

SEMESTER – VII
DEPARTMENT OF PHYSICAL EDUCATION AND SPORTS SCIENCES
UNIVERSITY OF DELHI

B.Sc. (Hons.) (Physical Education, Health Education and Sports)

SEMESTER- VII
BSc-PE-DSC-19 (4): STRENGTH AND CONDITIONING

Course title& Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
BSc-PE-DSC-19(4): STRENGTH AND CONDITIONING	4	2	0	2	Class XII pass	Nil

Learning Objective: -The learner will acquire knowledge and understanding with applications and skills in Strength and Conditioning in real-life situations.

Learning Outcomes:

After completing the course, the students will be able to:

1. Understand the meaning of Strength and conditioning, Anatomical, physiological, and safety concepts in strength training.
2. Understand the benefits of strength and conditioning training for athletes and for general population of various age groups
3. Identify the Principles of Sports training
4. Apply Physical Fitness Tests
5. Create Periodization for athletes and for general population,
6. Apply different methods of Resistance training and Endurance Training
7. Adapt to Anaerobic Training Programs, Aerobic Endurance Training Programs,

THEORY SYLLABUS (30 HOURS)

UNIT 1 (07 Hours)

- 1.1 Definition and Meaning of Strength and Conditioning
- 1.2 Anatomical, physiological, and safety concepts in strength training
- 1.3 Benefits of strength and conditioning training for athletes and for the general population of various age groups

1.4 Principles of Sports Training

UNIT 2 (08 Hours)

2.1 Physical Fitness Testing

2.2 Considerations for Physical Fitness Testing for athletes and the general population of various age groups

2.3 Periodization

UNIT 3 (08 Hours)

3.1 Methods of Resistance Training and Endurance Training

3.2 Endocrine Responses to Resistance Exercise and endurance exercise

3.3. Adaptations to Anaerobic Training Programs

3.4 Adaptations to Aerobic Endurance Training Programs

UNIT 4 (07 Hours)

4.1 Basic Principles for Exercise Program Design

4. 2 Exercise Program Adherence

4.3 Designing Exercise Programmes for Muscular Strength and Endurance & Flexibility

4.4 Designing Exercise Programmes for Aerobic training and Anaerobic training

Practical Syllabus (60 HOURS)

1. Demonstration of techniques for squat, bench press, push press, deadlift, power clean, power snatch, accessory lifts and movements in Strength and Conditioning **(20 Hours)**
2. Demonstration of drills for Plyometric training, Speed and Agility **(15 Hours)**
3. Identify technique errors in the performance of the movements **(15 Hours)**
4. ABC Exercises **(10 Hours)**

SUGGESTED READINGS

1. Fahey, T.D., M.P.Inseland W.T.Rath(2006), Fit &Well: Core Concepts and Labs in Physical Fitness, McGraw Hill, New York.
2. Hoeger, W.W. &S.Hoeger (2007) FitnessandWellness.7thEd.Thomson Wadsworth, Boston, USA.
3. Kamlesh, M.L.&Singh, M.K. (2006) PhysicalEducation (Naveen Publications). Sports& Spiritual SciencePublications, New Delhi.
4. Kumari,Sheela,S.,Rana,Amita,andKaushik,Seema,(2008),Fitness,Aerobics,andGymOp erations,KhelSahitya,NewDelhi

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.