

TAMIL NADU PHYSICAL EDUCATION AND SPORTS UNIVERSITY

CHENNAI – 06

Name of the Course	:	Certificate course in Gym/Fitness Instructor
Stream	:	Distance Education
Educational Qualification	:	10th STD
Duration	:	6 Month
Medium of Instruction	:	English
Year of Commencement	:	2010 - 2011

TAMIL NADU PHYSICAL EDUCATION AND SPORTS UNIVERSITY

PAPER I

SCIENTIFIC FOUNDATIONS OF FITNESS AND WELLNESS

UNIT I

Fitness – Definition – Types - Benefits of Physical Fitness – Warm up – Types – Benefits of warm up – Cool down – Benefits of Cool down. Flexibility – Types –Stretching: Benefits of Stretching.

UNIT II

Exercise Prescription – Principles of Exercise Prescription – Cardiovascular Endurance training – Exercise Programme for beginners, intermediate – Benefits of Cardiovascular endurance. Muscular strength training – Muscular endurance training – benefits of muscular strength and endurance training.

UNIT III

Fitness Centre, size, measurement and other facilities - Weight training equipments: weight plates - barbells - dumbbells - rowing machines. Skipping ropes, elastic strap. Advantages of free weights - advantages of machine weights- Weight lifting barbells and weights, Power lifting barbells.

UNIT IV

Multi gym: weight machines, bench press, shoulder press, seated bench press. Lat pull down, leg press, leg extension, heel raise, low pulley - peck deck, lateral raise, leg extension, leg curl, hip abductor, abdominal conditioner - specification and purpose of each machine. Treadmill - elliptical cross trainer- Exercise Cycle.

UNIT-V

First aid- principles of first aid- first aid kit- basic life support: air way, breathing, circulation- first aid for emergency situations in a fitness centre- Ethics of fitness trainer-qualities and qualifications of a Gym/Fitness instructor.

TAMIL NADU PHYSICAL EDUCATION AND SPORTS UNIVERSITY

ANATOMY AND PHYSIOLOGY

PAPER- II

Unit – I

General concept of Anatomy – cells – Tissues – Bones – Types and Functions

Unit – II

Cardio Vascular System – Structure and functions –Respiratory system – Structure and function Lungs – Mechanism of Respiration -

Unit – III

Muscular system – Types of Muscles - Structure and functions – Digestive system – structure and function.

Unit – IV

Nervous system – central – peripheral and autonomous

Unit – V

Excretory System – Structure and Functions of Kidney – Nephron – Structure and Functions of Skin

References:

1. Arthur C. Guyton & John Edward Hall (2006), Textbook of medical Physiology, Florida, United States, Elsevier Standards.
2. Surinder H Singh & Krishna Garg, (2008), Anatomy and Physiology for nurses & allied health sciences, New Delhi CBS Publishers.
3. Sivaramakrishnan S. (2006) , Anatomyand Physiology for Physical Education, New Delhi, Friends publishers
4. Anne Waugh & Alson Gruant (2005) , Anatomy and Physiology in health and Wellness, Allahabad, Churchill Livingtone

PRACTICAL – I

- Exercise to improve Cardio vascular Endurance
- Exercise to improve muscular strength.
- Exercise to improve muscular endurance.
- Exercise to improve flexibility
- Basic first aid procedures.