COURSE OUTLINE : HLTH 128
D Credit – Degree Applicable
COURSE ID 003008
Cyclical Review: July 2020

COURSE DISCIPLINE : HLTH

COURSE NUMBER : 128

COURSE TITLE (FULL) : Nutrition for Physical Fitness and Disease Prevention

COURSE TITLE (SHORT) : Nutrition for Physical Fitness

CATALOG DESCRIPTION

HLTH 128 examines the relationship between nutrition, physical fitness and disease risk in various populations. The impact of food choices on body physiology is explored as it pertains to disease risk and exercise performance. The process of metabolism as a means toward energy production for physical activity and weight management is discussed. Other topics covered include specifics of nutrition labeling, eating disorders, body composition, fitness guidelines, and ergogenic aids.

Total Lecture Units: 3.00

Total Laboratory Units: 0.00

Total Course Units: 3.00

Total Lecture Hours: 54.00

Total Laboratory Hours: 0.00

Total Laboratory Hours To Be Arranged: 0.00

Total Contact Hours: 54.00

Total Out-of-Class Hours: 108.00

Recommended Preparation: BIOL 115 or equivalent.

ENTRY STANDARDS

	Subject	Number	Title	Description	Include
1	BIOL	115	Human Biology	Identify the body systems, their organs and functions;	Yes
2	BIOL	115	Human Biology	recognize the primary tissues of the human body and their relationship to body organs;	Yes
3	BIOL	115	Human Biology	describe the cause and effect of selected major diseases and conditions of the human body;	Yes
4				name the major nutrients in the diet;	Yes
5				identify the Nutrition Facts panel;	Yes
6				recognize common diseases associated with poor diet;	Yes
7				describe the relationship of calories and weight management:	Yes

EXIT STANDARDS

1 Explain nutrients and nutrient digestion;
2 discuss nutrient metabolism and fuel utilization at rest and during exercise;
3 execute practical assessments which help determine nutrient consumption, nutrient expenditure, and body composition;
4 demonstrate understanding of how nutrition and food choices relate to weight management and disease prevention.

STUDENT LEARNING OUTCOMES

1 define the function and purpose of food and nutrients as they apply to the promotion of health, management of weight, and enhancement of athletic performance
2 explain the relationship between food choices and longevity and use this information to implement and promote healthy eating behaviors among their families and peer groups
3 interpret and formulate an educated opinion about the reliability of multi-media delivered nutrition information designed to manage weight and promote health

COURSE CONTENT WITH INSTRUCTIONAL HOURS

	Description	Lecture	Lab	Total Hours
1	Introduction and Overview of Course • Food and it relation to physical activity • Over- and undernourishment	3	0	3

2	Guidelines for Nutrient and Calorie Consumption • Energy value of food • Portions versus servings • Food labels• Food shopping guidelines • Claims (health, structure, nutrient, function) on foods • Practical application: Lab involving evaluation and analysis of nutritional value of • personal food plan	11	0	11
3	Macronutrition and Micronutrition • Carbohydrates, lipids, protein, vitamins, minerals • Functions, types, structure • Digestion and absorption • Disorders/disease related to nutrients, nutrient consumption, and/or nutrient metabolism • Nutrient modifications and considerations for persons with special needs • Persons with chronic disease • Athletes • Persons with altered digestive/absorptive function (bariatric) • Practical application (lab) • Determination and preparation of health-promotive daily macronutrient intake based on individual health status and needs • Modifying meal planning for disease management and/or health promotion persons with special needs	17	0	17

4	Energy Expenditure and Weight Management • Body energy expenditure • Resting metabolism • Thermic effect of physical activity • Thermic effect of food • Methods of measuring size and health • Body composition methodologies • Assessment of size using various methodologies and instruments, and interpretation of results as they relate to health and/or disease risk (lab) • Disorders impacting or related to energy expenditure and weight • Obesity • Anorexia • Bulimia • Binge-eating disorder • Weight cycling • Use of herbals, drugs, and/or diet plans to enhance weight control • Mechanisms driving caloric deficit • Safety and efficacy of popular weight loss aids • Practical application: Determination of energy expenditure of an individual based on calculations and data collection over time (lab)	9	0	9
5	Muscle Physiology and the Use of Nutrients • Skeletal muscle composition • Nutrient storage and utilization • Fiber type and fuel preference	5	0	5
6	Fuel Utilization During Exercise • Anaerobic versus aerobic performance • Nutrient involvement in building ATP at rest • Nutrient involvement in building ATP at different exercise intensities • Practical application: Determination of fuel source during and throughout an exhaustive exercise session using heart rate and perceived exertion as indicators	9	0	9
				54

OUT OF CLASS ASSIGNMENTS

1 practical lab assignments;
2 research project (e.g. poster project detailing health related subjects);
3 written exams.

METHODS OF EVALUATION

1 quizzes;
2 nutrition/fitness project (e.g. weight management lab in which student tracks caloric intake and expenditure over one week's time and determines how to achieve caloric balance for health promotion);
3 written exams;
4 final exam.

METHODS OF INSTRUCTION

- [x] Lecture
- [ ] Laboratory
- [ ] Studio
- [ ] Discussion
- [x] Multimedia
- [ ] Tutorial
- [ ] Independent Study
- [ ] Collaboratory Learning
- [x] Demonstration
- [x] Field Activities (Trips)
- [ ] Guest Speakers
- [ ] Presentations

TEXTBOOKS

Title	Type	Publisher	Edition	Medium	Author	IBSN	Date
Nutrition for Sport, Exercise, and Health	Required	Human Kinetics			Spano, M. A.	978-1450414876	2018