

<b>COURSE INFORMATION</b>					
<b>Course Title</b>	<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

<b>Prerequisites</b>	Students apply to this course in their 4rd year of faculty of medicine.
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<b>Language of Instruction</b>	Turkish
<b>Course Level</b>	Second Cycle including First Cycle Degree (One Tier Programme)
<b>Course Type</b>	Area Elective
<b>Course Coordinator</b>	Prof. Dr. Mehtap Kaçar
<b>Instructors</b>	Prof. Dr. Bayram Yılmaz Prof. Dr. Mehtap Kaçar
<b>Assistants</b>	
<b>Goals</b>	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.
<b>Content</b>	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.

<b>Learning Outcomes</b> After participating in this course, students should be able to	<b>Programme Learning Outcomes</b>	<b>Teaching Methods</b>	<b>Assessment Methods</b>
1) Perform and analyse anthropometric and body composition assessments	1.1.1, 1.1.2, 1.1.6, 1.1.11, 1.3.1; 1.5.1; 1.6.1; 2.4.1; 3.1.1; 3.3.1-3.3.3	1,2,3,4,5	A,B,C
2) Evaluate of muscular strength, muscular endurance and flexibility.	1.1.1, 1.1.2, 1.1.6, 1.1.11, 1.3.1; 1.5.1; 1.6.1; 2.4.1; 3.1.1; 3.3.1-3.3.3	1,2,3,4,5	A,B,C

3) Conduct and interpret cardiorespiratory fitness tests	1.1.1, 1.1.2, 1.1.6, 1.1.11, 1.3.1; 1.5.1; 1.6.1; 2.4.1; 3.1.1; 3.3.1-3.3.3	1,2,3,4,5	A,B,C
4) Prescribe and implement exercise programs for patients and healthy person	1.1.1, 1.1.2, 1.1.6, 1.1.11, 1.3.1; 1.5.1; 1.6.1; 2.4.1; 3.1.1; 3.3.1-3.3.3	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, 1.1.2, 1.1.6, 1.1.11, 1.3.1; 1.5.1; 1.6.1; 2.4.1; 3.1.1; 3.3.1-3.3.3	1,2,3,4,5	A,B,C
6) Define and explain benefits and risks of exercise	1.1.1, 1.1.2, 1.1.6, 1.1.11, 1.3.1; 1.5.1; 1.6.1; 2.4.1; 3.1.1; 3.3.1-3.3.3	1,2,3,4,5	A,B,C
7) Define and explain FITT principle for prescribing exercise	1.1.1, 1.1.2, 1.1.6, 1.1.11, 1.3.1; 1.5.1; 1.6.1; 2.4.1; 3.1.1; 3.3.1-3.3.3	1,2,3,4,5	A,B,C

<b>Teaching Methods:</b>	1-Lecture; 2-Team Work; 3-Case Study, 4-Discussion Hours, 5-Practical applying
<b>Assessment Methods:</b>	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	
<b>Textbook</b>	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
<b>Additional Resources</b>	Lecture notes

MATERIAL SHARING	
<b>Documents</b>	Google Classroom
<b>Assignments</b>	Google Classroom

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

<b>COURSE CATEGORY</b>	Expertise/Field Courses
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COURSE'S CONTRIBUTION TO PROGRAM						
	PODG.1. Basic Professional Competencies	Contribution				
	POD.1.1. Clinical Competencies	1	2	3	4	5
<b>PO.1.1.1.</b>	<i>values</i> preventive health services, <i>offers</i> primary prevention (i.e. prevention of diseases for the protection of health), secondary prevention (i.e. early diagnosis and treatment) tertiary prevention (i.e. rehabilitation) and quaternary prevention (i.e. prevention of excessive and unnecessary diagnosis and treatment) services, <i>provides</i> consultancy on these issues.					X

<b>PO.1.1.2.</b>	<b>employs</b> a patient-centered approach in patient management.					<b>X</b>	
<b>PO.1.1.3.</b>	<b>recognizes</b> most frequently occurring or significant clinical complaints, symptoms, signs, findings and their emergence mechanisms in clinical conditions.						
<b>PO.1.1.4.</b>	<b>takes</b> medical history from the applicant himself/herself or from the individual's companions.						
<b>PO.1.1.5.</b>	<b>does</b> general and focused physical and mental examination.						
<b>PO.1.1.6.</b>	<b>interprets</b> findings in medical history, physical and mental examination.			<b>X</b>			
<b>PO.1.1.7.</b>	<b>employs</b> diagnostic procedures that are used frequently at the primary health care level.						
<b>PO.1.1.8.</b>	<b>selects</b> tests that have evidence-based high efficacy at the primary health care level and <b>interprets</b> results.						
<b>PO.1.1.9.</b>	<b>makes</b> clinical decisions using evidence-based systematic data in health care service.						
<b>PO.1.1.10.</b>	<b>performs</b> medical interventional procedures that are used frequently at the primary health care level.						
<b>PO.1.1.11.</b>	<b>manages</b> healthy individuals and patients in the context of health care services.			<b>X</b>			
<b>PO.1.1.12.</b>	<b>keeps</b> medical records in health care provision and <b>uses</b> information systems to that aim.						
<b>POD.1.2. Competencies related to Communication</b>							
<b>PO.1.2.1.</b>	throughout his/her career, <b>communicates</b> effectively with health care beneficiaries, co-workers, accompanying persons, visitors, patient's relatives, care givers, colleagues, other individuals, organizations and institutions.						
<b>PO.1.2.2.</b>	<b>collaborates</b> as a team member with related organizations and institutions, with other professionals and health care workers, on issues related to health.						
<b>PO.1.2.3.</b>	<b>recognizes</b> the protection and privacy policy for health care beneficiaries, co-workers, accompanying persons and visitors.						
<b>PO.1.2.4.</b>	<b>communicates</b> with all stakeholders taking into consideration the socio-cultural diversity.						
<b>POD.1.3. Competencies Related to Leadership and Management</b>							
<b>PO.1.3.1.</b>	<b>manages</b> and <b>leads</b> within the health care team in primary health care organization.	<b>X</b>					
<b>PO.1.3.2.</b>	<b>recognizes</b> the principles of health management and health sector economy, models of organization and financing of health care services.						
<b>PO.1.3.3.</b>	<b>recognizes</b> the resources in the health care service, the principles for cost-effective use.						
<b>POD.1.4. Competencies related to Health Advocacy</b>							
<b>PO.1.4.1.</b>	<b>recognizes</b> the health status of the individual and the community and the factors affecting the health, <b>implements</b> the necessary measures to prevent effects of these factors on the health.						
<b>PO.1.4.2.</b>	<b>recognizes</b> and <b>manages</b> the health determinants including conditions that prevent access to health care.						
<b>POD.1.5. Competencies related to Research</b>							
<b>PO.1.5.1.</b>	<b>develops, prepares</b> and <b>presents</b> research projects	<b>X</b>					
<b>POD.1.6. Competencies related to Health Education and Counseling</b>							

PO.1.6.1.	<i>provides</i> consultancy services and <i>organizes</i> health education for the community to sustain and promote the health of individual and community.			X		
	<b>PODG.2. Professional Values and Perspectives</b>					
	<b>POD.2.1. Competencies related to Law and Legal Regulations</b>					
PO.2.1.1.	<i>performs</i> medical practices in accordance with the legal framework which regulates the primary health care service.					
	<b>POD.2.2. Competencies Related to Ethical Aspects of Medicine</b>					
PO.2.2.1.	<i>recognizes</i> basic ethical principles completely, and <i>distinguishes</i> ethical and legal problems.					
PO.2.2.2.	<i>pays importance to</i> the rights of patient, patient's relatives and physicians, and <i>provides</i> services in this context.					
	<b>POD.2.3. Competencies Related to Social and Behavioral Sciences</b>					
PO.2.3.1.	<i>relates</i> historical, anthropological and philosophical evolution of medicine, with the current medical practice.					
PO.2.3.2.	<i>recognizes</i> the individual's behavior and attitudes and factors that determine the social dynamics of the community.					
	<b>POD.2.4. Competencies Related to Social Awareness and Participation</b>					
PO.2.4.1.	<i>leads</i> community with sense of responsibility, behavior and attitudes in consideration of individual behaviors and social dynamics of the community, and if there is a necessity, <i>develops</i> projects directed towards health care services.				X	
	<b>POD.2.5. Competencies Related to Professional Attitudes and Behaviors</b>					
PO.2.5.1.	<i>displays</i> a patient-centered and holistic (biopsychosocial) approach to patients and their problems.					
PO.2.5.2.	<i>respects</i> patients, colleagues and all stakeholders in health care delivery.					
PO.2.5.3.	<i>displays</i> the proper behavior in case of disadvantaged groups and situations in the community.					
PO.2.5.4.	<i>takes</i> responsibility for the development of patient safety and healthcare quality.					
PO.2.5.6.	<i>evaluates</i> own performance as open to criticism, <i>realizes</i> the qualifications and limitations.					
	<b>PODG.3. Personal Development and Values</b>					
PO.3.1.1.	<i>embraces</i> the importance of lifelong self-learning and <i>implements</i> .					
PO.3.1.2.	<i>embraces</i> the importance of updating knowledge and skills; <i>searches</i> current advancements and <i>improves</i> own knowledge and skills.		X			
PO.3.1.3.	<i>uses</i> English language at least at a level adequate to follow the international literature and to establish communication related to the profession.					
	<b>POD.3.2. Competencies Related to Career Management</b>					
PO.3.2.1.	<i>recognizes</i> and <i>investigates</i> postgraduate work domains and job opportunities.					
PO.3.2.2.	<i>recognizes</i> the application requirements to postgraduate work/job domains, and <i>distinguishes</i> and <i>plans</i> any requirement for further training and work experience.					

<b>PO.3.2.3.</b>	<b>prepares</b> a resume, and <b>recognizes</b> job interview methods.					
	<b>POD.3.3. Competencies Related to Protection and Development of Own Physical and Mental Health</b>					
<b>PO.3.3.1.</b>	<b>implements</b> the rules of healthy living.					X
<b>PO.3.3.2.</b>	<b>displays</b> appropriate behavior specific to work under stressful conditions.					X
<b>PO.3.3.3.</b>	<b>uses</b> self-motivation factors.					X

<b>ECTS ALLOCATED BASED ON STUDENT WORKLOAD BY THE COURSE DESCRIPTION</b>			
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
<b>Total Work Load</b>			58
<b>Total Work Load / 30 (h)</b>			1.93
<b>ECTS Credit of the Course</b>			2