

# **SYLLABUS FOR THE BATCH FROM YEAR 2025 TO 2026**

## **FOR**

### **Certificate in Health and Fitness**

**(Credit Based Evaluation and Grading System)**

**EXAMINATIONS: 2025-2026**

#### **The Certificate Programme Offered:**

- **Certificate Course in Health and Fitness (6 Months duration)**



#### **Program Outcomes:**

- **Fundamental Knowledge of Health and Fitness** – Students will gain specific knowledge of various systems of human body, diet, nutrition and fitness parameters.
- **Enhancing Fitness Training Skills** – The program focuses on providing the basic concepts of physical components and develop skills of planning the fitness training programme.
- **Practical Experience** – Through hands-on assignments and projects, students will develop problem-solving skills by working on real-world scenarios.
- **Career Readiness & Employability** – The program prepares students for entry-level positions in health care sectors, fitness training and gym.

**Name of the Department: DEPARTMENT OF PHYSIOTHERAPY**

**In collaboration with**

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**Directorate of Open & Distance Learning and Online Studies**  
**GURU NANAK DEV UNIVERSITY**  
**AMRITSAR**

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**Certificate Course in Health and Fitness Offered by Department of Physiotherapy in  
collaboration with Directorate of Open & Distance Learning, Guru Nanak Dev University,  
Amritsar**

**Eligibility:**

- +2 or equivalent examination.
- Any student pursuing Bachelor Degree, Master Degree, M.Phil., Ph.D. from GNDU campus, affiliated or constituted colleges

| Paper Code            | Subject                                    | Marks               |          |       | Credits |
|-----------------------|--|---------------------|----------|-------|---------|
|                       |  | Internal Assessment | End Term | Total |         |
| ODHF101T              | Introduction to Human Anatomy & Physiology | 30                  | 70       | 100   | 4       |
| ODHF102T              | Nutrition & Health                         | 30                  | 70       | 100   | 4       |
| ODHF103T              | Basic Components of Physical Fitness       | 30                  | 70       | 100   | 4       |
| ODHF104T              | Fitness Workouts and Assessment            | 30                  | 70       | 100   | 4       |
| Total Marks & Credits |  | 120                 | 280      | 400   | 16      |

**Certificate Course in Health and Fitness Offered by Department of Physiotherapy in  
collaboration with Directorate of Open & Distance Learning, Guru Nanak Dev University,  
Amritsar**

**Subject Name: Introduction to Human Anatomy & Physiology  
Subject Code: ODHF101T  
Semester-I**

**Time: 03 Hours**

**Max. Marks: 100 Marks  
Internal Assessment: 30 Marks  
End Term: 70 Marks**

**Instructions for the Paper-Setter/examiner:**

1. Question paper shall consist of **Four sections**.
2. Paper setter shall set **Eight questions** in all by selecting **Two questions** of equal marks from each section. However, a question may have sub-parts (not exceeding four subparts) and appropriate allocation of marks should be done for each sub-part.
3. Candidates shall attempt **Five questions** in all, by at least selecting **One question** from each section and the **5<sup>th</sup> question** may be attempted from any of the **Four sections**.
4. The question paper should be strictly according to the instructions mentioned above. In no case a question should be asked outside the syllabus.

**Section-A**

Basic introduction to human anatomy, Basic terminologies, Anatomical and fundamental positions, Anatomical divisions of human body.

**Section-B**

Basic of human physiology: Cell, Tissue, Organs, Physiological division of systems: Circulatory, Respiratory, Digestive, Excretory.  
Body Fluids: Body lymph, Urine, sweat and Electrolyte balance.

**Section-C**

Basic introduction of Skeletal system, Types and structure of bones, Joints & movements, Bony landmarks & identification.  
Introduction to muscles and tendons, Types of muscles, Muscles of the body and types of muscle contraction.

**Section-D**

Effect of exercise on cardiovascular system, respiratory system, musculoskeletal system and other system.

**References:**

1. Gerard J. Tortora and Neilson M (2016): Principle of Human Anatomy. 14 th Edition. John Wiley & Sons Inc, USA.
2. Inderbir Singh: (1999) Textbook of Anatomy with coloured Atlas. Second edition. JayPee Brothers Medical Publishers (P) Ltd., New Delhi
3. B.D. Chaurasia Textbook of Anatomy in three volumes CBS publishers, New Delhi
4. C.C. Chatterjee. Human Physiology Medical Allied Agency, Kolkata
5. Arthur C. Guyton Textbook of Medical Physiology by. W.B. Saunders Company, United Kingdom.

**Certificate Course in Health and Fitness Offered by Department of Physiotherapy in  
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**Subject Name: Nutrition and Health  
Subject Code: ODHf102T  
Semester-I**

**Time: 03 Hours**

**Max. Marks: 100 Marks  
Internal Assessment: 30 Marks  
End Term: 70 Marks**

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**Section-A**

Introduction to Diet management - Balanced diet, food types & the planning of balance diet, guides for selecting adequate diet, Diet therapy, Diet in current scenario.

**Section-B**

Diet planning, Indian meal patterns - vegetarian & non-vegetarian, Food faddism & the faulty food habits, Nutritive value of food.

**Section-C**

Defining health and wellness, Healthcare Systems, Importance of health and wellness education, Common diseases due to deficiency of vitamins and minerals.

**Section-D**

Introduction to Stress, anxiety and depression, Occupational health, Health care policies in India.

**References:**

1. Applied nutrition and dietetics by Kumud Khanna and Sharda Gupta, 2nd edition, Elite publishing House, 2018, New Delhi.
2. Shri Lakshmi Nutrition Science, 8th edition 2023. New age international publisher, Delhi.
3. Text Book of Community Health by Preeti Agarwal and Vinod Gupta, 2021, Lotus publication, Noida.
4. Community Health Nursing by Parima Patil, 2023, By JP publication, New Delhi.

**Certificate Course in Health and Fitness Offered by Department of Physiotherapy in  
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**Subject Name: Basic Components of Physical Fitness  
Subject Code: ODHF103T  
Semester-I**

**Time: 03 Hours**

**Max. Marks: 100 Marks  
Internal Assessment: 30 Marks  
End Term: 70 Marks**

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**Section-A**

Anthropometric measurements: Sitting and standing height, body weight, BMI, Girth measurement, Waist hip Ratio, Body Mass Index, Body typing and Basal Metabolic Rate.

**Section-B**

Basic Physical Components: Muscular Strength, Muscular endurance, Cardio respiratory endurance, flexibility, body composition.

**Section-C**

Skill related fitness parameters: Power, Agility, Balance, Reaction time, Co-ordination, Bio-feedback, Proprioception.

**Section-D**

Fitness Goals: Screening and risk stratification, Fundamentals of fitness and importance of measurement, Health related Fitness Body composition.

**References:**

1. Anand R.L.: Sports Field Manual NS NIS Publication, Patiala.
2. Butler, G.D.: Introduction of Community Recreation, McGraw Hill Inc., New York.
3. Joseph, P.M. Organization in Physical Education, Gwalior.
4. Text book of Applied Measurement Evaluation & Sports Selection second edition: Dewinder K Kansal Sports & Spiritual Science Publications, Jodhpur.
5. Nelson & Johnson: Measurement & Evaluation in Physical Education. Surjit Publication, New Delhi.

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**Subject Name: Fitness Workouts and Assessment  
Subject Code: ODHF104T  
Semester-I**

**Time: 03 Hours**

**Max. Marks: 100 Marks  
Internal Assessment: 30 Marks  
End Term: 70 Marks**

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**Section-A**

Basics of Exercise regime: FIIT formula- Frequency, intensity, time and types of exercise for fitness.  
Warm up and Cool down exercises.  
Principle of training: Specificity, Overload, Progression, Progressive overload, Reversibility.

**Section-B**

Fundamentals of training: Periodization, Loading and adaptations, Overloading, Fatigue, Recovery.

**Section-C**

Types of training: Flexibility training, Strength training, Balance training, Aerobic and Anaerobic training, Circuit training and plyometric training.

**Section-D**

Fitness measurement test batteries: Vertical jump, One minutes sit-ups, Maximum Push-ups, 300- Meter Run, 1.5 Mile Run/Walk, Squat test, Sit and reach test, Step test, Plank.

**References:**

1. Tanushree Podder :Fit & Fine In Body And Mind , Pustak Mahal, Delhi, India.
2. Brian J. Sharkey, PhD, Steven E. Gaskill, PhD, University of Montana : Fitness And Health, 7<sup>th</sup> Edition, Human Kinetics,USA.
3. Padmakshan Padmanabhan: Handbook of Health and Fitness, Indus source books, Mumbai, India.
4. Mc Ardle, Katch, Katch: Exercise Physiology Edition IV, Wolters Kluwers, USA.
5. Erston and Reilly – Kinanthropometry and Exercise Physiology Laboratory Manual Tests, Procedures and Data – F & FN Spon Madras.