

SEMESTER- 3

CORE PAPER- 3: Anatomy, Physiology and Exercise Physiology

Course Code- CC1C

Total number of classes – 60

Unit- I: Introduction LH - 12

- 1.1 Meaning, definition and importance of Anatomy, Physiology and Exercise Physiology.
- 1.2 Human Cell- Structure
- 1.3 Tissue- Types

Unit- II: Musculo-skeletal System LH - 18

- 2.1 Skeletal System- Structure of Skeletal System. Classification and location of bones and joints.
- 2.2 Muscular System- Type, location.
- 2.3 Effect of exercise on muscular system.

Unit- III: Circulatory System LH - 18

- 3.1 Blood- Composition.
- 3.2 Heart- Structure and functions.
- 3.3 Effect of exercise on circulatory system.

Unit- IV: Respiratory System LH - 12

- 4.1 Structure and function of Respiratory organs.
- 4.2 Vital Capacity, O₂ Debt and Second Wind.

LAB PRACTICAL

1. Assessments of BMI (Body Mass Index)and WHR(Waist Hip Ratio).{ Any one }
2. Assessment of Heart rate, Blood Pressure, Respiratory Rate, and Pick Flow Rate { any two }

SEMESTER- 3

Course code: SEC 2 **GYMNASTICS**

Floor Exercise (Basic Element)

1. Compulsory

- 1.1. Forward Roll
- 1.2. Backward Roll
- 1.3. Cart-Wheel

[Note: Perform the above Gymnastic skills continuously in the same sequence]

2. Floor Exercise (Semi- Advance Element)

- 2.1 Dive and Forward Roll
- 2.2 Hand Spring
- 2.3 Hand Stand and Forward Roll

3. Vaulting Table

(Semi Advance Element)

- 3.1 Split Cut Bar

4. Parallel Bar (MEN)

- 4.1 Mount.
- 4.2 Swing

Balancing Beam (WOMEN)

- 4.1. Mount
- 4.2 Leap Jump
- 4.3 T Balance
- 4.4 V Balance

5. History of Gymnastics

- 5.1. History and function of GFI
- 5.2 Types of Gymnastics: Artistic Gymnastics, RhythmicGymnastics, AerobicGymnastics.

SEMESTER- 5

Tests, Measurements and Evaluation in Physical Education

Course code: DSE 1

Total number of classes - 60

Unit- I: Introduction LH - 12

- 1.1 Concept of test, measurement & Evaluation.
- 1.2 Criteria of good test.
- 1.3 Importance of Test, Measurement and Evaluation in Physical Education and Sports.

Unit- II: Measurements of Body Compositions and Somatotype Assessment LH - 18

- 2.1 Body Fat- Concept and method of measurement.
- 2.2 Somatotype- Concept and method of measurement.

Unit- III: Fitness Test LH - 18

- 3.1 Kraus-Weber Muscular Strength Test
- 3.2 AAHPER Youth Fitness Test

Unit- IV: Sports Skill Test LH - 12

- 4.1 McDonald Soccer Test
- 4.2 Brady Volleyball Test

LAB & FIELD PRACTICAL

1. Assessment of body fat percentage
2. Assessment of Harvard Step Test

SEMESTER- 5

Sports Training

Course code: DSE1

Total number of classes – 60

Unit- I: Introduction LH - 12

- 1.1 Meaning and definition of Sports Training.
- 1.2 Importance of Sports Training.

Unit- II: Principle of Training and Conditioning LH - 18

- 2.1. Warming up and cooling down- Meaning.
- 2.2. Conditioning- Concept of Conditioning.
- 2.3. Training Methods- Circuit Training, Interval Training.
- 2.4. Periodization- Meaning and types.

Unit- III: Training Load and Adaptation LH - 18

- 3.1 Training Load- Meaning, definition.
- 3.2 Components of training load.
- 3.3 Over Load- Meaning, causes and symptoms.
- 3.4 Adaptation- Meaning.

Unit- IV: Training Techniques LH - 12

- 4.1 Strength- Means and methods of strength development.
- 4.3 Endurance- Means and methods of endurance development.

FIELD PRACTICAL

1. Practical Experience of Weight Training.
2. Measurement of Speed and Flexibility.

SEMESTER- 5

Modern Trends and Practices in Physical Education Exercise Sciences (For the students other than Physical Education)

Course code: GE1

Total number of classes - 60

Unit- I: Introduction LH - 12

- 1.1 Meaning, definition and importance of physical Education and Sports.
- 1.2 Aims and objectives of Physical Education.
- 1.3 Meaning, definition and importance of Physical fitness and Motor fitness.

Unit- II: Biological, Psychological and Sociological Foundations of Physical Education LH - 18

- 2.1 Biological Foundation- Meaning and definition of growth and development. Factors affecting growth and development.
- 2.2 Qualities of good leader in Physical Education. Principles of leadership activities.
- 2.3 Socialization through Sports
- 2.4 Role of games and sports in National integration.

Unit- III: History of Physical Education LH - 12

- 3.1 Historical development of Physical Education and Sports in India- Pre-Independence period
- 3.2 Modern Olympic Games.

Unit- IV: Exercise Sciences LH - 18

- 4.1 Meaning, definition and importance Exercise.
- 4.2 Effects of long term exercise on Muscular systems.
- 4.3 Effects of long term exercise on Circulatory System.
- 4.4 Effects of long term exercise on Respiratory System.

FIELD PRACTICAL

1. Yoga Asana: Standing position, Sitting Position, Supine Position, Prone Position, Inverted Position (Compulsory three asana from all the position)
2. Project: Record Book to be maintained and submitted to the external examiner.

SEMESTER- 5

Course Code: SEC3

Archery, Combative sports and Adventure Sports

1. ARCHERY

- 1.1 Stance
- 1.2 Nocking the Arrow
- 1.3 Set
- 1.4 Set-up
- 1.5 Draw and Load
- 1.6 Anchor

2. TAEKWONDO

- 2.1 Stance-Sogui: Attention stance, closed stance, walking stance, back L-stance, Parallel Stance, Rear foot Stance, Fighting stance
- 2.2 Hand attack: Closed hand strike-jireugi, Open hand technique-chigi
- 2.3 Kick- chagi: front kick, side kick, back kick, Roundhouse kick, Reverse side kick, hook kick, Axe kick, spin kick
- 2.4 Blocks- Makgicburat: Single fore arm block, Low block, Rising Block, Palm block, Knife hand block, Double fore arm block, Double knife hand block
- 2.5 Pattern, Poomsae, Hyung, Tul

OR

KARATE

- 2.6 Stance- Dachi: Front Stance, Horse stance, Parallel stance, Cat Stance.
- 2.7 Punches-Zuki: Middle Punch, Upper Punch, Lower Punch, Side Punch.
- 2.8 Block- UKE: Middle inside, Middle outer, Upper and Lower Block
- 2.9 Strike-UCHI: Elbow strike, Knife hand strike, fist hammer strike.
- 2.10 Self Defence: Defense against punches, Defense against Kicks, Defense against Grabs, Defense against Head locks, Defense against Bear hugs.

3. ADVENTURE ACTIVITY/ OUTDOOR ACTIVITY

Record or project book to be maintained and submitted to the external examiner.

Trekking/Hiking/Camping/Rock climbing/ Artificial Rock Climbing(Any one)