



# VIJAYANAGARA SRI KRISHNADEVARAYA UNIVERSITY

## JNANASAGARA CAMPUS, BALLARI-583105

### Department of Physical Education and Sports Sciences

**Programme:** Master of Physical Education (M.P.Ed)

**Programme Overview:** The Master of Physical Education (M.P.Ed.) two year (Four Semesters-Choice Based Credit System) programme is a professional programme meant for preparing Physical Education Teachers for senior secondary (Class XI and XII) level as well as Assistant Professor/Directors/Sports Officers in Colleges/Universities and Teacher Educators in College of Physical Education.

The M.P.Ed. programme is designed to integrate the study of childhood, social context of Physical Education, subject knowledge, pedagogical knowledge, aim of Physical Education and communication skills. The programme comprises of compulsory and optional theory as well as practical courses and compulsory school internship in School/Colleges/Sports Organizations/Sports Academy/Sports Club.

**Duration:** 2 Years ( 4 semesters) Programme Code:MPES

#### **Programme Educational Objectives (PEOs):**

After 2 years of completion of the programme the graduates will be able to:

1. Professional Competency: To provide knowledge of professionalism and to teach effective and efficient skills and competencies to prepare professionally qualified teachers in physical education for secondary school education/higher education.
2. Personal Transformation: To cultivate the spirit of sportsmanship, mental and physical alertness, scientific temper and optimism; and to change the behaviour, attitude and values of teacher trainees so that they shape into responsible and accountable agents of change in the society, in diverse perspective of concerns and issues vital for human survival, progress and development.
3. Preparation for Placement: To prepare qualified professionals of physical education who would be ready for placement as teachers in schools/colleges, and as fitness instructors in fitness centers, coaching centers, clubs and gyms.
4. Higher Education: To lay down a sound foundation for higher and advance studies in physical education, coaching and sports sciences.

5. **Diverse Leadership:** To transform the students as competent leaders with essential organizational, managerial and administrative skills for diverse leadership to apply in the field settings.
6. **Creative Learning Environment:** To inculcate in the students' skills, abilities and competencies to create learning environments for all children
7. **Value and Ethical Skills:** To provide knowledge and experiences needed to exhibit effective skills of value and ethics of the teaching domain.

**Programme Outcomes (POs):**

At the end of the programme the students will be able to:

1. Contextualize physical education with a set of attitudes and values that signify the importance of movement as a valued human practice.
2. Qualify for teaching at secondary school, college and University level as experts in various fitness industry such as clubs, fitness centers and gyms.
3. Transform themselves into competent teachers with latest domain knowledge and brilliant pedagogical skills.
4. Promote the learning of new skills, enhance, extend, inform and critique the deliberate use of exercise, play, sport and other forms of physical activity within the individual and societal context.
5. Acquire organizational and management skills necessary in sports settings and in general educational context.
6. Communicate effectively on the complex pedagogical activities with the teaching community, sports team and society at large; and be able to instruct and train teams to perform well.
7. Perform effectively as an individual, as a member and as a leader in diverse team and multidisciplinary setting.
8. Make a unique contribution to balanced development and living emphasizing learning focused on movement. Fostering a pedagogy based around critical thought and action.
9. Become an active player in the modern educational system.
10. Apply appropriate techniques, resources and modern tools to make teaching effective.
11. Apply ethical principles to become a competent teacher.



## VIJAYANAGARA SRI KRISHNADEVARAYA UNIVERSITY, BALLARI

**Distribution of Courses/Papers in Postgraduate Programme I Semester as per Choice Based Credit System (CBCS) Proposed for PG Program in Physical Education**

### M.P.Ed I – SEMESTER

Semester No.	Category	Subject code	Title of the Paper	Marks			Teaching hours/week			Credit	Duration of exams (Hrs)
				IA	Sem. Exam	Total	L	T	P		
<b>FIRST</b>	DSC1	21PES1C1L/P	Scientific Principles of Sports Training	30	70	100	3	-	2	4	3
	DSC2	21PES1C2L	Exercise Physiology	30	70	100	4	-	-	4	3
	DSC3	21PES1C3L	Yogic Sciences	30	70	100	4	-	-	4	3
	DSC4	21PES1C4L	Research Process in Physical Education & Sports Sciences	30	70	100	4	-	-	4	3
	SEC1	21PES1S1P	<b>Mass demonstration:</b> Drill and marching, ceremonial parade	20	30	50	-		4	2	2
	DSCP	21PES1C1P	<b>Practical Lab:</b> Physiology of Exercise.	20	30	50	-	-	4	2	2
	DSCP	21PES1C2P	<b>Field Activity Practical:</b> 1. Athletics- Running Events, 2. Yoga, 3. Aerobics 4. Judo (Any two)	20	30	50	-	-	4	2	2
	DSCP	21PES1C3P	<b>Field Activity Practical:</b> 1. Kabaddi, 2. Basketball, 3. Swimming and 4. Wrestling/Gymnastics (any two)	20	30	50			4	2	2
<b>Total Marks for I Semester</b>						<b>600</b>				<b>24</b>	

## II-SEMESTER

Semester No.	Category	Subject code	Title of the Paper	Marks			Teaching hours/week			Credit	Duration of exams (Hrs)
				IA	Sem. Exam	Total	L	T	P		
<b>SECOND</b>	DSC5	21PES2C5L	Sports Bio-Mechanics and Kinesiology	30	70	100	4	-	-	4	3
	DSC6	21PES2C6L/P	Test, Measurement and Evaluation in Physical Education	30	70	100	3	-	2	4	3
	DSC7	21PES2C7L	Applied Statistics in Physical Education and Sports	30	70	100	4	-	-	4	3
	DSC8	21PES2C8L	Sports Management and Curriculum design in Physical Education	30	70	100	4	-	-	4	3
	SEC2	21PES2S2P	Adventures sports & Recreational Games	20	30	50	-	-	4	2	2
	DSCP	21PES2C4P	<b>Practical Lab:</b> Biomechanics & Kinesiology.	20	30	50	-	-	4	2	2
	DSCP	21PES2C5P	<b>Field Activity Practical:</b> 1. Athletics-Throwing's & Jumping Events 2. Kho-Kho 3. Handball 4. Football (Any two)	20	30	50	-	-	4	2	2
	DSCP	21PES2C6P	<b>Field Activity Practical:</b> Coaching lesson of Games and Sports.	20	30	50			4	2	2
<b>Total Marks for II Semester</b>						<b>600</b>				<b>24</b>	

### III-SEMESTER

Semester No.	Category	Subject code	Title of the Paper	Marks			Teaching hours/week			Credit	Duration of exams (Hrs)
				IA	Sem. Exam	Total	L	T	P		
<b>THIRD</b>	DSC9	21PES3C9L	Sports psychology and sociology	30	70	100	4	-	-	4	3
	DSC10	21PES3C10L	Athletic care and rehabilitation	30	70	100	4	-	-	4	3
	DSE1	21PES3E1L	1.Educational Technology in Physical Education. 2. Physical Fitness and Wellness 3. Women in Sports	30	70	100	4	-	-	4	3
	DSE2	21PES3E2L/P	1.Value & Environmental Education 2. Sports Engineering 3. Leadership training camp	30	70	100	3	-	2	4	3
	GEC1	21PES3G1L/P	1.Yoga and Aerobics 2. Physical Fitness and Wellness. 3. Martial Arts and Combative Sports	20	30	50	1	-	2	2	2
	SEC3	21PES3S3P	<b>Internship</b>	20	30	50			4	2	2
	DSCP	21PES3C7P	<b>Practical Lab: Sports Psychology</b>	20	30	50	-	-	4	2	2
	DSCP	21PES3C8P	<b>Field Activities Practical:</b> 1. Hockey 2. Volleyball 3. Throwball 4. Karate (Any two)	20	30	50	-	-	4	2	2
<b>Total Marks for III Semester</b>						<b>600</b>				<b>24</b>	

### IV-SEMESTER

Semester No.	Category	Subject code	Title of the Paper	Marks			Teaching hours/week			Credit	Duration of exams (Hrs)
				IA	Sem. Exam	Total	L	T	P		
<b>FOURTH</b>	DSC11	21PES4C11L	Sports Medicine,	30	70	100	4	-	-	4	3
	DSC12	21PES4C12L	Health Education and Sports Nutrition	30	70	100	4	-	-	4	3
	DSE3	21PES4E3L	1.Sports Journalism and Mass media 2. Theories of Games and Sports 3. Sports Injuries, First Aid and Cure.	30	70	100	4	-	-	4	3
	DSE4	21PES4E4L/P	1.Sports Technology 2. Physiotherapy and Therapeutic Exercise 3.Adapted Physical Education	30	70	100	3	-	2	4	3
	GEC2	21PES4G2L	1. Health Education, 2. Yoga for daily life. 3. Indigenous and Folk games	20	30	50	2	-	-	2	2
	DSCP	21PES4C9P	<b>Field Activities Practical:</b> 1. Badminton 2. Table Tennis 3. Netball & 4. Cricket (any two)	20	30	50	-	-	4	2	2
	Project	21PES4C1R	Research Project	40	60	100	4	-	-	4	3
<b>Total Marks for IV Semester</b>						<b>600</b>				<b>24</b>	

**(I-IV semester)**

**Total Marks: 2400**

**Total credits: 96**

**Note:** Course = paper; L= Lecture; T= Tutorial; P=Practical; DSC= Discipline Specific Core Course; DSE= Discipline Specific Elective; SEC= Skill Enhancement Course; GEC1 = General Elective Course to be taken from within Faculty from other department, GEC2= General Elective Course to be taken outside Faculty.

A credit is a unit of study of a fixed duration. For the purpose of computation of workload as per UGC norms the following is mechanism be adopted in the university: One credit (01) = One Theory Lecture (L) period of one hour; One credit (01) = One Tutorial (T) period of one hour; One credit (01) = One practical (P) period of two hours.

A Tutorial is supplementary practice to any teaching –learning process that may consist of participatory discussion/self study, desk work, seminar presentations by students and such other novel methods that help a student to absorb and assimilate more effectively the contents delivered in the Lecture Sessions/ Class, Seminars, Case study, Discussion Session etc.

**Subject Code Description:**

**21** – Year of Establishment

**MPE** – Program Code

**1/2/3/4** – Semester

**C1/S1/G1/E1** – Course subject 1/SEC1/GEC1/DSE1

**L** – Lecture

**T** – Tutorial

**P** – Practical

**R** – Research Project

## First Semester M.P.Ed

<b>Course:</b> Scientific Principles of Sports Training	<b>Course Code:</b> 21PES1C1L/P
<b>Teaching Hours/Week (L-T-P):</b> 3 - 0 - 2	<b>No. of Credits:</b> 04
<b>Internal Assessment:</b> 30 Marks	<b>Semester End Examination:</b> 70 Marks

### Course Objectives:

1. To provide knowledge and concept of sports training.
2. To develop an understanding of the technical and tactical training.
3. To provide the role of sport sciences to achieve the excellence

### Course Outcomes (CO): After completion of this course student should able to

1. Understand training as performance-based science
2. Explain different means and methods of various training
3. Prepare training schedule for various sports and games
4. Appraise types of periodisation for performance development
5. Create various training facilities and plans for novice to advance performers.

### Unit 1: Differential equations and Special functions

11 Hours

Sports training: Definition – Aim, Characteristics, Principles of Sports Training, Over Load: Definition, Causes of Over Load, Symptoms of Overload, Remedial Measures – Super Compensation – Altitude Training – Cross Training.

### Unit 2: Components of Physical Fitness

11 Hours

Strength: Methods to improve Strength: Weight Training, Isometric, Isotonic, And Circuit Training, Speed: Methods to Develop Speed: Repetition Method, Downhill Run, Parachute Running, Wind Sprints, Endurance, Methods to Improve Endurance: Continuous Method, Interval Method, Repetition Method, Cross Country, Fartlek Training.

### Unit 3: Flexibility

11 Hours

Flexibility: Methods to Improve the Flexibility- Stretch and Hold Method, Ballistic Method, Special Type Training: Plyometric Training. Training for Coordinative abilities: Methods to Improve Coordinative abilities: Sensory Method, Variation in Movement Execution Method, Variation in External Condition Method, Combination of Movement Method, Types of Stretching Exercises.

### Unit 4: Training Plan

11 Hours

Training Plan: Macro Cycle, Meso-Cycle. Short Term Plan and Long-Term Plans -Periodization: Meaning, Single, Double and Multiple Periodization, Preparatory Period, Competition Period and Transition Period.

### Unit 5: – Doping

11 Hours

Definition of Doping – Side effects of drugs – Dietary supplements – IOC list of doping classes and methods. Blood Doping – The use of erythropoietin in blood boosting – Blood doping control – The testing programmes – Problems in drug detection – Blood testing in doping control – Problems with the supply of medicines Subject to IOC regulations: over the counter drugs (OTC) – prescription only medicines (POMS) – Controlled drugs (CDs). Reporting test results – Education.

### Reference Books:

1. Beotra Alka, (2000), Drug Education Handbook on Drug Abuse in Sports. Delhi: Sports Authority of India.
2. Bunn, J.N. (1998) Scientific Principles of Coaching, New Jersey Engle Wood Cliffs, Prentice
3. Cart, E. Klafs & Daniel, D. Arnheim (1999) Modern Principles of Athletic Training St. LouisC. V. Mosphy Company
4. Daniel, D. Arnheim (1991) Principles of Athletic Training, St. Luis, Mosby Year Book.



## First Semester M.P.Ed

<b>Course:</b> Exercise Physiology	<b>Course Code:</b> 21PES1C2L
<b>Teaching Hours/Week (L-T-P):</b> 4 - 0 - 0	<b>No. of Credits:</b> 04
<b>Internal Assessment:</b> 30 Marks	<b>Semester End Examination:</b> 70 Marks

### Course Objectives:

1. To assess basic concepts of exercise physiology
2. To employ students to apply the knowledge of energy systems during exercise.
3. To explain the effect of environment and ergogenic aids on exercise and training.
4. Develop a thorough understanding of the relationship between physical activity and health.
5. To develop the understanding of the physiological processes.

### Course Outcomes (COs): After completion of this course students will be able to

1. Understand the basic principles of physiology and Exercise Physiology
2. Apply the knowledge in the field of physical education and movement activity.
3. Analyze the practical knowledge during the practical situation.
4. Remember and recall the definition of physiology and co-relate the principles of physiology.
5. Appraise the effects during the training and practical sessions

### Unit 1: Skeletal Muscles and Exercise

11 Hours

Macro & Micro Structure of the Skeletal Muscle Chemical Composition. Sliding Filament theory of Muscular Contraction. Types of Muscle fibre. Muscle Tone, Chemistry of Muscular Contraction – Heat Production in the Muscle, Effect of exercises and training on the muscular system.

### UNIT II – Cardiovascular System and Exercise

11 Hours

Heart Valves and Direction of the Blood Flow – Conduction System of the Heart – Blood Supply to the Heart – Cardiac Cycle – Stroke Volume – Cardiac Output – Heart Rate – Factors Affecting Heart Rate – Cardiac Hypertrophy – Effect of exercises and training on the Cardio vascular system.

### UNIT III – Respiratory System and Exercise

11 Hours

Mechanics of Breathing – Respiratory Muscles, Minute Ventilation – Ventilation at Rest and During Exercise. Diffusion of Gases – Exchange of Gases in the Lungs –Exchange of Gases in the Tissues – Control of Ventilation – Ventilation and the Anaerobic Threshold. Oxygen Debt–Lung Volumes & Capacities–Effect of exercises and training on the respiratory system.

### UNIT IV – Metabolism and Energy Transfer

11 Hours

Metabolism–ATP – PC or Phosphate System – Anaerobic Metabolism – Aerobic Metabolism – Aerobic and Anaerobic Systems during Rest and Exercise. Short Duration High Intensity Exercises – High Intensity Exercise Lasting Several Minutes – Long Duration Exercises.

### UNIT V – Climatic conditions and sports performance and cryogenic aids

11 Hours

Variation in Temperature and Humidity – Thermoregulation – Sports performance in hot climate, Cool Climate, high altitude. Influence of: Amphetamine, Anabolic steroids, Androstenedione, Beta Blocker, Choline, Certain, Human growth hormone on sports Performance. Narcotic, Stimulants: Amphetamines, Caffeine, Ephedrine, Sympathetic medicaments. Stimulants and sports performance.

*Note:* Laboratory Practical in Physiology be designed and arranged internally.

### REFERENCES:

- Amrit Kumar, R, Moses. (1995). Introduction to Exercise Physiology. Madras: Poompugar Pathipagam.
- Beotra Alka, (2000) Drug Education Handbook on Drug Abuse in Sports: Sports Authority of India Delhi.
- Clarke, D.H. (1975). Exercise Physiology. New Jersey: Prentice Hall Inc., Englewood Cliffs.
- David, L Costill. (2004). Physiology of Sports and Exercise. Human Kinetics.

- Fox, E.L., and Mathews, D.K. (1981). *The Physiological Basis of Physical Education and Athletics*. Philadelphia: Sanders College Publishing.
- Guyton, A.C. (1976). *Textbook of Medical Physiology*. Philadelphia: W.B. Sanders co.
- Richard, W. Bowers. (1989). *Sports Physiology*. WMC: Brown Publishers.

## First Semester M.P.Ed

<b>Course:</b> Yogic Sciences	<b>Course Code:</b> 21PES1C3L
<b>Teaching Hours/Week (L-T-P):</b> 4- 0 - 0	<b>No. of Credits:</b> 04
<b>Internal Assessment:</b> 30 Marks	<b>Semester End Examination:</b> 70 Marks

### Course Objectives:

1. To appraise an understanding of the principles of yogic practices
2. To Acquaint with various types of asanas, pranayam, kriyas
3. To integrate sports with yoga for performance enhancement

### Course Outcomes (COs):

**After completion of this course students will be able to**

1. To appraise an understanding of the principles of yogic practices
2. To Acquaint with various types of asanas, pranayam, kriyas
3. To integrate sports with yoga for performance enhancement
4. After completing this course, the students will be able to
5. Differentiate between various paths of yoga

### Unit 1: Introduction

**11 Hours**

Meaning and Definition of Yoga. Astanga Yoga: Yama, Niyama, Asana, Pranayama, Prathyahara, Dharana, Dhyana, Samadhi, Concept of Yogic Practices; Principles of Breathing – Awareness – Relaxation, Sequence – Counter pose – Time – Place – Clothes – Bathing – Emptying the bowels – Stomach – Diet – No Straining - Age - Contra-Indication - Inverted asana - Sunbathing.

### Unit II – Asanas and Pranayam

**11 Hours**

Loosening exercise: Techniques and benefits. Asanas: Types- Techniques and Benefits, Surya Namaskar: Methods and benefits. Pranayama: Types- Methods and benefits. Nadis: Meaning, methods and benefits, Chakras: Major Chakras- Benefits of clearing and balancing Chakras.

### Unit III – Kriyas

**11 Hours**

Shat Kriyas- Meaning, Techniques and Benefits of Neti –Dhati – Kapalapathi- Trataka – Nauli – Basti, Bandhas: Meaning, Techniques and Benefits of Jalendra Bandha, Uddiyana Bandha, MulaBandha.

### Unit IV – Mudras

**11 Hours**

Meaning, Techniques and Benefits of Hasta Mudras, Asamyuktahastam, Samyuktahastam, Mana Mudra, Kaya Mudra, Banda Mudra, Adhara Mudra. Meditation: Meaning, Techniques and Benefits of Meditation – Passive and active, Saguna Meditation and Nirguna Meditation.

### Unit V – Yoga and Sports

**11 Hours**

Yoga as Supplemental Exercise–Yoga Compensation Exercise–Yoga Regeneration Exercise–Power Yoga. Role of Yoga in Psychological Preparation of Athlete: Mental Wellbeing, Anxiety, Depression Concentration, Self-Actualization. Effect of Yoga on Physiological System: Circulatory, Skeletal, Digestive, Nervous, Respiratory, Excretory System.

### REFERENCE:

1. George Feuerstein(1975) Text Book of Yoga. London: Motilal Bansaridass Publishers (P)Ltd.
2. Gore, (1990), Anatomy and Physiology of Yogic Practices. Lonavata: KanchanPrakashan.
3. Helen Purperhart(2004) The Yoga Adventure for Children. Netherlands: A Hunter Housebook
4. Iyengar, B.K.S. (2000), Light on Yoga. New Delhi: Harper Collins Publishers.

5. Karbelkar N.V.(1993) Patanjali Yogasutra Bhashya (Marathi Edition) Amravati: HanumanVyayamPrasarakMandal
6. Swami SatyananadaSarasvati. (1989), Asana Pranayama Mudra Bandha. Munger: Bihar School of Yoga.
7. Swami Sivananda, (1971), the Science of Pranayama. Chennai: A Divine Life SocietyPublication.
8. Thirumalai Kumar. S & Indira. S (2011) Yoga in Your Life, Chennai: The Parkar Publication.

## First Semester M.P.Ed

<b>Course:</b> Research Process in Physical Education & Sports Sciences	<b>Course Code:</b> 21PES1C4L
<b>Teaching Hours/Week (L-T-P):</b> 4- 0 - 0	<b>No. of Credits:</b> 04
<b>Internal Assessment:</b> 30 Marks	<b>Semester End Examination:</b> 70 Marks

### Course Objectives:

1. To develop understanding of the basic framework of research process.
2. To identify appropriate research topics. various sources of information for literature review.
4. Select and define appropriate research problem, parameters and research questions.
5. To develop an understanding of various research designs and techniques.
6. Write a research proposal and report.

### Course Outcomes (COs):

#### After completion of this course students will be able to

1. Identify the research problem in the field of physical Education and sports
2. Know to Summarize the various research literature
3. Understand and apply the basics of statistics in research.
4. Organize the samples and sampling techniques which is relevant to the study.
5. Apply the systematic methods in writing research thesis

### Unit 1: Introduction

**11 Hours**

Meaning and Definition of Research – Need, Nature and Scope of research in Physical Education. Classification of Research, Location of Research Problem, Criteria for Selection of a problem, Qualities of a good Researcher.

### UNIT II – Methods of Research

**11 Hours**

Descriptive Methods of Research; Survey Study, Case study, Introduction of Historical Research, Steps in Historical Research, Sources of Historical Research: Primary Data and Secondary Data, Historical Criticism: Internal Criticism and External Criticism.

### UNIT III – Experimental Research

**11 Hours**

Experimental Research – Meaning, Nature and Importance, Meaning of Variable, Types of Variables. Experimental Design - Single Group Design, Reverse Group Design, Repeated Measure Design, Static Group Comparison Design, Equated Group Design, Factorial Design.

### UNIT IV – Sampling

**11 Hours**

Meaning and Definition of Sample and Population. Types of Sampling; Probability Methods; Systematic Sampling, Cluster sampling, Stratified Sampling. Area Sampling – Multistage Sampling. Non- Probability Methods; Convenience Sample, Judgment Sampling, Quota Sampling.

### UNIT V – Research Proposal and Report

**11 Hours**

Thesis / Dissertation, Front Materials, Body of Thesis – Back materials. Method of Writing Research proposal, Thesis / Dissertation; Method of writing abstract and full paper for presenting in a conference and to publish in journals, Mechanics of writing Research Report, Footnote and Bibliography writing.

### REFERENCE:

- Best J. W (1971) Research in Education, New Jersey; Prentice Hall, Inc
- Clarke David. H & Clarke H, Harrison (1984) Research processes in Physical Education, New Jersey; Prentice Hall Inc.
- Craig Williams and Chris Wragg (2006) Data Analysis and Research for Sport and Exercise Science, London Routledge Press
- Jerry R Thomas & Jack K Nelson (2000) Research Methods in Physical Activities; Illonosis;
- Kamlesh, M. L. (1999) Reserach Methodology in Physical Education and Sports, New Delhi
- Moses, A. K. (1995) Thesis Writing Format, Chennai; Poompugar Pathippagam

## First Semester M.P.Ed

<b>Course: Mass demonstration:</b> Drill and marching, Ceremonial parade	<b>Course Code:</b> 21PES1S1P
<b>Teaching Hours/Week (L-T-P):</b> 0- 0 - 4	<b>No. of Credits:</b> 02
<b>Internal Assessment:</b> 20 Marks	<b>Semester End Examination:</b> 30 Marks

### Course Objectives:

1. To Organize the several events and ceremonies through the parade and organize the drills for various occasions by different drill equipment's.

### COURSE OUTCOMES (COs):

#### After Completion of the course the students shall be able to:

1. Students Gain the knowledge for organizing various events occasion
2. Demonstrate various mass demonstration activities

### MASS DEMONSTRATION ACTIVITIES

#### Lezzium, dumb-bell, wands, hoops/ Malkhamb

**Mass demonstration activities- Free arms drill, folk dances, etc.** (*Students are expected to learn and organize mass drill in school situation*)

- Apparatus/ Light apparatus Grip
- Attention with apparatus/ Light apparatus
- Stand – at – ease with apparatus/ light apparatus
- Exercise with verbal command, drum, whistle and music – Two count, Four count, Eight count
- Sixteen count.
- Standing Exercise
- Jumping Exercise
- Moving Exercise
- Combination of above all.
- Drill and Marching
- Ceremonial parade

**Note:** The candidate has to select the activity depending on the availability of the facility and other suitable conditions. The evaluation will be done on any one of the activity of their choice, the co-ordination, demonstration, perfection and formation will be assessed

## First Semester M.P.Ed

<b>Course: Practical Lab: Physiology of Exercise</b>	<b>Course Code: 21PES1C1P</b>
<b>Teaching Hours/Week (L-T-P): 0 - 0 - 4</b>	<b>No. of Credits: 02</b>
<b>Internal Assessment: 20 Marks</b>	<b>Semester End Examination: 30 Marks</b>

### Course Objectives:

1. To assess basic concepts of exercise physiology.
2. To employ students to apply the knowledge of energy systems during exercise.
3. To explain the effect of environment and ergogenic aids on exercise and training.
4. Develop a thorough understanding of the relationship between physical activity and health.
5. To develop the understanding of the physiological processes.

### COURSE OUTCOMES (COs):

After completing this course, the students will be able to

1. Describe and apply the fundamental and advanced concepts of exercise physiology.
2. Define and describe the term exercise physiology
3. Recognize the energy system for aerobic and anaerobic components of exercise.
4. Summarize the underlying physiological basis of physical fitness, physical training, health and wellness. Discover the nutritional aspect of fitness and performance.
5. Comprehend the physiological changes and adaptations during exercise in different environmental conditions

### LABORATORY PRACTICAL: PHYSIOLOGY OF EXERCISE

#### I. Assessment of Blood Pressure

- Systolic and diastolic blood pressure, Hypertension and hypotension.

#### Assessment of Heart Rate

- Resting Heart Rate, Maximum Heart Rate, Target Heart Rate, Heart Rate Monitoring during the activity
- Manual method of Heart Rate measurement, Assessment of Heart Rate through Heart Rate monitor.

#### II. Assessment of Lung Volumes and Capacities, Spirometer tests.

- Vital capacity (VC), Total lung capacity. (TLC), Inspiratory capacity (IC), Functional residual capacity (FRC), Tidal volume (TV), Inspiratory reserve volume (IRV)
- Expiratory reserve volume (ERV), Residual volume (RV)

#### III. Metabolic Rate Measurements and Maximum Oxygen Consumption Tests

- Total energy expenditure, Basal metabolic rate
- Treadmill VO<sub>2</sub> Max. test, Cyclic Ergometer VO<sub>2</sub> Max. test.
- Lactate threshold assessment

#### IV. Aerobic Field Tests.

- Beep test, Cooper's minutes run and walk test, Harvard step test, 1 mile Rockport Fitness Walking Test

#### V. Anaerobic Field Tests

- Margarita-Kalaman stair climbing test, Vertical Jump test for vertical power
- Standing broad jump for horizontal power

The students should prepare a record book containing the above said activities which will be evaluated in the semester exam.

## First Semester M.P.Ed

<b>Course:</b> <b>Field Activity Practical:</b> 1. Athletics- Running Events, 2. Yoga, 3. Aerobics and 4. Judo (Any two)	<b>Course Code:</b> 21PES1C2P
<b>Teaching Hours/Week (L-T-P):</b> 0- 0 - 4	<b>No. of Credits:</b> 02
<b>Internal Assessment:</b> 20 Marks	<b>Semester End Examination:</b> 30 Marks

### Course Objectives:

1. To define and acquaint training preparation of Game/Sport
2. To employ the rules and regulation of Game/Sport
3. To emphasis on preparation for the Game/Sport.
4. To acquaint the student with progressive teaching stages of fundamentals skills of Game/Sport.
5. To orient & employ the rules and regulation in organization of competition in Game/Sport.

### COURSE OUTCOMES (COs):

#### After Completion of the course the students shall be able to:

1. Gain knowledge of the Game/Sport.
2. Learn the layout and marking for the Game/Sport.
3. Demonstrate various drills & lead up activities related to Game/Sport.
4. Develop the skills to teach rules, fundamentals and strategies of Game/Sport.

### 1. ATHELETICS: RUNNING EVENTS

**Sprints:**Start, Acceleration, Finish, Running styles in sprint, Related drills. Strategies and Tactics.

**Middle Distance and Long-Distance Race:** Start, Acceleration, Finish, Running styles in Middle Distance and Long-Distance Race, Related drills, Strategies and Tactics.

**Relays:**Baton exchange for different relays. Related drills. Strategies and Tactics.

**Rules, Regulations, Officiating and Marking for above Track Events.**

### SPECIALISATION RECORD

UNIT 1: History and development of the Sprints, Hurdles and Relays.

UNIT 2: Skills and Techniques

UNIT 3: Fitness training

UNIT 4: Rules and Regulations

UNIT 5: Layout, construction and maintenance of track.

UNIT 6: Organization, Administration and managerial set up for conducting track events.

UNIT 7: Biomechanical principles of track events

UNIT 8: Injuries and Nutrition

\*The chapters are indicative. Chapter/s specific to the game/event of specialization can be included or irrelevant chapters excluded shall be decided in the departmental council meeting.

**The students should prepare a record book containing the above said activities which will be evaluated in the semester exam.**



## 2. YOGA

- i. **Standing asana:**  
Tadasana, Vrksasana, Utthitatrikonasana, Parivrttatrikonasana, Utthitaparsvakonasana, Veerabhadrasana/ Different postures, Garudasan
- ii. **Sooryanamaskara:** 10 counts, 12 counts, 16 counts.
- iii. **Sitting postures:** padmasana, vajrasana, sukasana, sidhasana,
- iv. **Long sitting postures:**  
Dandasana, Ardhanavasana, Gomukkasana, Veerasana, SupthaVajrasana, Vakrasana, Ardhamathyasana, Marichyasana, Utaushtrasana, Paschimottanasana
- v. **Proline position:**  
Shalabasana/ different forms, Bujangasana, Dhanurasana, Swanasana/ urdhavamukka, adhomukka
- vi. **Supine lane postures:**  
Alasana, Sarvangasana, Supthakonasana, Chakrasana
- vii. **Balancing postures:** Kukuttasana, Lolasana, Bakasana, Mayurasana, Sirasasana
- viii. **Pranayama:**  
Nadishodhana pranayama (alternative nostril breathing), Surya anulom vilom, Chandra anulom vilom Cooling pranayama, Bhramari pranayama (humming bee breathe)
- ix. **Relaxation postures:** Shavasana, Makarasana, Dandasana, tadasana and Shashankasana.
- x. Introduction to Bhandas, Mudras, Charkara and Kriyas

**NOTE: Candidates shall select 2 Asanas from Standing, Sitting, prone and Supine postures for the Practicum Examination: for evaluation purposes the skill Perfection, demonstration, teaching and training ability, will be considered.**

## 3. AEROBICS

- Rhythmic Aerobics – dance, Low impact aerobics, High impact aerobics, Aerobics kick boxing
- Moves

March single, basics, side to side alternate, turn s/a, double side to side, step touch, grapevine, knee up, leg curl, kick front, toe touch, kick side, side lunge, over the top, back lunge, straddle, kick front, travel s 11. Kick side, corner, heel to left, shape, 'e' shape, shapew, shape, repeater left mode Warm up and cool down. Being successful in exercise and adaptation to aerobic workout.

## 4. JUDO

### **Judo: Fundamental skills**

- Rei (Salutation)-Ritsurei(Salutation in standing position), Zarai (Salutation in the sitting position)
- Kumi kata (Methods of holding judo costume)
- Shisei (Posture in Judo)
- Kuzushi (Act of disturbing the opponent posture)
- Tsukuri and kake (Preparatory action for attack)
- Ukemi (Break Fall)-UrhiroUkemi (Rear break Fall), Yoko Ukemi (Side Break Fall), MaeUkemi (Front Break Fall), Mae mawariUkemi (Front Rolling break fall)

- Shin Tai (Advance or retreat foot movement)-Suri-ashi (Gliding foot), Twugi-ashi(Following footsteps), Ayumi-ashi (Waling steps).
- Tai Sabaki (Management of the body)
- NageWaze (Throwing techniques)-HizaGuruma (Knee wheel), SesaeTwurikomi-ashi(Drawing ankle throw), Deashihari (Advance foot sweep), O Goshi (Major loinm), SeoiNage (Shoulder throw).
- oKatamawaze(Grappling techniques)-Kesagatame (Scaff hold), Kata gatame (Shoulderhold), Kami shihogatama (Locking of upper four quarters), Method of escaping fromeach hold.

## First Semester M.P.Ed

<b>Course:</b> <b>Field Activity Practical:</b> 1. Kabaddi, 2. Basketball, 3. Swimming and 4. Wrestling/Gymnastics (any two)	<b>Course Code:</b> 21PES1C3P
<b>Teaching Hours/Week (L-T-P):</b> 0 - 0 - 4	<b>No. of Credits:</b> 02
<b>Internal Assessment:</b> 20 Marks	<b>Semester End Examination:</b> 30 Marks

### Course Objectives:

2. To define and acquaint training preparation of Game/Sport
3. To employ the rules and regulation of Game/Sport
4. To emphasis on preparation for the Game/Sport.
5. To acquaint the student with progressive teaching stages of fundamentals skills of Game/Sport.
6. To orient & employ the rules and regulation in organization of competition in Game/Sport.

### COURSE OUTCOMES (COs):

#### After Completion of the course the students shall be able to:

1. Gain knowledge of the Game/Sport.
2. Learn the layout and marking for the Game/Sport.
3. Demonstrate various drills & lead up activities related to Game/Sport.
4. Develop the skills to teach rules, fundamentals and strategies of Game/Sport.

### GAMES SPECIALIZATION- KABADDI, BASKETBALL, SWIMMING, WRESTLING/GYMNASTICS.

- Basic skills, Advanced skills, Teaching progression of different skills, Drills for each of the skills
- Biomechanical analysis of the skills, Specific fitness drills

### SPECIALISATION RECORD

#### UNIT 1 : History and development of the Game/Sport

#### UNIT 2: Skills and Techniques

#### UNIT 3: Strategies and Tactics

#### UNIT 4: Officiating

#### UNIT 5: Layout and construction and maintenance of playfield/courts

#### UNIT 6: Organization, Administration and managerial set up for conducting tournament / Competition

#### UNIT 7: Biomechanics and Energy systems

- Biomechanical principles of the game/sport
- Energy systems involved in the games and fitness programme specific to the game

#### UNIT 8: Injuries and Nutrition

- Game/Sport related injuries – Prevention, treatment and rehabilitation.
- Nutrition related to the game – Off season, and pre, during and post competition

\*The chapters are indicative. Chapter/s specific to the game/event of specialization can be included or irrelevant chapters excluded shall be decided in the departmental council meeting.

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