & Yadav, S. (2021). Foundations of sports physiology. Friends Publications. 6. Meena, R. S., & Beniwal, P. (2024). Applied anatomy and physiology in physical education. Agam Prakashan. 			
Suggested Evaluation Methods	Practical: 25 marks		
	Evaluation through performance in Skill Test/ Demonstration/ Viva Voce/ Practical Record File = 20 marks Attendance = 5 marks		

Semester: IV

Name of Program	B.P.E.H.E.S	Program Code	
Name of the Course	Organization & Administration	Course Code	27PHSI404DS03
Hours per Week	03 Hours	Credits	03 (L:3,T:0,P:1)
Maximum Marks	75{External (term-end exam) – 50}, (Internal – 25)	Time of Examinations	03 Hours
<p>Note: The candidate will attempt five questions out of nine in total. Question No. 1, which is compulsory, will consist of five short-answer questions covering the entire syllabus, each carrying two marks. There will be four units, with each unit having two long questions. The candidate must attempt four questions, selecting one question from each unit, with each question carrying 10 marks.</p>			
<p>Course Learning Outcomes (CLO): After completing this course, the learner will be able to: CLO1: Explain the concept, principles, and importance of organization and administration in Physical Education. CLO2: Describe the planning and administration of Physical Education programmes and activities CLO3: Identify methods of office management, record keeping, and financial administration in Physical Education. CLO4: Apply the principles of organization and administration in planning and conducting sports events.</p>			
<p>Unit 1: Introduction to Organization and Administration</p> <ul style="list-style-type: none"> • Meaning and concept of organization and administration • Objectives and importance of organization in Physical Education • Principles of organization and administration • Qualities of a good administrator 			
<p>Unit 2: Administration of Physical Education Programme</p> <ul style="list-style-type: none"> • Planning of Physical Education programme • Organization of intramural and extramural activities • Administration of sports facilities and equipment • Role of Physical Education teacher as an administrator 			
<p>Unit 3: Office Management and Records</p> <ul style="list-style-type: none"> • Office organization in Physical Education department • Types of records and registers in Physical Education • Budget preparation and financial management • Purchase and care of sports equipment 			
<p>Unit 4: Organization of Sports Events</p> <ul style="list-style-type: none"> • Planning and organization of sports competitions • Duties and responsibilities of organizing committee • Preparation of fixtures and tournaments • Public relations and evaluation of sports events 			
<p>References:</p> <ol style="list-style-type: none"> 1. Kansal, D. K. (2021). Textbook of physical education and sports management. APH Publishing Corporation. 2. Singh, H., & Verma, J. P. (2022). Organization and administration in physical education and sports. Friends Publications. 3. Sharma, O. P., & Kumar, R. (2021). Sports administration and management: Principles and practices. Khel Sahitya Kendra. 4. Ghosh, S. (2020). Physical education and sports administration in India. Sports Publications. 5. Corbin, C. B., & Lindsey, R. (2020). Concepts of physical education administration. McGraw Hill Education India. 			
Suggested Evaluation Methods	End Term Exam: 50 Marks Time = 3 hours		Internal Assessment: 25 Marks
	Five questions from entire syllabus = 5x2 marks = 10 marks One question from each Units (I to IV) = 4x10 marks = 40 marks		Class Presentation = 5 marks 2 Assignment/ Quiz = 10 marks Mid Term Test = 5 marks Whole Syllabus Test = 5 marks

Practical

Name of Program	B.P.E.H.E.S	Program Code	
Name of the Course	Practical (Organization & Administration)	Course Code	27PHSI404DS03
Hours per Week	02 Hours	Credits	01 (L:3,T:0,P:1)
Maximum Marks	25 Marks	Time of Examinations	03 Hours
Course Learning Outcomes (CLO):			
After completing this course, the learner will be able to:			
CLO1: Prepare effective annual or monthly Physical Education activity plans for schools or colleges, considering objectives, resources, and student needs.			
CLO2: Develop intramural and extramural sports plans using house systems, league, and knockout formats, ensuring systematic participation and fair competition.			
CLO3: Prepare organization charts, assign duties and responsibilities to committees, and construct league and knockout fixtures for smooth conduct of sports events.			
CLO4: Prepare budgets and income–expenditure statements, maintain Physical Education records and registers, and demonstrate correct procedures for purchase, storage, and care of sports equipment.			
<ol style="list-style-type: none"> 1. Preparation of a Physical Education Programme Plan – Annual or monthly activity plan for a school/college. 2. Preparation of Intramural or Extramural Sports Plan – House system, leagues, or knockout competitions. 3. Preparation of Sports Event Organization Chart – Committees, duties, and responsibilities. 4. Fixture Preparation – League and knockout fixtures for a selected game. 5. Preparation of Budget for Sports Activities – Income–expenditure statement. 6. Maintenance of Physical Education Records – Stock register, attendance register, equipment issue register. 7. Demonstration of Purchase and Care of Sports Equipment (Viva/Record-based) – Procedures, storage, and maintenance. 			
References:			
<ol style="list-style-type: none"> 1. Bucher, C. A. (2011). <i>Administration of physical education and athletic programmes</i> (Indian ed.). Tata McGraw-Hill Education. 2. Sharma, O. P. (2016). <i>Organization and administration of physical education</i>. Khel Sahitya Kendra. 3. Singh, H. (2015). <i>Management and organization of physical education</i>. Friends Publications. 4. Kansal, D. K. (2014). <i>Organization and administration in physical education</i>. APH Publishing Corporation. 5. Gaur, A., & Gaur, K. (2018). <i>Sports management and administration</i>. Khel Sahitya Kendra. 6. Verma, J. P. (2013). <i>Sports management and organization</i>. Friends Publications. 			
Suggested Evaluation Methods	Practical: 25 marks		
	Evaluation through performance in Skill Test/ Demonstration/ Viva Voce/ Practical Record File = 20 marks		
	Attendance = 5 marks		

Semester: IV

Name of Program	B.P.E.H.E.S	Program Code	
Name of the Course	Basic Physiology - 1	Course Code	27PHSI404DS04
Hours per Week	03 Hours	Credits	03 (L:3,T:0,P:1)
Maximum Marks	75{External (term-end exam) – 50}, (Internal – 25)	Time of Examinations	03 Hours
<p>Note: The candidate will attempt five questions out of nine in total. Question No. 1, which is compulsory, will consist of five short-answer questions covering the entire syllabus, each carrying two marks. There will be four units, with each unit having two long questions. The candidate must attempt four questions, selecting one question from each unit, with each question carrying 10 marks.</p>			
<p>Course Learning Outcomes (CLO): After completing this course, the learner will be able to: CLO1: Explain the meaning, scope, and importance of physiology in Physical Education and sports. CLO2: Describe the structure and functions of the muscular system and its role in movement. CLO3: Understand the structure and functions of the circulatory system and its response to exercise. CLO4: Explain the structure and working of the respiratory system and its importance during physical activity.</p>			
<p>Unit–I: Introduction to Physiology</p> <ul style="list-style-type: none"> • Meaning and definition of Physiology • Importance of Physiology in Physical Education and sports • Levels of organization of the human body • Homeostasis and its importance • Relationship between anatomy and physiology 			
<p>Unit–II: Muscular System</p> <ul style="list-style-type: none"> • Types of muscles: skeletal, smooth, and cardiac • Structure of skeletal muscle • Muscle contraction mechanism (basic concept) • Types of muscle contractions • Role of muscles in physical activities 			
<p>Unit–III: Circulatory System</p> <ul style="list-style-type: none"> • Composition and functions of blood • Structure and functions of the heart • Blood circulation and blood vessels • Cardiac cycle (brief) • Effect of exercise on circulatory system 			
<p>Unit–IV: Respiratory System</p> <ul style="list-style-type: none"> • Structure and functions of respiratory system • Mechanism of breathing • Lung volumes and capacities (basic idea) • Exchange of gases • Effect of exercise on respiratory system 			
<p>References:</p> <ol style="list-style-type: none"> 1. Guyton, A. C., & Hall, J. E. (2021). Textbook of medical physiology (14th ed.). Elsevier India. 2. Tortora, G. J., & Derrickson, B. (2020). Principles of anatomy and physiology (16th ed.). Wiley India. 3. Marieb, E. N., & Hoehn, K. (2020). Human anatomy & physiology (11th ed.). Pearson India. 4. Singh, H., & Verma, J. P. (2022). Applied physiology for physical education and sports. Friends Publications. 5. Sharma, O. P., & Kumar, R. (2021). Physiology and exercise in sports and physical education. Khel Sahitya Kendra. 			
Suggested Evaluation Methods	End Term Exam: 50 Marks Time = 3 hours		Internal Assessment: 25 Marks
	Five questions from entire syllabus = 5x2 marks = 10 marks One question from each Units (I to IV) = 4x10 marks = 40 marks		Class Presentation = 5 marks 2 Assignment/ Quiz = 10 marks Mid Term Test = 5 marks Whole Syllabus Test = 5 marks

Practical

Name of Program	B.P.E.H.E.S	Program Code	
Name of the Course	Practical (Basic Physiology - 1)	Course Code	27PHSI404DS04
Hours per Week	02 Hours	Credits	01 (L:3,T:0,P:1)
Maximum Marks	25 Marks	Time of Examinations	03 Hours
Course Learning Outcomes (CLO):			
After completing this course, the learner will be able to:			
CLO1: Accurately recognize organs and types of muscles of the muscular, circulatory, and respiratory systems using charts and models.			
CLO2: Record pulse rate and blood pressure at rest and after exercise to understand the effect of exercise on the circulatory system.			
CLO3: Measure respiratory rate and vital capacity using simple methods and explain breathing mechanisms during rest and exercise.			
CLO4: Perform isometric, isotonic, and isokinetic contractions and explain concepts such as homeostasis, cardiac cycle, and exercise effects through viva and records.			
<ol style="list-style-type: none"> 1. Identification of Human Body Systems – Identification of major organs related to muscular, circulatory, and respiratory systems using charts/models. 2. Identification of Types of Muscles – Skeletal, smooth, and cardiac muscles using charts and diagrams. 3. Measurement of Resting and Exercise Pulse Rate – To study the effect of exercise on the circulatory system. 4. Measurement of Blood Pressure (Demonstration) – At rest and after exercise (where equipment is available). 5. Measurement of Respiratory Rate – At rest and after physical activity. 6. Measurement of Lung Volumes – Vital capacity using simple spirometer or balloon method. 7. Demonstration of Muscle Contraction Types – Isometric, isotonic, and isokinetic contractions through activities. 8. Viva / Record-based Practical – Homeostasis, cardiac cycle, mechanism of breathing, effects of exercise on body systems. 			
References:			
<ol style="list-style-type: none"> 1. Kansal, D. K. (2017). Applied physiology of physical education and sports. APH Publishing Corporation. 2. Singh, H. (2015). Sports physiology. Friends Publications. 3. Verma, J. P. (2014). Textbook of human physiology. Friends Publications. 4. Sharma, O. P. (2016). Physiology of physical education and sports. Khel Sahitya Kendra. 5. Gaur, A., & Gaur, K. (2018). Foundations of anatomy and physiology. Khel Sahitya Kendra. 6. Guyton, A. C., & Hall, J. E. (2011). Textbook of medical physiology (Indian ed.). Elsevier India. 			
Suggested Evaluation Methods	Practical: 25 marks		
	Evaluation through performance in Skill Test/ Demonstration/ Viva Voce/ Practical Record File = 20 marks		
	Attendance = 5 marks		