

Course discipline/number/title: PHED 2253: Sport Nutrition for Performance

A. CATALOG DESCRIPTION

1. Credits: 3
2. Hours/Week: 3
3. Prerequisites (Course discipline/number): None
4. MnTC Goals (if any): NA

Nutritional requirements for specific optimal performance can be general to some point, yet require individualization when taking into consideration the athlete and their performance goals. This course will explore nutritional strategies for both general performance and individualized dietary needs to match specific performance goals. Nutritional analysis and intake strategies will address individual needs relating to aerobic and anaerobic activity, and power and endurance aspects for optimal training, performance or competition, as it relates to specific sport applications.

B. DATE LAST REVISED (Month, year): October, 2017

C. OUTLINE OF MAJOR CONTENT AREAS:

1. Nutritional Sources for Athletes
2. Nutritional Aspects for Optimal Training & Competition Performance
3. External Factors Affecting Nutritional Needs for Performance
4. Nutritional Strategies for Optimal Performance
  - a) Anaerobic and Aerobic
  - b) Power and Endurance
5. Nutritional Plans Pertaining to Specific Sport Performance

D. LEARNING OUTCOMES (GENERAL): The student will be able to:

1. Identify the macronutrients and their functions as related to performance.
2. Identify the micronutrients and their functions as related to performance.
3. Discuss the function and role of fluids and electrolytes as related to performance.
4. Discuss the aspects surrounding the use of ergogenic aids in relationship to performance.
5. Understand the process of digestion and absorption of nutrients and the body's utilization of nutrients as it relates to performance.
6. Understand, discuss and prescribe the timing of nutrient and fluid intake as it relates to specific performance.
7. Apply knowledge of nutrients and their utilization as applied to oxygen delivery for optimal performance.
8. Apply knowledge of performance enhancing nutrients as well as, fuel inhibitors to avoid sub-standard performance.
9. Apply knowledge to encompass how environmental factors such as altitude, travel fatigue, exposure to a variety of weather characteristics can influence specific nutritional requirements.
10. Evaluate and recommend nutritional needs, to include factors such as age, gender, current body composition and goals involving changes in weight.
11. Analyze and apply specific strategies for adapting nutritional needs to meet performance goals for anaerobic, aerobic, power, or endurance activities.
12. Analyze and apply specific strategies for adapting nutritional needs to meet performance goals for any combination of required performance goals as listed in Outcome 11.
13. Compile specific individualized nutritional plans for athletes based on specific performance outcomes as related to endurance sports, power sports, or combinations of both areas.

E. LEARNING OUTCOMES (MNTC): NA

F. METHODS FOR EVALUATION OF STUDENT LEARNING:

May include, but are not limited to:

1. Class Participation
2. Group Discussion
3. Daily Assignments
4. Quizzes/Exams

- F. METHODS FOR EVALUATION OF STUDENT LEARNING: Continued. . .
- 5. Evaluation of specific nutritional plan portfolio as compiled for sport specific performance.
  - 6. Research Project
- G. RCTC CORE OUTCOME(S) ADDRESSED:  
Critical Thinking. Students will think systematically and explore information thoroughly before accepting or formulating a position or conclusion.
- H. SPECIAL INFORMATION (if any): None