

**Faculty of Physical Education  
University of Pune, Pune- 411043**

**Proposal**

**Diploma for Gym Instructor**

## **Diploma for Gym Instructor**

### **1. General Objectives of the Course:**

1. To enable student to become competent and committed professionals willing to perform as gym instructor.
2. To make student to use competencies and skills needed for becoming an effective gym instructor
3. To enable student to understand principles of fitness training
4. To acquaint student with the practical knowledge of giving fitness instructions
5. To enable student to understand duties and responsibilities as gym instructor
6. To enable student to prepare the Fitness programme
7. To enable students to understand and explain the effect of Exercise on the body.
8. To enable students to understand human posture.

### **2. Duration of the Course:**

The duration of the course shall be of six months. Each working day shall consist of four hours of Practical Work (Morning and Evening – 2 hours each session) and three hours of theory in between.

### **4. Eligibility for Admission:**

- Student should have passed the certificate course for fitness of University of Pune, Pune
- Any Candidate who has passed XII std. or any other equivalent examination will be eligible for the admission to the Diploma for Gym instructor Course. Provided other conditions of admissions are fulfilled.

### **5. Medium of Instruction and Examination:**

- a) Medium of Instruction at the Diploma for Gym instructor Course will be Marathi and/or English and question papers shall be set in Marathi & English.
- b) The candidate appearing for the Diploma for Gym instructor Course Examination will have the option of answering all papers either in English or in Marathi in Part-I (Theory). This option can be exercised paper wise and not section wise or question wise.

## 6. Structure of Diploma for Gym instructor Course Programme:

Diploma for gym Instructor Course Programme shall be of 800 marks as follows:

| Area                                   | Part | Head |   | Marks      |
|--|------|------|---|------------|
| Theory                                 | I    |      | <b>External Assessment</b>                        |            |
|  |      | 1    | Anatomy & Physiology and Sports Medicine          | 80         |
|  |      | 2    | Biomechanics & Kinesiology                        | 80         |
|  |      | 3    | Fitness & Exercise                                | 80         |
|  |      | 4    | Training and training methods                     | 80         |
|  |      | 5    | Management and Evaluation                         | 80         |
|  |      |      | <b>Total</b>                                      | <b>400</b> |
| Practical<br>(External<br>examination) | II   | 6    | <b>External Assessment</b><br>Workout session (1) | 50         |
|  |      |      | <b>Total</b>                                      | <b>50</b>  |
| Practical<br>(Internal<br>Assessment)  | III  | 7    | <b>Internal Assessment</b>                        |            |
|  |      |      | a. Tutorials & Exams                              | 40         |
|  |      |      | b. Term Work                                      | 20         |
|  |      |      | c. Core Part                                      | 200        |
|  |      |      | d. Practice Workout session (2)                   | 40         |
| e. Assignment                          | 50   |      |   |            |
|  |      |      | <b>Total</b>                                      | <b>350</b> |
|  |      |      | <b>Overall Total</b>                              | <b>800</b> |

### Note:

Internal assessment will be done by the college. For the assessment the college will give marks and will submit it to the University.

External Assessment will be done by a Panel of two examiners appointed by University, for final lessons.

### 6.1 Eligibility for appearing at Diploma for Gym instructor examination:

Student teachers should keep the terms with at least 75% attendance. He/she should complete all the practical and other work expected in all parts of the syllabus.

### 6.2 Annual Examination:

#### 6.2.1 Theory

An annual examination will be held at the end of the year which shall be called "Annual Examination". This examination will be of 80 marks and of three hours duration for each theory course.

#### 6.2.2 Final Practice Lesson

There shall be final practical lesson conducted at the end of the second term.

### 6.2.3 Standard of passing:

1. A student has to obtain minimum 40% of marks in each theory paper & 50% of marks in aggregate i.e. Part-I examination.
2. A student has to obtain 50% of marks in practical examination separately in external assessment & internal assessment i.e. Part-II and Part III examination.
3. A student has to obtain 50% aggregate marks together in Part –I, Part -II & Part-III.

### 6.3 Award of class

Class will be awarded to the students at the end of the course on the basis of aggregate marks obtained by him/her in each part separately

| Sr. No. | Class                        | Part I                        | Part II                       | Part III                      |
|---------|------------------------------|-------------------------------|-------------------------------|-------------------------------|
| 1       | First Class with Distinction | 70% & above                   | 70% & above                   | 70% & above                   |
| 2       | First Class                  | 60% & above but less than 70% | 60% & above but less than 70% | 60% & above but less than 70% |
| 3       | Higher Second Class          | 55% & above but less than 60% | 55% & above but less than 60% | 55% & above but less than 60% |
| 4       | Second Class                 | 50% & above but less than 55% | 50% & above but less than 55% | 50% & above but less than 55% |
| 5       | Pass Class                   | 45% & above but less than 50% | 45% & above but less than 50% | 45% & above but less than 50% |

### 6.4 University terms:

The dates for commencement and conclusion of the first & the Second terms shall be fixed by the university authorities.

## Details of Syllabus for Diploma for Gym instructor:

Fitness Training Course of Bharati Vidyapeeth University is divided into two areas:

- a) Theory
- b) Practical.

### Area - Theory Course

**Part I:** **400 Marks**

In this part there are five papers as given below.

|                 |  |                 |
|-----------------|--|-----------------|
| <b>Paper 1)</b> | <b>Anatomy, Physiology and Sports Medicine</b>           | <b>80 Marks</b> |
| <b>Paper 2)</b> | <b>Biomechanics &amp; Kinesiology</b>                    | <b>80 Marks</b> |
| <b>Paper 3)</b> | <b>Fitness &amp; Exercise</b>                            | <b>80 Marks</b> |
| <b>Paper 4)</b> | <b>Training and training methods</b>                     | <b>80 Marks</b> |
| <b>Paper 5)</b> | <b>Management &amp; Test, Measurement and Evaluation</b> | <b>80 Marks</b> |

There will be university examination for this part and question papers will be set by the panel of two examiners.

**Part II: Internal Assessment** **300 Marks**

|  |                  |
|--|------------------|
| <b>a. Tutorials</b>                    | <b>20 Marks</b>  |
| <b>b. Term Work</b>                    | <b>40 Marks</b>  |
| <b>c. Core Part</b>                    | <b>200 Marks</b> |
| <b>d. Practice Workout session (2)</b> | <b>40 Marks</b>  |

This part includes Tutorials, Term Work, core part and Practice workout session Workout session (2)

**1. Tutorials** **20 Marks**

Student should write 2 tutorials for each paper i.e. 8 in all throughout the year

**2. Term work** **40 Marks**

Every student should undergo two internal tests in theory courses, test on general knowledge of fitness training, test & measurement practical during the year.

**3. Core Part** **200 Marks**

**4. Practice Lessons** **40 Marks**

The students should take four practice workout sessions each carrying 10 marks.

**Part III: External Examination** **100 Marks**

The external examination consists of the following two parts, Assignment & Workout session (1)

**1. Assignment**

**50 Marks**

The student has to submit the assignments given to him regarding fitness training, fitness institutes & courses, new trends in fitness training, fitness trainers & coaches, gyms, etc.

**2. Lesson**

**50 Marks**

Every student will conduct one lesson and the panel of two examiners appointed by University will examine the same.

**Part I  
Theory**

**400 Marks**

| Course | Name  | Marks | Duration of Examination |
|--------|---|-------|-------------------------|
| 1      | Anatomy & Physiology and Sports Medicine      | 80    | 3 Hours                 |
| 2      | Biomechanics & Kinesiology                    | 80    | 3 Hours                 |
| 3      | Fitness & Exercise                            | 80    | 3 Hours                 |
| 4      | Training and training methods                 | 80    | 3 Hours                 |
| 5      | Management & Test, Measurement and Evaluation | 80    | 3 Hours                 |

**Part II**

**300 Marks**

| Course 6: Internal Assessment              | 300 Marks |
|--|-----------|
| a. Tutorials                               | 40 Marks  |
| b. Term work                               | 20 Marks  |
| c. Core Part                               | 200 Marks |
| d. Practical Workout session (2)           |           |
| i) Two Workout session on Fitness Training | 40 Marks  |

**Part III**

**100 Marks**

| Course 7: External Assessment | 100 Marks |
|-------------------------------|-----------|
| a. Assignment                 | 50 Marks  |
| b. Lesson (1)                 | 50 Marks  |

| <b>Sr. No.</b> | <b>Subject</b>                    | <b>Marks</b> |
|----------------|-----------------------------------|--------------|
| 1              | Warm Up                           | 20           |
| 2              | Exercises                         | 20           |
| 3              | Conditioning                      | 20           |
| 4              | Basic Concepts                    | 20           |
| 5              | Training Methods                  | 20           |
| 6              | Training Programme                | 20           |
| 7              | Tests, Measurement and Evaluation | 20           |
| 8              | Prime Movers                      | 20           |
| 9              | Yog and Pranayama                 | 20           |
| 10             | Cooling down                      | 20           |
|                | <b>Total</b>                      | <b>200</b>   |

**Area - Theory Course**

**Part I:**

**400 Marks**

In this part there are five papers of two sections each as given below.

|                 |  |          |
|-----------------|--|----------|
| <b>Paper 1)</b> | Anatomy & Physiology and Sports Medicine     | 80 Marks |
| <b>Paper 2)</b> | Biomechanics & Kinesiology                   | 80 Marks |
| <b>Paper 3)</b> | Fitness & Exercise                           | 80 Marks |
| <b>Paper 4)</b> | Training and training methods                | 80 Marks |
| <b>Paper 5)</b> | Management, Test, Measurement and Evaluation | 80 Marks |

# Theory

## Paper I: Anatomy physiology and sports medicine

### **Skeleto-muscular System**

- Introduction to Bone and Muscles
- Structure of bone and Muscles
- Functions of bone and Muscles
- Types of bone and Muscles
- Muscle contraction
- Types and Classification of Joints
- Anatomy of Joint
- Effect of exercise on skeleto- muscular system

### **Cardio respiratory systems**

- Athletes Heart
- Supply of blood to the organs
- Carrying oxygen
- Blood pressure (systolic/ Diastolic)
- Respiration mechanism
- VO2 Max
- Tidal Volume
- Lung capacity
- Respiratory rate
- Effect of exercise on cardio-respiratory system

### **Injuries and their management**

- Types of injuries (Visceral, soft tissue and musculo- skeletal injuries, body parts)
- Low back problems and management stretching and strengthening exercises for Back problems
- Common & Specific Sports Injuries
- Immediate and Later Management of Injuries

### **First aid**

- Definition
- RICE therapy
- Other Methods, Prevention and Care of Injured Athlete
- Importance

### **Postural Deformities**

- Types
- Causes
- Remedies & Prevention

### **Rehabilitation and Therapeutic Modalities**

- Hydro-collateral pack (Hot and Cold)
- Hydrotherapy (Whirlpool)
- Diathermy
- Ultrasound
- Electrical muscle Stimulation

- Combination of Ultrasound and Electrical muscle stimulation
- Cryokinetics, cold spray Contrast bath, paraffin bath, infrared and ultraviolet rays.
- Rehabilitative exercises

#### **Nutrition**

- Food content
- Basic principles
- Balance diet
- Calories & diet
- Exercise & diet
- Supplements

### **PAPER II: Biomechanics & Kinesiology:**

#### **Introduction**

- Definition
- Application of Bio-mechanics
- Analysis of Fundamental Movements and skills

#### **Lever**

- Types of lever
- Principles of Lever

#### **Motion**

- Types
- Laws of motion

#### **Equilibrium**

- Equilibrium and its principles

#### **Force**

- Force
- Friction
- Center of gravity

#### **Kinesiology**

- Meaning and definition
- Types of movement
- Plane & axial movement
- Muscular analysis
- Posture and Movement analysis  
(Locomotor, non-locomotor and manipulative)

## Paper III: Fitness & Exercise

### Unit I: Physical fitness factors

- **Cardio vascular endurance**  
How to develop C. V. endurance through wt. training (Circuit training)  
Methods of developing Cardio vascular endurance  
Aerobic & Anaerobic Capacity
- **Muscular Strength**  
Type of Strength  
Factors affecting Strength  
Methods of Improving Strength
- **Muscular endurance**  
Meaning of Muscular endurance  
Different Muscles & Muscular endurance  
Repetitions – Sets & Improvement
- **Flexibility**  
Meaning of Flexibility  
Importance of Flexibility  
Development & Maintenance of Flexibility
- **Body composition (% Fat)**  
Body Mass Index (BMI)  
Controlling % Fat

### Unit II: Motor fitness factors

### Unit III: Exercises

Effect of exercise on different systems

## Paper IV: Training and training methods

### Definition of training and its Principles

#### Load and Adaptation

- Factors of load
- Load & adaptation
- Over load
- Recovery

#### Scheduling (Short term & long term training)

- Micro Cycle
- Meso Cycle
- Macro Cycle
- Total Load & Recovery
- Total sets & Reps
- Total exercises

#### Training Methods:

- Circuit Training Method
- Station Training Method
- Plyometric Training Method

#### Training for different factors

##### i) Cardio vascular endurance

- How to develop C. V. endurance through wt. training (Circuit training)
- Methods of developing Cardio vascular endurance
- Aerobic & Anaerobic Capacity

##### ii) Muscular Strength

- Methods of Improving Strength

##### iii) Muscular endurance

- Methods of Improving muscular endurance
- Repetitions – Sets & Improvement

##### iv) Flexibility

- Development & Maintenance of Flexibility

##### v) Body composition (% Fat)

- Body Mass Index (BMI)
- Controlling % Fat

#### OPT

#### Psychological training

#### Training in different environment and its effects

High Altitude, cold and hot etc

## **PAPER V: Management, Test, Measurement and Evaluation:**

**Communication skills and appearance**

**Public relation**

**Supervision and administration**

**Facility management**

- Introduction to exercise equipments
- Types of exercise equipments
- Placement of equipments
- Handling and Utilization of equipments

**Counseling**

**Test, Measurement and Evaluation**

**Concepts of tests**

- Teacher made tests
- Paper pencil tests

**Fitness testing**

- Physical testing
- Physiological testing
- Anthropometric measurements

## **PRACTICAL**

**1. Warming up and cooling down:**

- General exercise
- Stretching exercise
- Specific exercises
- Conditioning exercises

**2. Exercises:**

**3. Basic Concept:**

**4. Prime movers:**

**5. Various training methods for fitness:**

**6. Training Programme:**

**7. Daily Analysis, Measurement and Record of athlete**

**8. List of Books recommended:**

| <b>Sr. No.</b> | <b>Name of the Book</b>                                | <b>Name of the Author</b>                |
|----------------|--|--|
| 1              | Athletic Training and Sport Medicine                   | Rubert C. Schenck                        |
| 2              | Basic Weight Training for Men and Women                | Thomas D. Fahey                          |
| 3              | Concepts of Athletic Training                          | Pfeiffier Mangus                         |
| 4              | Essential of Exercise Psychology                       | Lorry G. Shaver                          |
| 5              | Exercise Physiology                                    | George, Thomas                           |
| 6              | Exercise Physiology                                    | Fox Falls                                |
| 7              | Inside the Body  | Anita Ganeri                             |
| 8              | Introduction to Human Nutrition                        | Gibney, Varster & Kok                    |
| 9              | Methods Measurement & Evaluation in Physical Education | Satish Sonkar                            |
| 10             | New Allis of Human Anatomy                             |  |
| 11             | Nutrition and Diet Therapy                             | Lutz and Przytulshi                      |
| 12             | Nutrition in Exercise and Sport                        | Ira Wolinsky                             |
| 13             | Prentice Therapeutic Modalities in Sports Medicine     | William E. Prentice                      |
| 14             | Science of Sports Training                             | Hardayal Singh                           |
| 15             | Sport Training Principles                              | Frank W. Dick                            |
| 16             | Sports Exercise  |  |
| 17             | Sports Medicine  | Dr. P.K. Pande<br>Dr. G. S. Sundararajan |
| 18             | Sports Medicine of the Lower Extremity                 | Steven I. Subotnick                      |
| 19             | Strength Training and Conditioning                     | R. A. Proctor                            |
| 20             | Test & Measurement                                     | Dhananjay Shaw                           |
| 21             | Wood Essential of Anatomy & Physiology                 | Michael G. Wood                          |

## PART- II

### Scheme of Examination/ Pattern of Examination

#### Scheme of Assessment:

##### External

Assignment  
Final Lesson  
Theory examination

##### Internal

Practical  
Practice lesson and internship  
Tutorials and semester examinations

#### Schedule of Examination Fees:

Course fees include Examination fees.

#### Structure of Question Paper:

Objective & descriptive

#### Standard of Passing & Award of Class:

A Candidate will have to obtain minimum 60 % of marks in theory paper and 60 % of marks in practical.

#### Backlog of Courses

Student will have to acquire at least 75 % marks if he/she fails to do so, Reexamination & practical work will be arrange for them during next course.

| Evaluation         |            |                |
|--------------------|------------|----------------|
| I) Theory          | Marks      | Std of passing |
|                    |            |                |
| Paper I            | 80         | 40             |
| Paper II           | 80         | 40             |
| Paper III          | 80         | 40             |
| Paper IV           | 80         | 40             |
| Paper V            | 80         | 40             |
| <b>Total</b>       | <b>400</b> | <b>200</b>     |
| II) Practical      | Marks      | Std of passing |
|                    |            |                |
| Part I             | 200        | 100            |
| Part II            | 100        | 50             |
| Part III           | 100        | 50             |
|                    |            |                |
| <b>Total</b>       | <b>400</b> | <b>200</b>     |
| <b>TOTAL MARKS</b> | <b>800</b> | <b>400</b>     |

## Evaluation

### External Assessment:

1. Final Lesson
2. Theory

= 50 Marks

= 400 Marks

| PAPER     | MARKS |
|-----------|-------|
| Paper I   | 80    |
| Paper II  | 80    |
| Paper III | 80    |
| Paper IV  | 80    |
| Paper V   | 80    |

### Internal Assessment:

1. Practical
2. Practice lesson
3. Tutorials and semester examinations
4. Assignment

= 200 Marks

= 50 Marks

= 50 Marks

= 50 Marks