Course Name	Code	Half term	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	ECTS
MEDICAL GENETICS	MTP 514	1. semester/Fall	3	0	0	5
Prerequisites	No					
Course language	Turkish					
Course Type	Elective					
Teaching Methods	Interactively, Slide Presentation, If necessary,accessing data sources via internet					
Instructor(s)						
Course objectives	It is expected to gain basis of medical genetics, pedigree analysis, methods that are using in genetic analysis, statistical analysis that have been using in medical genetics, population genetics, mutation rate and selection pressure, consangineous marriages and genetic discordance, linkage disequilibrium, monogenic and polygenic properties, disease menagemenr, chromosomes and chromosome karyotyping, clinical cytogenetics, prenatal diagnosis methods					
Course learning outcomes	1. Will be able to explain numerical and structural chromosome abnormalities, and to make interactions these abnormalities and diseases 2. Will be able to define inheritance modes of the diseases, to discussmolecular biology techniques and their application fields and to interprete genetic diagnosis methods 3. Will be able to get capability of inform the persons according to inheritance modes of the transmitted genes through generations					
Resources	1. Tıbbi Genetik Ders kitabı, Nurettin BAŞARAN. 2. Medikal Genetik İlkeler Bekir Sıtkı ŞAYLI 3. Tıbbi Genetik, Thompson and Thompson					

Weekly Course Topics:

WEEKS	DISCUSSION TOPICS TO BE PROCESSED
1. Week	Whats genetics? What is the contents of the Medical genetics?
2. Week	Structures of DNA and chromosomes
3. Week	Chromatin structure: Content, organization, and protein content
4. Week	Classification of chromosomal abnomalities: Numerical and structural chromosome abnormalities
5. Week	Numerical chromosome abnormalities: classification and mechanisms of formation
6. Week	Meiosis, mitosis, chimerism and mosaicism
7. Week	Structural chromosome abnormalities:Translocations
8. Week	Segregation modes and risks of reciprocal translocations
9. Week	Sex chromosome translocations, segregation modes and risks
10. Week	Robertsonian translocations, segregation modes, and risks
11. Week	Structural chromosome abnormalities, classifications, segregation modes and risks of inversions and ispchromosomes
12. Week	Classifications, segregation modes and risks of ring chromosomes, insersions and deletions
13. Week	X- inactivation and genomic imprinting
14. Week	ISCN nomenculature

Student Workload Table

Activities	**Number**	**Duration**	**Total work load**
Course Duration (X14)	14	3	42
Laboratory			
Practice			
Field Study			
Study Time Of Outside Of Class (Pre-Study, Practice, Etc.)	14	4	56
Presentations (Video shoot/Poster preparation/Oral presentation, Etc.)			
Seminars			
Project			
Case study			
Role playing, Dramatization			
Writing articles, Critique			
Time To Prepare For Midterm Exam	2	10	20
Final Exam Preparation Time	1	7	7
Total Work Load (hour) / 25(s)	**125/25=5**		
ECTS	**5**		

Evaluation System

Semester Work	The number of	Contribution
Midterm Exam	1	40%
Half Year End Exam	1	60%
Laboratory		
Application		
Field Work		
Class-Specific Internship (If Any)		
Assignments		
Presentations and Seminars		
Projects		
Other		
Do your homework		
Application		
Laboratory		
The sum of the grades		100

COURSE LEARNING OUTCOMES AND A RELATIONSHIP WITH PROGRAM QUALIFICATIONS

No.	PROGRAM QUALIFICATIONS			
		LO1	LO2	LO3
1	Degree level qualification at the level of expertise in the field of molecular medicine based on up-to-date information, enhances and deepens.	3	3	3
2	Requires a level of knowledge of the field of molecular medicine technologies, technical equipment and machinery and tools that are specific to the field information	3	3	3
3	Molecular Medicine is having in the field of information integrate with information from different disciplines to create new information, comments, analysis and synthesis by using different research methods and propose solutions.	3	3	3
4	The report of his research the author.	3	3	3
5	Empirical research plans.	3	3	3
6	Molecular Medicine in matters requiring expertise in the field of fiction, propose solutions, and solves the problems, assesses the results obtained when necessary.	3	3	3
7	Molecular Medicine and public health-related priority issues Area scientific clinical and/or descriptive research/presentations/publication.	3	3	3
8	The information related to the field of molecular medicine evaluates and directs the learning a critical approach.	3	3	3
9	Professional development related to the field of molecular medicine and performs studies the principles of life-long learning.	3	3	3
10	Current developments in the field of Molecular Medicine information, and their work in the same field or with groups other than the written, oral and Visual systematically as he discusses and shares.	3	3	3
11	The vocational and professional environment, social relationships, and those relationships are a critical perspective, norms and makes the need to improve them.	3	3	3
12	Collection of data related to the field of molecular medicine, towards restriction, interpretation, announcing social, scientific and ethic values in oversees and teaches these values.	3	3	3
13	The basic unit of society, current developments in the field of Molecular Medicine is to cover the national children and family values, and evaluates in line with the realities of the country.	3	3	3
14	Ethical principles and the importance of the individual and of the community for the Ethics Committee, ethics.	3	3	3
15	Molecular Medicine in the field with strategy, policy and implementation plans and results obtained within the framework of the quality processes.	3	3	3
Contribution to the level of proficiency: 1. Lowest, 2. Low / Medium, 3. Average, 4. High, 5. Excellent				