

Introduction to Fitness and Training and Its Importance in Adventure Sports

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Lecture 4 Outline

Last Week



Principles of Training

RECAP: Components of Fitness



Goal setting

Agree SMART goals (short, medium and long term)

Specific

Measurable

Achievable

Realistic

Time-framed

Principles of training

Apply the principles of training, to include:

- Specificity
- Progressive overload
- Reversibility
- Adaptability
- Individuality
- Recovery time

Principles of programme design

Apply the principles of FITT:

Frequency

Intensity

Time

Type

Principles of programme design

Consider ACSM guidelines:

CV fitness

- 150-300 min/week moderate intensity (40% - 59% HRR, or
- 75-150 min/week vigorous intensity (60%-89% HRR)
- Those already physically active (in aerobic activity) require intensities at high end of continuum
- Type – Regular, purposeful exercise involving major muscle groups and is continuous or rhythmical in nature.

Principles of programme design

Consider ACSM guidelines:

Muscular fitness

- F – 2-3 times a week
- I – 2 to 4 sets of 8-12 reps at 60-70% 1RM. All muscle groups worked. 1-2 sets may be sufficient for novice.
- T – relative to number of exercises and sets
- T – resistance machines/free weights/body weight

Principles of programme design

Consider ACSM guidelines:

Flexibility

- F – minimum of 2/3 times per week
- I – 2 to 4 reps per muscle group to the end of ROM without discomfort
- T – 10-30s for each static stretch. 6 second contraction followed by 10 to 30 second assisted stretch (PNF)
- T – static, dynamic or PNF stretches

Principles of programme design

Consider the following:

- Overload
- Adaptation
- Specificity
- Reversibility
- Progression
- Regression
- Rest and recovery
(during and between sessions)

Principles of programme design

Consider the order and relevance of fitness components for each session:

- Warm up
- Flexibility (as part of warm up)
- Balance, motor skills training, proprioception training
- Core stability
- Cardiovascular workout
- Muscular conditioning
- Cool down, including flexibility

Reference List

American College of Sports Medicine (ACSM). (2018). *ACSM's Guidelines for Exercise Testing and Prescription* (10th ed.). Wolters Kluwer.

Haff, G. G., & Triplett, N. T. (2015). *Essentials of Strength Training and Conditioning* (4th ed.). Human Kinetics.

Wilmore, J. H., & Costill, D. L. (2018). *Physiology of Sport and Exercise* (7th ed.). Human Kinetics.