



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

Module designation		<i>Physiology</i>				
Semester(s) in which the module is taught		1				
Person responsible for the module		Dr. Mutmainnah B, M.Kes, SpKJ Dr. Arimbi, S.Or., M.Pd Darul Husnul, S.Or., M.Kes				
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): 3 hours x 14 weeks 2) Practical class: 3 hours x 14 weeks				
Workload	Total workload	196				
		Face to face teaching	Structured activities	Independent study	Exam	total
	Lecture	42	42	42	4	130
	Practical class	42	10	10	4	66
	Total					196
Credit points		3 credits				
Required and recommended prerequisites for joining the module		None				
Module objectives / intended learning outcomes		<p>The course involves the study of the functioning of human tissues, organs and organ systems, emphasizing the physical, chemical and mechanistic basis of normal physiology and the integrated function of the human body. By the end of this course, students should be able to:</p> <ol style="list-style-type: none"> 1.Explain physiological mechanisms of humans by applying basic principles of biology and chemistry. 2.Describe the fundamental mechanisms underlying normal function of cells, tissues, organs, and organ systems in humans. 3.Explain the basic mechanisms of homeostasis by integrating the functions of cells, tissues, organs, and organ systems. 4.Effectively solve basic problems in physiology, working independently and in groups. 				



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<p>Content</p>	<ol style="list-style-type: none"> a. Introduction to Physiology (Function and mechanism, themes in physiology, homeostasis, the science of physiology) b. Cardiovascular Physiology (Overview, pressure, volume, flow and resistance, cardiac muscle and the heart, the heart as a pump). c. Respiratory System (Overview, gas laws, ventilation, gas exchange and transport). d. Blood flow, pressure (Blood vessels, blood pressure, distribution of blood to the tissues, blood cell production, red blood cells). e. Endocrine System (Classification of hormones, control of hormone release, hormone interactions, endocrine pathologies). f. Digestive System (Anatomy of the digestive system, digestive function and processes, integrated function). g. The Central Nervous System (Properties of neural networks, anatomy of the central nervous system, brain and brain function). h. Sensory Physiology (Properties of sensory systems, somatic senses, smell and taste, the sense of hearing, the eye and vision). i. Muscles (Skeletal muscle, mechanics of body movement, control of body movement). j. Urinary System (Anatomy of the urinary system, kidney function, filtration, reabsorption, secretion, excretion). k. Reproduction and Development (Sex determination, male reproduction, female reproduction).
<p>Exams and assessment formats</p>	<p>In-Class Quizzes</p> <p>There will be quizzes based on the readings assigned for each upcoming week. These quizzes are low-stake assessments, which means they are focused on deepening students' knowledge and preparing them for the exams. They cover material from upcoming readings for the assigned week. The format of quizzes will be a combination of true or false, multiple choice, matching and/or short answer questions.</p> <p>Weight: 25%</p> <p>Mid and Final Semester Exams</p> <p>There will be 2 exams based on assigned readings and in-class discussions. Exam format will be a combination of true or false and multiple choice.</p> <p>Weight: 75%</p>



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Study and examination requirements	Students are expected to attend all classes as there will be quizzes for each upcoming week, unless circumstances prevent them from attending and an email was sent prior to class. Final grading will be based on students' attendance, their participants in quizzes, and their score in the mid and final semester exams.
Reading list	Silverthorn, D. U. (2019). Human Physiology: An Integrated Approach, 8 th Edition. Pearson. Hall, J. E. (2011). Guyton and Hall Textbook of Medical Physiology, 12 th Edition. Saunders Elsevier.