p

डॉ. बाबासाहेब आंबेडकर मराठवाडा विद्यापीठ, छत्रपती संभाजीनगर.

परिपत्रक क्रमांक/अभ्यासक्रम विभाग/एम.ए.-शारीरिक शिक्षण/एनईपी-२०२०/३३/२०२४

सर्व संबंधीतांना कळविण्यात येते की, विद्यापरिषदेच्या दिनांक ०८ एप्रिल, २०२४ रोजीच्या बैठकीतील ठरावान्वये एम.ए. शारीरिक शिक्षण या विषयाच्या प्रथम व द्वितिय वर्षाचे परिपत्रित केलेले Circular /SU/ Interdisciplinary Stu./Curr./ M.A.Phy.Edu. / NEP /82 / 2024 / 25641-54, dated 29/04/2024 अन्वये "राष्ट्रीय शैक्षणिक धोरण-२०२०" च्या अंमलबजावणीस्तव शैक्षणिक वर्ष २०२४-२०२५ पासून लागू करण्यात आलेल्या अभ्यासक्रमाच्या प्रवेश पात्रतेमधील किरकोळ बदलास दि. ०३ ऑगस्ट, २०२४ रोजी संपन्न झालेल्या अभ्यासमंडळ आणि अधिष्ठाता, आंतर विद्याशाखीय अभ्यास विद्याशाखा यांनी केलेल्या शिफारसीस मा. कुलगुरु महोदय यांनी महाराष्ट्र सार्वजनिक विद्यापीठ अधिनियम २०१६ कलम १२(७) अन्वये त्यांना प्राप्त अधिकारात विद्यापरिषदेच्या वतीने शैक्षणिक वर्ष २०२४-२०२५ पासून लागू करण्यास मान्यता दिलेली आहे. सदरील सुधारीत परिपत्रक शैक्षणिक वर्ष २०२४-२०२५ पासून नविन परिपत्रक येईपर्यंत लागू राहील.

सदरील अभ्यासक्रम हा विद्यापीठाच्या www.bamu.ac.in. या संकेतस्थळावर उपलब्ध आहे.

कृपया, सर्व संबंधीतांनी याची नोंद घेऊन याबाबत सर्व विद्यार्थी, शिक्षक आणि शिक्षकेत्तर कर्मचारी यांच्या निदर्शनास आणून देण्यात यावे, हि विनंती.

विद्यापीठ प्रांगण, छत्रपती संभाजीनगर-४३१००४
संदर्भ क्र.अभ्सास.वि./एम.ए. शा.शि./२०२४/5581-88
दिनांक :- २०/०८/२०२४.

उपकुलसचिव,
शैक्षणिक विभाग
(अभ्यासक्रम)

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प्रतिलिपी माहिती तथा पुढील योग्य त्या कार्यवाहीस्तव अग्रेषितः-

१) सर्व प्राचार्य/प्राचार्या/संचालक, संलग्नीत शारीरिक शिक्षण महाविद्यालये, डॉ. बाबासाहेब आंबेडकर मराठवाडा विद्यापीठ, छत्रपती संभाजीनगर.
२) संचालक, युनिक, डॉ. बाबासाहेब आंबेडकर मराठवाडा विद्यापीठ, छत्रपती संभाजीनगर.
३) संचालक, परीक्षा व मूल्यमापन मंडळ, राजर्षी शाहू महाराज परीक्षा भवन, डॉ. बाबासाहेब आंबेडकर मराठवाडा विद्यापीठ, छत्रपती संभाजीनगर.
४) समन्वयक, एम.के.सी.एल. राजर्षी शाहू महाराज परीक्षा भवन, डॉ. बाबासाहेब आंबेडकर मराठवाडा विद्यापीठ, छत्रपती संभाजीनगर.
५) कक्ष अधिकारी, एम.ए. विभाग, राजर्षी शाहू महाराज परीक्षा भवन, डॉ. बाबासाहेब आंबेडकर मराठवाडा विद्यापीठ, छत्रपती संभाजीनगर.
६) जनसंपर्क अधिकारी, डॉ. बाबासाहेब आंबेडकर मराठवाडा विद्यापीठ, छत्रपती संभाजीनगर.
७) अभिलेखपाल (Record Keeper), डॉ. बाबासाहेब आंबेडकर मराठवाडा विद्यापीठ, छत्रपती संभाजीनगर.

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TK08072024/-*

Dr. Babasaheb Ambedkar Marathwada University
Chhatrapati Sambhajinagar

National Education Policy 2020

Course Content of

Masters of Arts in Physical Education
(M. A. in Physical Education)

Two years – Four Semesters

With effect from 2024-2025

Dr. M. A. Bodi
BOSM

Dr. S. S. Shaikh
BOSM

Dr. V. R. Bhosale

Dr. Smt. N. G. Khan

Dr. Phatangare

BOSM

1. General Introduction

In Pursuance of the decision of the University to start Master of Arts Programme in Physical Education from the academic section 2024 - 2025, the following is the general introduction of the course :

I. The course shall be a full - time course

II. The course shall be divided into four semesters and there shall be examination in each semester as per NEP and University rules.

2. Name of the Course:

i) M. A. in Physical Education (Total Credits : 88)

3. Faculty : Faculty of Inter Disciplinary Studies

4. Intake : Maximum 60 (Sixty)

5. Objectives :

I. The Two years Master Programme is Physical Education intents to introduce the students to the various advanced aspects of physical education and sports.

II. It also aims to engage the students in physical education and sports activities for health, fitness and wellness through quality teaching, learning and research.

6. Duration of Course:

The duration of the course shall be of 2 years (4 Semesters).

7. Eligibility / Admission Qualification :

Minimum qualification for admission in this programme will be as follows :

a) A Bachelor's degree of Arts with at least 40 % marks and Physical Education as an elective subject up to final year from a University / Institution recognized by U. G. C.

Or

b) A Bachelor's degree in Physical Education B. P. Ed. and B. P. E. with at least 40% marks from a University / Institution recognized by U.G.C.

Or

c) B. Voc Degree in Sports, Physical Education And Fitness (Three Year Degree Course) with at least 40% marks from a University / Institution recognized by U.G.C.

Or

d) Any Graduate,
Preference will be given to A, B & C.

8. Admission Procedure :

The Candidates will be admitted to the prgramme, strictly on the basis of merit of Entrance Test.

conducted by the University/ college and reservation policy as per the state government.

9. Programme Fees:

Examination fee for this programme will be decided by the University. University reserves the rights to revise the fee structure and other rules of the programme, if necessary. Besides this the other expenses like practical training kits, tour, project work etc. shall be borne by the students.

10. Degree to be awarded:

After successful completion of the programme the degree of Master of Arts in Physical Education will be awarded to the students.

11. Attendance Required:

As per the University Rules and Regulations

12. Course Structure:

All semesters i.e. I, II, III and IV would consist of theory courses and sports practicum courses 2 credits. Each semester shall have four theory courses (i.e. three Core courses and one Elective course) of 4 credits each and one sports practical course of 2 credits. In semester III one Open Elective course of 4 credits would also be offered to the students of other departments besides four theory Core courses and one sports practical course.

ELIGIBLITY:

1. Every candidate seeking admission to the examination for the degree of Master of Arts in Physical Education (M.A.) semester examination shall satisfy the following conditions:-

a) **The candidate** must have passed the Bachelor of Arts in Physical Education (B. A. in Physical Education) or B.Sc. (Physical Education, Health Education & Sports), B. P. Ed. and B. P. E. Examination of the University or any other examination recognized as equivalent thereto with a minimum of 40% marks in aggregate. In case, a relaxation is given to any specific category of candidate/s it shall be with approval of the U. G. C./ Dr. B. A. M. University of Chhatrapati Sambhajinagar. There shall however be a relaxation of 5% marks for those who have secured 1st, 2nd or 3rd position at National level/ All India Interuniversity /Interuniversity level sports competitions in the preceding three years. However, the condition of position in the preceding three years will not be applicable for the in-service candidates. Whereas, remaining relaxation of 5% marks shall be same as for other candidates.

Dr. Phatangare. 3.8.24 Dr.S.S.Shaikh BOSM

Dr. M. A. Bam

Dr. Md. Ateeullah Jagirdar BOSM

Dr. V. R. Bhosale

b) **Fitness**: The candidate shall be medically fit to carry out the vigorous physical and academic activities concerning curriculum and co-curricular activities, which run throughout the year.

c) **Age**: The candidate shall have attained minimum twenty years of age before the first day of July of the year in which he/she seeks admission to the M. A. Examinations. However, relaxation of age limit up to a maximum of one year on the basis of individual merits may be made by the Dr. B. A. M. University through the Principal of the Institution concerned.

d) **Attendance**: A candidate to be eligible for appearing in the final Semester Examination for Master of Arts in Physical Education (M.A.) semester I, II, III, & IV shall have at least 75% attendance in aggregate and 70% attendance separately in each paper including theory and practical.

e) **Duration of Course**: The maximum duration of Master of Arts in Physical Education course semester I, II, III, & IV shall not exceed to three years from the initial admission to first semester of the course.

f) **Nature of the Course:** the Master of Arts in Physical Education (M.A.) is a regular post-graduation conventional/ traditional course in physical education on full time basis.

g) **Reservations**: Reservations for OBC/ Schedule Caste/Schedule Tribes will be as per the norms of the Central Government/ State Government and affiliating University.

h) **Prospects after completion of course:** He/ she can appear for SET/ NET/ Ph. D.

Dr. S. S. Shaikh
BOS M

Dr. S. J. Chandrashekhar

Dr. M. A. Bari
BOS M

Dr. Md. Ataullah
Jagirdar BOS M

Dr. V. R. Bhosale

3.8.24
Dr. Phatangare A. S.

Dr. Smt. N. G. Khan

Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar

As per the curriculum of National Education Policy 2020

Curriculum Structure and Scheme of Evaluation for

M. A. (Physical Education) First Year – Semester I

Sr. No.	Type of Paper	Paper No.	Name of the Subject	Credits	Total Semester Credits
1	Major Mandatory Theory	PEMT – 01	Athletic Care and Rehabilitation	04	12
2		PEMT – 02	Test, Measurement and Evaluation in Physical Education	04	
3		PEMT – 03	Yogic Sciences	04	
4	Major Activity (Mandatory Practical)	PEMP – 01	Practical – 1: Sports practical with specialization in any one: Track and Field/ Gymnastics/ Swimming	02	02
5	Major Elective (Select any one from Basket)	PET – 01	Foundations of Physical Education	04	04
6		PET – 02	Administration and organization in Physical Education	04	
7		PET – 03	Basic Philosophy of Physical Education	04	
8		PET – 04	Sports Physiotherapy	04	
9	Research Methodology (RM)	PERM – 01	Research Process and Applied Statistics in Physical Education	04	04
Total					22

Practical Course: A minimum of 22 and half hours or 30 hours per credit on ground activities is required in a semester.

Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar

As per the curriculum of National Education Policy 2020

Curriculum Structure and Scheme of Evaluation for

M. A. (Physical Education) First Year – Semester II

Sr. No.	Type of Paper	Paper No.	Name of the Subject	Credits	Total Semester Credits
1	Major Mandatory Theory	PEMT – 04	Physiology of Exercises	04	12
2		PEMT – 05	Scientific Principles of Sports Training	04	
3		PEMT – 06	Sports Pedagogy	04	
4	Major Activity (Mandatory Practical)	PEMP – 02	Practical – 2: Sports Practical with specialization in any one: Combat Sports/ Indigenous Sports/ Team Games/ Racket Sports	02	02
5	Major Elective (Select any one from Basket)	PET – 05	Sports Coaching	04	04
6		PET – 06	Human Anatomy and Physiology	04	
7		PET – 07	Sports Managements	04	
8		PET – 08	Sports Officiating	04	
9	Field Project/ Internship	PEFP – 02	The candidate has to complete 2 months internship during the M. A. as per the availability of the schools or colleges and produce letter from the concerned institution duly signed by the authority on their letterhead OR Field Project **(will be decided by concerned teacher)**	04	04
Total					22

Practical Course: A minimum of 22 and half hours or 30 hours per credit on ground activities is required in a semester.

M. A. (PHYSICAL EDUCATION)
Class: M. A. Physical Education – Scheme of Examination
Year and Semester: First Year –First Semester
Subject: PHYSICAL EDUCATION

Specification	Paper Code	Credit	University Assessment	College Assessment	Total Marks
Major Mandatory Theory	PEMT – 01	04	60	40	100
	PEMT – 02	04	60	40	100
	PEMT – 03	04	60	40	100
Major Activity (Mandatory Practical)	PEMP – 01	02	30	20	50
Major Elective (Select any one from Basket)	PET – 01	04	60	40	100
	PET – 02				
	PET – 03				
	PET – 04				
Research Methodology (RM)	PERM – 01	04	60	40	100
				Total	**550**

M. A. (PHYSICAL EDUCATION)
Class: M. A. Physical Education – Scheme of Examination
Year and Semester: First Year –Second Semester
Subject: PHYSICAL EDUCATION

Specification	Paper Code	Credit	University Assessment	College Assessment	Total Marks
Major Mandatory Theory	PEMT – 04	04	60	40	100
	PEMT – 05	04	60	40	100
	PEMT – 06	04	60	40	100
Major Activity (Mandatory Practical)	PEMP – 02	02	30	20	50
Major Elective (Select any one from Basket)	PET – 05	04	60	40	100
	PET – 06				
	PET – 07				
	PET – 08				
Field Project/ Internship	PEFP – 02	04	60	40	100
				Total	**550**

M. A. (PHYSICAL EDUCATION)

Class: M. A. Physical Education

Year and Semester: First Year – Semester First and Second

Subject: PHYSICAL EDUCATION

Sr. No.	Specification/ type of paper	First Semester		Total Credits/ Semester	Second Semester		Total Credits/ Semester	Total Credits/ Year
		Paper	Credits		Paper	Credits		
1	Major Mandatory Theory	1	4	12	4	4	12	**24**
		2	4		5	4		
		3	4		6	4		
2	Major Activity	1	2	2	2	2	2	**4**
3	Major Elective	1	4	4	5	4	4	**8**
		2			6			
		3			7			
		4			8			
4	Research Methodology		4	4	---	---	---	**4**
5	On Job Training/ Field Project	---	---	---	Field Practical/ Internship	4	4	**4**
6	Research Project	---	---	---	---	---	---	---
Cumulative Credit/ Semester		---	---	22	---	---	**22**	**44**
Cumulative Credit/ Year								**44**

Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar

As per the curriculum of National Education Policy 2020

Curriculum Structure and Scheme of Evaluation for

M. A. (Physical Education) Second Year – Semester III

Sr. No.	Type of Paper	Paper No.	Name of the Subject	Credits	Total Semester Credits
1	Major Mandatory Theory	PEMT – 07	Education Technology in Physical Education	04	12
2		PEMT – 08	Sports Psychology and Sociology	04	
3		PEMT – 09	Sports Medicine	04	
4	Major Activity (Mandatory Practical)	PEMP – 03	Practical – 3: Training Methods of Motor Abilities (or) Officiating and Coaching	02	02
5	Major Elective (Select any one from Basket)	PET – 09	Sports Technology	04	04
6		PET – 10	Health Education	04	
7		PET – 11	Sports Journalism and Mass Communication	04	
8		PET – 12	Sports Event Management	04	
9	Research Project	PERP – 01	Dissertation: Finalizing Research Problem, Submitting the Synopsis, Getting approval of the Research Problem, Submitting the field plan and getting approved from the authorities, submitting reviews related to the research problem and Introductory chapter during the III semester. **(will be decided by concerned teacher)**	04	04
				Total	22

Practical Course: A minimum of 22 and half hours or 30 hours per credit on ground activities is required in a semester.

Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar

As per the curriculum of National Education Policy 2020

Curriculum Structure and Scheme of Evaluation for

M. A. (Physical Education) Second Year – Semester IV

Sr. No.	Type of Paper	Paper No.	Name of the Subject	Credits	Total Semester Credits
1	Major Mandatory Theory	PEMT – 10	Sports Biomechanics and Kinesiology	04	12
2		PEMT – 11	Health Education and Sports Nutrition	04	
3		PEMT – 12	ICT in Physical Education	04	
4	Major Activity Mandatory Practical	PEMP-4	Practical 4 – Sports First Aid and Physiotherapy	02	02
5	Major Elective (Select any one from Basket)	PET – 13	Drugs and Doping in Sports	04	04
6		PET – 14	Sports First Aid and Rehabilitation	04	
7		PET – 15	Fitness and Wellness	04	
8		PET – 16	Sports Engineering	04	
9	Research Project	PERP – 02	Field work, drafting of Methodology, Collection of data, statistical treatment, finalization of results and discussion, summary and submission of dissertation (02 credits) and viva-voce (02 credits) **(will be decided by concerned teacher)**	04	04
				Total	22

Practical Course: A minimum of 22 and half hours or 30 hours per credit on ground activities is required in a semester.

M. A. (PHYSICAL EDUCATION)
Class: M. A. Physical Education – Scheme of Examination
Year and Semester: Second Year –Third Semester
Subject: PHYSICAL EDUCATION

Specification	Paper Code	Credit	University Assessment	College Assessment	Total Marks
Major Mandatory Theory	PEMT – 07	04	60	40	100
	PEMT – 08	04	60	40	100
	PEMT – 09	04	60	40	100
Major Activity (Mandatory Practical)	PEMP – 03	02	30	20	50
Major Elective (Select any one from Basket)	PET – 09	04	60	40	100
	PET – 10				
	PET – 11				
	PET – 12				
Research Project (RP)	PERP 01	04	60	40	100
				Total	**550**

M. A. (PHYSICAL EDUCATION)
Class: M. A. Physical Education – Scheme of Examination
Year and Semester: Second Year –Fourth Semester
Subject: PHYSICAL EDUCATION

Specification	Paper Code	Credit	University Assessment	College Assessment	Total Marks
Major Mandatory Theory	PEMT – 10	04	60	40	100
	PEMT – 11	04	60	40	100
	PEMT – 12	04	60	40	100
Major Activity Mandatory Practical	PEMP-4	02	30	20	50
Major Elective (Select any one from Basket)	PET – 13	04	60	40	100
	PET – 14				
	PET – 15				
	PET – 16				
Research Project	PERP – 02	04	60	40	100
				Total	**550**

M. A. (PHYSICAL EDUCATION)

Class: M. A. Physical Education

Year and Semester: Second Year – Semester Third and Fourth

Subject: PHYSICAL EDUCATION

Sr. No.	Specification/ type of paper	Third Semester		Total Credits/ Semester	Fourth Semester		Total Credits/ Semester	Total Credits/ Year
		Paper	Credits		Paper	Credits		
1	Major Mandatory Theory	7	4	12	10	4	12	24
		8	4		11	4		
		9	4		12	4		
2	Major Activity	3	2	2	04	2	2	4
3	Major Elective	9	4	4	13	4	4	8
		10			14			
		11			15			
		12			16			
4	Research Methodology	---	---	---	---	---	---	---
5	On Job Training/ Field Project	---	---	---	---	---	---	---
6	Research Project	1	4	4	2	4	4	8
Cumulative Credit/ Semester		---	---	22	---	---	22	44
Cumulative Credit/ Year		---	---	---	---	---	---	44

Dr. MS. Nazma Khan
BOS M

Dr. S. S. Shaikh
BOS M

Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar

As per the curriculum of National Education Policy 2020

Curriculum Structure and Scheme of Evaluation for

M. A. (Physical Education) First Year – Semester I

Sr. No.	Type of Paper	Paper No.	Name of the Subject	Credits	Total Semester Credits
1	Major Mandatory Theory	PEMT – 01	Athletic Care and Rehabilitation	04	12
2		PEMT – 02	Test, Measurement and Evaluation in Physical Education	04	
3		PEMT – 03	Yogic Sciences	04	
4	Major Activity (Mandatory Practical)	PEMP – 01	Practical – 1: Sports practical with specialization in any one: Track and Field/ Gymnastics/ Swimming	02	02
5	Major Elective (Select any one from Basket)	PET – 01	Foundations of Physical Education	04	04
6		PET – 02	Administration and organization in Physical Education	04	
7		PET – 03	Basic Philosophy of Physical Education	04	
8		PET – 04	Sports Physiotherapy	04	
9	Research Methodology (RM)	PERM – 01	Research Process and Applied Statistics in Physical Education	04	04
Total					22

Practical Course: A minimum of 22 and half hours or 30 hours per credit on ground activities is required in a semester.

Prof. S. M. Joshi
Dean

M. A. (Physical Education) First Year – Semester I
Major Mandatory Theory – PEMT - 01
Subject: Athletic Care and Rehabilitation

Unit 1: Foundations of Athletic Care and Rehabilitation
1.1 Introduction to Athletic Care and Rehabilitation 1.1.1 Historical perspectives 1.1.2 Evolution and development of rehabilitation in sports,
1.2 Anatomy and Physiology for Rehabilitation 1.2.1 Musculoskeletal system 1.2.2 Neuromuscular system 1.2.3 Cardiovascular system
1.3 Common Sports Injuries 1.3.1 Types and classifications 1.3.2 Mechanisms of injury 1.3.3 Risk factors in sports injuries
1.4 Principles of Athletic Care 1.4.1 Immediate care and first aid 1.4.2 Injury prevention strategies 1.4.3 Rehabilitation planning and programming

Unit 2: Assessment and Diagnosis in Athletic Rehabilitation
2.1 Clinical Assessment Techniques 2.1.1 Subjective and objective assessment 2.1.2 Range of motion and flexibility testing 2.1.3 Strength and endurance assessment
2.2 Diagnostic Tools in Rehabilitation 2.2.1 Imaging techniques (X-ray, MRI, CT scan) 2.2.2 Laboratory tests 2.2.3 Specialized diagnostic procedures in sports
2.3 Biomechanics and Movement Analysis 2.3.1 Gait analysis 2.3.2 Kinematics and kinetics in sports 2.3.3 Biomechanical principles for rehabilitation

Unit 3: Rehabilitation Techniques
3.1 Therapeutic Modalities 3.1.1 Heat and cold therapies 3.1.2 Electrical modalities (TENS, EMS) 3.1.3 Hydrotherapy
3.2 Exercise Prescription for Rehabilitation 3.2.1 Progressive resistance training 3.2.2 Stretching and flexibility exercises 3.2.3 Proprioceptive and neuromuscular training
3.3 Manual Therapy in Athletic Rehabilitation 3.3.1 Joint mobilization 3.3.2 Soft tissue manipulation 3.3.3 Myofascial release techniques

Unit 4: Special Considerations in Athletic Rehabilitation
4.1 Psychosocial Aspects of Injury and Rehabilitation 4.1.1 Psychological impact of injuries 4.1.2 Counseling and support for athletes
4.2 Return to Sport Criteria 4.2.1 Functional testing 4.2.2 Gradual progression in training 4.2.3 Mental readiness for competition
4.3 Injury Prevention Programs 4.3.1 Pre-season conditioning 4.3.2 Sport-specific prevention strategies 4.3.3 Long-term athlete development

Objectives and Outcomes: Upon completion of this course, students will be able to:

1. Understand the historical context and evolution of Athletic Care and Rehabilitation.
2. Demonstrate knowledge of anatomy, physiology, and biomechanics relevant to sports rehabilitation.
3. Assess and diagnose common sports injuries using clinical and diagnostic tools.
4. Apply appropriate rehabilitation techniques, including therapeutic modalities, exercise prescription, and manual therapy.
5. Address psychosocial aspects of injury and implement strategies for mental well-being.
6. Develop return-to-sport criteria and injury prevention programs.

References:

1. Prentice, W. E. (2017). Rehabilitation Techniques in Sports Medicine.

2. Hertel, J., & Miller, S. J. (2009). Rehabilitation of the Injured Athlete.
3. Magee, D. J. (2014). Orthopedic Physical Assessment.
4. Brukner, P., & Khan, K. (2017). Clinical Sports Medicine.
5. Clarkson, H. M. (2009). Musculoskeletal Assessment: Joint Motion and Muscle Testing.
6. Kisner, C., & Colby, L. A. (2017). Therapeutic Exercise: Foundations and Techniques.
7. Arnheim, D. D., & Prentice, W. E. (2000). Principles of Athletic Training.
8. Shrier, I. (2005). The Role of Psychosocial Processes in the Development and Maintenance of Overuse Injuries in Sport.
9. Norkin, C. C., & Levangie, P. K. (2016). Joint Structure and Function: A Comprehensive Analysis.
10. Tovin, B. J. (2007). Essentials of Strength Training and Conditioning.
11. O'Sullivan, S. B., Schmitz, T. J., & Fulk, G. (2018). Physical Rehabilitation.
12. Sahrmann, S. (2002). Diagnosis and Treatment of Movement Impairment Syndromes.
13. Kaminski, T. W., & Van Lunen, B. L. (2018). Athletic Training and Sports Medicine.
14. Kannus, P., & Renström, P. (2001). Treatment for Injuries in Athletes.
15. Indian Association of Sports Medicine (IASM) Guidelines on Sports Injury Rehabilitation.

M. A. (Physical Education) First Year – Semester I
Major Mandatory Theory – PEMT - 02
Subject: Test, Measurement, and Evaluation in Physical Education

Unit 1: Foundations of Assessment in Physical Education
1.1 Introduction to Test, Measurement, and Evaluation 1.1.1 Definition and purpose 1.1.2 Historical development in physical education
1.2 Principles of Test Construction 1.2.1 Test planning and design 1.2.2 Item analysis 1.2.3 Types of tests in physical education
1.3 Statistical Concepts in Measurement 1.3.1 Descriptive statistics 1.3.2 Inferential statistics 1.3.3 Reliability and validity
1.4 Ethical Considerations in Assessment 1.4.1 Fairness and bias in testing 1.4.2 Legal and ethical issues in evaluation

Unit 2: Practical Applications of Assessment in Physical Education
2.1 Fitness Assessment 2.1.1 Components of fitness 2.1.2 Fitness testing protocols 2.1.3 Interpretation and application of results
2.2 Skill Assessment 2.2.1 Motor skill development 2.2.2 Performance assessment in sports 2.2.3 Portfolio assessment
2.3 Program Evaluation 2.3.1 Evaluating physical education programs 2.3.2 Continuous improvement in curriculum and instruction 2.3.3 Assessment for program accreditation
Unit 3: Technology in Assessment and Evaluation
3.1 Computerized Testing and Assessment Tools 3.1.1 Computer-based testing 3.1.2 Simulation and virtual assessment 3.1.3 Data management and analysis
3.2 Wearable Technology in Physical Education 3.2.1 Fitness trackers and their applications 3.2.2 Integrating technology into skill assessment 3.2.3 Ethical considerations in technology use

Unit 4: Research in Assessment and Evaluation
4.1 Research Methods in Physical Education 4.1.1 Experimental and non-experimental designs 4.1.2 Data collection and analysis techniques 4.1.3 Research ethics in assessment
4.2 Innovations in Assessment 4.2.1 Alternative assessment methods 4.2.2 Formative and summative assessment 4.2.3 Future trends in measurement and evaluation

Objectives and Outcomes: Upon completion of this course, students will be able to:

1. Understand the principles and historical context of test, measurement, and evaluation in physical education.
2. Develop skills in designing and constructing reliable and valid assessments for fitness and skill evaluation.
3. Apply statistical concepts to interpret assessment results and make informed decisions.
4. Demonstrate ethical considerations in assessment practices.
5. Utilize technology for assessment purposes, including computerized testing and wearable technology.
6. Evaluate physical education programs and contribute to continuous improvement.
7. Conduct research in the field of assessment and evaluation, using appropriate research methods.
8. Explore innovative and alternative assessment methods for diverse populations.

References:

1. Miller, M. D., & Linn, R. L. (2009). Measurement and Assessment in Teaching.
2. Gronlund, N. E., & Linn, R. L. (1990). Measurement and Evaluation in Teaching.

3. Safrit, M. J., & Wood, T. M. (1995). Measurement Concepts in Physical Education and Exercise Science.
4. Halpin, G., & Wiersma, L. D. (2018). Sport and Exercise Psychology: Concepts and Theories.
5. Kubayi, A., Toriola, A. L., & Toriola, O. M. (2019). Physical Fitness and Wellness in the Workplace.
6. Ehrmann, D. S. (2002). Measurement and Evaluation in Physical Education and Exercise Science.
7. Kirk, D., & Macdonald, D. (2019). Handbook of Physical Education.
8. Parasher, R. (2008). Measurement and Evaluation in Physical Education.
9. Watkins, J., & Rice, R. (2014). Physical Education, Sport, and Schooling: Studies in the Sociology of Physical Education.
10. Singh, P., & Kapoor, M. (2010). Measurement and Evaluation in Physical Education and Sports.
11. Crichton, J., & Tapp, R. (2019). Introduction to Research in the Health Sciences.
12. Kline, T. J. (2013). Beyond Significance Testing: Statistics Reform in the Behavioral Sciences.
13. Siedentop, D. (2009). Introduction to Physical Education, Fitness, and Sport.
14. Rink, J. E. (2019). Teaching Physical Education for Learning.
15. Maharashtra State Bureau of Textbook Production and Curriculum Research (Balbharti). (Various Years). Marathi books on Physical Education.

M. A. (Physical Education) First Year – Semester I
Major Mandatory Theory – PEMT - 03
Subject: Yogic Sciences

Unit 1: Foundations of Yogic Sciences
1.1 Introduction to Yogic Philosophy 1.1.1 Historical development of Yoga 1.1.2 Schools of Yoga: Hatha, Raja, Bhakti, Jnana, Karma, Kundalini
1.2 Philosophical Foundations of Yoga 1.2.1 Patanjali's Yoga Sutras 1.2.2 Concept of Pancha Koshas (Five Sheaths) 1.2.3 The role of meditation in Yogic philosophy
1.3 Yogic Lifestyle and Ethics 1.3.1 Yamas and Niyamas 1.3.2 Principles of a yogic lifestyle 1.3.3 Ethical considerations in yoga practice
1.4 Anatomy and Physiology in Yogic Sciences 1.4.1 Subtle energy systems (Prana, Nadis, Chakras) 1.4.2 Effects of yogic practices on the nervous system 1.4.3 Yogic perspectives on health and well-being

Unit 2: Yogic Practices and Techniques
2.1 Asanas (Yogic Postures) 2.1.1 Classification and benefits of asanas 2.1.2 Alignment and adjustments in asana practice 2.1.3 Sequencing of asanas
2.2 Pranayama (Controlled Breathing) 2.2.1 Types of pranayama techniques 2.2.2 Pranic energy and its effects on the body 2.2.3 Integrating pranayama into daily life
2.3 Dhyana (Meditation) 2.3.1 Meditation techniques and practices 2.3.2 Mindfulness and concentration 2.3.3 Yogic approaches to stress reduction
2.4 Yogic Mudras and Bandhas 2.4.1 Symbolism and benefits of mudras 2.4.2 Activation of energy through bandhas 2.4.3 Integrating mudras and bandhas into practice

Unit 3: Therapeutic Applications of Yoga
3.1 Yoga for Physical Health 3.1.1 Yoga as a preventive and rehabilitative tool 3.1.2 Therapeutic applications for specific health conditions 3.1.3 Yoga for musculoskeletal and respiratory disorders
3.2 Yoga for Mental and Emotional Well-being 3.2.1 Yoga's impact on mental health 3.2.2 Yoga for stress management and emotional balance 3.2.3 Integrating mindfulness into yoga practice
3.3 Yoga for Spiritual Growth 3.3.1 Exploring the spiritual dimension of yoga 3.3.2 Yogic practices for self-realization 3.3.3 Integrating spirituality into daily life

Unit 4: Research and Trends in Yogic Sciences
4.1 Scientific Research in Yogic Sciences 4.1.1 Recent research studies on yoga 4.1.2 Evidence-based practices in yogic sciences 4.1.3 Methodologies for yoga research
4.2 Contemporary Trends in Yogic Sciences 4.2.1 Yoga in modern society 4.2.2 Yoga therapy and its evolving practices 4.2.3 The role of technology in promoting yogic sciences

Objectives and Outcomes: Upon completion of this course, students will be able to:

1. Understand the historical and philosophical foundations of Yogic Sciences.
2. Apply yogic practices, including asanas, pranayama, meditation, mudras, and bandhas, in a systematic manner.
3. Integrate yogic principles into daily life, emphasizing ethical considerations.
4. Comprehend the therapeutic applications of yoga for physical, mental, and emotional well-being.
5. Explore the spiritual dimensions of yoga and its role in personal growth.
6. Engage in scientific research methodologies related to Yogic Sciences.
7. Analyze contemporary trends in Yogic Sciences and their impact on modern society.

References:

1. Iyengar, B. K. S. (1995). Light on Yoga.

2. Saraswati, S. S. (2004). Asana Pranayama Mudra Bandha.
3. Feuerstein, G. (2008). The Yoga Tradition.
4. Desikachar, T. K. V. (1995). The Heart of Yoga: Developing a Personal Practice.
5. Swami Vivekananda. (2002). Raja Yoga.
6. Satyananda Saraswati, Swami. (2001). A Systematic Course in the Ancient Tantric Techniques of Yoga and Kriya.
7. Bhajan, Y. (1994). The Aquarian Teacher: KRI International Teacher Training Manual.
8. Gharote, M. L., & Devnath, P. (2006). Yoga for Health and Peace.
9. Arya, R. (2007). Yoga Sutras of Patanjali.
10. Niranjanananda Saraswati, Swami. (1996). Prana and Pranayama.
11. Digambarji, S. (1997). Yoga Sadhana Panorama Vol. II.
12. Iyengar, B. K. S. (1979). Light on Pranayama.
13. Telles, S., Singh, N., & Balkrishna, A. (2012). Managing Mental Health: Yogic Perspective.
14. Niranjanananda Saraswati, Swami. (2007). Yoga Education for Children.
15. Shri Yogendra. (2014). The Science of Yoga.

Master of Arts in Physical Education

Course Title: Foundations of Physical Education (PET – 01)

Credit Hours: 4 Credits

Unit 1: Historical Perspectives of Physical Education:

Introduction to Historical Development, Definition and scope of physical education, Ancient civilizations and physical activity, Evolution of physical education in India and abroad, Key Historical Periods and Figures, Renaissance and the revival of interest in physical education, Contributions of key figures in the history of physical education, Influence of Wars and Societal Changes, Impact of World Wars on physical education, Societal changes and their reflections in physical education

Objectives:

1. Comprehend the historical roots and development of physical education.
2. Analyze the role of significant historical periods and figures in shaping physical education.
3. Evaluate the impact of wars and societal changes on the evolution of physical education.

Outcomes:

1. Develop a comprehensive understanding of the historical context of physical education.
2. Identify key figures and their contributions to the field.
3. Critically analyze the influence of historical events on contemporary physical education practices.

Unit 2: Philosophical Foundations of Physical Education:

Introduction to Philosophical Concepts, Overview of major philosophical concepts related to physical education, Significance of philosophy in shaping educational practices, Exploration of Different Philosophies, Idealism, realism, pragmatism, and existentialism in the context of physical education, Critical examination of the philosophies influencing physical education, Developing Personal Philosophy, Reflection on personal beliefs and values in physical education, Formulating and defending a personal philosophy of physical education

Objectives:

1. Explore and understand various philosophical concepts in the context of physical education.
2. Analyze the influence of different philosophies on teaching and learning practices.
3. Develop and articulate a personal philosophy of physical education.

Outcomes:

1. Identify and explain major philosophical concepts related to physical education.
2. Critically assess the impact of philosophical perspectives on instructional strategies.
3. Communicate a well-defined personal philosophy of physical education.

Unit 3: Psychological Foundations of Physical Education:

Motor Behavior and Skill Acquisition, Psychological principles underlying motor behavior, The process of skill acquisition and motor learning, Psychological Factors in Participation and Performance, Understanding psychological factors influencing participation in physical activities, Analyzing the impact of psychology on performance in sports and exercise, Motivation and Learning Theories, Exploration of motivational theories in physical education, Application of learning theories to enhance teaching and coaching

Objectives:

1. Understand the psychological principles related to motor behavior and skill acquisition.
2. Analyze psychological factors affecting participation and performance.
3. Explore the role of motivation and learning theories in physical education.

Outcomes:

1. Apply psychological principles to improve teaching and coaching practices.
2. Identify and address psychological factors influencing individual and group behavior.
3. Develop strategies to enhance motivation and learning in physical education.

Unit 4: Sociological Foundations of Physical Education:

Societal and Cultural Aspects of Physical Education, Examination of societal and cultural influences on physical education, Role of physical education in promoting cultural understanding, Impact of Social Structures on Physical Activities, Analyzing the impact of social structures on the organization of physical activities, Addressing societal challenges and opportunities through physical education, Promoting Social Inclusion and Equity, Understanding the role of physical education in promoting social inclusion, Strategies for promoting diversity and equity in physical education

Objectives:

1. Examine societal and cultural aspects influencing physical education practices.
2. Analyze the impact of social structures on the organization of physical activities.
3. Understand the role of physical education in promoting social inclusion and equity.

Outcomes:

1. Critically evaluate the social and cultural dimensions of physical education.
2. Identify strategies to address societal challenges through physical education.
3. Develop approaches to promote inclusivity and diversity in physical education.

Reference Books:

1. "A History of Physical Education in India" by S.B. More
2. "Philosophy of Physical Education in Ancient India" by K.R. Lakshman
3. "Psychological Aspects of Physical Education and Sports" by L.N. Mishra
4. "Sociology of Physical Education and Sports" by S.S. Chandra
5. "Physical Education and Society" by K. D. Joshi
6. "Foundations of Physical Education" by M. S. Pund
7. "Physical Education: Concepts and Principles" by V. P. Pandit
8. "Foundations of Physical Education, Exercise Science, and Sport" by W. Larry Kenney et al.
9. "Philosophical Foundations of Physical Education and Sport" by R. Scott Kretchmar
10. "Motor Learning and Performance" by Richard A. Schmidt and Craig A. Wrisberg
11. "Sociology of North American Sport" by George H. Sage
12. "Introduction to Physical Education, Fitness, and Sport" by Daryl Siedentop et al.
13. "शारीरिक शिक्षण: इतिहास आणि सिद्धांत" सुरेश भगत
14. "शारीरिक शिक्षण: दार्शनिक मौल्ये" श्रीधर खडकडे
15. "मनोविज्ञान आणि शारीरिक शिक्षण" आनंद सावंत
16. "समाजशास्त्र आणि शारीरिक शिक्षण" संतोष फुटाणे
17. "आरोग्य, खेळ आणि समाज" रवींद्र बर्वे
18. "खेळाडू माणसांची मानसिकता" शिवाजी भोसले
19. "भारतीय खेळाडूंचे इतिहास" वसंत दादा माडकर

Master of Arts in Physical Education
Course Title: Administration and Organization in Physical Education (PET – 02)
Credit Hours: 4 Credits

Unit 1: Introduction to Administration in Physical Education:
Foundations of Administration: Definition and scope of administration in physical education, Historical development of administrative principles, Organizational Structures in Physical Education, Analysis of various organizational structures, The role of administration in achieving organizational goals, Legal and Ethical Considerations, Understanding legal and ethical aspects of physical education administration, Compliance with regulations and standards
Objectives:

1. Develop an understanding of the foundational principles of administration in physical education.
2. Analyze different organizational structures and their relevance to physical education.
3. Gain awareness of legal and ethical considerations in the administration of physical education.

Outcomes:

1. Demonstrate knowledge of key administrative concepts in physical education.
2. Evaluate and select appropriate organizational structures for different contexts.
3. Apply legal and ethical considerations to decision-making in physical education administration.

Unit 2: Leadership in Physical Education:
Leadership Styles and Theories, Exploration of various leadership styles, Application of leadership theories in physical education settings, Effective Communication in Administration, Importance of communication skills in leadership, Strategies for effective communication within the organization, Conflict Resolution and Decision Making, Understanding conflict and its resolution in organizational settings, Decision-making processes and strategies
Objectives:

1. Evaluate and apply various leadership styles and theories in the context of physical education.
2. Develop effective communication skills for leadership in physical education administration.
3. Demonstrate the ability to resolve conflicts and make informed decisions in an organizational setting.

Outcomes:

1. Apply leadership styles and theories to enhance organizational effectiveness.
2. Demonstrate effective communication skills for successful administration.
3. Implement conflict resolution strategies and make informed decisions in physical education settings.

Unit 3: Planning and Evaluation in Physical Education Administration:
Strategic Planning in Physical Education, The importance of strategic planning in achieving organizational goals, Developing and implementing strategic plans, Evaluation and Assessment, Evaluation models and methods in physical education administration, Assessment of programs and outcomes, Financial Management in Physical Education, Budgeting and financial planning, Resource allocation and management,
Objectives:

1. Understand the significance of strategic planning in physical education administration.

2. Develop skills in program evaluation and assessment.
3. Gain proficiency in financial management and resource allocation in physical education.

Outcomes:

1. Apply strategic planning principles to enhance organizational effectiveness.
2. Conduct effective program evaluations and assessments in physical education settings.
3. Demonstrate proficiency in financial management and resource allocation.

Unit 4: Technology Integration and Future Trends

Technology in Physical Education Administration, Integration of technology in administrative processes, Benefits and challenges of technology in physical education, Future Trends and Innovations, Emerging trends in physical education administration, Innovations shaping the future of the field, Case Studies and Practical Applications, Analysis of real-world case studies in physical education administration, Application of knowledge and skills in practical scenarios

Objectives:

1. Understand the role of technology in enhancing administrative processes in physical education.
2. Explore future trends and innovations in the field of physical education administration.
3. Apply theoretical knowledge to real-world scenarios through case studies.

Outcomes:

1. Integrate technology effectively into administrative practices in physical education.
2. Anticipate and adapt to future trends and innovations in the field.
3. Apply knowledge and skills to analyze and solve real-world administrative challenges.

Reference Books:

1. "Principles and Practices of Physical Education Administration" by P. Sivanandan
2. "Leadership in Physical Education and Sports" by K. Jayapaul
3. "Strategic Planning in Physical Education and Sports" by M. L. Kamlesh
4. "Financial Management in Physical Education and Sports" by S. R. Jahan
5. "Technology Integration in Physical Education" by R. K. Varma
6. "Administration of Physical Education and Athletics" by Larry Horine
7. "Leadership in Recreation and Leisure Services" by Christopher R. Edginton
8. "Strategic Planning for Public and Nonprofit Organizations" by John M. Bryson
9. "Evaluation Models: Viewpoints on Educational and Human Services Evaluation" by Daniel L. Stufflebeam
10. "Financial Management in the Sport Industry" by Matthew T. Brown
11. "शारीरिक शिक्षण व्यवस्थापन" एस. व्यास
12. "खेळ आणि उत्कृष्टता: एक प्रबंधन दृष्टिकोन" सुनंदा पाटील
13. "शारीरिक शिक्षणातील स्तरांतर: रचना, मूल्यांकन आणि योजना" संदीप बोरकर
14. "आर्थिक व्यवस्थापन आणि खेळ" आशीष देवगीरी
15. "तंतूमुळे समृद्ध शिक्षण व्यवस्थापन" शशीकांत तुंबडे

Master of Arts in Physical Education
Course Title: Basic Philosophy of Physical Education (PET – 03)
Credit Hours: 4 Credits

Unit 1: Introduction to Philosophy and its Application in Physical Education
Understanding Philosophy, Definition and branches of philosophy, Relevance and application of philosophy in various disciplines, Philosophy in Physical Education, The role of philosophy in shaping the principles and goals of physical education, Historical overview of philosophical influences on physical education, Philosophical Foundations of Physical Activity, Exploration of philosophical principles related to physical activity, Analyzing the impact of philosophical perspectives on movement and exercise
Objectives:

1. Develop an understanding of philosophy and its various branches.
2. Recognize the role of philosophy in shaping the principles and goals of physical education.
3. Analyze the philosophical foundations of physical activity and movement.

Outcomes:

1. Demonstrate knowledge of basic philosophical concepts.
2. Apply philosophical principles to understand the foundations of physical education.
3. Critically assess the impact of philosophy on physical activity.

Unit 2: Major Philosophical Perspectives in Physical Education:
Idealism in Physical Education, Understanding the principles of idealism, Application of idealistic, concepts to physical education, Realism in Physical Education, Exploration of realist principles, Analyzing the application of realism in physical education practices, Pragmatism in Physical Education, Principles of pragmatism and their relevance to physical education, Practical application of pragmatic concepts in teaching and coaching
Objectives:

1. Analyze major philosophical perspectives, including idealism, realism, and pragmatism.
2. Understand the application of each philosophical perspective in the context of physical education.
3. Apply pragmatic principles to teaching and coaching scenarios.

Outcomes:

1. Identify and explain the key tenets of major philosophical perspectives.
2. Evaluate the application of philosophical perspectives in physical education.
3. Apply pragmatic principles to enhance teaching and coaching practices.

Unit 3: Ethics and Values in Physical Education:
Ethical Foundations of Physical Education, Understanding ethical principles in physical education, Exploring the ethical considerations in coaching and sports administration, Values in Physical Education, Identifying and promoting values through physical education, Application of values in teaching and learning, Character Education in Sports, The role of physical education in character development, Strategies for integrating character education in sports and exercise
Objectives:

1. Understand the ethical foundations of physical education.
2. Identify and promote values in the context of physical education.
3. Explore the role of physical education in character development.

Outcomes:

1. Apply ethical principles to decision-making in physical education.
2. Demonstrate the integration of values in teaching and learning.
3. Develop strategies for character education in sports and exercise.

Unit 4: Contemporary Issues and Future Directions in Philosophy of Physical Education:

Gender and Inclusivity in Physical Education, Examining the philosophical aspects of gender in physical education, Strategies for promoting inclusivity and diversity, Technology and Innovation, Philosophical considerations of technology in physical education, Exploring innovative approaches in teaching and learning, Future Directions and Emerging Philosophies, Analyzing contemporary issues and challenges, Exploring emerging philosophies in the field of physical education

Objectives:

1. Examine the philosophical aspects of gender and inclusivity in physical education.
2. Explore the philosophical considerations of technology and innovation.
3. Analyze contemporary issues and emerging philosophies in physical education.

Outcomes:

1. Develop strategies for promoting gender inclusivity in physical education.
2. Evaluate the philosophical implications of technology in teaching and learning.
3. Analyze and adapt to contemporary issues and emerging philosophies in the field.

Reference Books:

1. "Philosophy of Physical Education" by M.L. Kamlesh
2. "Ethics and Values in Physical Education" by R. K. Varma
3. "Character Education in Sports" by S. R. Jahan
4. "Philosophical Foundations of Movement" by V. P. Pandit
5. "Gender, Culture, and Physical Education" by K. Jayapaul
6. "Philosophy, Technology, and Innovation in Physical Education" by P. Sivanandan
7. "Future Directions in Physical Education" by K. R. Lakshman
8. "Philosophical Foundations of Sports" by Robert L. Simon
9. "Ethics in Sport" by William J. Morgan
10. "Character Development and Physical Activity" by Michael S. Bahrke
11. "Philosophy of Technology in Physical Education and Sport" by Alan Meade
12. "Contemporary Issues in Sport and Exercise Psychology" by Thomas M. Raedeke
13. "शारीरिक शिक्षणातील दार्शनिक मौल्ये" श्रीधर खडकडे
14. "शारीरिक शिक्षणातील नैतिकता आणि मूल्ये" सुनंदा पाटील
15. "खेळाडूचे व्यक्तिमत्व विकास" रवींद्र बर्वे
16. "शारीरिक शिक्षणातील दिशानिर्देश" विनय परांजपे
17. "लैगवड आणि समाज: शारीरिक शिक्षणातील दार्शनिक मुद्दे" संतोष फुटाणे

Prof. S. M. Kote
Expert

Master of Arts in Physical Education
Course Title: Sports Physiotherapy (PET – 4)
Credit Hours: 4 Credits

Unit 1: Introduction to Sports Physiotherapy:
Basics of Sports Injuries, Understanding common sports injuries, Overview of the role of sports physiotherapy in injury prevention and management, Principles of Rehabilitation, Principles and phases of rehabilitation in sports physiotherapy, Case studies of successful rehabilitation in sports, Examination and Assessment in Sports Physiotherapy, Techniques for assessing sports injuries, Designing individualized rehabilitation plans
Objectives:

1. Understand the basics of sports injuries and their classifications.
2. Gain knowledge about the principles and phases of rehabilitation in sports physiotherapy.
3. Acquire skills in examining and assessing sports injuries for effective intervention.

Outcomes:

1. Identify and classify common sports injuries.
2. Design comprehensive rehabilitation plans based on injury types.
3. Apply assessment techniques to develop individualized treatment strategies.

Unit 2: Advanced Techniques in Sports Physiotherapy:
Manual Therapy in Sports, Overview of manual therapy techniques in sports physiotherapy, Hands-on practice and application, Modalities in Sports Physiotherapy, Understanding and application of modalities such as ultrasound and electrical stimulation, integrating modalities into rehabilitation programs, Neuromuscular Control and Proprioception, Principles of neuromuscular control and proprioception, Training techniques to enhance neuromuscular control
Objectives:

1. Develop proficiency in manual therapy techniques for sports injuries.
2. Understand and apply modalities effectively in sports physiotherapy.
3. Enhance knowledge and skills in improving neuromuscular control and proprioception.

Outcomes:

1. Demonstrate competency in applying manual therapy techniques.
2. Implement modalities in rehabilitation programs.
3. Design exercises to improve neuromuscular control and proprioception.

Unit 3: Specialized Areas in Sports Physiotherapy:
Sports-Specific Rehabilitation, Tailoring rehabilitation programs for specific sports, Addressing sport-specific challenges and considerations, Injury Prevention and Performance Enhancement, Designing injury prevention programs, Integrating physiotherapy for performance enhancement in athletes, Psychosocial Aspects in Sports Physiotherapy, Addressing psychological factors in injury recovery, Collaborating with sports psychologists and other professionals
Objectives:

1. Develop skills in tailoring rehabilitation for specific sports.
2. Design and implement injury prevention programs.
3. Understand and address psychosocial aspects in sports physiotherapy.

Outcomes:

1. Customize rehabilitation plans for athletes in different sports.
2. Implement effective injury prevention strategies.
3. Collaborate with other professionals to address psychosocial factors.

Unit 4: Research and Advancements in Sports Physiotherapy:

Current Research in Sports Physiotherapy, Review of recent studies and advancements, Critical evaluation of research in the field, Technological Innovations in Rehabilitation, Utilizing technology in sports physiotherapy, Integrating virtual reality, biofeedback, and other innovations, Case Studies and Practical Applications, Analysis of real-world cases in sports physiotherapy, Application of knowledge and skills in practical scenarios

Objectives:

1. Stay updated with current research and advancements in sports physiotherapy.
2. Understand and integrate technological innovations in rehabilitation.
3. Apply knowledge and skills to analyze and solve real-world cases.

Outcomes:

1. Stay informed about recent research and advancements in the field.
2. Implement technological innovations for enhanced rehabilitation.
3. Demonstrate the ability to analyze and solve real-world cases in sports physiotherapy.

Reference Books:

1. "Sports Physiotherapy: Principles and Practice" by R. S. Mehta
2. "Rehabilitation Techniques in Sports Medicine" by A. K. Singh
3. "Sports Injuries: Prevention, Diagnosis, and Treatment" by P. K. Mishra
4. "Manual Therapy in Sports Medicine" by M. G. Rao
5. "Neuromuscular Control and Proprioception in Sports Medicine" by S. N. Das
6. "Sports Physiotherapy: An Evidence-Based Approach" by J. A. Hengeveld
7. "Modalities for Therapeutic Intervention" by S. B. Bracciano
8. "Injury Prevention and Performance Enhancement in Sports Physiotherapy" by T. E. Hughes
9. "Psychosocial Aspects of Sports Injuries" by M. R. Andersen
10. "Advancements in Sports Rehabilitation" by C. L. Taylor
11. "खेळाडूरुग्णांसाठी शारीरिक चिकित्सा" संतोष जोशी
12. "खेळाडूरुग्णांसाठी विद्यार्थी आणि व्यायामशिक्षकांसाठी शारीरिक चिकित्सा" सुरेंद्र गोगटे
13. "शारीरिक चिकित्सा: न्यूरोमस्क्युलर आणि प्रायोप्रिओसेप्टिव" मोहन कारण्जीकर
14. "स्वास्थ्य खेळाडू: चिकित्सा आणि अभ्यास" राजीव मिळवडे
15. "खेळाडूरुग्णांसाठी शारीरिक चिकित्सा प्रशिक्षण" आनंद पाटील

Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar

As per the curriculum of National Education Policy 2020

Curriculum Structure and Scheme of Evaluation for

M. A. (Physical Education) First Year – Semester II

Sr. No.	Type of Paper	Paper No.	Name of the Subject	Credits	Total Semester Credits
1	Major Mandatory Theory	PEMT – 04	Physiology of Exercises	04	12
2		PEMT – 05	Scientific Principles of Sports Training	04	
3		PEMT – 06	Sports Pedagogy	04	
4	Major Activity (Mandatory Practical)	PEMP – 02	Practical – 2: Sports Practical with specialization in any one: Combat Sports/ Indigenous Sports/ Team Games/ Racket Sports	02	02
5	Major Elective (Select any one from Basket)	PET – 05	Sports Coaching	04	04
6		PET – 06	Human Anatomy and Physiology	04	
7		PET – 07	Sports Managements	04	
8		PET – 08	Sports Officiating	04	
9	Field Project/ Internship	PEFP – 02	The candidate has to complete 2 months internship during the M. A. as per the availability of the schools or colleges and produce letter from the concerned institution duly signed by the authority on their letterhead OR Field Project **(will be decided by concerned teacher)**	04	04
Total					22

Practical Course: A minimum of 22 and half hours or 30 hours per credit on ground activities is required in a semester.

M. A. (Physical Education) First Year – Semester II
Major Mandatory Theory – PEMT - 04
Subject: Physiology of Exercise

Unit 1: Introduction to Exercise Physiology
1.1 Basic Concepts in Exercise Physiology 1.1.1 Overview of exercise physiology 1.1.2 Energy systems in physical activity 1.1.3 Homeostasis and exercise
1.2 Cardiovascular and Respiratory Responses to Exercise 1.2.1 Cardiovascular adaptations to exercise 1.2.2 Respiratory adaptations to exercise 1.2.3 Regulation of blood flow during exercise
1.3 Neuromuscular Adaptations 1.3.1 Neuromuscular control and coordination 1.3.2 Muscle fiber types and adaptations 1.3.3 Motor unit recruitment during exercise
1.4 Metabolic Pathways and Energy Expenditure 1.4.1 Anaerobic and aerobic energy systems 1.4.2 Substrate utilization during exercise 1.4.3 Regulation of metabolism in physical activity

Unit 2: Endocrine and Immune Responses to Exercise
2.1 Hormonal Regulation during Exercise 2.1.1 Endocrine responses to acute and chronic exercise 2.1.2 Role of hormones in metabolism and muscle function 2.1.3 Exercise-induced adaptations in hormonal balance
2.2 Immune System and Exercise 2.2.1 Impact of exercise on the immune system 2.2.2 Exercise immunology and health 2.2.3 Practical implications for athletes and active individuals

Unit 3: Environmental Physiology and Special Populations
3.1 Exercise in Extreme Environments 3.1.1 Effects of temperature and altitude on exercise performance 3.1.2 Hydration and thermoregulation during exercise 3.1.3 Adaptations to environmental stressors
3.2 Exercise and Aging 3.2.1 Physiological changes with aging 3.2.2 Exercise as a preventive measure for age-related decline 3.2.3 Considerations for designing exercise programs for older adults
3.3 Exercise and Health Conditions 3.3.1 Exercise as a therapeutic intervention for chronic diseases 3.3.2 Physiological responses in populations with specific health conditions 3.3.3 Safety considerations in exercise prescription

Unit 4: Performance Enhancement and Applied Exercise Physiology
4.1 Ergogenic Aids in Sports 4.1.1 Dietary supplements and their effects 4.1.2 Legal and ethical considerations 4.1.3 Performance-enhancing substances and methods
4.2 Training Principles and Periodization 4.2.1 Principles of training for endurance and strength 4.2.2 Periodization in sports training 4.2.3 Individualized training programs
4.3 Monitoring and Assessment of Exercise Performance 4.3.1 Physiological assessments in sports 4.3.2 Use of technology in monitoring performance 4.3.3 Practical applications for coaches and athletes

Objectives and Outcomes: Upon completion of this course, students will be able to:

1. Comprehend the fundamental principles of exercise physiology and its relevance to physical activity.
2. Analyze the cardiovascular, respiratory, and neuromuscular responses to exercise.
3. Understand metabolic pathways, energy expenditure, and substrate utilization during physical activity.
4. Evaluate the endocrine and immune responses to acute and chronic exercise.
5. Examine the impact of environmental factors on exercise performance and adaptations.
6. Recognize physiological changes associated with aging and design exercise programs for older adults.
7. Apply exercise as a therapeutic intervention for various health conditions.

8. Assess the role of ergogenic aids, training principles, and periodization in sports performance.
9. Understand the use of technology in monitoring and enhancing exercise performance.

References:

1. McArdle, W. D., Katch, F. I., & Katch, V. L. (2015). Exercise Physiology: Nutrition, Energy, and Human Performance.
2. Wilmore, J. H., Costill, D. L., & Kenney, W. L. (2008). Physiology of Sport and Exercise.
3. Plowman, S. A., & Smith, D. L. (2017). Exercise Physiology for Health, Fitness, and Performance.
4. Brooks, G. A., Fahey, T. D., & Baldwin, K. M. (2004). Exercise Physiology: Human Bioenergetics and Its Applications.
5. Powers, S. K., & Howley, E. T. (2015). Exercise Physiology: Theory and Application to Fitness and Performance.
6. Foss, M. L., & Keteyian, S. J. (2018). Fox's Physiological Basis for Exercise and Sport.
7. Kenney, W. L., Wilmore, J. H., & Costill, D. L. (2012). Physiology of Sport and Exercise.
8. Sharma, K. R. (2010). Exercise Physiology.
9. Hagan, R. D. (2013). Exercise Physiology.
10. Astrand, P. O., Rodahl, K., Dahl, H. A., & Stromme, S. B. (2003). Textbook of Work Physiology.
11. Mahajan, B. K. (2016). Methods in Biostatistics for Medical Students and Research Workers.
12. Deshpande, P. M., & Trikamji, B. (2002). Hathapradipika (Marathi translation).
13. Sachidananda, S. (1999). The Essence of Yoga: Reflections on the Yoga Sutras of Patanjali.
14. Swami Kuvalayananda. (1978). Asana Pranayama Mudra Bandha.
15. Maharashtra State Bureau of Textbook Production and Curriculum Research (Balbharti). (Various Years). Marathi books on Physiology of Exercise.

M. A. (Physical Education) First Year – Semester II
Major Mandatory Theory – PEMT - 05
Subject: Scientific Principles of Sports Training

Unit 1: Fundamentals of Sports Training
1.1 Introduction to Sports Training 1.1.1 Historical perspectives on sports training 1.1.2 Principles of sports training and periodization
1.2 Physiological Basis of Training 1.2.1 Energy systems and their relevance in sports 1.2.2 Adaptations of the cardiovascular and respiratory systems 1.2.3 Neuromuscular adaptations to training
1.3 Biomechanical Considerations in Sports Training 1.3.1 Movement analysis and biomechanical principles 1.3.2 Optimization of technique for performance enhancement 1.3.3 Injury prevention through biomechanical analysis
1.4 Psychological Aspects of Training 1.4.1 Mental skills training 1.4.2 Motivation and goal setting in sports 1.4.3 Psychological considerations for peak performance

Unit 2: Planning and Periodization in Sports Training
2.1 Annual and Macrocycle Planning 2.1.1 Goal setting and objective identification 2.1.2 Structure of the annual training plan 2.1.3 Macrocycle planning for various sports
2.2 Mesocycle and Microcycle Planning 2.2.1 Mesocycle structure and content 2.2.2 Microcycle planning and variations 2.2.3 Integration of rest and recovery in training cycles
2.3 Specificity and Individualization 2.3.1 Tailoring training programs to specific sports 2.3.2 Individualized training for athletes 2.3.3 Periodization for different skill positions in team sports

Unit 3: Strength and Conditioning in Sports Training
3.1 Principles of Strength Training 3.1.1 Types of strength and their importance 3.1.2 Resistance training principles 3.1.3 Power and explosive strength training
3.2 Conditioning and Endurance Training 3.2.1 Aerobic and anaerobic conditioning 3.2.2 High-intensity interval training (HIIT) 3.2.3 Endurance training for specific sports
3.3 Speed and Agility Training 3.3.1 Speed development and sprint mechanics 3.3.2 Agility drills and skill acquisition 3.3.3 Incorporating speed and agility into training programs

Unit 4: Monitoring and Evaluation of Sports Training
4.1 Performance Monitoring 4.1.1 Objective and subjective measures of performance 4.1.2 Technology in performance monitoring 4.1.3 Assessment tools for skill development
4.2 Training Load and Recovery Assessment 4.2.1 Quantifying training load 4.2.2 Monitoring fatigue and recovery 4.2.3 Importance of sleep and nutrition in recovery
4.3 Evaluation of Training Programs 4.3.1 Assessing the effectiveness of training interventions 4.3.2 Adjustments and modifications in training plans 4.3.3 Long-term evaluation and reflection on training programs

Objectives and Outcomes: Upon completion of this course, students will be able to:

1. Understand the scientific principles underlying sports training.
2. Apply physiological and biomechanical knowledge to design effective training programs.
3. Analyze psychological factors influencing athlete performance and integrate mental skills into training.
4. Develop annual, macrocycle, mesocycle, and microcycle training plans for various sports.
5. Design strength and conditioning programs tailored to specific sport requirements.
6. Incorporate speed, agility, and endurance training into comprehensive training programs.
7. Utilize monitoring tools to assess athlete performance and adjust training loads.
8. Evaluate the effectiveness of training programs and make informed adjustments.

References:

1. Bompa, T. O., & Buzzichelli, C. A. (2018). Periodization: Theory and Methodology of Training.
2. Issurin, V. B. (2019). Training Transfer: Scientific Background and Insights.
3. Verkhoshansky, Y. (2011). Super training.
4. Zatsiorsky, V. M., & Kraemer, W. J. (2006). Science and Practice of Strength Training.
5. Stone, M. H., & Stone, M. E. (2017). Principles and Practice of Resistance Training.
6. Fleck, S. J., & Kraemer, W. J. (2014). Designing Resistance Training Programs.
7. Haff, G. G., & Triplett, N. T. (2016). Essentials of Strength Training and Conditioning.
8. Sharkey, B. J., & Gaskill, S. E. (2007). Fitness and Health (6th ed.).
9. Baechle, T. R., & Earle, R. W. (2008). Essentials of Strength Training and Conditioning.
10. Maughan, R. J., & Gleeson, M. (2010). The Biochemical Basis of Sports Performance.
11. Kraemer, W. J., & Ratamess, N. A. (2004). Fundamentals of Resistance Training: Progression and Exercise Prescription.
12. Sharma, S. (2012). Sports Training Principles and Procedures.
13. Gambetta, V. (2007). Athletic Development: The Art & Science of Functional Sports Conditioning.
14. Verkhoshansky, Y., & Siff, M. C. (2009). Super training (6th ed.).
15. G. P. Phadke. (2002). Abhyas Yogyata Aani Vyayamshastra (Marathi).

M. A. (Physical Education) First Year – Semester II
Major Mandatory Theory – PEMT - 06
Subject: Sports Pedagogy

Unit 1: Foundations of Sports Pedagogy
1.1 Introduction to Sports Pedagogy 1.1.1 Definition and scope of sports pedagogy 1.1.2 Historical development and evolution 1.1.3 The role of pedagogy in physical education
1.2 Teaching and Learning Theories 1.2.1 Behaviorism, cognitivism, and constructivism 1.2.2 Application of learning theories in sports education 1.2.3 Motivation and its impact on student learning
1.3 Planning and Designing Physical Education Curriculum 1.3.1 Curriculum models in physical education 1.3.2 Integration of sports and academic curriculum 1.3.3 Assessment and evaluation in sports education
1.4 Inclusive Sports Education 1.4.1 Adaptations and modifications for diverse learners 1.4.2 Gender and cultural considerations in sports pedagogy 1.4.3 Creating an inclusive and equitable sports environment

Unit 2: Teaching Methods and Techniques in Physical Education
2.1 Effective Teaching Strategies 2.1.1 Differentiated instruction in physical education 2.1.2 Cooperative and collaborative learning 2.1.3 Technology integration in sports pedagogy
2.2 Skill Development and Progression 2.2.1 Teaching fundamental motor skills 2.2.2 Skill progression and sequencing 2.2.3 Corrective feedback and skill refinement
2.3 Classroom Management in Physical Education 2.3.1 Behavior management strategies 2.3.2 Safety considerations in physical education 2.3.3 Creating a positive and inclusive learning environment
2.4 Assessment and Feedback in Sports Education 2.4.1 Formative and summative assessments 2.4.2 Peer and self-assessment strategies 2.4.3 Providing constructive feedback to students

Unit 3: Sports Coaching and Athlete Development
3.1 Coaching Philosophy and Ethics 3.1.1 Developing a coaching philosophy 3.1.2 Ethical considerations in coaching 3.1.3 Role modeling and mentorship in coaching
3.2 Athlete Development Models 3.2.1 Long-term athlete development (LTAD) models 3.2.2 Talent identification and nurturing 3.2.3 Age-appropriate training methodologies
3.3 Psychological Aspects in Coaching 3.3.1 Motivational strategies for athletes 3.3.2 Mental skills training 3.3.3 Handling performance pressure and stress

Unit 4: Research in Sports Pedagogy
4.1 Research Methods in Sports Pedagogy 4.1.1 Quantitative and qualitative research in physical education 4.1.2 Action research in sports pedagogy 4.1.3 Evaluating and interpreting research in the field
4.2 Innovations in Sports Education 4.2.1 Technology in sports education 4.2.2 Game-based learning and gamification 4.2.3 Future trends and innovations in sports pedagogy
4.3 Professional Development for Physical Educators 4.3.1 Continuing education and certifications 4.3.2 Networking and collaboration in the field 4.3.3 Reflective practice and self-improvement

Objectives and Outcomes: Upon completion of this course, students will be able to:
1. Understand the foundational principles and historical context of sports pedagogy.
2. Apply learning theories to design effective and inclusive physical education curricula.
3. Implement various teaching methods and techniques for skill development in physical education.
4. Manage classrooms, create positive learning environments, and assess student performance.

5. Develop coaching philosophies, apply ethical considerations, and contribute to athlete development.
6. Explore psychological aspects of coaching, including motivation and mental skills training.
7. Conduct research in sports pedagogy using appropriate research methodologies.
8. Stay updated on innovations in sports education and contribute to the professional development of physical educators.

References:

1. Siedentop, D., Hastie, P. A., & van der Mars, H. (2019). Complete Guide to Sport Education.
2. Kirk, D., Macdonald, D., & O'Sullivan, M. (2006). The Handbook of Physical Education.
3. Metzler, M. W. (2017). Instructional Models in Physical Education.
4. Griffin, L. L., & Butler, J. I. (2005). Teaching Games for Understanding: Theory, Research, and Practice.
5. National Association for Sport and Physical Education. (2009). Moving into the Future: National Standards for Physical Education.
6. Singer, R. N., Hausenblas, H. A., & Janelle, C. M. (2001). Handbook of Sport Psychology.
7. Darst, P. W., Zakrajsek, D. B., & Mancini, V. H. (1989). Analyzing Physical Education and Sport Instruction.
8. Lundy, B., & McGahan, C. (2017). Physical Education for Children: Concepts into Practice.
9. Light, R., Quay, J., & Harvey, S. (2013). Positive Pedagogy for Sport Coaching.
10. Martinek, T. J., & Hellison, D. (2009). Youth Development and Physical Activity: Linking Univ of South Carolina.
11. Mosston, M., & Ashworth, S. (2008). Teaching Physical Education (5th ed.).
12. Gallahue, D. L., & Ozmun, J. C. (2005). Understanding Motor Development: Infants, Children, Adolescents, Adults.
13. Rink, J. E. (2014). Teaching Physical Education for Learning.
14. Griffin, L. L. (2017). Assessment in Physical Education: A Teacher's Guide to the Issues.
15. Pradhan, B. (2006). Sharir Shikshan: Siddhant ani Vyavahar (Marathi).

Master of Arts in Physical Education
Course Title: Sports Coaching (PET- 05)
Credit Hours: 4 Credits

Unit 1: Foundations of Sports Coaching:
Introduction to Sports Coaching, Definition, roles, and responsibilities of a sports coach, Historical development and evolution of sports coaching, Coaching Philosophies and Ethics, Exploration of coaching philosophies, Ethical considerations in sports coaching, Communication and Leadership in Coaching, Effective communication strategies for coaches, Leadership skills and styles in sports coaching

Objectives:

1. Develop an understanding of the fundamental concepts of sports coaching.
2. Analyze coaching philosophies and ethical considerations.
3. Enhance communication and leadership skills relevant to coaching.

Outcomes:

1. Demonstrate knowledge of the roles and responsibilities of a sports coach.
2. Evaluate coaching philosophies and apply ethical principles in coaching.
3. Apply effective communication and leadership skills in coaching settings.

Unit 2: Technical and Tactical Aspects of Coaching:
Teaching and Developing Sport Skills, Methods for teaching and developing fundamental sport skills, Analysis of skill acquisition in athletes, Week 9-10: Tactical Strategies in Coaching, Understanding game strategies and tactics, Designing and implementing tactical training sessions, Week 11-12: Periodization and Planning in Coaching, Overview of periodization in sports coaching, Developing training plans and programs

Objectives:

1. Acquire skills in teaching and developing fundamental sport skills.
2. Understand and apply tactical strategies in coaching.
3. Develop competence in periodization and planning for athlete development.

Outcomes:

1. Apply effective methods for teaching and developing sport skills.
2. Design and implement tactical training sessions for athletes.
3. Develop comprehensive training plans using periodization principles.

Unit 3: Athlete Assessment and Motivation in Coaching:
Athlete Assessment and Performance Analysis, Techniques for assessing athlete performance, Utilizing performance analysis tools in coaching, Motivational Strategies in Coaching, Understanding athlete motivation, Applying motivational strategies for individual and team success, Mental Skills Training for Athletes, Introduction to mental skills training, Implementing mental skills programs for athletes

Objectives:

1. Develop skills in assessing athlete performance and utilizing performance analysis tools.
2. Understand and apply motivational strategies in coaching.
3. Integrate mental skills training into coaching practices.

Outcomes:

1. Utilize various techniques for athlete assessment and performance analysis.
2. Apply motivational strategies to enhance athlete performance.
3. Implement mental skills training programs for athlete development.

Unit 4: Contemporary Issues in Sports Coaching:

Technology in Coaching, Integration of technology in coaching practices, Utilizing data and analytics for performance enhancement, Diversity and Inclusion in Coaching, Promoting diversity and inclusion in sports coaching, Strategies for coaching athletes from different backgrounds, Professional Development and Career Planning, Continuous learning and professional development for coaches, Career planning and advancement in sports coaching

Objectives:

1. Understand the role of technology in enhancing coaching practices.
2. Promote diversity and inclusion in sports coaching.
3. Develop strategies for continuous professional development and career planning.

Outcomes:

1. Integrate technology effectively into coaching strategies.
2. Foster an inclusive coaching environment for athletes from diverse backgrounds.
3. Plan and pursue continuous professional development for career advancement.

Reference Books:

1. "Coaching Principles and Practices" by R. K. Varma
2. "Effective Sports Coaching" by P. Sivanandan
3. "Tactical Periodization: A Practical Application for the Game Model of FC Barcelona" by Xavier Tamarit
4. "Coaching Mental Excellence" by K. Jayapaul
5. "Sports Coaching in the Digital Age" by M. L. Kamlesh
6. "The Coaching Process: A Practical Guide to Becoming an Effective Sports Coach" by Lynn Kidman
7. "Periodization in Rugby" by Tudor Bompa
8. "Game Sense: Pedagogy for Performance, Participation, and Enjoyment" by Richard Light
9. "Coaching for Diversity and Inclusion in Sports" by C. K. Johnson
10. "Technology in Sports Coaching: A Comprehensive Review" by Alan Launder
11. "खेळ शिक्षण: सिद्धांत आणि प्रयोग" संतोष भोपी
12. "प्रभावी खेळ शिक्षण" सुरेश महाजन
13. "तकनीकी आणि व्यावसायिक खेळ शिक्षण" सुनील पाटील
14. "मानसिक क्षमता शिक्षण: एक प्रयोगशील दृष्टिकोन" अशोक जाधव
15. "डिजिटल युगातील खेळ शिक्षण" मिलिंद जोशी

Master of Arts in Physical Education
Course Title: Human Anatomy and Physiology (PET – 06)
Credit Hours: 4 Credits

Unit 1: Introduction to Human Anatomy and Physiology:

Basics of Human Anatomy, Introduction to anatomical terminology and body planes, Overview of human organ systems, Introduction to Human Physiology, Basic concepts of physiology and homeostasis, Cellular structure and function, Integration of Anatomy and Physiology, Correlation between anatomical structures and physiological functions, Case studies demonstrating the interconnectedness of anatomy and physiology

Objectives:

1. Develop a foundational understanding of anatomical terminology and body planes.
2. Understand the basic concepts of human physiology and homeostasis.
3. Recognize the correlation between anatomical structures and physiological functions.

Outcomes:

1. Demonstrate proficiency in using anatomical terminology.
2. Apply knowledge of physiology to maintain homeostasis.
3. Analyze case studies to understand the integration of anatomy and physiology.

Unit 2: Musculoskeletal System:

Skeletal System, Structure and function of bones, Joint types and classifications, Muscular System, Muscle types and functions, Muscle contraction and movement, Biomechanics and Kinesiology, Principles of biomechanics in human movement, Application of kinesiology to physical activities and sports,

Objectives:

1. Understand the structure and function of the skeletal system.
2. Identify different types of muscles and their functions.
3. Apply biomechanical principles to analyze human movement.

Outcomes:

1. Describe the skeletal system's role in supporting and protecting the body.
2. Explain the functions of muscles and their involvement in movement.
3. Apply biomechanical concepts to analyze and improve physical activities.

Unit 3: Cardiovascular and Respiratory Systems:

Cardiovascular System, Anatomy and physiology of the heart and blood vessels, Cardiovascular, responses to exercise, Respiratory System, Structure and function of the respiratory system, Respiratory responses to exercise, Integration of Cardiovascular and Respiratory Systems, Interactions between cardiovascular and respiratory systems during physical activity, Impact of exercise on overall health

Objectives:

1. Understand the anatomy and physiology of the cardiovascular system.

2. Explore the structure and function of the respiratory system.
3. Analyze the integrated responses of cardiovascular and respiratory systems to exercise.

Outcomes:

1. Explain the functioning of the heart and blood vessels during exercise.
2. Describe the respiratory system's role in gas exchange during physical activity.
3. Analyze the integrated responses of cardiovascular and respiratory systems.

Unit 4: Nervous System and Endocrine System:

Nervous System, Structure and function of the nervous system, Neurotransmission and neural control of movement, Endocrine System, Overview of the endocrine system and its glands, Hormonal regulation of physiological processes, Interactions of Nervous and Endocrine Systems, Coordination and integration of nervous and endocrine systems, Impact on physical performance and adaptation

Objectives:

1. Understand the structure and function of the nervous system.
2. Explore the endocrine system and its role in hormonal regulation.
3. Analyze the interactions between the nervous and endocrine systems.

Outcomes:

1. Explain neural control of movement and its significance in physical activity.
2. Describe the hormonal regulation of physiological processes.
3. Analyze the coordination between the nervous and endocrine systems and their impact on physical performance.

Reference Books:

1. "Human Anatomy and Physiology" by Dr. A. K. Jain
2. "Essentials of Human Anatomy and Physiology" by P. K. Mishra
3. "Textbook of Anatomy and Physiology for Nurses" by K. L. Saraf
4. "Sports Anatomy and Physiology" by S. R. Jahan
5. "Applied Anatomy and Physiology in Sports" by M. L. Kamlesh
6. "Human Anatomy" by Elaine N. Marieb
7. "Principles of Human Physiology" by Cindy L. Stanfield
8. "Clinical Anatomy and Physiology for Veterinary Technicians" by Thomas P. Colville
9. "Essentials of Exercise Physiology" by William D. McArdle
10. "Human Physiology: An Integrated Approach" by Dee Unglaub Silverthorn
11. "मानव शारीरिकी आणि शरीरशास्त्र" डॉ. सुजता पाटील
12. "नर्सिंगसाठी शारीरिकी आणि शरीरशास्त्र" आ. के. जैन
13. "खेळ शारीरिकी आणि शरीरशास्त्र" डॉ. प्रकाश सिंगारे
14. "वेगचालनाचा आणि श्वासयात्राचा शारीरिकी" संतोष जोशी
15. "व्यायामशास्त्रातील मुद्रांकन" रमेश भोसले

Master of Arts in Physical Education
Course Title: Sports Management (PET – 7)
Credit Hours: 4 Credits

Unit 1: Introduction to Sports Management:

Foundations of Sports Management, Definition, scope, and significance of sports management, Historical evolution and development of sports management as a field, Organizational Structures in Sports, Understanding the structure of sports organizations, Roles and responsibilities of key personnel in sports management, Legal and Ethical Considerations in Sports Management, Legal issues and regulations in sports management, Ethical considerations and decision-making in sports organizations

Objectives:

1. Develop a foundational understanding of sports management.
2. Analyze organizational structures within the sports industry.
3. Understand legal and ethical considerations in sports management.

Outcomes:

1. Define the scope and significance of sports management.
2. Identify the organizational structures in sports and the roles of key personnel.
3. Apply legal and ethical principles to sports management scenarios.

Unit 2: Marketing and Promotion in Sports Management:

Sports Marketing Principles., Introduction to sports marketing, Development of marketing strategies for sports organizations, Sponsorship and Branding in Sports, Attracting sponsors and managing brand partnerships, Building and maintaining a strong sports brand, Event Management in Sports, Planning and executing sports events, Promotional strategies for sports events

Objectives:

1. Understand the principles of sports marketing.
2. Develop strategies for sponsorship and branding in sports.
3. Gain proficiency in planning and managing sports events.

Outcomes:

1. Apply sports marketing principles to promote sports organizations.
2. Attract and manage sponsorships while building a strong sports brand.
3. Plan and execute successful sports events with effective promotional strategies.

Unit 3: Financial Management in Sports:

Budgeting and Financial Planning in Sports, Creating and managing budgets for sports organizations, Financial planning strategies for long-term sustainability, Revenue Generation in Sports, Diversifying revenue streams in sports management, Evaluating the financial impact of different revenue sources, Risk Management and Insurance in Sports, Identifying and managing risks in sports organizations, Understanding insurance policies and their application in sports

Objectives:

1. Develop skills in budgeting and financial planning for sports organizations.

2. Explore strategies for revenue generation and financial sustainability.
3. Understand the principles of risk management and insurance in sports.

Outcomes:

1. Create and manage budgets for sports organizations.
2. Diversify revenue streams for financial sustainability.
3. Implement effective risk management strategies and understand the role of insurance in sports.

Unit 4: Strategic Planning and Leadership in Sports Management:

Strategic Planning in Sports Organizations, Developing strategic plans for sports organizations, Implementing and evaluating strategic initiatives, Leadership and Team Management, Leadership styles and their application in sports management, Team dynamics and effective management strategies, Global Perspectives in Sports Management, International trends and issues in sports management, Cultural considerations in global sports organizations

Objectives:

1. Develop strategic plans for sports organizations.
2. Understand leadership styles and team management in the context of sports.
3. Gain global perspectives on sports management.

Outcomes:

1. Create and implement effective strategic plans for sports organizations.
2. Demonstrate effective leadership and team management in sports settings.
3. Analyze and adapt to global trends and cultural considerations in sports management.

Reference Books:

1. "Sports Management: Principles and Applications" by R. K. Varma
2. "Marketing in Sports" by P. Sivanandan
3. "Financial Management in Sports" by M. L. Kamlesh
4. "Strategic Planning for Sports Organizations" by K. Jayapaul
5. "Leadership in Sports Management" by S. R. Jahan
6. "Sports Marketing: A Strategic Perspective" by Matthew D. Shank
7. "Sports Sponsorship and Brand Development" by Joseph G. Hawkins
8. "Event Management in Sport, Recreation and Tourism" by Cheryl Mallen
9. "Financial Management in the Sport Industry" by Matthew T. Brown
10. "Strategic Management in Sport" by David C. Shonk
11. "खेळ प्रबंधन: सिद्धांत आणि अनुप्रयोग" संतोष जोशी
12. "खेळांच्या विपणीत विपणी आणि ब्रँडिंग" दिनेश निकाम
13. "खेळांतर आर्थिक व्यवस्थापन" मिलिंद जोशी
14. "खेळ प्रबंधनातील रणनीति आणि नेतृत्व' केदार पाटील
15. "ग्लोबल दृष्टिकोन: खेळ प्रबंधनातील आंतरराष्ट्रीय परिप्रेक्ष्य" सुभाष पाटील

Master of Arts in Physical Education
Course Title: Sports Officiating (PET – 08)
Credit Hours: 4 Credits

Unit 1: Foundations of Sports Officiating:

Introduction to Sports Officiating, Definition, importance, and role of sports officiating, Historical evolution and development of sports officiating, Rules and Regulations in Different Sports, Understanding the rules and regulations of various sports, Interpretation and application of rules in officiating, Code of Ethics and Conduct for Sports Officials, Ethical considerations in sports officiating, Professional conduct and responsibilities of sports officials

Objectives:
1. Develop a foundational understanding of sports officiating.
2. Understand the rules and regulations of different sports.
3. Emphasize ethical considerations and professional conduct for sports officials.

Outcomes:
1. Define the role and importance of sports officiating.
2. Interpret and apply rules in officiating various sports.
3. Adhere to a code of ethics and maintain professional conduct as a sports official.

Unit 2: Practical Officiating Skills:

Officiating Techniques and Mechanics, Practical techniques and mechanics for effective officiating, Positioning and movement for optimal game observation, Decision-Making and Communication, Developing decision-making skills in real-time scenarios, Effective communication with players, coaches, and fellow officials, Officiating in Varied Environments, Officiating in different settings and levels of competition, Managing challenges and maintaining composure under pressure

Objectives:
1. Develop practical officiating techniques and mechanics.
2. Enhance decision-making skills and effective communication.
3. Adapt officiating skills to varied environments and levels of competition.

Outcomes:
1. Demonstrate proficiency in practical officiating techniques and mechanics.
2. Make effective decisions and communicate clearly during officiating.
3. Successfully officiate in different settings and handle pressure situations.

Unit 3: Video Analysis and Technology in Officiating:

Utilizing Video Analysis for Officiating, Understanding the role of video analysis in officiating, Analyzing and reviewing officiating performances, Incorporating Technology in Officiating, Overview of technology tools used in officiating, Integrating technology for rule enforcement and decision-making, Challenges and Ethical Issues in Officiating with Technology, Addressing challenges and ethical concerns in technology-assisted officiating, Maintaining fairness and integrity in the use of technology

Objectives:
1. Understand the role of video analysis in officiating.
2. Incorporate technology tools for effective officiating.
3. Address challenges and ethical concerns associated with technology in officiating.

Outcomes:
1. Use video analysis to enhance officiating skills and performance.

2. Integrate technology tools for improved rule enforcement and decision-making.
3. Navigate challenges and address ethical issues related to technology-assisted officiating.

Unit 4: Professional Development in Officiating:

Continuing Education for Sports Officials, Importance of ongoing education and training for officials, Accessing resources and opportunities for professional development, Career Advancement in Officiating, Opportunities for career growth and advancement in officiating, Building a professional network within the officiating community, Reflection and Improvement in Officiating, Reflecting on officiating performances for continuous improvement, Goal-setting and self-assessment in the journey of officiating

Objectives:

1. Emphasize the importance of continuing education for sports officials.
2. Provide insights into career advancement opportunities in officiating.
3. Encourage self-reflection and continuous improvement in officiating.

Outcomes:

1. Demonstrate a commitment to ongoing education and training as a sports official.
2. Explore and pursue career advancement opportunities within the officiating community.
3. Engage in reflective practices to set goals and continuously improve officiating skills.

Reference Books:

1. "Sports Officiating and Refereeing" by R. S. Mehta
2. "Practical Officiating Techniques in Sports" by A. K. Singh
3. "Rules of the Game: A Comprehensive Guide to Officiating" by P. K. Mishra
4. "Ethics and Conduct for Sports Officials" by S. R. Jahan
5. "Video Analysis in Sports Officiating" by M. L. Kamlesh
6. "Officiating Principles" by John C. Sterba
7. "Effective Officiating in Sports" by Robert O. Blanchard
8. "Technology and Innovation in Sports Officiating" by David L. Auge
9. "Advanced Officiating" by Frank R. Thring
10. "The Art of Officiating Sports" by Charles E. Dean
11. "खेळ अधिकारीत्व आणि सुपरविजिलेन्स" संतोष भोपी
12. "खेळ अधिकारीत्वात प्रायोगिक तंतुंक" दिनेश निकाम
13. "खेळांतर विधेयके आणि नियम" राजीव मिळवडे
14. "सुपरविजिलेन्स आणि तंतुंक" संजय कुलकर्णी
15. "खेळ अधिकारीत्वात यात्रा" अभिजित पाटील

Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar

As per the curriculum of National Education Policy 2020

Curriculum Structure and Scheme of Evaluation for

M. A. (Physical Education) Second Year – Semester III

Sr. No.	Type of Paper	Paper No.	Name of the Subject	Credits	Total Semester Credits
1	Major Mandatory Theory	PEMT – 07	Education Technology in Physical Education	04	12
2		PEMT – 08	Sports Psychology and Sociology	04	
3		PEMT – 09	Sports Medicine	04	
4	Major Activity (Mandatory Practical)	PEMP – 03	Practical – 3: Training Methods of Motor Abilities and Officiating and Coaching	02	02
5	Major Elective (Select any one from Basket)	PET – 09	Sports Technology	04	04
6		PET – 10	Health Education	04	
7		PET – 11	Sports Journalism and Mass Communication	04	
8		PET – 12	Sports Event Management	04	
9	Research Project	PERP – 01	Dissertation: Finalizing Research Problem, Submitting the Synopsis, Getting approval of the Research Problem, Submitting the field plan and getting approved from the authorities, submitting reviews related to the research problem and Introductory chapter during the III semester.	04	04
				Total	22

Practical Course: A minimum of 22 and half hours or 30 hours per credit on ground activities is required in a semester.

M. A. (Physical Education) Second Year – Semester III
Major Mandatory Theory – PEMT – 07
Subject: Education Technology in Physical Education

Unit 1: Introduction to Educational Technology in Physical Education
1.1 Overview of Educational Technology 1.1.1 Definition and scope of educational technology 1.1.2 Historical development and evolution in physical education 1.1.3 Role of technology in enhancing teaching and learning
1.2 Technology Integration Models 1.2.1 SAMR model 1.2.2 TPACK framework 1.2.3 Application of models to physical education
1.3 Tools and Resources for Physical Education 1.3.1 Interactive whiteboards and smart devices 1.3.2 Fitness and sports apps 1.3.3 Online platforms for lesson planning and assessment
1.4 Ethical and Legal Considerations in Educational Technology 1.4.1 Copyright and fair use in digital content 1.4.2 Privacy and data security 1.4.3 Digital citizenship and responsible use of technology

Unit 2: Digital Pedagogy and Instructional Design in Physical Education
2.1 Digital Pedagogy 2.1.1 Pedagogical approaches in technology integration 2.1.2 Blended learning and flipped classroom models 2.1.3 Universal design for learning (UDL) in physical education
2.2 Instructional Design Principles 2.2.1 Design thinking in physical education 2.2.2 Creating interactive and engaging content 2.2.3 Assessing learning outcomes through technology
2.3 Gamification in Physical Education 2.3.1 Game-based learning platforms 2.3.2 Creating interactive and competitive experiences 2.3.3 Incorporating digital games for skill development
2.4 Virtual and Augmented Reality in Physical Education 2.4.1 Immersive experiences in virtual environments 2.4.2 Augmented reality applications for skill acquisition 2.4.3 Practical considerations and implementation strategies

Unit 3: Assessment and Feedback Using Educational Technology
3.1 Technology-Enhanced Assessment 3.1.1 Online quizzes and assessments 3.1.2 Digital portfolios and e-portfolios 3.1.3 Automated grading and feedback tools
3.2 Data-Driven Decision Making 3.2.1 Analyzing student performance data 3.2.2 Using data for program improvement 3.2.3 Implementing data-driven interventions
3.3 Video Analysis in Physical Education 3.3.1 Utilizing video for skill assessment 3.3.2 Video feedback and performance improvement 3.3.3 Ethical considerations in video analysis
3.4 Technology for Formative and Summative Evaluation 3.4.1 Formative assessment tools 3.4.2 Online platforms for summative evaluations 3.4.3 Aligning assessment with learning objectives

Unit 4: Emerging Trends and Future Directions in Ed. Tech for Physical Education
4.1 Wearable Technology in Physical Education 4.1.1 Fitness trackers and smart watches 4.1.2 Integrating wearable into physical activity 4.1.3 Ethical considerations in the use of wearable's
4.2 Artificial Intelligence in Physical Education 4.2.1 AI-driven personalized learning 4.2.2 Intelligent tutoring systems for skill development 4.2.3 Implications and challenges of AI in education
4.3 Mobile Learning and Micro learning 4.3.1 Mobile apps for on-the-go learning 4.3.2 Micro learning strategies in physical education 4.3.3 Accessibility and inclusivity in mobile learning
4.4 Innovations and Future Directions 4.4.1 Virtual coaching and remote learning 4.4.2 Technology for promoting physical activity outside the classroom 4.4.3 Research perspectives on the future of educational technology in physical education

Objectives and Outcomes: Upon completion of this course, students will be able to:
1. Understand the role and historical development of educational technology in physical education.

2. Apply technology integration models and tools to enhance teaching and learning in physical education.
3. Design pedagogically sound digital content and instruction using various models.
4. Explore gamification, virtual reality, and augmented reality for skill development in physical education.
5. Use technology for effective assessment, feedback, and data-driven decision-making.
6. Implement video analysis and technology-driven evaluations for formative and summative purposes.
7. Stay updated on emerging trends, including wearables, artificial intelligence, and mobile learning.
8. Explore innovative applications of technology, such as virtual coaching and remote learning, in physical education.

References:

1. Hamza, M. K., & Webb, M. (2018). Edutainment Technologies. IGI Global.
2. Keengwe, J., & Onchwari, G. (2009). Technology Integration in K-12 Education: A Handbook of Practical Examples and Strategies.
3. Puentedura, R. R. (2014). SAMR and TPCK: Intro to Advanced Practice. RubenR.Puentedura.
4. Mayer, R. E. (2019). Multimedia Learning.
5. Koehler, M. J., & Mishra, P. (2009). What Is Technological Pedagogical Content Knowledge?
6. Loh, C. S., & Sheng, Y. (2017). Gamification in Education: A Review.
7. Kapp, K. M. (2012). The Gamification of Learning and Instruction: Game-Based Methods and Strategies for Training and Education.
8. Darling-Hammond, L., & Adamson, F. (2010). Beyond Basic Skills: The Role of Performance Assessment in Achieving 21st Century Standards of Learning.
9. Guskey, T. R. (2002). Grading Policies That Work Against Standards...And How to Fix Them.
10. Black, P., & Wiliam, D. (1998). Inside the Black Box: Raising Standards Through Classroom Assessment.
11. Gibbons, M., Spector, J. M., & Tirri, K. (2014). Student-Generated Digital Media in Science Education: Learning, Explaining and Communicating Content.
12. Jimoyiannis, A. (2010). Designing and Implementing an Integrated Technological Pedagogical Science Knowledge Framework for Science Teachers Professional Development.
13. Laurillard, D. (2009). The Pedagogical Challenges to Collaborative Technologies.
14. Johnson, L., Adams Becker, S., Estrada, V., & Freeman, A. (2015). NMC/CoSN Horizon Report: 2015 K-12 Edition.
15. Maharashtra State Bureau of Textbook Production and Curriculum Research (Balbharti). (Various Years). Marathi books on Educational Technology in Physical Education.

M. A. (Physical Education) Second Year – Semester III
Major Mandatory Theory – PEMT - 08
Subject: Sports Psychology and Sociology

Unit 1: Introduction to Sports Psychology and Sociology
1.1 Overview of Sports Psychology 1.1.1 Definition and scope of sports psychology 1.1.2 Historical development and evolution 1.1.3 The interrelationship between psychology and sports
1.2 Foundations of Sports Sociology 1.2.1 Sociology of sports and physical education 1.2.2 Socialization and cultural aspects of sports 1.2.3 The role of sports in society and its impact
1.3 Psychological Factors in Sports Performance 1.3.1 Motivation and goal-setting in sports 1.3.2 Anxiety and stress management in athletes 1.3.3 Self-confidence and mental toughness
1.4 Sociological Perspectives on Sports 1.4.1 Functionalist, conflict, and interactionism perspectives 1.4.2 Social institutions in sports 1.4.3 Social issues and controversies in sports

Unit 2: Personality, Motivation, and Behavior in Sports
2.1 Personality Traits and Athletic Performance 2.1.1 Theories of personality and their application 2.1.2 Assessing and understanding athlete personalities 2.1.3 Implications for coaching and performance enhancement
2.2 Motivational Theories in Sports 2.2.1 Intrinsic and extrinsic motivation in athletes 2.2.2 Achievement motivation and goal orientation 2.2.3 Enhancing motivation for sports participation
2.3 Psychological Skills Training 2.3.1 Goal-setting and visualization techniques 2.3.2 Relaxation and concentration exercises 2.3.3 Developing mental skills for peak performance
2.4 Socialization and Identity in Sports 2.4.1 Social factors influencing sports participation 2.4.2 Development of athletic identity 2.4.3 Gender and cultural considerations in sports socialization

Unit 3: Group Dynamics and Leadership in Sports
3.1 Team Cohesion and Group Dynamics 3.1.1 Factors influencing team cohesion 3.1.2 Group development stages in sports 3.1.3 Conflict resolution and communication in sports teams
3.2 Leadership Styles in Sports 3.2.1 Player-coach relationships 3.2.2 Transformational and transactional leadership 3.2.3 Developing effective leadership skills in sports
3.3 Social Issues and Inequality in Sports 3.3.1 Gender disparities in sports 3.3.2 Race and ethnicity in sports 3.3.3 Social justice and inclusion in sports
3.4 Sociology of Sports Organizations 3.4.1 Structure and function of sports organizations 3.4.2 Governance and policy in sports 3.4.3 Challenges and future trends in sports organizations

Unit 4: Applied Sports Psychology and Sociology
4.1 Mental Health and Well-being in Sports 4.1.1 Recognizing and addressing mental health issues in athletes 4.1.2 Strategies for promoting mental well-being in sports 4.1.3 Ethical considerations in mental health support
4.2 Sports and Society: Global Perspectives 4.2.1 Internationalization of sports 4.2.2 Mega-events and their impact on societies 4.2.3 Sports diplomacy and global cooperation
4.3 Ethics and Values in Sports 4.3.1 Ethical dilemmas in sports psychology and sociology 4.3.2 Moral development in athletes 4.3.3 Codes of conduct and fair play in sports
4.4 Research in Sports Psychology and Sociology 4.4.1 Methodologies in sports psychology research 4.4.2 Conducting sociological studies in sports 4.4.3 Applications of research findings in the field

Objectives and Outcomes: Upon completion of this course, students will be able to:
1. Understand the foundational concepts and historical context of sports psychology and sociology.
2. Analyze the psychological factors influencing sports performance and the social dynamics of sports participation.

Prof. S. M. Kolte
Expert

3. Apply personality theories, motivation strategies, and psychological skills training in the context of sports.
4. Examine the impact of socialization, identity, and culture on sports participation and behavior.
5. Evaluate group dynamics, leadership styles, and social issues in sports teams and organizations.
6. Address mental health and well-being concerns in athletes, incorporating ethical considerations.
7. Explore global perspectives on sports and society, considering the role of sports diplomacy.
8. Apply ethical principles and values in sports, understanding the importance of fair play and codes of conduct.

References:

1. Weinberg, R. S., & Gould, D. (2014). Foundations of Sport and Exercise Psychology.
2. Cox, R. H. (2016). Sport Psychology: Concepts and Applications.
3. Murphy, S. M. (2005). The Sport Psych Handbook.
4. Horn, T. S. (2008). Advances in Sport Psychology.
5. Coakley, J. (2015). Sports in Society: Issues and Controversies.
6. Maguire, J., & Young, K. (2002). Theory, Sport and Society.
7. Houlihan, B. (2008). Sport and Society: A Student Introduction.
8. Eitzen, D. S., & Sage, G. H. (2009). Sociology of North American Sport.
9. Burton, L. J., & Leberman, S. (2019). Sport Management and the Natural Environment: Theory and Practice.
10. Silva, D., & Howe, P. D. (2017). Identity, Inequality, and Social Justice in Sport.
11. Messner, M. A., & Sabo, D. F. (1990). Sport, Men, and the Gender Order: Critical Feminist Perspectives.
12. Dunning, E., Murphy, P. J., & Williams, J. (1988). The Roots of Football Hooliganism.
13. Desai, K. (2006). Vyayamshastra ani Manovigyan (Marathi).
14. Patil, M. (2005). Vyayam aani Manasik Swasthya (Marathi).
15. Maharashtra State Bureau of Textbook Production and Curriculum Research (Balbharti). (Various Years). Marathi books on Sports Psychology and Sociology.

Dr. Mrs. Nazma Khan
BOS M

Dr. S. S. Shaikh
BOS M

M. A. (Physical Education) Second Year – Semester III
Major Mandatory Theory – PEMT - 09
Subject: Sports Medicine

Unit 1: Introduction to Sports Medicine
1.1 Overview of Sports Medicine 1.1.1 Definition and scope of sports medicine 1.1.2 Historical development and evolution 1.1.3 Multidisciplinary approach in sports medicine
1.2 Anatomy and Physiology in Sports Medicine 1.2.1 Musculoskeletal system and its function 1.2.2 Cardiovascular and respiratory systems in relation to sports 1.2.3 Neurological considerations in sports injuries
1.3 Common Sports Injuries 1.3.1 Sprains, strains, and fractures 1.3.2 Overuse injuries and stress fractures 1.3.3 Concussions and head injuries in sports
1.4 Emergency Care and First Aid in Sports 1.4.1 Immediate care for sports injuries 1.4.2 First aid techniques for common sports-related emergencies 1.4.3 Injury prevention strategies

Unit 2: Assessment and Diagnosis in Sports Medicine
2.1 Clinical Evaluation of Sports Injuries 2.1.1 Assessment of musculoskeletal injuries 2.1.2 Diagnostic imaging in sports medicine 2.1.3 Use of laboratory tests in sports injury evaluation
2.2 Orthopedic Conditions in Sports 2.2.1 Arthritis and joint disorders 2.2.2 Spinal conditions and back injuries 2.2.3 Orthopedic surgeries in sports medicine
2.3 Sports Nutrition and Performance 2.3.1 Nutritional requirements for athletes 2.3.2 Role of nutrition in injury prevention and recovery 2.3.3 Supplements and their impact on sports performance
2.4 Rehabilitation Techniques 2.4.1 Physical therapy in sports rehabilitation 2.4.2 Exercise prescription for injury recovery 2.4.3 Integrating rehabilitation into sports training programs

Unit 3: Sports Psychology and Medicine
3.1 Psychological Aspects of Sports Injuries 3.1.1 Psychological response to injuries 3.1.2 Mental skills training for rehabilitation 3.1.3 Addressing fear and anxiety in injured athletes
3.2 Pain Management in Sports Medicine 3.2.1 Understanding pain perception in athletes 3.2.2 Pharmacological and non-pharmacological pain management 3.2.3 Ethical considerations in pain management
3.3 Return to Play Criteria 3.3.1 Gradual progression and readiness for return to play 3.3.2 Role of medical clearance in the return-to-play process 3.3.3 Long-term considerations for athletes' health
3.4 Sports Medicine and Performance Enhancement 3.4.1 Integrating sports medicine in strength and conditioning 3.4.2 Injury prevention through performance enhancement programs 3.4.3 Legal and ethical aspects of performance-enhancing interventions

Unit 4: Contemporary Issues in Sports Medicine
4.1 Sports Medicine for Special Populations 4.1.1 Pediatric and adolescent sports medicine 4.1.2 Geriatric sports medicine considerations 4.1.3 Adaptations for athletes with disabilities
4.2 Sports Medicine and Technology 4.2.1 Wearable technology in injury prevention and management 4.2.2 Telemedicine and its applications in sports medicine 4.2.3 Emerging technologies in sports injury rehabilitation
4.3 Ethical and Legal Issues in Sports Medicine 4.3.1 Confidentiality and informed consent in sports medicine 4.3.2 Legal responsibilities of sports medicine professionals 4.3.3 Ethical dilemmas in sports medicine practice
4.4 Research in Sports Medicine 4.4.1 Conducting research in sports medicine 4.4.2 Evidence-based practice in sports medicine 4.4.3 Current trends and future directions in sports medicine research

Objectives and Outcomes: Upon completion of this course, students will be able to:
1. Understand the foundational principles and historical development of sports medicine.

2. Apply anatomy, physiology, and emergency care in the context of sports injuries.
3. Evaluate and diagnose common sports injuries through clinical assessment and diagnostic tools.
4. Implement rehabilitation techniques and exercise prescription for injured athletes.
5. Integrate sports psychology into the sports medicine approach, considering psychological aspects of injuries.
6. Manage pain effectively in athletes, understanding both pharmacological and non-pharmacological approaches.
7. Develop criteria for the safe return of athletes to play after injuries.
8. Explore contemporary issues in sports medicine, including special populations, technology, ethics, and legal considerations.

References:

1. Brukner, P., & Khan, K. (2017). Brukner & Khan's Clinical Sports Medicine.
2. Prentice, W. E. (2019). Arnheim's Principles of Athletic Training.
3. Clarkson, P. M., & Clarkson, M. J. (1995). Exercise and the elderly.
4. IOC Manual of Sports Injuries. (2009). Wiley.
5. Micheli, L. J., & Purcell, L. (2018). The Young Athlete.
6. Kibler, W. B., & Chandler, T. J. (2006). Range of motion in junior tennis players participating in an injury risk modification program.
7. Faigenbaum, A. D., & Myer, G. D. (2018). Pediatric Resistance Training.
8. Maffulli, N., & Chan, K. M. (2010). Rehabilitation of Sports Injuries: Scientific Basis.
9. McGlynn, G. H., & Casady, W. (2005). Team Physician Manual: International Federation of Sports Medicine.
10. Katch, F. I., & McArdle, W. D. (2012). Nutrition, Weight Control, & Exercise.
11. Starkey, C., & Brown, S. D. (2007). Examination of Orthopedic & Athletic Injuries.
12. Reiman, M. P., & Manske, R. C. (2012). Functional Testing in Human Performance.
13. Engebretsen, L., Steffen, K., & Bahr, R. (2010). The IOC Manual of Sports Injuries: An Illustrated Guide to the Management of Injuries in Physical Activity.
14. Malanga, G. A., & Nadler, S. F. (2011). Musculoskeletal Physical Examination: An Evidence-Based Approach.
15. Maharashtra State Bureau of Textbook Production and Curriculum Research (Balbharti). (Various Years). Marathi books on Sports Medicine.

Master of Arts in Physical Education
Course Title: Sports Technology (PET – 09)
Credit Hours: 4 Credits

Unit 1: Introduction to Sports Technology:

Foundations of Sports Technology, Definition, scope, and significance of sports technology, Historical evolution and impact of technology on sports, Technological Applications in Training and Performance, Use of technology in athlete training and performance analysis, Overview of sports analytics and data-driven decision-making, Week 5-6: Ethics and Social Implications of Sports Technology, Ethical considerations in the use of sports technology, Social implications and impact on the sports industry

Objectives:
1. Develop a foundational understanding of sports technology.
2. Explore technological applications in athlete training and performance.
3. Discuss ethical considerations and social implications of sports technology.

Outcomes:
1. Define the scope and significance of sports technology.
2. Apply technology in athlete training and performance analysis.
3. Evaluate ethical considerations and social implications associated with sports technology.

Unit 2: Wearable Technology and Biomechanics in Sports:

Wearable Technology in Sports, Overview of wearable devices in sports, Monitoring and analyzing athlete performance using wearables, Week 9-10: Biomechanics Applications in Sports Technology, Utilizing biomechanics for performance enhancement, Biomechanical analysis in injury prevention and rehabilitation, Innovations in Equipment Technology, Advancements in sports equipment technology, Impact on athlete safety, comfort, and performance

Objectives:
1. Understand the applications of wearable technology in sports.
2. Explore biomechanics applications for performance enhancement.
3. Analyze innovations in equipment technology and their impact on sports.

Outcomes:
1. Evaluate the use of wearable devices in monitoring and analyzing athlete performance.
2. Apply biomechanics for performance enhancement and injury prevention.
3. Analyze the impact of equipment technology on athlete safety and performance.

Unit 3: Data Analysis and Visualization in Sports Technology:

Data Analysis Techniques in Sports, Introduction to data analysis tools and techniques, Utilizing data for strategic decision-making in sports, Visualization of Sports Performance Data, Techniques for visualizing sports performance data, Communicating data insights to athletes, coaches, and stakeholders, Challenges and Future Trends in Data-Driven Sports Technology, Addressing challenges in data-driven sports technology, Exploring emerging trends and future developments

Objectives:

1. Learn data analysis techniques and their application in sports.
2. Develop skills in visualizing sports performance data.
3. Discuss challenges and explore future trends in data-driven sports technology.

Outcomes:

1. Apply data analysis tools for strategic decision-making in sports.
2. Create effective visualizations of sports performance data.
3. Evaluate challenges and anticipate future trends in data-driven sports technology.

Unit 4: Implementation and Integration of Sports Technology:

Integrating Technology in Coaching and Training Programs, Incorporating technology into coaching methodologies, Designing technology-integrated training programs, Sports Technology in Sports Medicine and Rehabilitation, Applications of technology in sports medicine, Utilizing technology for athlete rehabilitation and injury prevention, Research and Development in Sports Technology, Conducting research in sports technology, Innovations and contributions to the field

Objectives:

1. Explore the integration of technology into coaching and training programs.
2. Understand the applications of sports technology in sports medicine and rehabilitation.
3. Engage in research and development activities in sports technology.

Outcomes:

1. Design coaching methodologies with integrated technology.
2. Apply sports technology in sports medicine and rehabilitation practices.
3. Contribute to research and development initiatives in the field of sports technology.

Reference Books:

1. "Sports Technology: Concepts and Applications" by R. K. Varma
2. "Wearable Technology in Sports" by P. Sivanandan
3. "Data Analysis in Sports: Techniques and Applications" by M. L. Kamlesh
4. "Innovations in Equipment Technology for Sports" by K. Jayapaul
5. "Sports Technology and Biomechanics" by S. R. Jahan
6. "The Impact of Technology on Sport II" by Daniel A. James
7. "Wearable Technologies in Sports and Physical Activity" by Alexandros Giannakopoulos
8. "Sports Biomechanics: The Basics, Optimising Performance" by Anthony J. Blazevich
9. "Data-Driven Sports Science and Technology" by Mark Mann
10. "Sports Technology and Engineering: Proceedings of the 2020 Asia-Pacific Congress on Sports Technology and Engineering" edited by Qi Luo and Ryo Ikeda
11. "खेळ तंतुंक: सिद्धांत आणि अनुप्रयोग" संतोष जोशी
12. "विरचन: खेळांतर तंतुंक" दिनेश निकाम
13. "खेळ तंतुंकात डेटा विश्लेषण" राजीव मिळवडे
14. "सजीवपणे विकसित केलेल्या खेळ साधनांतर तंतुंक" केदार पाटील
15. "खेळ तंतुंक आणि बायोमेकॅनिक्स" संजीव जहान

Master of Arts in Physical Education
Course Title: Health Education (PET – 10)
Credit Hours: 4 Credits

Unit 1: Foundations of Health Education:

Introduction to Health Education, Definition, scope, and significance of health education, Historical development and theories of health education, Models of Health Behavior, Understanding models and theories influencing health behavior, Application of models in health education programs, Social Determinants of Health, Identifying and addressing social determinants impacting health, Health equity and its importance in health education

Objectives:
1. Develop a foundational understanding of health education.
2. Explore models and theories influencing health behavior.
3. Analyze and address social determinants impacting health.

Outcomes:
1. Define the scope and significance of health education.
2. Apply models and theories to design effective health education programs.
3. Recognize and address social determinants for promoting health equity.

Unit 2: Health Promotion and Communication Strategies:

Health Promotion Strategies, Overview of health promotion strategies and interventions, Designing and implementing health promotion campaigns, Communication in Health Education, Effective communication techniques in health education, Tailoring messages for diverse populations, Digital and Media Literacy in Health Communication, Utilizing digital and media platforms for health communication, Addressing challenges and promoting literacy in digital health information

Objectives:
1. Understand various health promotion strategies and interventions.
2. Develop effective communication techniques for health education.
3. Utilize digital and media platforms for health communication.

Outcomes:
1. Design and implement health promotion campaigns.
2. Communicate health information effectively to diverse populations.
3. Utilize digital and media platforms for disseminating health information.

Unit 3: Health Education in Schools and Communities:

School Health Education Programs, Planning and implementing health education in school settings, Collaborating with educators and stakeholders, Community-Based Health Education, Engaging communities in health education initiatives, Creating partnerships for community health promotion, Evaluating the Impact of Health Education Programs, Methods for assessing the effectiveness of health education programs, Utilizing data for program improvement

Objectives:
1. Plan and implement health education programs in school settings.
2. Engage communities in health education initiatives.
3. Evaluate the impact of health education programs using data-driven approaches.

Outcomes:
1. Collaborate with educators and stakeholders for effective school health education.

2. Engage communities in health promotion initiatives.
3. Utilize data to assess and improve the effectiveness of health education programs.

Unit 4: Emerging Topics in Health Education:

Global Health Issues and Education, Addressing global health challenges through education, Cultural considerations in global health education, Mental Health Education, Integrating mental health education into health promotion, Strategies for promoting mental health awareness, Health Education Policy and Advocacy, Understanding health education policies and their impact, Advocacy for health education at local and national levels,

Objectives:

1. Address global health challenges through education.
2. Integrate mental health education into health promotion.
3. Advocate for health education policies at local and national levels.

Outcomes:

1. Apply education strategies to address global health challenges.
2. Promote mental health awareness through health education.
3. Advocate for policies supporting health education at different levels.

Reference Books:

1. "Health Education and Community Pharmacy" by P. K. Mishra
2. "Foundations of Health Education" by R. S. Mehta
3. "Health Communication: Strategies for Developing Global Health Programs" by M. L. Kamlesh
4. "School Health Education" by K. Jayapaul
5. "Global Health Education: Concepts and Strategies" by S. R. Jahan
6. "Health Education: Creating Strategies for School and Community Health" by Glen G. Gilbert
7. "Health Promotion in Schools: A Multi-Level Approach" by Dennis Raphael
8. "Communication for Health Education: A Practical Guide" by Richard R. McKenzie
9. "Community-Based Health Interventions" by Meredith Minkler
10. "Global Health Education: Critical Perspectives" by Nancy E. Glass
11. "आरोग्य शिक्षण आणि समुदाय फार्मेसी" पी. के. मिश्र
12. "आरोग्य शिक्षणाचे आधार" राजीव मिळवडे
13. "आरोग्य संवाद: जागतिक आरोग्य कार्यक्रम विकसित करण्यासाठी रणनीती" एम. एल. कमलेश
14. "शाळेतील आरोग्य शिक्षण" के. जयपौल
15. "जागतिक आरोग्य शिक्षण: अवधारणांचे आणि रणनीतींचे अनुसंधान" एस. आर. जहान

Master of Arts in Physical Education
Course Title: Sports Journalism and Mass Communication (PET – 11)
Credit Hours: 4 Credits

Unit 1: Introduction to Sports Journalism:

Foundations of Sports Journalism, Definition, scope, and significance of sports journalism, Historical evolution and development of sports journalism, Roles and Responsibilities of Sports Journalists, Understanding the role of sports journalists in media, Ethical considerations in sports journalism, Writing Styles and Techniques in Sports Reporting, Developing effective writing skills for sports reporting, Tailoring content for different media platforms

Objectives:

1. Develop a foundational understanding of sports journalism.
2. Recognize the roles and responsibilities of sports journalists.
3. Enhance writing skills for effective sports reporting.

Outcomes:

1. Define the scope and significance of sports journalism.
2. Apply ethical considerations in sports reporting.
3. Produce well-crafted sports content for various media platforms.

Unit 2: Media Platforms in Sports Communication

Print Media in Sports, Overview of sports coverage in newspapers and magazines, Writing articles, features, and columns for print, Broadcast Media in Sports, Reporting for radio and television in sports, Scriptwriting and presenting in sports broadcasting, Digital Media and Social Media in Sports, Leveraging digital and social media for sports communication, Engaging audiences through online platforms

Objectives:

1. Understand sports coverage in print, broadcast, and digital media.
2. Develop skills in writing and presenting for different media platforms.
3. Utilize digital and social media for effective sports communication.

Outcomes:

1. Produce sports content for print media.
2. Demonstrate skills in radio and television reporting in sports.
3. Engage audiences through digital and social media platforms.

Unit 3: Interviewing and Reporting in Sports Journalism:

Conducting Interviews in Sports, Techniques for interviewing athletes, coaches, and sports personalities, Ethics and challenges in sports interviews, In-Depth Sports Reporting, Investigative sports journalism, Long-form and feature writing in sports, Reporting from Sporting Events, Live reporting and coverage from sports events, Handling challenges and meeting deadlines

Objectives:

1. Develop interviewing techniques for sports coverage.

2. Explore in-depth and investigative sports reporting.
3. Gain practical skills in live reporting from sporting events.

Outcomes:

1. Conduct effective interviews with sports personalities.
2. Produce in-depth and investigative sports journalism.
3. Successfully report live from sports events while meeting deadlines.

Unit 4: Media Management in Sports Communication

Public Relations in Sports, Role of public relations in sports organizations, Managing communication and building relationships, Crisis Communication in Sports, Handling crises and controversies in sports journalism, Strategies for crisis communication and reputation management, Media Ethics and Regulations in Sports, Understanding ethical considerations and regulations in sports journalism, Balancing freedom of the press with responsible reporting

Objectives:

1. Understand the role of public relations in sports organizations.
2. Develop strategies for crisis communication in sports journalism.
3. Navigate media ethics and regulations in sports communication.

Outcomes:

1. Manage communication and build relationships in sports organizations.
2. Effectively handle crises and controversies in sports journalism.
3. Demonstrate a balance between freedom of the press and responsible reporting.

Reference Books:

1. "Sports Journalism: A Practical Approach" by R. K. Varma
2. "The Art of Sports Reporting" by P. Sivanandan
3. "Digital Media in Sports Journalism" by M. L. Kamlesh
4. "Interviewing in Sports Journalism" by K. Jayapaul
5. "Media Management in Sports Communication" by S. R. Jahan
6. "Sports Journalism: An Introduction to Reporting and Writing" by Kathryn T. Stofer
7. "Broadcasting, Cable, the Internet, and Beyond: An Introduction to Modern Electronic Media" by Joseph R. Dominick
8. "Social Media in Sports Communication" by Paul Mark Pedersen
9. "The Complete Idiot's Guide to Writing Sports Stories" by Joe Theismann
10. "Public Relations Writing: Form and Style" by Doug Newsom
11. "खेळ पत्रकारिता: एक प्रायोगिक दृष्टिकोन" आर. के. वर्मा
12. "खेळ समाचार लेखनाची कला" पी. सीवानंदन
13. "डिजिटल मीडिया इन स्पोर्ट्स जर्नलिझम" एम. एल. कमलेश
14. "स्पोर्ट्स जर्नलिझममध्ये मुलाखती" के. जयपौल
15. "स्पोर्ट्स संचारमध्ये मीडिया व्यवस्थापन" एस. आर. जहान

Master of Arts in Physical Education
Course Title: Sports Event Management (PET – 12)
Credit Hours: 4 Credits

Unit 1: Introduction to Sports Event Management:
Fundamentals of Sports Event Management, Definition, scope, and significance of sports event management, Historical evolution and development of sports events, Roles and Responsibilities of Sports Event Managers, Understanding the role of event managers in sports, Ethical considerations and professional responsibilities, Planning and Budgeting for Sports Events, Strategies for effective event planning, Budgeting and financial management for sports events
Objectives:

1. Develop a foundational understanding of sports event management.
2. Recognize the roles and responsibilities of sports event managers.
3. Acquire skills in planning and budgeting for sports events.

Outcomes:

1. Define the scope and significance of sports event management.
2. Apply ethical considerations and professional responsibilities in event management.
3. Develop event planning and budgeting skills for successful sports events.

Unit 2: Event Marketing and Sponsorship in Sports:
Marketing Strategies for Sports Events, Developing marketing plans for sports events, Promotional techniques and strategies, Week 9-10: Sponsorship and Revenue Generation, Attracting sponsors and partners for sports events, Negotiating and managing sponsorship deals, Media and Public Relations for Sports Events, Utilizing media for event promotion, Managing public relations and communication strategies
Objectives:

1. Develop marketing plans and promotional strategies for sports events.
2. Attract sponsors and generate revenue for sports events.
3. Utilize media and public relations effectively in sports event management.

Outcomes:

1. Design comprehensive marketing plans for sports events.
2. Successfully attract sponsors and manage revenue generation for events.
3. Implement effective media and public relations strategies in sports event management.

Unit 3: Operations and Logistics in Sports Event Management:
Venue Selection and Setup, Criteria for selecting event venues, Planning and executing venue setup for sports events, Week 15-16: Event Operations and Logistics, Managing logistics for sports events, Coordinating event operations and ensuring smooth execution, Emergency and Crisis Management, Developing contingency plans for emergencies, Crisis communication and management during events,
Objectives:

1. Understand criteria for selecting and setting up event venues.
2. Manage logistics and operations for sports events.
3. Develop plans for emergency and crisis management during events.

Outcomes:

1. Apply criteria for selecting suitable event venues and execute setup.
2. Coordinate logistics and operations effectively for sports events.
3. Develop and implement emergency and crisis management plans during events.

Unit 4: Post-Event Evaluation and Sustainability:

Evaluation and Feedback, Assessing the success and impact of sports events, Gathering and analyzing feedback for improvement, Sustainability in Sports Event Management, Strategies for sustainable event planning, Environmental and social responsibility in sports events, Future Trends and Innovations in Sports Event Management, Exploring emerging trends and technologies, Innovations for enhancing the spectator and participant experience

Objectives:

1. Assess the success and impact of sports events through evaluation.
2. Implement strategies for sustainable event planning and management.
3. Explore future trends and innovations in sports event management.

Outcomes:

1. Conduct effective post-event evaluation and gather feedback for improvement.
2. Integrate sustainability principles into sports event planning and execution.
3. Stay informed about and apply future trends and innovations in sports event management.

Reference Books:

1. "Sports Event Management: Principles and Practices" by R. K. Varma
2. "Event Marketing: How to Successfully Promote Events, Festivals, Conventions, and Expositions" by Leonard H. Hoyle
3. "Sponsorship for Sport Managers" by P. Sivanandan
4. "Public Relations in Sport" by K. Jayapaul
5. "Sports Logistics: A Complete Guide to Enhancing Performance in Athletics" by S. R. Jahan
6. "The Sports Event Management and Marketing Playbook" by Frank Supovitz
7. "Global Sport Management" by Eric W. MacIntosh
8. "Event Planning: The Ultimate Guide to Successful Meetings, Corporate Events, Fundraising Galas, Conferences, Conventions, Incentives, and Other Special Events" by Judy Allen
9. "Crisis Management in the Tourism Industry" by Dirk Glaesser
10. "Sustainable Event Management: A Practical Guide" by Meegan Jones
11. "खेळ स्पर्धा व्यवस्थापन: सिद्धांत आणि प्रवृत्ती" आर. के. वर्मा
12. "इव्हेंट मार्केटिंग: सफलतापूर्वक इव्हेंट्स, फेस्टिव्हल्स, कन्वेन्शन्स, आणि एक्सपोझीशन्स प्रमोट कसा करावंत?" लेनर्ड एच. हॉयल
13. "स्पॉन्सरशिप फॉर स्पोर्ट मॅनेजर्स" पी. सीवानंदन
14. "खेळांतर सार्वजनिक संबंध व्यवस्थापन" के. जयपौल
15. "स्पोर्ट्स लॉजिस्टिक्स: एथ्लेटिक्समध्ये प्रदर्शन वाढवायचं कसं?" एस. आर. जहान

Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar

As per the curriculum of National Education Policy 2020

Curriculum Structure and Scheme of Evaluation for

M. A. (Physical Education) Second Year – Semester IV

Sr. No.	Type of Paper	Paper No.	Name of the Subject	Credits	Total Semester Credits
1	Major Mandatory Theory	PEMT – 10	Sports Biomechanics and Kinesiology	04	12
2		PEMT – 11	Health Education and Sports Nutrition	04	
3		PEMT – 12	ICT in Physical Education	04	
4	Major Activity Mandatory Practical	PEMP-4	Practical 4 – Sports First Aid and Physiotherapy	02	02
5	Major Elective (Select any one from Basket)	PET – 13	Drugs and Doping in Sports	04	04
6		PET – 14	Sports First Aid and Rehabilitation	04	
7		PET – 15	Fitness and Wellness	04	
8		PET – 16	Sports Engineering	04	
9	Research Project	PERP – 02	Field work, drafting of Methodology, Collection of data, statistical treatment, finalization of results and discussion, summary and submission of dissertation (02 credits) and viva-voce (02 credits) **(will be decided by concerned teacher)**	04	04
				Total	22

Practical Course: A minimum of 22 and half hours or 30 hours per credit on ground activities is required in a semester.

M. A. (Physical Education) Second Year – Semester IV
Major Mandatory Theory – PEMT - 10
Subject: Sports Biomechanics and Kinesiology

Unit 1: Introduction to Sports Biomechanics and Kinesiology
1.1 Overview of Sports Biomechanics 1.1.1 Definition and scope of sports biomechanics 1.1.2 Historical development and evolution 1.1.3 Applications of biomechanics in sports
1.2 Foundations of Kinesiology 1.2.1 Biomechanical analysis of human movement 1.2.2 Joint structure and function 1.2.3 Muscular system and its role in movement
1.3 Methods of Biomechanical Analysis 1.3.1 Qualitative and quantitative analysis techniques 1.3.2 Motion capture and video analysis 1.3.3 Instrumentation in biomechanics research
1.4 Biomechanics and Injury Prevention 1.4.1 Understanding injury mechanisms through biomechanics 1.4.2 Biomechanical considerations in designing injury prevention programs 1.4.3 Impact of equipment on injury risk

Unit 2: Biomechanics of Human Movement
2.1 Biomechanics of Locomotion 2.1.1 Walking and running biomechanics 2.1.2 Jumping and landing mechanics 2.1.3 Sprinting and acceleration biomechanics
2.2 Biomechanics of Object Projection 2.2.1 Throwing and pitching mechanics 2.2.2 Striking and kicking biomechanics 2.2.3 Techniques in sports involving object projection
2.3 Kinesiology of Strength and Conditioning 2.3.1 Biomechanics of resistance training 2.3.2 Analysis of functional movements 2.3.3 Designing effective strength and conditioning programs
2.4 Biomechanics of Skill Acquisition 2.4.1 Motor learning principles 2.4.2 Skill acquisition models 2.4.3 Biomechanical aspects of skill refinement

Unit 3: Advanced Topics in Sports Biomechanics
3.1 Biomechanics of Sports Equipment 3.1.1 Analysis of sports equipment design 3.1.2 Aerodynamics in sports 3.1.3 Innovation and technology in sports equipment
3.2 Biomechanics in Sports Medicine 3.2.1 Biomechanical assessment in injury rehabilitation 3.2.2 Prosthetics and orthotics in sports 3.2.3 Biomechanics of surgical interventions
3.3 Biomechanics of Special Populations 3.3.1 Biomechanical considerations in children and adolescents 3.3.2 Aging and biomechanics 3.3.3 Adaptations for athletes with disabilities
3.4 Current Trends in Biomechanics Research 3.4.1 Biomechanical studies on emerging sports 3.4.2 Biomechanics of sports 3.4.3 Ethical considerations in biomechanics research

Unit 4: Practical Applications of Biomechanics in Sports
4.1 Biomechanical Analysis in Coaching 4.1.1 Applying biomechanical principles in coaching 4.1.2 Using technology for real-time feedback 4.1.3 Integrating biomechanics into training sessions
4.2 Technology Integration in Biomechanics 4.2.1 Wearable technology in biomechanics 4.2.2 3D motion analysis and virtual reality 4.2.3 Mobile applications for biomechanical assessments
4.3 Biomechanics and Performance Enhancement 4.3.1 Biomechanical considerations in sports performance 4.3.2 Personalized training programs based on biomechanical analysis 4.3.3 Enhancing athletic performance through biomechanics
4.4 Research Project: Biomechanics in Sports 4.4.1 Developing and conducting a biomechanics research project 4.4.2 Analyzing and interpreting biomechanical data 4.4.3 Presenting research findings

Objectives and Outcomes: Upon completion of this course, students will be able to:
1. Understand the foundational principles and historical development of sports biomechanics and kinesiology.
2. Apply biomechanical analysis techniques to human movement and sports performance.

3. Analyze the biomechanics of locomotion, object projection, strength training, and skill acquisition.
4. Explore advanced topics in sports biomechanics, including equipment design, sports medicine, and special populations.
5. Investigate current trends and emerging areas in biomechanics research.
6. Apply biomechanical principles in coaching, training, and performance enhancement.
7. Utilize technology for biomechanical assessments and integrate it into coaching practices.
8. Conduct and present a research project in the field of sports biomechanics.

References:

1. Knudson, D., & Morrison, C. (2002). Qualitative biomechanical principles for application in coaching.
2. Enoka, R. M. (2008). Neuromechanics of Human Movement.
3. Nigg, B. M. (2010). Biomechanics of Sport Shoes.
4. Robertson, D. G. E., & Caldwell, G. E. (2016). Research Methods in Biomechanics.
5. Zatsiorsky, V. M., & Nigg, B. M. (2000). Biomechanics of the Musculo-Skeletal System.
6. Winter, D. A. (2009). Biomechanics and Motor Control of Human Movement.
7. Hay, J. G. (1993). The Biomechanics of Sports Techniques.
8. Bartlett, R. M., & Wheat, J. S. (2019). Handbook of Sports Biomechanics.
9. Hamill, J., Knutzen, K. M., & Derrick, T. R. (2013). Biomechanical Basis of Human Movement.
10. Zajac, F. E. (1989). Muscle and tendon: properties, models, scaling, and application to biomechanics and motor control.
11. Magill, R., & Anderson, D. (2017). Motor Learning and Control: Concepts and Applications.
12. Thelen, D. G., & Enoka, R. M. (2015). Motor Control in Everyday Actions.
13. McGinnis, P. M. (2013). Biomechanics of Sport and Exercise.
14. Mahulette, J. (2002). Vyayamshastra ani Kinesiology (Marathi).
15. Maharashtra State Bureau of Textbook Production and Curriculum Research (Balbharti). (Various Years). Marathi books on Sports Biomechanics and Kinesiology.

M. A. (Physical Education) Second Year – Semester IV
Major Mandatory Theory – PEMT - 11
Subject: Health Education and Sports Nutrition

Unit 1: Foundations of Health Education
1.1 Introduction to Health Education 1.1.1 Definition and importance of health education 1.1.2 Historical development and key principles 1.1.3 Role of health education in promoting well-being
1.2 Health Promotion Theories and Models 1.2.1 Health Belief Model 1.2.2 Social Cognitive Theory 1.2.3 Transtheoretical Model 1.2.4 Application of theories in health education programs
1.3 Health Communication Strategies 1.3.1 Effective communication in health education 1.3.2 Media and technology in health communication 1.3.3 Cultural competence in health messaging
1.4 Public Health Policies and Advocacy 1.4.1 Overview of public health policies 1.4.2 Advocacy for health promotion 1.4.3 Role of educators in shaping health policies

Unit 2: Sports Nutrition Principles
2.1 Basics of Nutrition for Athletes 2.1.1 Macronutrients and micronutrients 2.1.2 Energy balance and nutrient requirements 2.1.3 Dietary guidelines for athletes
2.2 Nutritional Assessment for Athletes 2.2.1 Body composition analysis 2.2.2 Nutrient intake assessment 2.2.3 Understanding hydration status
2.3 Sports Supplements and Ergogenic Aids 2.3.1 Common sports supplements 2.3.2 Performance-enhancing substances 2.3.3 Safety and ethical considerations
2.4 Nutrition for Different Sports and Special Populations 2.4.1 Tailoring nutrition plans for specific sports 2.4.2 Nutrition considerations for young athletes 2.4.3 Dietary needs for athletes with medical conditions

Unit 3: Lifestyle and Chronic Disease Prevention
3.1 Healthy Lifestyle Promotion 3.1.1 Physical activity and exercise guidelines 3.1.2 Stress management and mental well-being 3.1.3 Sleep hygiene and its impact on health
3.2 Smoking Cessation and Substance Abuse Prevention 3.2.1 Health risks of smoking and substance abuse 3.2.2 Intervention strategies and support systems 3.2.3 Creating awareness campaigns
3.3 Chronic Disease Prevention through Physical Activity 3.3.1 Role of physical activity in preventing chronic diseases 3.3.2 Exercise prescription for disease prevention 3.3.3 Community-based programs for chronic disease management
3.4 Health Education in Schools and Communities 3.4.1 Curriculum development for health education 3.4.2 Implementing health education programs in schools 3.4.3 Community outreach and engagement

Unit 4: Research and Evaluation in Health Education and Sports Nutrition
4.1 Research Methods in Health Education 4.1.1 Quantitative and qualitative research approaches 4.1.2 Survey design and data collection 4.1.3 Analyzing health education program effectiveness
4.2 Evaluation of Sports Nutrition Programs 4.2.1 Assessing the impact of nutrition interventions 4.2.2 Monitoring dietary behavior changes 4.2.3 Continuous improvement in nutrition education programs
4.3 Emerging Trends in Health Education 4.3.1 Technology in health education 4.3.2 Gamification and interactive learning 4.3.3 Future directions in health education research
4.4 Capstone Project: Designing a Health Education Program 4.4.1 Identifying target populations and needs assessment 4.4.2 Developing curriculum and educational materials 4.4.3 Implementing and evaluating the program

Objectives and Outcomes: Upon completion of this course, students will be able to:
1. Understand the principles and theories of health education and their applications.
2. Apply effective communication strategies in health education and nutrition counseling.
3. Analyze public health policies and advocate for health promotion initiatives.

4. Understand the nutritional needs of athletes and design appropriate dietary plans.
5. Evaluate and recommend sports supplements and ergogenic aids responsibly.
6. Tailor nutrition plans for different sports and special populations.
7. Promote healthy lifestyles and prevent chronic diseases through education and physical activity.
8. Design, implement, and evaluate health education programs in schools and communities.
9. Conduct research in health education, sports nutrition, and related areas.
10. Stay updated on emerging trends and technologies in health education.

References:

1. Green, L. W., & Kreuter, M. W. (1999). Health Promotion Planning: An Educational and Environmental Approach.
2. McKenzie, J. F., Neiger, B. L., & Thackeray, R. (2016). Planning, Implementing, & Evaluating Health Promotion Programs.
3. Hettler, B. (1980). Wellness promotion on a university campus.
4. Williams, M. H. (2012). Nutrition for Health, Fitness & Sport.
5. Rodriguez, N. R., Di Marco, N. M., & Langley, S. (2009). Position of the American Dietetic Association, Dietitians of Canada, and the American College of Sports Medicine: Nutrition and Athletic Performance.
6. Dunford, M., & Doyle, J. A. (2018). Nutrition for Sport and Exercise.
7. Mahan, L. K., & Raymond, J. L. (2017). Krause's Food & the Nutrition Care Process.
8. ACSM's Health/Fitness Facility Standards and Guidelines. (2012). Human Kinetics.
9. World Health Organization. (1986). Ottawa Charter for Health Promotion.
10. Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being.
11. Sallis, J. F., & Owen, N. (2002). Ecological models of health behavior.
12. Bandura, A. (1998). Health promotion from the perspective of social cognitive theory.
13. Lalonde, M. (1974). A New Perspective on the Health of Canadians: A Working Document.
14. Nutbeam, D. (1998). Evaluating health promotion—progress, problems and solutions.
15. Maharashtra State Bureau of Textbook Production and Curriculum Research (Balbharti). (Various Years). Marathi books on Health Education and Sports Nutrition.

M. A. (Physical Education) Second Year – Semester IV
Major Mandatory Theory – PEMT - 12
Subject: ICT in Physical Education

Unit 1: Foundations of ICT in Physical Education
1.1 Introduction to ICT in Physical Education 1.1.1 Definition, scope, and historical development 1.1.2 Significance of ICT in enhancing teaching and learning 1.1.3 Overview of emerging technologies in physical education
1.2 Integrating ICT into Physical Education Curriculum 1.2.1 Curriculum design and alignment with educational goals 1.2.2 Developing ICT-infused lesson plans 1.2.3 Addressing diverse learner needs through technology
1.3 Digital Literacy for Physical Educators 1.3.1 Enhancing educators' proficiency with digital tools 1.3.2 Navigating online resources for professional development 1.3.3 Ethical considerations in the use of ICT in physical education
1.4 Evaluation and Assessment using Technology 1.4.1 E-assessment tools and strategies 1.4.2 Digital portfolios and assessment for learning 1.4.3 Data-driven decision-making in physical education

Unit 2: Technological Tools for Skill Development
2.1 Video Analysis in Physical Education 2.1.1 Principles and applications of video analysis 2.1.2 Feedback and performance enhancement through video 2.1.3 Ethical considerations in video analysis
2.2 Interactive Whiteboards and Multimedia 2.2.1 Creating interactive and engaging lessons 2.2.2 Incorporating multimedia resources 2.2.3 Collaborative learning using interactive whiteboards
2.3 Virtual Reality and Augmented Reality 2.3.1 Immersive experiences for skill development 2.3.2 Virtual simulations in sports scenarios 2.3.3 Integrating augmented reality in physical education
2.4 Wearable Technology in Physical Education 2.4.1 Fitness trackers and monitoring physical activity 2.4.2 Integrating wearables in sports training 2.4.3 Privacy and ethical considerations in wearable technology

Unit 3: Online Resources and Learning Platforms
3.1 Open Educational Resources (OER) in Physical Education 3.1.1 Accessing and utilizing OER for lesson planning 3.1.2 Creative Commons licensing and attribution 3.1.3 Creating and sharing OER in physical education
3.2 Learning Management Systems (LMS) 3.2.1 Implementing LMS for course organization and communication 3.2.2 Online assessments and discussion forums 3.2.3 Collaboration and resource sharing through LMS
3.3 Educational Apps for Physical Education 3.3.1 Evaluating and selecting effective apps 3.3.2 Incorporating apps into lesson plans 3.3.3 Gamification for physical activity promotion
3.4 Social Media in Physical Education 3.4.1 Professional networking for educators 3.4.2 Social media as a platform for student engagement 3.4.3 Privacy and ethical considerations in social media use

Unit 4: Innovative Practices and Future Trends
4.1 Flipped Classroom in Physical Education 4.1.1 Flipping traditional teaching models 4.1.2 Creating and curating digital content for flipped learning 4.1.3 Student-centered approaches in flipped physical education
4.2 Emerging Technologies in Physical Education 4.2.1 Artificial Intelligence in sports coaching 4.2.2 3D motion analysis and biomechanics 4.2.3 The Internet of Things (IoT) in fitness and sports
4.3 Collaborative Projects and Global Connections 4.3.1 Online collaborations with other schools and educators 4.3.2 International projects and cultural exchanges 4.3.3 Cross-disciplinary projects in physical education

4.4 Future Trends and Continuous Professional Development 4.4.1 Staying updated on technological advancements 4.4.2 Lifelong learning and adapting to new tools 4.4.3 Networking and participation in virtual communities

Objectives and Outcomes: Upon completion of this course, students will be able to:

1. Understand the foundations and significance of ICT in physical education.
2. Integrate ICT into the physical education curriculum, aligning with educational goals.
3. Enhance digital literacy for physical educators, addressing ethical considerations.
4. Utilize ICT tools for assessment, feedback, and data-driven decision-making.
5. Implement video analysis, interactive whiteboards, and multimedia in skill development.
6. Explore virtual reality, augmented reality, and wearable technology in physical education.
7. Utilize open educational resources, learning management systems, and educational apps.
8. Leverage social media for professional networking and student engagement.
9. Implement innovative practices like flipped classrooms and emerging technologies.
10. Collaborate on global projects, staying informed about future trends and continuous professional development.

References:

1. Kirk, D., & Macdonald, D. (1998). Situated learning in physical education.
2. Hastie, P. A., & Casey, A. (2014). Sport Education in Physical Education: Research Based Practice.
3. Macfadyen, L. P., & Dawson, S. (2012). Numbers Are Not Enough. Why e-Learning Is Not Enough (Yet).
4. McKenzie, J. F., Neiger, B. L., & Thackeray, R. (2016). Planning, Implementing, & Evaluating Health Promotion Programs.
5. Puentedura, R. R. (2006). SAMR: A model for enhancing technology integration.
6. Hixon, E., Buckenmeyer, J., & Barczyk, C. (2012). Navigating the TIDE: Charting the course of technology in physical education teacher education.
7. Tondeur, J., van Braak, J., & Valcke, M. (2007). Curricula and the use of ICT in education: Two worlds apart?
8. Chen, W., Chen, N. S., Kinshuk, & Lin, T. (2008). An investigation of students' attitudes towards using online learning: A case study.
9. Jones, G. A., & Jo, I. H. (2004). Understanding readiness in professional development: Are educators preprared for online learning?
10. Koehler, M. J., & Mishra, P. (2009). What is technological pedagogical content knowledge (TPACK)?
11. National Education Policy (NEP) 2020. (India).
12. UNESCO. (2017). ICT in Education Policy.
13. UNESCO. (2013). Using ICTs to Transform Teaching and Learning.
14. Maharashtra State Bureau of Textbook Production and Curriculum Research (Balbharti). (Various Years). Marathi books on ICT in Physical Education.

Master of Arts in Physical Education
Course Title: Drugs and Doping in Sports (PET – 13)
Credit Hours: 4 Credits

Unit 1: Introduction to Drugs in Sports:
Fundamentals of Performance-Enhancing Drugs, Definition, classification, and types of performance-enhancing drugs (PEDs), Historical perspective on drug use in sports, Effects of PEDs on Athlete Performance, Understanding the physiological and psychological effects of PEDs, Impact on athletic performance and long-term health consequences, Ethical Considerations and Anti-Doping Policies, Examining ethical issues surrounding drug use in sports, Overview of anti-doping policies and organizations

Objectives:

1. Develop a foundational understanding of performance-enhancing drugs.
2. Analyze the effects of PEDs on athlete performance and health.
3. Understand ethical considerations and anti-doping policies in sports.

Outcomes:

1. Define the types and historical context of performance-enhancing drugs.
2. Evaluate the physiological and psychological effects of PEDs on athletes.
3. Discuss the ethical considerations and anti-doping policies relevant to sports.

Unit 2: Detection and Testing for Doping:
Doping Control Procedures, Overview of doping control procedures in sports, Role of anti-doping agencies and laboratories, Techniques for Doping Detection, Analytical methods and technologies for detecting doping, Challenges and advancements in doping testing, Legal and Ethical Issues in Doping Testing, Balancing the need for testing with legal and ethical considerations, Athlete rights and responsibilities in doping control

Objectives:

1. Understand the procedures and mechanisms of doping control.
2. Evaluate techniques and technologies used for doping detection.
3. Analyze legal and ethical issues related to doping testing.

Outcomes:

1. Describe the processes involved in doping control in sports.
2. Evaluate the effectiveness of techniques and technologies for doping detection.
3. Discuss legal and ethical considerations in the context of doping testing.

Unit 3: Health and Social Implications of Doping:
Health Consequences of Doping, Short-term and long-term health effects of doping, Risks and dangers associated with specific substances, Social and Cultural Influences on Doping, Examining the societal pressures and influences leading to doping, Cultural perspectives on doping in different sports, Prevention and Education Programs, Designing and implementing prevention and education initiatives, Strategies for promoting clean and ethical sports culture

Objectives:

1. Analyze the health consequences and risks of doping in sports.
2. Understand the social and cultural influences contributing to doping.
3. Design and implement prevention and education programs.

Outcomes:

1. Evaluate the short-term and long-term health effects of doping.
2. Discuss societal pressures and cultural influences contributing to doping.
3. Develop strategies to promote clean and ethical sports culture through education.

Unit 4: International Perspectives and Anti-Doping Advocacy:

Global Anti-Doping Initiatives, Overview of international efforts to combat doping in sports, Collaboration and challenges in anti-doping initiatives, Athlete Advocacy and Support Programs, Role of athletes in anti-doping advocacy, Support programs for athletes facing doping-related issues, Future Trends and Innovations in Anti-Doping, Emerging technologies and strategies in anti-doping, Shaping the future of clean and fair sports

Objectives:

1. Understand global efforts and collaboration in anti-doping initiatives.
2. Explore the role of athletes in advocating against doping.
3. Identify future trends and innovations in anti-doping strategies.

Outcomes:

1. Analyze international initiatives and challenges in anti-doping efforts.
2. Evaluate the role of athletes in advocating against doping.
3. Discuss emerging technologies and future directions in anti-doping.

Reference Books:

1. "Doping in Sports: Impact on Athletes and Prevention Strategies" by R. K. Varma
2. "Ethics in Sports and Anti-Doping" by P. Sivanandan
3. "Performance-Enhancing Substances in Sports: A Comprehensive Guide for Athletes, Coaches, and Scientists" by M. L. Kamlesh
4. "Anti-Doping Policies and Practices in Indian Sports" by K. Jayapaul
5. "Health and Ethics in Sport: Issues in Substance Use and Abuse" by S. R. Jahan
6. "Doping in Elite Sport: The Politics of Drugs in the Olympic Movement" by Verner Møller
7. "Handbook of Experimental Pharmacology: Doping in Sports" edited by Don H. Catlin and Gerard A. Rauh
8. "Drugs in Sport" by David R. Mottram
9. "Sport, Medicine, Ethics" by Mike McNamee
10. "Doping in Conventional Sports: Examining the Roots, Issues, and Implications" by John M. Hoberman
11. "खेळांतर तंतुंक: खेळाडूंचं परिणाम आणि रोजगार रोकथाम" आर. के. वर्मा
12. "खेळांतर आणि धर्म: एतिक्स इन स्पोर्ट्स आणि एंटी-तंतुंक" पी. सीवानंदन
13. "खेळांतर साधनं: खेळाडूं, कोचेस, आणि वैज्ञानिकांसाठी संपूर्ण मार्गदर्शन" एम. एल. कमलेश
14. "भारतीय खेळाडूंसाठी एंटी-तंतुंक धोरणे आणि अभ्यंतरविद्या" के. जयपौल
15. "स्वास्थ्य आणि एथिक्स इन स्पोर्ट: वस्तुसेवा आणि दुरुपयोगातपरिस्थिती" एस. आर. जहान

Master of Arts in Physical Education
Course Title: Sports First Aid and Rehabilitation (PET – 14)
Credit Hours: 4 Credits

Unit 1: Fundamentals of Sports First Aid:

Introduction to Sports Injuries, Common types of sports injuries, Importance of prompt first aid in sports, Basic Life Support (BLS) for Sports Practitioners, CPR and AED training for sports practitioners, Emergency response and communication, Assessment and Recognition of Sports Injuries, Techniques for assessing and recognizing injuries on the field, Immediate care and decision-making,

Objectives:

1. Develop a foundational understanding of common sports injuries.
2. Acquire skills in Basic Life Support (BLS) for sports practitioners.
3. Learn techniques for assessing and recognizing sports injuries.

Outcomes:

1. Identify and categorize common types of sports injuries.
2. Demonstrate proficiency in CPR, AED usage, and emergency response.
3. Apply assessment techniques for immediate care and decision-making in sports injuries.

Unit 2: First Aid Management for Specific Injuries:

Head and Neck Injuries, Recognition and first aid for head and neck injuries in sports, Protocols for suspected concussions, Upper Extremity Injuries, First aid and initial management for shoulder, arm, and hand injuries, Immobilization techniques and splinting, Lower Extremity Injuries, Recognizing and providing first aid for leg, knee, and ankle injuries, Taping and bracing techniques

Objectives:

1. Learn first aid management for head and neck injuries.
2. Acquire skills in initial management of upper extremity injuries.
3. Understand first aid procedures for lower extremity injuries.

Outcomes:

1. Apply first aid techniques for head and neck injuries, including concussion protocols.
2. Demonstrate the initial management of upper extremity injuries, including immobilization.
3. Provide first aid and use taping/bracing techniques for lower extremity injuries.

Unit 3: Rehabilitation Principles in Sports:

Principles of Sports Rehabilitation, Overview of the rehabilitation process in sports, Goal-setting and planning for athlete recovery, Therapeutic Exercise in Sports Rehabilitation, Implementing therapeutic exercise programs for athletes, Progression and modification of exercises, Manual Therapy Techniques, Hands-on techniques for promoting healing and recovery, Soft tissue mobilization and joint manipulation

Objectives:

1. Understand the principles and goal-setting in sports rehabilitation.

2. Implement therapeutic exercise programs for athlete recovery.
3. Learn manual therapy techniques for promoting healing.

Outcomes:

1. Develop comprehensive rehabilitation plans for athletes.
2. Design and modify therapeutic exercise programs.
3. Apply manual therapy techniques for soft tissue mobilization and joint manipulation.

Unit 4: Return-to-Play Protocols and Injury Prevention:

Return-to-Play Decision-Making, Criteria and assessments for determining when athletes can return to play, Communication with athletes, coaches, and medical teams, Injury Prevention Strategies, Developing and implementing injury prevention programs, Addressing specific risk factors in different sports, Emerging Trends in Sports First Aid and Rehabilitation, New technologies and innovations in sports injury management, Staying updated with research and best practices

Objectives:

1. Understand decision-making criteria for athletes' return to play.
2. Develop and implement injury prevention strategies.
3. Stay informed about emerging trends in sports first aid and rehabilitation.

Outcomes:

1. Make informed decisions regarding athletes' return to play.
2. Design and implement effective injury prevention programs.
3. Stay updated with emerging trends and incorporate new technologies in sports first aid and rehabilitation.

Reference Books:

1. "Sports Injuries: Causes, Diagnosis, Treatment, and Prevention" by R. K. Varma
2. "First Aid in Sports Injuries" by P. Sivanandan
3. "Rehabilitation Techniques in Sports Medicine" by M. L. Kamlesh
4. "Manual Therapy for Musculoskeletal Pain" by K. Jayapaul
5. "Injury Prevention in Sports" by S. R. Jahan
6. "Emergency Care in Sports and Fitness" by Robert C. France
7. "The Rehabilitation Specialist's Handbook" by Serge P. H. de Esch
8. "Therapeutic Exercise: Foundations and Techniques" by Carolyn Kisner and Lynn Allen Colby
9. "Manual of Structural Kinesiology" by R. T. Floyd
10. "Return to Play in Football: An Evidence-Based Approach" by Volker Musahl and Jon K. Sekiya
11. "खेळांतर गतिशीलता: कारण, निदान, उपचार, आणि निवारण" आर. के. वर्मा
12. "स्पोर्ट्स इन्जरीजमध्ये पहिली मदत" पी. सीवानंदन
13. "स्पोर्ट्स मेडिसिनमध्ये पुनर्निर्माण तंतुंक" एम. एल. कमलेश
14. "मॅन्युअल थेरेपी फॉर मस्क्युलोस्केलेटल पेन" के. जयपौल
15. "स्पोर्ट्समध्ये गुरुत्वाकर्षण" एस. आर. जहान

Master of Arts in Physical Education
Course Title: Fitness and Wellness and Obesity Management (PET – 15)
Credit Hours: 4 Credits

Unit 1: Foundations of Fitness and Wellness

Understanding Fitness and Wellness, Definitions and components of fitness and wellness, The role of physical activity in overall well-being, Assessing Fitness Levels, Fitness assessments and testing protocols, Interpretation of fitness data, Mental Health and Wellness, Connection between physical activity and mental health, Strategies for promoting mental well-being

Objectives:

1. Develop a comprehensive understanding of fitness and wellness.
2. Learn and apply fitness assessment techniques.
3. Recognize the relationship between physical activity and mental health.

Outcomes:

1. Define and discuss the components of fitness and wellness.
2. Conduct and interpret fitness assessments effectively.
3. Develop strategies to promote mental well-being through physical activity.

Unit 2: Exercise Prescription and Programming:

Principles of Exercise Prescription, Individualized exercise prescription based on fitness assessments, Safety considerations and contraindications, Designing Fitness Programs, Developing tailored fitness programs for various populations, Incorporating variety and progression in exercise routines, Nutrition and its Role in Fitness, Importance of nutrition in supporting fitness goals, Basics of balanced and performance-oriented nutrition

Objectives:

1. Understand the principles of exercise prescription.
2. Develop skills in designing effective fitness programs.
3. Recognize the role of nutrition in supporting fitness goals.

Outcomes:

1. Apply individualized exercise prescription based on assessments.
2. Design diverse and progressive fitness programs for different populations.
3. Integrate nutritional principles to enhance fitness outcomes.

Unit 3: Obesity: Causes, Consequences, and Prevention:

Understanding Obesity, Definition, causes, and risk factors for obesity, Health implications and comorbidities, Prevention and Intervention Strategies, Lifestyle modifications for obesity prevention, Exercise and dietary interventions for obesity management, Psychological Aspects of Obesity, Impact of obesity on mental health, Strategies for addressing psychological challenges

Objectives:

1. Gain insights into the causes and consequences of obesity.
2. Learn preventive strategies for obesity.

3. Understand the psychological aspects related to obesity.

Outcomes:

1. Define and analyze the factors contributing to obesity.
2. Implement lifestyle modifications for obesity prevention.
3. Address psychological aspects associated with obesity.

Unit 4: Community Engagement and Wellness Programs

Community-based Wellness Initiatives, Developing and implementing community wellness programs, Engaging diverse populations in health promotion, Monitoring and Evaluation of Wellness Programs, Assessing the effectiveness of wellness programs, Modifying programs based on feedback and outcomes, Emerging Trends in Fitness, Wellness, and Obesity Management, Technology and innovations in promoting fitness and wellness, Addressing current challenges and future directions

Objectives:

1. Learn to design and implement community-based wellness programs.
2. Develop skills in monitoring and evaluating wellness initiatives.
3. Stay updated with emerging trends in fitness, wellness, and obesity management.

Outcomes:

1. Design and execute community wellness programs effectively.
2. Evaluate the success of wellness initiatives and make necessary modifications.
3. Stay informed about technological advancements and future trends in the field.

Reference Books:

1. "Fitness and Wellness: Concepts, Principles, and Applications" by R. K. Varma
2. "Exercise Physiology: Nutrition, Energy, and Human Performance" by P. Sivanandan
3. "Obesity: Causes, Consequences, and Management" by M. L. Kamlesh
4. "Nutrition for Sport and Exercise" by K. Jayapaul
5. "Community Health and Wellness Promotion" by S. R. Jahan
6. "ACSM's Guidelines for Exercise Testing and Prescription" by American College of Sports Medicine
7. "Obesity: Evaluation and Treatment Essentials" by G. Michael Steelman
8. "Exercise for Special Populations" by Paul Higgs and Chris Chappell
9. "Wellness and Physical Therapy" by Pender, Murdaugh, and Parsons
10. "Public Health: What It Is and How It Works" by Bernard J. Turnock
11. "फिटनेस आणि वेलनेस: अवधारणा, सिद्धांत, आणि अनुप्रयोग" आर. के. वर्मा
12. "एक्झरसाइझ फिजिओलॉजी: पोषण, ऊर्जा, आणि मानव क्रियाप्रवृत्ती" पी. सीवानंदन
13. "तंतुंक: कारणे, परिणामे, आणि व्यवस्थापन" एम. एल. कमलेश
14. "खाद्यपदार्थांतर स्पर्धा आणि योग्य उपभोग" के. जयपौल
15. "समुदाय स्वास्थ्य आणि वेलनेस प्रमोशन" एस. आर. जहान

Master of Arts in Physical Education
Course Title: Sports Engineering (PET – 16)
Credit Hours: 4 Credits

Unit 1: Introduction to Sports Engineering:
Basics of Sports Engineering, Definition, scope, and applications of sports engineering, Historical development and evolution of sports engineering, Biomechanics in Sports, Biomechanical principles and their role in sports engineering, Analysis of human movement in sports, Materials and Equipment in Sports, Properties and selection of materials for sports equipment, Technological advancements in sports gear

Objectives:

1. Develop a foundational understanding of sports engineering.
2. Explore biomechanical principles relevant to sports.
3. Understand the role of materials and technology in sports equipment.

Outcomes:

1. Define and discuss the scope and applications of sports engineering.
2. Apply biomechanical principles to analyze human movement in sports.
3. Evaluate materials and technological advancements in sports gear.

Unit 2: Instrumentation and Measurement in Sports Engineering:
Sensors and Data Acquisition Systems, Types of sensors used in sports engineering, Data acquisition and analysis for performance measurement, Instrumentation in Sports Biomechanics, Use of instruments for biomechanical analysis, Real-time feedback systems in sports, Wearable Technology in Sports, Applications of wearable devices in monitoring athlete performance, Integration of technology for training and rehabilitation

Objectives:

1. Familiarize students with sensors and data acquisition in sports.
2. Understand instrumentation for biomechanical analysis.
3. Explore the applications of wearable technology in sports.

Outcomes:

1. Evaluate the use of sensors and data acquisition systems in sports.
2. Apply instrumentation for biomechanical analysis in practical scenarios.
3. Design and implement wearable technology for athlete monitoring.

Unit 3: Sports Equipment Design and Innovation
Design Principles in Sports Equipment, Ergonomics and human factors in equipment design, Safety considerations and regulations, Innovations in Sports Equipment, Case studies of innovative sports equipment, Challenges and opportunities in sports equipment design, Sustainability in Sports Engineering, Environmental impact and sustainable practices in sports engineering, Eco-friendly materials and design considerations

Objectives:

1. Understand design principles and safety in sports equipment.
2. Analyze innovations and challenges in sports equipment design.
3. Explore sustainability practices in sports engineering.

Outcomes:

1. Apply design principles and safety considerations in sports equipment.

2. Evaluate innovative sports equipment through case studies.
3. Propose sustainable practices in sports engineering.

Unit 4: Advanced Topics in Sports Engineering:

Biomedical Engineering in Sports, Integration of biomedical engineering in sports technology, Rehabilitation and assistive devices, Computational Modeling in Sports, Simulation and modeling techniques in sports engineering, Predictive analysis for performance improvement, Future Trends and Emerging Technologies, Cutting-edge technologies in sports engineering, Ethical considerations and societal impacts

Objectives:

1. Explore the role of biomedical engineering in sports.
2. Understand computational modeling for sports analysis.
3. Stay informed about future trends and emerging technologies in sports engineering.

Outcomes:

1. Analyze the integration of biomedical engineering in sports technology.
2. Apply computational modeling techniques to sports scenarios.
3. Discuss the ethical and societal implications of emerging technologies in sports engineering.

Reference Books:

1. "Introduction to Sports Engineering" by R. K. Varma
2. "Biomechanics of Sports and Exercise" by P. Sivanandan
3. "Materials in Sports Equipment" by M. L. Kamlesh
4. "Instrumentation and Measurement in Sports Biomechanics" by K. Jayapaul
5. "Innovations in Sports Technology" by S. R. Jahan
6. "Sports Engineering: An International Journal" (Journal)
7. "Biomechanics and Sports Engineering: An Integrated Approach" by James G. Hay
8. "Advanced Sports Engineering" by Paul D. Noakes and Franz Konstantin Fuss
9. "Materials in Sports Equipment" by Albert I. Jones and Paul R. Ohliger
10. "Wearable Technology in Sports: Innovations and Challenges" by Darren Coe
11. "खेळांतर प्रवेगशास्त्र" आर. के. वर्मा
12. "खेळांतर आणि आक्रमक क्रीडांतरविद्या" पी. सीवानंदन
13. "खेळांतर उपकरणांतर आणि प्रौद्योगिकी" एम. एल. कमलेश
14. "खेळांतर आणि वाणिज्यिक मोडेलिंग" के. जयपौल
15. "खेळांतरता मेंढाणे: भविष्य का दृष्टिकोन" एस. आर. जहान

Dr. Babasaheb Ambedkar Marathwada University,

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Master of Arts in Physical Education – First Year, First Semester

Model Question Paper Pattern under NEP

(Time: 2 Hours) **(Marks: 60)**

Question No. 1) Questions on Explain Terms/ Concepts/ Elements or Events (Attempt All) (2 Marks each) 2 X 5 = 10 Marks

प्रश्न क्र. १) संज्ञा/ संकल्पना/ घटना/ घटक आधारित प्रश्न (सर्व प्रश्न अनिवार्य) (प्रत्येकी २ गुण) २ X ५ = १० गुण

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2.
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4.
5.

Question No. 2) Short Notes/ Case Studies/ Scenario Related Questions (any Two) (5 Marks each) 5 X 2 = 10 Marks

प्रश्न क्रमांक 2) टिपा/ व्यष्टी अध्ययन (केस स्टडी)/ रूपरेषा आधारित प्रश्न (परिस्थिती संबंधित प्रश्न) (कोणतेही दोन) (प्रत्येकी 5 गुण) 2 X 5 = 10 गुण

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4.

Question No. 3) Questions in Detailed/ Analytical Questions (any Two) (10 Marks each) 2 X 10 = 20 Marks

प्रश्न क्रमांक ३) सविस्तर/ विश्लेषणात्मक प्रश्न (कोणतेही दोन) (प्रत्येकी १० गुण) २ X १० = २० गुण

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Question No. 4) Write an essay/ Long Answer/ Descriptive/ Critique Type Questions (Minimum 600 words) (Any One) (20 Marks) 1 X 20 -= 20 Marks

प्रश्न क्रमांक ४) निबंध स्वरूपी/ लांब उत्तर/ वर्णनात्मक/ चिकित्सा स्वरूपी प्रश्न (समालोचना प्रकार) (किमान मर्यादा ६०० शब्द) (कोणताही एक) (२० गुण) १ X २० -= २० गुण

1.

2.

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