AYDIN ADNAN MENDERES UNIVERSITY
GRADUATE SCHOOL OF HEALTH SCIENCES
MEDICAL BIOLOGY
MEDICAL BIOLOGY
MEDICAL BIOLOGY MASTER
COURSE INFORMATION FORM

Course Title	Cytogenetics								
Course Code	TIB504		Couse Level	Second Cycle (Master's Degree)					
ECTS Credit	5	Workload	126 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	Basic cytogenetics education								
Course Content	Definition of chromosome, structure of chromatin, course provides a comprehensive approach to the normal human karyotype, chromosome identification methods, numerical and structural abnormalities and their clinical correlates, X-chromosome gene action, chromosomes and cancer, gene mapping, and karyotype evolution.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation)								
Name of Lecturer(s)	Assoc. Prof. Abdullah YALÇIN								

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

Recommended or Required Reading	
1	1. The principles of clinical cytogenetics – Steven Gersen and Martha Keagle – Spr'inger 3rd edition 2013
2	2. Sitogenetik – Mehmet Topaktaş ve Eyyüp Rencüzoğulları – Nobel kitapevi 2. baskı

Week	Weekly Detailed Course Contents	
1	Theoretical	Chromosome concept
2	Theoretical	Chromatin structure
3	Theoretical	Karyotyping and human normal karyotype
4	Theoretical	Advanced techniques for chromosome analysis
5	Theoretical	Advanced techniques for chromosome analysis
6	Theoretical	Chromosome banding
7	Theoretical	Chromosome banding
8	Intermediate Exam	Midterm exam
9	Theoretical	Chromosome analysis and its indications
10	Theoretical	Chromosome analysis and its indications
11	Theoretical	X chromosome
12	Theoretical	Chromosome and cancer
13	Theoretical	Chromosomal abnormalities
14	Theoretical	Clinical outcomes of chromosomal abnormalities
15	Final Exam	Final Exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	13	2	2	52
Midterm Examination	1	35	2	37
Final Examination	1	35	2	37
			Total Workload (Hours)	126
			[Total Workload (Hours) / 25*] = **ECTS**	5
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	1. Explain the basic learning areas

2	
3	3. Learning theory of basic chromosomal analysis methods
4	4. Learning molecular biology concepts
5	

Programme Outcomes *(Medical Biology Master)*	
1	To acquire fundamental knowledge on medical biology field
2	To gain expertise on molecular biology techniques
3	To utilize molecular biology techniques
4	To be able to construct and conduct a research project
5	To be able to follow and interpret scientific advancements

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	5	5	3	5	2
P2	1	1	4	1	2
P3	1	1	5	1	2
P4	1	1	2	1	4
P5	3	4	2	3	5