



Health and Sports Science Module Handbook
Faculty of Sports Science Universitas Negeri Makassar

Module designation		<i>Sports Nutrition</i>				
Semester(s) in which the module is taught		2				
Person responsible for the module		Dr. Arimbi, S.Or., M.Pd.				
Language		Bilingual (Bahasa and English)				
Relation to curriculum		Compulsory				
Teaching methods		3 parallel classes consist of 35 students/class: 1) Lecture (Face to face lecture): 2 hours x 14 weeks 2) Practical class: -				
Workload	Total workload	88 hours				
		Face to face teaching	Structured activities	Independent study	Exam	total
	Lecture	28	28	28	4	88
	Practical class					
	Total					88
Credit points		2 credits				
Required and recommended prerequisites for joining the module		None				
Module objectives / intended learning outcomes		<p>After taking this course, students will be able to:</p> <ol style="list-style-type: none"> 1. Recognize the breadth of nutritional sciences and define common terms associated with nutritional sciences. 2. Describe energy systems, fuels, and nutrients supporting physical activity and how nutrition impacts human movement. 3. Describe basic assessment of an athlete's nutritional needs while training and competing in sport events. 4. Differentiate and assess what to eat and nutrient timing to enhance human movement. 5. Identify appropriate interventions for weight management and eating disorders pertaining to exercise. 6. Identify and critically assess ethical and societal issues in science in relationship to the use of ergogenic aids. 				



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<p>Content</p>	<ol style="list-style-type: none"> 1. Introduction to sports nutrition (basic nutrition principles, sport nutrition goals, issues related to dietary supplements and ergogenic aids, types of research studies). 2. Defining and measuring energy (energy and energy concepts, measuring energy, concepts of energy balance). 3. Energy systems and exercise (energy systems, the creatine phosphate energy system, the anaerobic glycolysis energy system, fuel utilization, oxygen consumption). 4. Carbohydrates (carbohydrate in food, digestion, absorption, and transportation of carbohydrates, carbohydrates as a source of energy for exercise, carbohydrate recommendations for athletes). 5. Proteins (structure and function of protein, digestion, absorption, and transportation of protein, protein recommendations for athletes). 6. Fats (fatty acids, sterols, and phospholipids, digestion, absorption, and transportation of fats, fats as a source of energy during exercise, fats recommendations for athletes). 7. Water and electrolytes (water loss, intake, balance and imbalance, effect of exercise on fluid balance, strategies to replenish water and electrolytes). 8. Vitamins (classification of vitamins, the roles of vitamins in the body, sources of vitamins). 9. Minerals (classification of minerals, mineral deficiencies and toxicities, the roles of minerals in bone-formation, blood formation and immune system). 10. Diet planning: Food first, supplements second. 11. Weight & body composition (Assessment and interpretation of weight and body composition, body composition and weight related to performance, changing body composition to enhance performance). 12. Disordered eating & exercise patterns. 13. Diet & exercise for lifelong fitness & health.
<p>Exams and assessment formats</p>	<p>Group Presentation. Student will work in a group consisting of 4 to 5 students and select one topic from the lists provided. They will be responsible for preparing a power point presentation explaining the topic that will be beneficial to the rest of the class.</p> <p>Weight: 25%</p>



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	<p>Mid and Final Semester Exams</p> <p>There will be 2 exams covering information based on the lecturers, assigned readings, group presentations and in-class discussions. Exam format will be a combination of multiple-choice, short answer and true-or-false questions.</p> <p>Weight: 75%</p>
Study and examination requirements	<p>The exam is conducted 2 times, namely mid-semester and final semester. Students are expected to attend all classes unless circumstances prevent them from attending and an email notification was sent prior to class. Final grading will be based on students' attendance, their participation in group presentations and in-class discussions, and their scores in mid and final examinations.</p>
Reading list	<p>Required Text</p> <p>Dunford, M., & Doyle, J. A. (2019). Nutrition for Sport and Exercise 4th Edition. Cengage Learning.</p> <p>Supporting Texts</p> <p>Clark, N. (2014). Nancy Clark's Sports Nutrition Guidebook 5th Edition. Human Kinetics.</p> <p>Fink, H. H., & Mikesky, A. E. (2013). Practical Applications in Sports Nutrition 4th Edition. Jones & Bartlett Learning.</p>