EXERCISE AND SPORTS PHYSIOLOGY

1	Course Title:	EXERCISE AND SPORTS PHYSIOLOGY	
2	Course Code:	ANE5003	
3	Type of Course:	Compulsory	
4	Level of Course:	Second Cycle	
5	Year of Study:	1	
6	Semester:	1	
7	ECTS Credits Allocated:	5.00	
8	Theoretical (hour/week):	2.00	
9	Practice (hour/week):	2.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	none	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Prof. Dr. Şerife VATANSEVER	
15	Course Lecturers:	Prof. Dr. Şerife VATANSEVER	
16	Contact information of the Course Coordinator:	serife@uludag.edu.tr U.Ü Spor Bilimleri Fakültesi	
17	Website:		
18	Objective of the Course:	To intoduce the cell-tissue –organs and the systems that make up the human body To explain and implement how the energy sources come into being in the long and short terms, the effects of physical efforts on yhe respiratory-circulatory-nerves system and other systems in various circumstances To teach the effects and the practice of the physical changes that come into being under various circumstances To compare the effects of the long term adaptations to training sessions on the systems	
19	Contribution of the Course to Professional Development:	To introduce the cell-tissue-organs and systems that make up the human body and to understand the adaptations related to exercise	
20	Learning Outcomes:		
		1	To establish a relationship between exercise and physiology
		2	To define the exercise physiology
		3	To explain the basic fields of the exercise and physiology
		4	To establish a link between the basic fields of exercise physiology and those of physiology education and sports
		5	To be able to use the tools that are necessary for the exercise physiology practices
		6	To compare the basic areas of exercise physiology and those training knowledge
		7	To comprehend the basics between the exercise physiology practices and those of the training science
		8	To be able to explain energy metabolism

	9	To explain the adaptation of the exercise
	10	Explain the relationship between exercise physiology and performance

21	Course Content:	
	Course Content:	
Week	Theoretical	Practice
1	Introduction of cell muscle tissue and organelles	
2	Energy systems (phosphogen, lactic acid, aerobic).	
3	Energy production during aerobic and anaerobic exercises and recovery period,	
4	Muscle tissue, general characteristics of skeletal Muscle tissue, general characteristics of skeletal muscle and functions, distribution of fibers in muscle, and effects on sportive performance	
5	Muscle contraction types (isometric, concentric, isotonic, isokinetic contractions) and movement samples	
6	Cardiovascular system and functions, structure of heart and blood vessels and functions, Chronic responses of cardiovascular system to different types of exercise	
7	Respiration system, and exercise	
8	Neural control of muscle activity	
9	Exercise physiology and performance	
10	Endocrine system, functions of glands and their hormones, general hormonal response to acute and chronic exercise,	
11	Exercise in different conditions (thermal adaptation, altitude, etc.)	
12	Fatigue and recovery in Sport	
13	Observation of training adaptation adaptation associated with training	
14	Observation of training adaptation adaptation	

22	Textbooks, References and/or Other Materials:	Guyton ., C A. Hall Je Tıbbı Fizyoloji. 2007. Istanbul AÇIKADA, C. ,ERGEN,E.: “Bilim Ve Spor”, Büro-Tek Ofset Matbaacılık, Ankara, 1990. Fox ., Bowers., Foss . Beden Eğtimi Ve Sporun Fizyolojik Temellleri. 1999 Ankara Akgün N. Egzersiz Ve Spor Fxyolojisi. 1989. Ankara Kalyaoncu A. Spor Hekimliği.1989. Günay M., Cicioğlui. Spor Fizyolojisi 2001. Ankara Mark Ed. Hargreaves. Exercise Metabolism, Human Kinetics; 2 edition 2006. Brooks, G.A., T.D. Fahey, and K.M. Baldwin Exercise Physiology Human Bioenergetics and Its applications.. McGraw-Hill Companies; 4 edition Exercise Metabolism. Mark Hargreaves (Editor), 2. Edition. Human Kinetics, 2006 Frank C., Mooren (Eds). Molecular and Cellular Exercise Physiology, Human Kinetiks,2005. Powers, S.K., and E.T. Howley. Exercise Physiology: Theory and Application to Fitness and Performance. Fourth Edition. Madison, WI: Mc Graw Hill, 2006.
23	Assesment	

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	1	40.00
Quiz	0	0.00
Home work-project	0	0.00
Final Exam	1	60.00
Total	2	100.00
Contribution of Term (Year) Learning Activities to Success Grade		40.00
Contribution of Final Exam to Success Grade		60.00
Total		100.00
Measurement and Evaluation Techniques Used in the Course		Project, seminar and classic exam

24 ECTS / WORK LOAD TABLE

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	14	2.00	28.00
Self study and preperation	3	5.00	15.00
Homeworks	1	20.00	20.00
Projects	0	0.00	0.00
Field Studies	2	10.00	20.00
Midterm exams	1	15.00	15.00
Others	1	10.00	10.00
Final Exams	1	10.00	10.00
Total Work Load			161.00
Total work load/ 30 hr			4.87
ECTS Credit of the Course			5.00

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	**PQ2**	**PQ3**	**PQ4**	**PQ5**	**PQ6**	**PQ7**	**PQ8**	**PQ9**	**PQ10**	**PQ11**	**PQ12**	**PQ13**	**PQ14**	**PQ15**	**PQ16**
ÖK1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
ÖK3	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
ÖK4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
ÖK5	0	0	0	0	0	0	0	4	0	0	0	2	0	0	0	0
ÖK6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK7	4	0	0	5	0	0	0	4	0	0	0	0	0	0	0	0
ÖK8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK9	5	3	5	0	5	0	4	0	0	0	0	0	0	0	0	0
ÖK10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	**1 very low**		**2 low**			**3 Medium**			**4 High**			**5 Very High**				