AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Human Genetics								
Course Code	BYL434		Couse Level	First Cycle (Bachelor's Degree)					
ECTS Credit	3	Workload	72 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	After completing this course, students, the structure of human genetic material and chromosomes, genetic diseases, the basis of genetic information, and will learn to be expressed.								
Course Content	The history of human genetics, structure of the human genome structure of human chromosomes, the results of chromosome non-disjunction, classification of genetic diseases, analyze of genetic diseases, according to the principle of Mendelian inherited diseases, pedigree analysis, an autosomal dominant and autosomal recessive inheritance, X-linked dominant and recessive diseases, do not obey Mendelian inheritance of mitochondrial diseases, diseases caused by somatic cells and cancer								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation)								
Name of Lecturer(s)									

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading	
1	Klug, W.S., Cummings, M.K., 2000. Concepts of genetics, Prentice Hall, USA
2	Sudbery, P., 1998. Human molecular genetics, Longman, USA
3	Russell, P. J., 2000. Fundamentals of genetics, Addison Wesley, USA
4	Strachan T, Read AP, 1999, Human Molecular Genetics, Wiley and Sons Press
5	Haines JL, Pericak-Vance, 1998, Approaches to gene mapping and complex human diseases, Wiley-Liss Press
6	Wegner RD, 1999, Diagnostic Cytogenetics, Springer Verlag Press
7	Massimini K ,2000, Genetic Disorders Sourcebook, Omnigraphics Press

Week	Weekly Detailed Course Contents	
1	Theoretical	Principles of human genetics
2	Theoretical	Structure of the human genome
3	Theoretical	Cell division and fertilization
4	Theoretical	Structure of the human chromosome
5	Theoretical	The results of chromosome non-disjunction
6	Theoretical	Classification of genetic diseases
7	Theoretical	Analysis of genetic diseases
8	Theoretical	Chromosomal (cytogenetic) diseases
9	Theoretical	According to the principle of Mendelian inherited single gene disorders
10	Theoretical	Pedigree analysis
11	Theoretical	Autosomal dominant and autosomal recessive inheritance
12	Intermediate Exam	Midterm Exam
13	Theoretical	X-linked dominant and recessive inheritance
14	Theoretical	Multifactorial hereditary diseases
15	Theoretical	Do not comply with the rules of Mendelian diseases due to mutations in mitochondrial DNA
16	Theoretical	Somatic genetic diseases and cancer
17	Final Exam	Final Exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	15	2	2	60
Midterm Examination	1	5	1	6

Final Examination	1	5	1	6
			Total Workload (Hours)	72
			[Total Workload (Hours) / 25*] = **ECTS**	3
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	Students learn the principles of human genetics
2	Students understand the structure of the human genome
3	Students know the cell division and fertilization
4	Students learns the structure of human chromosomes
5	Students can learn what the results of chromosome non-disjunction
6	Students can make the classification of genetic diseases
7	Students can do an analysis of genetic diseases
8	Students learn chromosomal (cytogenetic) diseases
9	Students, learn what is going on according to the principle of inherited single-gene Mendelian diseases
10	Students can do pedigree analysis
11	Students learn the autosomal dominant and autosomal recessive inheritance
12	Students learn the X-linked dominant and recessive inheritance
13	Students can understand who do not comply with the rules of Mendelian diseases related to mutations in mitochondrial DNA
15	Students learn about somatic genetic diseases and the formation of cancer cells

Programme Outcomes *(Turkish Language and Literature)*	
1	The students can combine acquisitions of Turkish Language and Literature program with information belonging to other disciplines,
2	Students can make the scientific study by himself, develop and implement new approaches to solving problems in the field.
3	The students have the background required for understanding historical texts of Turkish, follow recent studies about Turkish Language and Literature
4	Students use communication technologies as required by the Turkish Language and Literature program, share accumulation in the field with society.
5	The student evaluate theoretical and practical knowledge and skills with critical approach.

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

	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13
P1	2		2		1			1		1	1		1
P2		2		1			2		1			1	
P3						1							