

**UNIVERSITY OF PATANJALI**  
**HARIDWAR**  
**BHARTIYA VYAVYAM PADDATI EVAM KHEL**

**(CERTIFICATE COURSE)**

**SYLLABUS 2021-22**

<b>CERTIFICATE COURSE</b>		
<b>S No.</b>	<b>COURSE NAME</b>	<b>COURSE CODE</b>
1	FUNDAMENTAL OF YOGA	BVP 101
2	BIOMECHANICS & KINESIOLOGY	BVP 102
3	PRINCIPLES AND HISTORY OF TRADITIONAL EXERCISE	BVP 103
4	SPORT TRAINING AND COACHING	BVP 104
5	PRACTICAL - RHYTHMIC EXERCISE : Dand Baithak, Mugdar, Dumbbell, Lazium, Lathi, March-Past, Physical Training (P.T)	BVP -P-105
6	PRACTICALS – YOGA : Asana, Pranayama, Mudra, Bandha, Shatkarma, Sports, Sun Salutation	BVP -P-106
7	PRACTICALS – GAMES: A. INDIAN GAMES: Kho-Kho, Kabaddi, Wrestling, Gatka, Malkham-Wooden(Boys) & Rope(Girls), Martial Art. (Any two)  B. OLYMPIC GAMES: Athletics – Track and Field	BVP -P-107

## SEMESTER-I

**COURSE CODE: BVP 101**

**Credit: 4**

**Marks:(ESE=70+CCA=30)=100**

### FUNDAMENTAL OF YOGA

**Objectives:** Following the completion of the course, students shall be able to:

- Articulate the benefits, procedure and contraindications of all practices.
- Demonstrate each practice with confidence and skill.
- Explain the procedure and subtle points involved.

#### **The Course Learning Outcomes (Cos):**

**CO-1.** Demonstrate basic skills associated with yoga and Pilates.

**CO-2.** Demonstrate the ability to perform yoga movements in various combination and forms.

**CO-3.** Apply the knowledge of basic choreography, and effective group management.

**CO-4.** Demonstrate the ability to create and present various yoga activities.

#### **Unit-I (16 Hours)**

1. Meaning, definition and origin of Yoga.
2. Aims, objectives and scope of yoga.
3. Historical development of yoga in India.
4. Importance of yoga in the modern era.
5. Types of Yoga:
  - a. Gyana Yoga
  - b. Karam Yoga
  - c. Bhakti yoga
  - d. Raj Yoga
  - e. Hatha Yoga
  - f. Mantra Yoga
  - g. Laya Yoga

#### **Unit-II (14 Hours)**

1. Concept and philosophy of Asthanga Yoga.
2. Constituents of Asthanga Yoga & Shat Chakras :
  - a. Yama
  - b. Niyama
  - c. Asana
  - d. Pranayama
  - e. Pratyahar

- f. Dharma
  - g. Dhyana
  - h. Smadhi
3. Role and mode of practice of each step in the attainment of goal.

**Unit-III** (14 Hours)

- 1. Asanas and their importance.
- 2. Classification of asanas:

- a. Meditative
  - b. Relaxative
  - c. Cultural
3. General techniques and benefits with lesson plan any one of the following:  
     Padmasana, Vajrasana, Halasana, Bhujangasana, Sarvangasana, Chakrasana,  
     Dhanurasana, Salabhasana, Paschimotanasana, Mayurasana, Shirshasana.
4. Technique and benefits of Surya namaskar.
5. Difference between yoga and general exercises.

#### **Unit-IV** (16 Hours)

1. Lesson Plan (any one)
2. Concept of Shat Karma (Shudhi Kriyas), Hast Mudras and brief description of the following:  
     Neti, Dhoti, Basti, Nauli, Tratak, Kapalbhathi
3. Meaning and definition of Pranayama, general techniques and physiological benefits of the following :  
     Ujjai, Sitkari, Shitali, Bhastrika, Bhramari, Kapalbhathi, Anlom-Vilom
4. Meaning and definition of Hast Mudra and Bandhas.
5. Rule & Regulation of Yoga Competition (All India Yoga Society Reg.)
6. Equipments, Officiating & Coaching

#### **Reference Books:**

1. "Facts about Yoga", By Shri Jogindera, The Yoga Institute, Santa Cruz, Bombay-55 (1975)
2. "The Complete Book of Yoga", By Shre Anand Publishers Orient.
3. "Yoga in Modern Life", By Shri Jogindera, The Yoga Institute Santa Cruz, Bombay-55 (1966).
4. Singh Ajmer et.al, "Essentials of Physical Education." Kalyani Publishers, Ludhiana, second revised addition 2008.
5. Ramdev, S. (2006). *Yoga Sadhana and Yoga Chikitsa Rahasya*. Haridwar, India: Divya Prakashan.
6. Ramdev, S. (2009). *Pranayam Rahasya*. Haridwar, India: Divya Prakashan.

## **SEMESTER-I**

**COURSE CODE: BVP 102**

**Credit: 4**

**Marks:(ESE=70+CCA=30)=100**

### **BIOMECHANICS & KINESIOLOGY**

#### **Learning Objective:**

- Biomechanics and Kinesiology and physical education study the role exercise, physical movement and sports play in the development of human health and happiness.
- They apply sciences like biomechanics, anatomy, physiology and psychology to better understand how the human body responds to physical activity.
- Kinesiology studies the mechanics of human movement and how they impact our health and wellbeing.

#### **The Course Learning outcomes (COs) :**

CO-1. The student would be Oriented with the skeletal structure of human body by identifying. The origin and insertion of various muscles.

CO-2. Orient the students in basic structure and functions of primary joints of the body.

CO-3. Relate and interpret the role of various mechanical principles in human movement.

#### **Unit-I (16 Hours)**

1. Meaning, definition and importance of biomechanics& Kinesiology in the field of sports.
2. Fundamental mechanical concept of:  
Mass, Weight, Volume, Density, Pressure
3. Introduction to kinematics and its related terms:  
Time, Displacement, Speed
4. Role of kinematics in the field of sports.
5. Importance of biomechanics & kinesiology in Physical Education

#### **Unit-II (14 Hours)**

1. Fundamental biomechanical terms:  
Friction, Inertia, Force, Centripetal force, Centrifugal force, Center of gravity
2. Equilibrium, types of equilibrium and principles of equilibrium.
3. Kinetics and its role in the field of sports.
4. Planes and axis
5. Joint and types of joints
6. Various fundamental movements
7. Movements around various joints : Neck , Shoulder, Elbow Wrist, Hip, Ankle

**Unit-III****(16 Hours)**

1. Motion and types of motion.
2. Newton's laws of motion and their implications in the field of physical education and sports.
3. Lever and types of lever.
4. Advantages of lever.
5. Muscle contraction and its types: Isotonic, Isometric, Isokinetic
6. Corrective/therapeutic exercises: Passive exercises, Active assistive exercises, Active exercise, Resistive exercise, Stretching exercises

**Unit-IV****(14 Hours)**

1. A brief description of mechanical principles: Projectile & Aerodynamics
2. Mechanical analysis of following: Walking, Running, Jumping, Throwing
3. Structural classification of skeletal muscles
4. Functional classification of skeletal muscles: Agonist, Antagonist, Stabilizer, Neutralizer.
5. Location, origin, insertion and action of the following muscles :  
Deltoid, Biceps, Gastrocnemius, Latissimus dorsi, Trapezius major, Sternocleidomastoid

**Reference Books:**

1. Barrle, R. (20047), "Introduction to Sports Biomechanics." Ran sedge Publishers, USA.
2. Blazeovich, A. (2007), "Sports Biomechanics." A and C Black Publishers USA.
3. Beer and Zarmicks (1979), "Efficiency of Human Movement." WIB Sounders CO. USA.
4. Hamill. J and Knutzen, K.M. (2003), "Biomechanical Basis of Human Movement."  
Lippincott Williams and Wilkins USA.
5. McGimsis, P. (2004), "Biomechanics of Sports and Exercise." Human Kinetics, USA.
6. Singh Ajmer et.al, "Essentials of Physical Education." Kalyani Publishers Ludhiana second revised addition 2008.
7. Rasch, P.I. and Burke R.K., "Kinesiology and Applied Anatomy", Lee and Febiger.
8. Wells K., "Kinesiology", Philadelphia W.B. Sunders Co. 1986.
9. Cooper and Cleseo, "Kinesilogy", St. Louis C.V. Mosby Co.1968.
10. Smith Lara K. and Others, "Srunnstrem's Clinical kinesiology", Jaypee Brothers P.B. No-7193 New Delhi 1982.
11. Singh Ajmer et.al, "Essentials of Physical Education", Kalyani Publishers Ludhiana Second revised addition 2008.

## **SEMESTER-I**

**COURSE CODE: BVP 103**

**Credit: 4**

**Marks:(ESE=70+CCA=30)=100**

### **PRINCIPLES AND HISTORY OF TRADITIONAL EXERCISE**

#### **Learning Objective:**

- The aim to develop the student into better rounded, balanced individuals.
- These activities capture the interest of the students.
- Students also promote their safety and well-being.
- This is a practical improvement on the usual physical education program.

#### **The Course Learning outcomes ( COs ) :**

- CO-1. The pass out students would be able to compare the relationship between general education and Physical education.
- CO-2. Students would be able to identify and relate with the History of Physical Education.
- CO-3. Students would be able to comprehend the relationship between Philosophy, Education and Physical Education.
- CO-4. Students would be able to identify the works of Philosophers of Education and Physical Education.
- CO-5. Students would be know recent developments and academic foundation of Physical Education.

#### **Unit-I Introduction:**

(15 Hours)

1. Definition, Aim and Objectives of Traditional Exercise.
2. Principles of Traditional Exercise.
3. Relation between in Traditional Exercise, Physical Education & General Education.
4. Misconception, regarding Traditional Exercise.

#### **Unit-II History of Traditional India Exercise in Ancient Period: (13 Hours)**

1. Traditional Exercise in Indus Valley civilization (3250BC – 2500 BC).
2. Traditional Exercise in Vedic Period (2500 BC – 600 BC).
3. Traditional Exercise in Early Hindu Period (600 BC – 320 AD).
4. Traditional Exercise in Later Hindu Period (320 AD – 1000 AD).

5. Traditional Exercise in Medieval Period (100 AD – 1757 AD).

**Unit-III History of Traditional Exercise or Physical Education in Pre & Post Independence Era in India:**

(15 Hours)

1. Traditional Exercise during British Period (till 1947).
2. Traditional Exercise in India after independence.
3. Kothari Commission and its recommendation.
4. National policy on Education (1986).
5. Role of the following organization in promoting Physical Education and Sports:
  - a. Y.M.C.A.
  - b. S.N.I.P.E.S.
  - c. L.N.I.P.E.
  - d. N.S.N.I.S.
  - e. S.A.I.



#### **Unit-IV Historical Perspective of Physical Education with special reference to Greece**

(17 Hours)

1. Physical Education in Athens.
2. Ancient Olympic Movement.
3. Modern Olympic Games.
  - a. Olympic Motto
  - b. Governing body
  - c. Olympic torch and flag
  - d. Opening ceremony
  - e. Awards
  - f. Closing ceremony

#### **Reference Books:**

1. Kamlesh M.L., "Physical Education, Facts and foundations" Faridabad P.B. Publications.
2. Barrow Harold M., "Man and movements principles of Physical Education" 1978.
3. Ravanes R.S., "Foundation of Physical Education" Houghton Millin Co. Boston USA (1978)
4. Krishana Murthy V. and Paramesara Ram, N., "Educational Dimensions of Physical Education", 2<sup>nd</sup> Revised edition, Print India, New Delhi 1990.
5. Singh Ajmer et.al., "Essentials of Physical Education", Kalyani Publishers Ludhiana Second revised Addition 2008.
6. Deleh V.A., "World History of Physical Education", prentice Hall Inc.

#### **SEMESTER-I**

**COURSE CODE: BVP 104**

**Credit: 4**

**Marks: (ESE=70+CCA=30)=100**

#### **SPORT TRAINING AND COACHING**

## **Learning Objective:**

- Sports training is especially focused on optimal performance in a particular sport.
- Its main aim is to develop the performance capacity of sports persons, so that they achieve the highest possible performance.

## **The Course Learning Outcomes (COs) :**

**CO-1.** The learners will be able to identify the fundamental concepts, theories and principles of human body training related to sports performance.

**CO-2.** The learners will be able to demonstrate the skills to train different fitness components and related planning.

**CO-3.** The learners will be able to understand the organization to achieve high performance in sports

## **Unit-I (14 Hours)**

1. Coaching :
  - a. Meaning, Definition, aim and Objectives of Sports Training and Coaching.
  - b. Principles & Characteristics of Sports Training & Coaching.
  - c. Qualification and Qualities of a good coach.
  - d. Duties and Responsibilities of a good coach.
  - e. Measures for improving the standard of coaching& Sports Training in India.
  - f. Concept of warming up and cooling down, its use and importance

## **Unit-II (17 Hours)**

1. Training Schedule :
  - a. Concept of Training Schedule.
  - b. Types of Training Schedule (Plan) :- Short term & Long term
  - c. Principles of training schedule.
  - d. Preparation of training schedule.
2. Physical Fitness components :-  
Speed, Strength, Endurance, Flexibility, Co-ordinative ability/agility
3. Speed training :-
  - a. Meaning of speed training, types of speed and methods of speed training.
  - b. Factors influencing speed.
4. Strength training :-
  - a. Meaning of strength training, types of strength and methods of strength training.
  - b. Factors influencing strength.

## **Unit-III (13 Hours)**

1. Endurance Training :-
  - a. Meaning of endurance training, types of endurance and methods of endurance training.
  - b. Factors influencing endurance.
2. Concept of training load, adaptation and recovery :-

- a. Definition of load and training load.
  - b. Types of load.
  - c. Symptoms, causes and measures to overcome overload.
  - d. Meaning, definition and benefits of adaptation.
  - e. Meaning, definition and benefits of recovery.
3. Officiating :-
    - a. Meaning and definition of officiating.
    - b. Principles of officiating.
    - c. Qualification and qualities of a good official.
    - d. Duties and responsibilities of an official.
    - e. Measures for improving the standard of officiating in India.

#### **Unit-IV (16 Hours)**

1. Rules, regulations and plan of the following athletic events :
  - a) Sprints
  - b) Long jump
  - c) Shot put
  - d) Relay races
  - e) Middle and long distance races
  - f) Hope step and jump
  - g) Discus throw
  - h) Hurdles.
2. Score sheets and award of points for the above mentioned athletic events
3. Meaning and definition of technique, skill and style.
4. Implications of technical training in various phases.
5. Stages of technical training.
6. Meaning and definition of tactical training.
7. Methodology of tactical training, strategy and tactics.
8. Relationship between technical training and tactical training.

#### **Reference Books:**

1. AAFB, "Officiating in Athletics", 2012.
2. Bunn, J.N. "Art of officiating in Sports", Prentice Hall Englewood N.J. 1968.
3. "Pearson G.F. Athletics", Thomson Nelson and sons ltd. London.
4. Singh Ajmer et.al, "Essentials of Physical Education", Kalyani Publishers, Ludhiana Second revised addition 2008.
5. "Fundamentals of sports training, progress publishers", Moscow, 1977.
6. Dyson, "The mechanics of Warwick square, Athletics."
7. Buwn J. "Scientific Principles of coaching." Prentice Hall.
8. Broer, M. "Efficiency of Human movement." Philadelphia W.B. Saunders Co. 1978.
9. "Science of Coaching" By Hardy Singh.
10. Singh Ajmer et.al, "Essentials of Physical Education", Kalyani Publishers, Ludhiana Second revised addition 2008.

**SEMESTER-I**  
**PRACTICAL**  
**RHYTHMIC EXERCISE**

**COURSE CODE: BVP -P-105**

**Credit: 4**

**Marks= 100**

**Course Objectives**

**To develop coordination, control, strength, agility, flexibility, relaxation, and freedom of movement.** To learn to use the body as a whole. To develop a vigorous vital type of body movement.

**Outcomes**

**CO1** Critical, analytical, and creative thinking

**CO2** Capacity to personally interpret the human experience

**CO3** Capacity to reflect critically and shared concerns and think of innovative, creative solutions guided by ethical standards

**CO4** Ability to appreciate and contribute to artistic beauty

The following Rhythmic Exercise activities:- (120 Hours)

**1. Dand Baithak :**

**Dand :** Sadharan Dand, Parshva Dand, Vrikshik Dand, Hanuman Dand, Ram Murti Dand, Singh Dand, Palat Dand, Sarp Dand.

**Baithak :** Sadharan Baithak, Sapaat Baithak, Pahlvani Baithak, Ram Murti Baithak, Pavitra Baithak, Lehra Baithak, Hanuman Baithak-1, Hanuman Baithak-2.

**2. Mugdar**

**3. Dumbbell :** Wooden Dumbbell

**4. Lazium**

**5. Lathi :** Prahaar, Suraksha, 2 Dik Prahaar, Runmaar Right Side, Runmaar Left Side, Runmaar Chaal Right Side, Runmaar Uddin, Runmaar Baithi.

**6. March-Past :** Unit Formation, Turning Motions, Column Formation, Dressing, Understanding Stationary Drill Movements, Marching Motions,

**7. Physical Training (P.T) :** Bhujbal Vikasak, Vaksh Vikasak, Skandh Vikasak, Mishr Hast, Katinaman, Kti Vikarshan, Katinaman 2, Grudoddin, Shirohastnati, Kurdan Taal.

## SEMESTER-I

### PRACTICAL YOGA

**COURSE CODE: BVP -P-106**

**Credit: 4**

**Marks= 100**

The following Yoga activities:-

(120 Hours)

#### OBJECTIVES

- To Understand the Basic Concepts of Yoga and Physical Education
- To Gain knowledge on Ashtanga yoga
- To Acquire knowledge of Techniques and Practice of Yogasanas
- To Understand and perform Pranayama

**COURSE OUTCOMES (Cos) :** Students completing this certificate course were able to:

**CO1** Understand the Basic Concepts of Yoga and Physical Education

**CO2** Gain knowledge on Ashtanga yoga

**CO3** Understand and perform Pranayama

**CO4** Acquire knowledge of Techniques and Practice of Yogasanas

#### **Asana :**

Vajrasana, Udarakarshanasana , Janushirasana , Gomukhasana, Ushtrasana , Naukasana ,  
Katichraasana, Tadasana , Vrikshasana , Garudasana , Padhastasana , Ardhhdhanurasana,  
Ardhshalabhasana , Bhujangasana , Shavasana , Shashankasana , Mandukasana , Ardhhalasana,  
Pawan Muktasana , Padmasana , Uttanpadasana , Sarvangasana , Halasana , Matsyasana ,  
Suptvajrasana , Chakrasana , Tiryaka Tadasana , Ek Pad Pranamasana , Makarasana , Hanumanasana ,  
Markatasana , Viprit Naukasana ,  
Utkatasana , Vakrasana , Hasta Padangusthasana , Bhunamanasana , Vatayanasana , Tulasana , Mandukasana ,  
Tiryak Bhujangasana , Paschimottanasana , Natarajasana , Akarn Dhanurasana , Baddha Padmasana  
, Mayurasana , Shirshasana , Vatayanasana , Garbhasana , Karnapidasana

#### **Pranayama :**

Nadi Shodhan Pranayama , Suryabhedhi Pranayam , Chandra Bhedi, Pranayama , Ujjayi Pranayam ,  
Shitali Pranayama , Shitkari Pranayam , Bahyavriti pranayama  
Abhyantara Vriti pranayama , Bhramari Pranayama , Bhastrika Pranayama , Udgeeth Pranayam ,  
Murcha Pranayama

#### **Mudra :**

Gyan Mudra , Viparita Karani Mudra , Yog Murda , Shambhavi Murda , Tadagi Murda , Pran Murda ,  
Kaki Murda , Mahamudra , Mahabandha Murda , Mahavedh Murda

#### **Bandha :**

Jalandhar Bandha , Uddiyana Bandha , Mulbandha

#### **Shatkarma :**

Jal Neti , Rubber Neti , Vaman Dhauti / Kunjal Kriya , Vatkrum / Kapalbhathi , Aganisar Kriya ,  
Shitkrum Kapalbhathi , Sutra Neti , Vyutkrum Kapalbhathi , Tratak , Shankh Prakshalan , Nauli Kriya ,  
Vastra Dhauti

**Sports:** Yoga Championships & Tournaments according to Federations & Associations.

**Sun Salutation :** According to Swami Ram Dev Maharaj

## **SEMESTER-I**

### **PRACTICAL GAMES**

**COURSE CODE: BVP -P-107**

**Credit: 4**

**Marks= 100**

The following Games activities:-

(120 Hours)

#### **OBJECTIVES**

- To understand the basics of Kho-Kho, Kabaddi, Wrestling and Martial art.
- To impart knowledge on the concepts of Playing the varies game
- To Understand Fouls and the punishments for infringing the rules.

**COURSE OUTCOMES (Cos):** Students completing this course were able to

**CO1** Understand the basics of the specified activities

**CO2** Gain knowledge on the specified activities with rules involved

**CO3** Attain knowledge on the concepts of playing the specific Games and the event

**CO4** Acquire the knowledge of Rules involved in the specified activities

## **A. INDIAN GAMES**

1. Kho-Kho
2. Kabaddi
3. Wrestling
4. Gatka
5. Malkham - Wooden (Boys)
6. Malkham - Rope (Girls)
7. Martial Art

(Any two of the following game)

## **B. OLYMPIC GAMES**

### **ATHLETICS: TRACK AND FIELD**

#### **TRACK:**

1. Sprint(100m, 200m, 400m)
2. Relay(4x100m, 4x400m)
3. Middle distance (800m, 1500m)
4. Long distance (3000m Steeplechase, 5000m, 10,000m)
5. Hurdles(110/100m, 400m)

6. Competitive Walking

(on any one of the following track events)

FIELD:

1. Discus Throw
2. Shot Put
3. Hammer Throw
4. Javelin Throw
5. Long Jump
6. High Jump
7. Triple Jump
8. Pole Vault

(on any one of the following field events)