

COURSE INFORMATION					
Course Title	<i>Code</i>	<i>Semester</i>	<i>L+P+L Hour</i>	<i>Credits</i>	<i>ECTS</i>
Exercise Physiology(Clinical Clerkship)	MED 452	Phase 4/7-8	10 + 22 + 0	2	2*

* ECTS credits are the university credits of the courses in Yeditepe University, Faculty of Medicine, Undergraduate Medical Education Program

Prerequisites	Students apply to this course in their 4rd year of faculty of medicine.
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Language of Instruction	Turkish
Course Level	Second Cycle including First Cycle Degree (One Tier Programme)
Course Type	Area Elective
Course Coordinator	Prof. Dr. Mehtap Kaçar
Instructors	Prof. Dr. Mehtap Kaçar
Assistants	Instructor Dr. B. Tuvana US Instructor Meltem Yalçın Oğuz
Goals	The goals of exercise physiology are to understand how bodily functions are changed and affected by some type of physical activity, to enhance students' knowledge across a broad range of exercise science topics including strength and conditioning, clinical exercise physiology, exercise psychology and the link to overall health.
Content	This course focuses on how work tissues, organs, and bodily systems during exercise to maintain life, how a person's body withstands and conforms to physical activity, and how bodily functions are changed and affected by some type of physical activity. Content of this course also includes the benefits and risks of exercise, and prescribing exercise for preventive and therapeutic aims. Exercise tests are carried out to determine important aspects of a patient's health such as cardiovascular endurance and respiratory strength, body composition, and flexibility.

Learning Outcomes After participating in this course, students should be able to	Programme Learning Outcomes	Teaching Methods	Assessment Methods
1) Perform and analyse anthropometric and body composition assessments	1.1.1; 1.1.3, 1.1.4, 1.1.5, 1.1.6, 1.1.7, 2.1.1, 2.2.1, 2.2.2, 2.2.3, 2.2.4, 2.4.1, 2.5.1, 2.5.3	1,2,3,4,5	A,B,C
2) Evaluate of muscular strength, muscular endurance and flexibility.	1.1.1; 1.1.3, 1.1.4, 1.1.5, 1.1.6, 1.1.7, 2.1.1, 2.2.1, 2.2.2, 2.2.3,	1,2,3,4,5	A,B,C

	2.2.4, 2.4.1, 2.5.1, 2.5.3		
3) Conduct and interpret cardiorespiratory fitness tests	1.1.1; 1.1.3, 1.1.4, 1.1.5, 1.1.6, 1.1.7, 2.1.1, 2.2.1, 2.2.2, 2.2.3, 2.2.4, 2.4.1, 2.5.1, 2.5.3	1,2,3,4,5	A,B,C
4) Prescribe and implement exercise programs for patients and healthy person	1.1.1; 1.1.3, 1.1.4, 1.1.5, 1.1.6, 1.1.7, 2.1.1, 2.2.1, 2.2.2, 2.2.3, 2.2.4, 2.4.1, 2.5.1, 2.5.3	1,2,3,4,5	A,B,C
5) Apply assessment protocols and pre-participation health screening procedures to maximize patients safety and minimize risk.	1.1.1; 1.1.3, 1.1.4, 1.1.5, 1.1.6, 1.1.7, 2.1.1, 2.2.1, 2.2.2, 2.2.3, 2.2.4, 2.4.1, 2.5.1, 2.5.3	1,2,3,4,5	A,B,C
6) Define and explain benefits and risks of exercise	1.1.1; 1.1.3, 1.1.4, 1.1.5, 1.1.6, 1.1.7, 2.1.1, 2.2.1, 2.2.2, 2.2.3, 2.2.4, 2.4.1, 2.5.1, 2.5.3	1,2,3,4,5	A,B,C
7) Define and explain FITT principle for prescribing exercise	1.1.1; 1.1.3, 1.1.4, 1.1.5, 1.1.6, 1.1.7, 2.1.1, 2.2.1, 2.2.2, 2.2.3, 2.2.4, 2.4.1, 2.5.1, 2.5.3	1,2,3,4,5	A,B,C

Teaching Methods:	1-Lecture; 2-Team Work; 3-Case Study, 4-Discussion Hours, 5-Practical applying
Assessment Methods:	A: Presentation, B: Homework, C: Project

COURSE CONTENT		
Day	Topics	Study Materials
1	Introduction and Overview	
1	Anthropometric measurements and body composition	
2	Principles of cardiorespiratory fitness tests	
2	Other tests in exercise physiology	
2	FITT principles in exercise program	

3	Principles of prescribing exercise	
3	Principles of prescribing exercise	
3	Preventive approach for healthy life and aging	
4	Benefits and risks of exercise	
4	Benefits and risks of exercise	
5	FINAL EXAM	

RECOMMENDED SOURCES	
Textbook	Sport and Exercise Medicine An Essential Guide, Edited By David Eastwood, Dane Vishnubala, 2023 ISBN 9781032017624 ACSM's Guidelines for Exercise Testing and Prescription, American College of Sports Medicine, Editor:Linda S. Pescatello
Additional Resources	Lecture notes

MATERIAL SHARING	
Documents	Google Classroom
Assignments	Google Classroom

ASSESSMENT		
IN-COURSE STUDIES	NUMBER	PERCENTAGE
Class and Laboratory Performance	1	40
Homework	1	30
Practical applying	1	30
Total		100
CONTRIBUTION OF FINAL EXAMINATION TO OVERALL GRADE		50
CONTRIBUTION OF IN-COURSE STUDIES TO OVERALL GRADE		50
Total		100

COURSE CATEGORY	Expertise/Field Courses
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COURSES CONTRIBUTION TO PROGRAM					
COMPETENCE AREA-1 / Professional Practices	Contribution				
COMPETENCE 1.1. Health Service Provider	1	2	3	4	5
Competency 1.1.1. Integrates knowledge, skills, and attitudes acquired from basic and clinical medical sciences, behavioral sciences, and social sciences to provide health services.			X		
Competency 1.1.2. Demonstrates a biopsychosocial approach that considers the individual's sociodemographic and sociocultural background without discrimination based on language, religion, race, or gender in patient management.					
Competency 1.1.3. Prioritizes the protection and improvement of individuals' and community's health in the delivery of healthcare services.					X
Competency 1.1.4. Performs the necessary actions in the direction of maintaining and improving the state of health as considering the individual, social, social and environmental factors affecting health.					X
Competency 1.1.5. Provides health education to healthy/ill individuals and their families, as well as to other healthcare professionals, by recognizing the characteristics, needs, and expectations of the target audience.					X
Competency 1.1.6. Demonstrates a safe, rational, and effective approach in the processes of protection, diagnosis, treatment, follow-up, and rehabilitation in health service delivery.				X	
Competency 1.1.7. Performs interventional and/or non-interventional procedures safely and effectively for the patient in the processes of diagnosis, treatment, follow-up, and rehabilitation.	X				
Competency 1.1.8. Provides healthcare services considering patient and employee health and safety.					
Competency 1.1.9. Considers changes related to the physical and socio-economic environment at both regional and global scales that affect health, as well as changes in the individual characteristics and behaviors of those who seek healthcare services.					
COMPETENCE AREA-2 / Professional Values and Approaches	Contribution				
COMPETENCE 2.1. Adopting Professional Ethics and Principles	1	2	3	4	5
Competency 2.1.1. Considers good medical practices while performing the profession.		X			
Competency 2.1.2. Fulfills duties and obligations within the framework of ethical principles, rights, and legal responsibilities required by the profession.					
Competency 2.1.3. Demonstrates determined behavior in providing high-quality healthcare while considering the patient's integrity.					
Competency 2.1.4. Evaluates own performance in professional practices by considering own emotions and cognitive characteristics.					
COMPETENCE 2.2. Health Advocate					
Competency 2.2.1. Advocates for the improvement of healthcare service delivery by considering the concepts of social accountability and social responsibility in the protection and enhancement of community health.					X
Competency 2.2.2. Plans and implements service delivery, education, and counseling processes related to individual and community health, in collaboration with all stakeholders, for the protection and improvement of health.					X
Competency 2.2.3. Evaluates the impact of health policies and practices on individual and community health indicators and advocates for the improvement of healthcare quality.				X	
Competency 2.2.4. Gives importance to protecting and improving own physical, mental, and social health and takes necessary actions for it.				X	
COMPETENCE 2.3. Leader-Manager					
Competency 2.3.1. Demonstrates exemplary behavior and leadership within the healthcare team during service delivery.					

Competency 2.3.2. Utilizes resources in a cost-effective, socially beneficial, and compliant manner with regulations in the planning, implementation, and evaluation processes of healthcare services as the manager in the healthcare institution.					
COMPETENCE 2.4. Team Member					
Competency 2.4.1. Communicates effectively within the healthcare team and takes on different team roles as necessary.	X				
Competency 2.4.2. Displays appropriate behaviors while being aware of the duties and responsibilities of healthcare workers within the healthcare team.					
Competency 2.4.3. Works collaboratively and effectively with colleagues and other professional groups in professional practice.					
COMPETENCE 2.5. Communicator					
Competency 2.5.1. Communicates effectively with patients, their families, healthcare professionals, and other occupational groups, institutions and organizations.	X				
Competency 2.5.2. Communicates effectively with individuals and groups who require a special approach and have different sociocultural characteristics.					
Competency 2.5.3. Demonstrates a patient-centered approach that involves the patient in decision-making mechanisms during the diagnosis, treatment, follow-up, and rehabilitation processes.			X		
COMPETENCE AREA-3 / Professional and Personal Development	Contribution				
COMPETENCE 3.1. Scientific and Analytical Approach	1	2	3	4	5
Competency 3.1.1. Plans and implements scientific research, as necessary, for the population it serves, and utilizes the results obtained, as well as those from other research, for the benefit of the community.					
Competency 3.1.2. Accesses and critically evaluates current literature related to their profession.					
Competency 3.1.3. Applies evidence-based medicine principles in the clinical decision-making process.					
Competency 3.1.4. Uses information technologies to enhance the effectiveness of healthcare, research, and education activities.					
COMPETENCE 3.2. Lifelong Learner					
Competency 3.2.1. Manages effectively individual study processes and career development.					
Competency 3.2.2. Demonstrates skills in acquiring, evaluating, integrating new information with existing knowledge, applying to professional situations, and adapting to changing conditions throughout professional career.					
Competency 3.2.3. Selects the right learning resources to improve the quality of health care and organizes the learning process.					

ECTS ALLOCATED BASED ON STUDENT WORKLOAD BY THE COURSE DESCRIPTION			
Activities	Quantity	Duration (Hour)	Total Workload (Hour)
Lecture	10	1	10
Practical applying	11	2	22
Hours for off-the-classroom study (Pre-study, reinforcement, homework, project)	12	2	24
Final	1	2	2
Total Work Load			58
Total Work Load / 30 (h)			1.93
ECTS Credit of the Course			2