

Name of the Course	Code	Semester	Theoretical (hour per week)	Practical (hour per week)	Laboratory (hour per week)	ECTS
Cancer Genetics	MTP516	1.2. Semester/Fall	3	0	0	5
Perquisites	None					
Language	Turkish					
Type	Elective					
Teaching Methods	Interactively, Slide Presentation, If necessary, accessing data sources via internet					
Instructor(s)	Prof. Dr. Zafer ÇETİN / Dr. Öğr. Üyesi Elif PALA					
Course objectives	General principles of cancer biology, genetics of normal and malignant cells, control of cell growth, cancer genetics, oncogenesis, cancer treatment					
Course learning outcomes	1. To understand the origin, development and diagnosis of cancer 2. To be able to comprehend oncogenes and tumor suppressor genes 3. To be able to define signal paths 4. To be able to comment on cancer development, angiogenesis, metastasis, tumor immunology, cancer treatment 5. To be able to understand current techniques in diagnosis and treatment					
References	Cancer Biology, Raymond W. Ruddon, 4th Edt., 2007 Biology of Cancer, Robert A. Weinberg, 2006 Hücrenin Moleküler Biyolojisi, TÜBA yayınları (Alberts B. et al. "Molecular Biology of the Cell 4 th edition"), 2008.					

Weekly Syllabus:

WEEKS	Course Subjects
1. Week	Introduction to cancer biology
2. Week	Cell cycle and basic cell kinetics
3. Week	Genetics of normal and malignant cells
4. Week	Control of cell growth
5. Week	Carcinogenesis, causing factors and interaction with DNA repair
6. Week	Cancer onset and development
7. Week	Loss of differentiation, angiogenesis
8. Week	Oncogenesis mechanisms at the cellular level, such as adhesion and metastasis
9. Week	Programmed cell death mechanism
10. Week	Tumor suppressor genes
11. Week	Cancer causing agents: chemical carcinogens, radiation, hormonal imbalance, viruses
12. Week	Cancer and nutrition
13. Week	Cancer treatment, immunotherapy and immunobiology
14. Week	Tumor antigens and cancer vaccines

Student Workload Table

Activities	Number	Period	Total Workload
Lecturing	Sayısı	Süresi	Toplam İş Yüğü
Laboratory	14	3	42
Practice			
Field Dstudy			
Out of Class Study Time (Free study/ Group study/ Preliminary Works)			
Presentation	14	4	56
Seminar Preparation			
Projects			
Case Study			
Article Writing / Criticizing			
Other Applications			
Mid-term Exams	2	10	20
Final Exams	1	7	7
Total Workload (hour) / 25(h)	1		
Course ECTS	125/25=5		

Evaluation System

Yarıyıl İçi Çalışmaları	Sayısı	Katkı Payı
Midterm Exam	1	%50
Half Year End Exam		
Laboratory		
Application		
Field Work		
Class-Specific Internship (If Any)		
Assignments	1	%50
Presentations and Seminars		
Projects		
Other		
Do your homework		%50
Application		%50
Laboratory		%50
The sum of the grades		100

Relation of Learning Outcomes with Program Competences

No	PROGRAM COMPETENCES					
		L01	L02	L03	L04	L05
1	Degree level qualification at the level of expertise in the field of molecular medicine based on up-to-date information, enhances and deepens.	4	3	3	3	2
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	4	5	4
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.	5	4	3	5	5
4	The report of his research the author.	3	2	3	5	5
5	Empirical research plans.	3	4	3	3	2
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	3	3
7	Molecular Medicine and public health-related priority issues Area scientific clinical and/or descriptive research/presentations/publication.	3	3	2	2	2
8	The information related to the field of molecular medicine evaluates and directs the learning a critical approach.	5	4	4	3	4
9	Professional development related to the field of molecular medicine and performs studies the principles of life-long learning.	4	4	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.	2	3	5	2	3
11	The vocational and professional environment, social relationships, and those relationships are a critical perspective, norms and makes the need to improve them.	5	4	3	3	4
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	2	2
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.	5	4	5	5	4
14	Ethical principles and the importance of the individual and of the community for the Ethics Committee, ethics.	4	4	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.	4	2	3	2	2
Contribution to the level of proficiency: 1. Lowest, 2. Low / Medium, 3. Average, 4. High, 5. Excellent						