

## **SYLLABUS**

### **Certified Advance Strength Training Specialist (CASTS)**

**Brief Description:** This course is designed for Strength and conditioning coaches. Apart from general strength training knowledge Strength and conditioning coach need some special knowledge about, FIIT concept, Progressive overload, Olympic lifting techniques, Sports specific strength training, Programming of exercise prescription, Periodization of Strength training, The Strength Curve, etc. In this course the entire relevant topic has been elaborately discuss and practical implementation has been vividly taught.

**Minimum age:** 18 Years and above

**Personal Attributes:** The job requires individual to have good communication skills, time management skills and ability to understand the body language of the trainees. The job requires individual to possess key qualities such as self discipline, confidence, maturity, patience, compassion, active listening, time management, empathy, language proficiency.

**Duration of course:** Not less than 150 hours or not less than 4 months

**Job Role:** Strength and conditioning trainer, Gym trainer, Fitness Trainer, Fitness trainer role in all sports and game.

**Requirement/ Eligibility:** For admission in the course it is suggested/desired that the candidate should have passed 12<sup>th</sup> standard/ Secondary School Certificate from a recognized board or equivalent, with two years of working experience.

**Opportunities:** Health club, Hotels, Sporting club, Sports academy

Course Fees One time	Course Fees on Instalment	
	1 <sup>st</sup> Instalment	2 <sup>nd</sup> to 3 <sup>rd</sup> Instalment
Rs 15000/-	Rs 10000/-	Rs 3000/-

### **Advance Strength Training**

- 1. Definition of strength, all factors of strength:** Strength is ability of body to contract its muscles with (maximum).
- 2. Methodology of strength training :** Definition and working procedure of absolute strength , limit strength ,power (Starting strength , Explosive strength ) , anaerobic Strength, aerobic Strength (Linear Anaerobic/Aerobic Strength Endurance , Non-linear Anaerobic/Aerobic Strength Endurance )
- 3. Types of Strength:** Specification of General strength, Specific strength, Special strength, Functional strength
- 4. The Strength Curve:** Training to improve Strength Curve
- 5. Weight Training:** Difference between training with Free Weights and Machines.

**6. 10 Principles of Strength Training**– To build strength or mass, we have to train specifically for strength or mass building. Working procedure with Principle of Individual Differences, Principle of Overcompensation, Principle of Overload, SAID Principle, Use / Disuse Principle, Specificity Principle, GAS Principle – General Adaptation Syndrome, Principle of Central Nervous Control, FITT Principle, 5 Rs (ROM, resistance, reps, rest, recovery)

**7. Periodization of Strength training:** Periodization is most widely used in resistance program through Training cycle, Muscle Confusion, Progressive Overload, Holistic Training.

**8. Programming of exercise prescription**

A. Introduction to exercise prescription: design to avoid over-training and to systematically alternate high loads of training with decreased loading phases to improve components of muscular fitness.

B. Sets, Reps and Rest theory: application of Set system, Superset, Compound, Tri-sets, Giant Set, Staggered Sets, Rest-Pause, Muscle Priority, Pre-exhaustion, Pyramid, Descending Sets, Compensatory Acceleration

C. SOP of Exercise Prescription: activities necessary to prepare a good exercise chart.

**9. Training for Muscle Mass :** Isolation, Quality training, Cheating, Continuous Tension, Forced Reps, Flushing, Burns, Partial reps, Retro-gravity, Peak contraction, Super speed and Iso-tension are few steps to achieve the goal of muscle mass.

**10. Seven rules of Weight Training:** Seven common rules which effect any strength training program, they are - Prevent Overtraining, Overreaching, Overtraining, Stressors, Environmental, Psychological – psychosocial, Physiological – biochemical.

**11. Training Loads - How much weight should you lift?** Training load depends on Recovery time, Muscle fibers, Movement, Age, Sex etc.

**12. Lifting Mantras for Strength Training:** The top ten lifting Mantras for strength training that will make your training program much more effective are Frequency of training, Number of Exercise, Same muscle group, Upper body & lower body, Total Body Work out, Variety in exercises, Opposing muscle group, Know your limit, Mental relaxation, Nutrition.

**13. Glossary of Exercise**