AYDIN ADNAN MENDERES UNIVERSITY
GRADUATE SCHOOL OF HEALTH SCIENCES
PHYSICAL EDUCATION AND SPORTS
PHYSICAL EDUCATION AND SPORTS
PHYSICAL EDUCATION AND SPORTS MASTER
COURSE INFORMATION FORM

Course Title	Sports Biomechanics								
Course Code	BSÖ587		Couse Level		Second Cycle (Master's Degree)				
ECTS Credit	7	Workload	176 *(Hours)*	Theory	3	Practice	0	Laboratory	0
Objectives of the Course	The purpose of this course is to describe the application areas of the sports biomechanics , to describe the movements within the physical rules, to observe the internal and external forces in different sports and in different environment (air and water), the properties of the locomotor movements. Teaching these skills and knowledge in principle.								
Course Content	Description of sport biomechanics.Analyses of kinetic and kinematic, evaluation of the application areas of kinesiology								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Experiment, Individual Study								
Name of Lecturer(s)									

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading	
1	İnal H. S.: Spor Biyomekaniği, Temel Prensipler. Nobel Yayın Dağıtım, 2004.
2	Muratlı S.,Uzel T.: Spor Biyomekaniği.Bağırgan Yayınevi,2000
3	Wells F. K.:Kinesiology. The Scientific Basis of Human Anatomy. 5th Ed. W.B. Saunders Company. London, 1971.
4	Wirhed R.-Athletic Ability and the Anatomy of Motion. Mosby-Wolfe,1996

Week	Weekly Detailed Course Contents	
1	Theoretical	Description of sport biomechanics.Analyses of kinetic and kinematic, evaluation of the application areas of kinesiology
2	Theoretical	Principals of mechanic I
3	Theoretical	Principals of mechanic II
4	Theoretical	The properties of muscle, bone and joints
5	Laboratory	The effects of flexibility and muscle strength to body motion
6	Theoretical	External and internal forces that effect body
7	Theoretical	Linear and angular kinematic ,the application areas
8	Theoretical	Midterm Exam
9	Theoretical	Linear and angular kinetic ,the application areas
10	Theoretical	Tork and application areas
11	Theoretical	The kinetic and kinematic analyses of hit
12	Theoretical	The kinetic and kinematic analyses of throw and catch
13	Theoretical	Liquid mechanic in sports I. The movement of the throw up objects in the air (javelin, disc, frizzbe,ball..etc). Magnus and Bernuolli theory
14	Theoretical	Liquid mechanic in sports II. The movement of the floating objects and moving objects on the water (rowing, canoing, surfing…etc)
15	Theoretical	The kinetic and kinematic analyses of gait and running
16	Theoretical	Final Exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	5	5	140
Individual Work	4	4	4	32
Midterm Examination	1	1	1	2

Final Examination	1	1	1	2
			Total Workload (Hours)	176
			[Total Workload (Hours) / 25*] = **ECTS**	7
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	They apply internal and external power which effect body in Sport Biomechanics
2	They evaluate the application area of linear and angular Kinetics and Kinematics in sport
3	They show the application area of analysis Kinetics and Kinematics
4	They accociate the application area of kinesiology and Sport Biomechanics
5	They evaluate the description of Sport Biomechanics

Programme Outcomes *(Physical Education and Sports Master)*	
1	Uses application and problem solving skills in interdisciplinary studies.
2	Develops basic scientific knowledge and attitude appropriate to body and sport.
3	Interpret the results of test development and measurement for the development of individuals in physical education and sport.
4	Explains the scientific methods in physical education and sports.
5	o follow national and international developments in the field and maintain professional development.
6	Beden eğitimi ve spor örgütlerinin örgüt iklimi ve kültürünü tanımlar.

Contribution of Learning Outcomes to Programme Outcomes *1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High*

	L1	L2	L3	L4	L5
P1	3	3	4	4	3
P2	4	5	4	4	5
P3	3	4	5	5	4
P4	4	4	3	5	4
P5	5	5	5	3	4
P6	3	3	4	4	5