KINE 2320 Introduction to Athletic Training  
Fall 2003  

STUDY GUIDE – Test #2

Test format: Multiple choice, short answer, essay/critical thinking

Test content: The test questions will be based on chapter readings, power points, class & lab discussions, class notes, and worksheets (both chapter and lab).

NOTE: 10% of this test will include content from TEST #1

CONTENT OVERVIEW

Chapter 12 – On-the-Field Acute Care & Emergency Procedures (pp. 301-337)
- Crutch & cane fitting
- Instruction for going up & down stairs
- Instructions for touch-down and non-weight-bearing gaits

Chapter 4 – Training & Conditioning Techniques
- The Role of Strength & Conditioning in Preventing Injuries
- Periodization
  - Macrocycles
  - Mesocycles
  - Microcycles
  - 4 distinct periods
    - preparatory
    - 1st transition
    - competition
    - 2nd transition
- Applying periodization to sports seasons
- Cross Training
- Principles of Conditioning
- The Warm-up & Cooldown
  - Their function
  - Proper techniques
- Flexibility
  - Stretch reflex (what is it; what is its role in flexibility)
    - Muscle spindles (role or function in flexibility)
    - Golgi tendon organs (role or function in flexibility)
  - Limiting factors
  - AROM, PROM
  - Agonist vs. antagonist
  - Ballistic vs. static stretching
  - PNF stretching techniques
• Autogenic inhibition
  • Reflexive inhibition
• Flexibility Lab Worksheet
  ▪ Planes of movement (sagittal, frontal, transverse)
  ▪ Joint movement terminology (abduction, adduction, internal rotation, etc.)
• Muscular strength, endurance, & power
  ▪ Fast-twitch vs. slow-twitch fibers
  ▪ Types of muscle contractions
    o Isometric
    o Isotonic
      • Concentric
      • Eccentric
  ▪ Developing muscular strength vs. muscular endurance
  ▪ Isometric vs. progressive resistance exercise (PRE)
  ▪ Specific weight-lifting techniques (see lab worksheets upper & lower extremity lifting)
    o Proper body position
    o Proper grip
    o Proper lifting techniques
    o Proper breathing techniques
    o Proper spotting techniques
  ▪ Developing power
    o Plyometrics
  ▪ Developing cardiorespiratory endurance
    o Aerobic vs. anaerobic training
    o Continuous training
    o Interval training
    o Fartlek training

Chapter 5 – Nutritional Considerations
• 6 classes of nutrients
• Energy sources
  ▪ Carbohydrates
    o Sugars
    o Complex CHO
    o Fiber
  ▪ Fats
    o Saturated vs. unsaturated
  ▪ Proteins
  ▪ Recommended percentages
  ▪ Calories provided by each fuel source
  ▪ Efficiency of fuel sources
  ▪ Digestion rates of fuel sources
• Regulator nutrients
  ▪ Vitamins
    o Fat-soluble vs. water soluble
  ▪ Minerals
  ▪ Water
  ▪ Electrolyte requirements
• Requirements & recommendations
  ▪ Food labels
  ▪ Food pyramid guidelines
    o Food groups
    o Recommended servings from each group
  ▪ Supplementation (when is it necessary?)
    o vitamin supplementation
    o protein supplementation
    o mineral supplementation
  ▪ Nutritional education for your athletes
    o proper portion sizes
    o recommendations for fuel sources, type of foods for optimal performance
    o hydration
    o special considerations
      • vegetarianism
      • lactose intolerance
      • tips for selecting fast foods (see focus box pg. 137)
  ▪ Pre-event nutrition
    o Pre-game meal
    o Nutritional requirements during week prior to contest
  ▪ Weight control and body composition
    o Caloric balance
    o Body composition
      • Skin-fold sites
      • BMI & % of body fat recommendations
    o Healthy weight loss methods
  ▪ Eating disorders
    o Bulimia
    o Anorexia nervosa
    o Female athlete triad syndrome