Periodization
Chapter 22

Responses to Training Stress: General Adaptation Syndrome

- Alarm
- Resistance
- Exhaustion

Periodization Cycles

- Macrocycle
- Mesocycle
- Microcycle

- Planned implementation of cycles is basis for varying the program
  - Intensity and volume of training
• Periodization Model
  – Preparatory Period
  – First transition period
  – Competition Period
  – Second transition Period

Preparatory Period

• Initial preparatory period is the longest
• Occurs when there are no competitions
• Establish base conditioning level
• Low intensity, high volume
• Sport specific technique training is low priority
Phases of Preparatory Period

- Hypertrophy/Endurance Phase
- Basic Strength Phase
- Strength/Power Phase

Hypertrophy/Endurance Phase

- Early stages
- Low intensity, high volume
- Goals: Increase lean body mass, endurance
- Less emphasis on sport specific training

Basic Strength Phase

- Increase strength of muscles essential to primary sport movements
- High intensity (80-90% of 1RM), moderate volume (3-5 sets of 4-8 reps)
Strength and Power Phase

- High Intensity (75-95% of 1 RM), low volume (3-5 sets of 2-5 reps)

First Transition Period

- Break between high volume and high intensity training

Competition Period

- Goal to peak strength and power
- High training intensity, low volume
- Skill technique, game strategy
- Goal is to preserve strength, power, and performance levels
Second Transition Period  
(Active Rest)

- Between the end of season and next preparatory phase
- Active rest and restoration
- Unstructured, non-sport specific recreational activities
- Low intensities, low volumes

Applying to Sports

- Manipulating training intensity and volume, with season demands in mind
- Variations in training
Off Season

- Preparatory period
- Can be divided into multiple mesocycles
  – Two or more rotations of preparatory phases

Preseason

- Leads up to the first contest
- Contains late stages of the preparatory period and first transition period

In season

- Multiple microcycles around important contests
- Peak at these periods
  – ↑ Intensity, ↓ Volume
  OR
- Maintenance program
Post Season

- Second transition period
- Active rest period
- Can also use short active rest periods during the training cycle

How does this apply to a specific sport?

- Skating
  - In season is October to November
  - Begins 4 weeks before competition
  - Ends with easier week just before competition
    - “taper”
In Season workouts

- High intensity interval training
  - (3-5 d/wk)
  - HR 85-95% MHR
  - Length of the program
    - Double run-throughs with 1-2 min rest
- Within 6-8 weeks
  - Increased tolerance to lactic acid
  - Feeling less exhausted during program

- If going to Sectionals/Nationals, take 3 days off immediately after competition to rest
- Abridged active rest
- Cycle back to preseason to prepare for next major competition
  - Second and third week
  - Ramp up to preseason training
- Preseason
- Appropriate nutrition and rest

In Season

- High intensity, low volume workouts
- Primary focus is skating
- Appropriate nutrition and rest
Taper

- Easier week just before competition
- RT 1 d/wk
- Interval training 2-3 d/wk
- Plyometrics 1 d/wk

In class assignment:
- With a partner develop a rough draft of a periodization program for a year macrocycle for a seasonal sport such as basketball, soccer, softball, football, baseball, hockey, etc. (can be a sport you participate in)
- Break the Macrocycle down into seasonal mesocycles
  - Preseason
  - In-season/Competition period
  - Postseason/Active rest
  - Off-season
- Be general
  - Identify exercises in groups (i.e. core or assistive) don't need to specify specific lifts
  - Indicate other training modes that are done on what days (i.e. plyo, aerobic, etc.)
- Indicate length of the mesocycle and microcycles within the seasonal cycles