

# North Hennepin Community College

## EXSC 2270: Essentials of Sport & Exercise Nutrition

### A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: \*.\*

Lab Hours/Week: \*.\*

OJT Hours/Week: \*.\*

Prerequisites:

This course requires the following prerequisite

HLTH 1070 - Nutrition

Corequisites: None

MnTC Goals: None

This course presents the scientific basis for sports nutrition building upon basic nutritional concepts. Students will review, describe, and interpret the macronutrient needs and recommendations for athletic performance (this would include pre-, during, and post-exercise fueling), energy expenditure during resistance and cardiovascular exercise, the diet during training, the timing and composition of the pre-, during, and post- competition fueling, the use of nutritional supplements, and the special needs of various athletic groups. The course provides practical and scientifically based information for those entering the exercise science field as well as the competitive athlete and people of all ages wishing to incorporate nutrition into an active lifestyle.

Prerequisite: HLTH 1070 with a recommended grade of "C" or better

### B. COURSE EFFECTIVE DATES: 12/15/2015 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

1. Academic Content may include: principles of nutrition and how they apply to the exercising/athletic individual, current research on macronutrients and the needs of all types and levels of exercising individuals/athletes, fluid needs and choices of the exercising/athletic individual, research on micronutrients and needs of the athlete/exercising individual, ergogenic aids, intermittent fasting, fad diets, metabolic efficiency training, thermoregulation, fluid balance, digestion, absorption, and assimilation of nutrients, nutrition periodization, bioenergetics,
2. Also included: resting and exercise metabolism and their effect on energy needs, hormonal responses to exercise/sport, cardiovascular functioning including both acute and chronic responses to exercise.

#### **D. LEARNING OUTCOMES (General)**

1. Review, describe, and interpret the macronutrient needs and recommendations for athletic performance (this would include pre-, during, and post-exercise fueling).  
Personal Training Certificate Goals: 1, 2a,e, 4  
Wellness Coaching Certificate Goals: 1, 2a,e,c, 4  
NHCC ELO<sub>i</sub>s: 1,2,4
2. Perform an evidence-based reexamination of various diets and techniques used for weight loss, and their effect on an athlete's performance.  
Personal Training Certificate Goals: 1, 2a,b,c,e, 4  
Wellness Coaching Certificate Goals: 1, 2a,b,c,e, 4  
NHCC ELO<sub>i</sub>s: 1,2,4
3. Analyze, and interpret the latest on controversial sports nutrition issues and research such as the role of protein, the role of fat, vitamin D, metabolic efficiency training, nutrition periodization, intermittent fasting, nutrient timing, and various other topics.  
Personal Training Certificate Goals: 1, 2a,b,e, 4  
Wellness Coaching Certificate Goals: 1, 2a,b,e, 4  
NHCC ELO<sub>i</sub>s: 1,2,4
4. Apply and interpret new sports nutrition and fitness assessments, questionnaires, and methods for measuring energy expenditure.  
Personal Training Certificate Goals: 1, 2a,b,c,f, 3c,d, 4  
Wellness Coaching Certificate Goals: 1, 2a,b,c, 3c,d, 4  
NHCC ELO<sub>i</sub>s: 1,2,3,4
5. Explain and evaluate updated research on various sport nutrition topics such as the issues of the active female, ergogenic aids, energy balance, and fluid balance.  
Personal Training Certificate Goals: 1, 2a,b,c,e, 4  
Wellness Coaching Certificate Goals: 1, 2a,b,c,d,e, 4  
NHCC ELO<sub>i</sub>s: 1,2,4

#### **E. Minnesota Transfer Curriculum Goal Area(s) and Competencies**

None

#### **F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

#### **G. SPECIAL INFORMATION**

1. Knowledge of Human Cultures and the Physical and Natural World -Through study in the sciences, mathematics, social sciences, humanities, histories, languages, the arts, technology and professions.
2. Intellectual and Practical Skills - Including: Inquiry and analysis; Critical and creative thinking; Written and oral communication; Quantitative literacy; Information literacy; Teamwork and problem solving.
3. Personal and Social Responsibility and Engagement - Including: Civic knowledge and involvement - campus, local and global; Intercultural knowledge and competence; Ethical reasoning and action; Foundations and skills for lifelong learning.
4. Integrative and Applied Learning - Including: Synthesis and advanced accomplishment across general education, liberal studies, specialized studies and activities in the broader campus community.