

Course Title	SPORT AND EXERCISE NUTRITION				
Course Code	SSNUT303-1				
Course Type	MANDATORY				
Level	BSc (Level 1)				
Year / Semester	3rd / Fall				
Teacher's Name	Dr. Susanna Papadopoulou & Dr. Chrystalla Papoutsou				
ECTS	6	Lectures / week	3	Laboratories / week	
Course Purpose	The purpose of the course is to introduce students to the science of sport and exercise nutrition. It also seeks to consolidate the importance of nutrition in exercise and sports to achieve health and wellness as well as to optimize athletic performance, respectively.				
Learning Outcomes	<p>Upon completion of the course, the student will be able to:</p> <ol style="list-style-type: none"> 1. Understand the fundamental principles of nutrition and their application in athletic performance and exercise. 2. Identify the nutritional needs and requirements of athletes and individuals engaged in regular physical activity in various sports and modes of exercise. 3. Evaluate the role of macronutrients (carbohydrates, proteins, fats) and micronutrients (vitamins, minerals) in supporting energy metabolism, muscle repair and growth, and overall health. 4. Analyze the importance of hydration and fluid balance to optimize athletic performance and prevent dehydration and heat-related diseases. 5. Discuss the timing and composition of pre-exercise, during, and post-exercise nutritional strategies to maximize performance, enhance recovery, and promote muscle glycogen and protein replenishment. 6. Explore the principles of body composition assessment and weight management strategies for athletes, including the role of diet in promoting muscle growth and fat loss while maintaining optimal performance. 				

	<p>7. Examine the impact of specific dietary considerations, such as vegetarian or vegan diets, food allergies and intolerances, on sport performance and nutritional adequacy.</p> <p>8. Implement evidence-based nutrition recommendations to design personalized nutrition plans for athletes and exercisers based on their specific goals, training requirements, and dietary preferences.</p> <p>9. Critically evaluate popular sports supplements, ergogenic aids and performance-enhancing substances in terms of safety, efficacy and legality, and their potential impact on athletic performance and health.</p> <p>10. Demonstrate effective communication skills in providing nutrition education and counseling to athletes, coaches and other members of the sports and exercise community, emphasizing the importance of evidence-based practices and sports ethics.</p>		
Prerequisites	No	Corequisites	No
Course Content	<ol style="list-style-type: none"> 1. Introduction to sport and exercise nutrition: Nutrition for health, wellness and sport performance, recommended dietary intakes and the main nutrients, energy balance and balanced diet, nutritional recommendations. 2. Body composition: body weight, body size, body composition, body composition assessment, body composition and sport performance, weight patterns, achievement of ideal weight. 3. Nutritional requirements and exercise: <ul style="list-style-type: none"> • Carbohydrates and fats: exercise and energy requirements, energy sources during exercise, carbohydrates and exercise, lipids and exercise. • Proteins and amino acids: Protein and amino acid requirements in general population and athletes: dietary protein, protein and exercise recovery. • Fluids and electrolytes: water and electrolytes, fluid and electrolyte losses, fluid carbohydrate and electrolyte replenishment, hydration of athletes, thermoregulation and dehydration, design of sports drinks. • Vitamins and Minerals: fat-soluble and water-soluble vitamins, vitamins and relationship to health and physical performance, macronutrients and trace elements, minerals and relationship to health and sport performance. 		

	<p>4. Nutrition, exercise and health issues: balanced healthy diet for exercising population, lipids and cholesterol and health implications, specific dietary approaches, weight maintenance and loss through appropriate diet and exercise, nutritional supplements and health.</p> <p>5. Nutrition issues to maximize athletic performance: athlete's diet, nutrition before, during and after competition, carbohydrate loading, ergogenic aids and sports, eating disorders in athletes, sports nutrition and immune function.</p>
Teaching Methodology	<p>The teaching of the course includes lectures to provide the theoretical background. Detailed notes with PowerPoint and material rich in images and videos are used in teaching. Methods such as case studies, clinical scenarios, discussion, questions/answers are used in the teaching methodology depending on the nature of the course. In addition, workshops and site visits with hands-on experiences are provided to deliver the practical background of course content. Relevant material published in international scientific journals is also used to follow the latest developments related to the subject of the course.</p>
Bibliography	<ul style="list-style-type: none"> • Jeukendrup, A. & Gleeson M. Sport Nutrition-2nd Edition, Human Kinetics, Champaign, IL (2010) • Williams, M. Διατροφή, Υγεία, Ευρωστία και Αθλητική Απόδοση. Επιμέλεια Συντώσης, Λ. Ιατρικές Εκδόσεις Π.Χ. Πασχαλίδη, Αθήνα, (2003). • Maughan, J.R. & Burke, M.L. Αθλητική Διατροφή. Ιατρικές Εκδόσεις Π.Χ. Πασχαλίδη, Αθήνα, (2006). • Wilmore, J.H. & Costill, D.L. Φυσιολογία της άσκησης και του Αθλητισμού. Τόμος II. Ιατρικές εκδόσεις Πασχαλίδης, Αθήνα, Ελλάδα, (2006). • Maughan, R.J., Burke, L.M. Coyle, E.F. Food, nutrition and sports performance II. The International Olympic Committee Consensus on Sports Nutrition. Routledge, New York, USA, (2004). • Manore, M., Meyer, N & Thompson, J. Sport Nutrition for Health and Performance. 2η έκδοση. Human Kinetics Publishers, Champaign, Illinois, USA, (2009).
Assessment	<p>Continuous evaluation (50%):</p> <p>The evaluation shall include a combination of:</p> <p>Online quizzes or interactive assessments (20%): Online quizzes or interactive assessments can be used through the Moodle platform to create quizzes with various question formats. These assessments are timed, and immediate feedback can be provided to students.</p> <p>Case studies (30%): Use case studies or problem-solving exercises to assess how students can apply theoretical knowledge in real-life situations. Students are presented with realistic scenarios of athletes or exercising population that require analysis, critical thinking and application of theoretical contents and are evaluated based on their</p>

	<p>ability to identify and evaluate relevant information, propose solutions and justify their choices based on their knowledge of sports nutrition.</p> <p>Class discussions: Students participate in class discussions to assess their theoretical knowledge. Active participation is encouraged to sharpen their critical thinking skills by asking open-ended questions and facilitating their dialogue.</p> <p>Final exam (50%): Comprehensive final exam, to assess students' overall theoretical knowledge. These assessments cover a wider range of topics and learning outcomes from across the curriculum to assess students' understanding and integration of knowledge in a variety of fields.</p>
Language	Greek / English