

COURSE DESCRIPTION FORM																				
Course Code and Name	DHF 5501 Molecular Pathology Techniques																			
Course Semester	9																			
Catalogue Data of the Course (Course Content)	It deals with the basic principles of molecular pathology methods.																			
Course Textbooks	Kumar V, Abbas A.K , Fausto N: Robbins and Cotran Pathologic Basis of Disease, 10th ed., Philadelphia:Elsevier , 2017. Moleküler Genetiğin Esasları, H.ÜMİT LÜLEYAP, 2008																			
Supplementary Textbooks	Oral Pathology; Clinical Pathologic Correlations. Regezi, Sciubba, Jordan. 7th ed, Elsevier, 2017																			
Credit (ECTS)	3																			
Prerequisites for the Course (Attendance Requirements)	DHF 380 Dentistry Basic Pathology . It is mandatory to attend the course.																			
Course Type	Vocational / Technical Compulsory Course																			
Language of Instruction	Turkish																			
Course Objectives	Providing information about molecular biology and pathology methods applied in pathology laboratory.																			
Course Learning Outcomes	1. Describes the relationship between routine pathology and molecular pathology. 2. Recognize the molecular biology and pathology techniques applied in the pathology laboratory.																			
Instruction Method (Face-to-face, Distance education etc.)	Face-to-face lecture, demonstration, question-answer																			
Weekly Schedule of the Course	<ol style="list-style-type: none"> 1. Structure and functions of the cell 2. Nucleic acids, structure and functions 3. DNA replication, protein synthesis 4. Molecular pathology terminology and techniques 5. DNA, RNA and protein extraction and purification in tissue 6. PCR and its types, usage areas in pathology 1 7. PCR and its types, usage areas in pathology 2 8. Electrophoretic methods and blotting 9. Cytogenetics 10. Microarray technology 11. Sequence analysis 12. Mutation and mutagens 13. Tumorigenesis, tumor-associated genes 14. Uses of molecular techniques in dentistry 																			
Teaching Activities (The time spent for the activities listed here will determine the amount of credit required)	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Weekly theoretical course hours</td> <td style="width: 40%; text-align: right;">3 weeks/14 hours</td> </tr> <tr> <td>Weekly practical course hours</td> <td></td> </tr> <tr> <td>Reading activities</td> <td style="text-align: right;">14 weeks/1 hour</td> </tr> <tr> <td>Internet search and library work</td> <td style="text-align: right;">8 weeks/1 hour</td> </tr> <tr> <td>Designing and implementing materials</td> <td></td> </tr> <tr> <td>Making a report</td> <td></td> </tr> <tr> <td>Preparing and making presentations</td> <td></td> </tr> <tr> <td>Midterm and revision for midterm</td> <td style="text-align: right;">1 week/4 hours</td> </tr> <tr> <td>Final exam and revision for final exam</td> <td style="text-align: right;">1 week/7 hours</td> </tr> </table>		Weekly theoretical course hours	3 weeks/14 hours	Weekly practical course hours		Reading activities	14 weeks/1 hour	Internet search and library work	8 weeks/1 hour	Designing and implementing materials		Making a report		Preparing and making presentations		Midterm and revision for midterm	1 week/4 hours	Final exam and revision for final exam	1 week/7 hours
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Assessment Criteria		Number(s)	Weight (%)																	
	Midterm exam	1	60																	
	Assignment																			
	Application																			
	Project																			

	Practice						
	Quiz						
	Final exam	1		40			
	Total	2		100			
Workload of the Course	Activity	Number of Weeks	Duration (Weekly Hour)	End of Semester Total Workload			
	Weekly theoretical course hours	14	3	42			
	Weekly practical course hours						
	Reading activities	14	1	14			
	Internet search and library work	8	1	8			
	Designing and implementing materials						
	Making a report						
	Preparing and making presentations						
	Midterm and revision for midterm	1	4	4			
	Final exam and revision for final exam	1	7	7			
	Total workload			75			
	Total workload/ 25			3,0			
	Course Credit (ECTS)			3			
Contribution Level between Course Outcomes and Program Outcomes	No	Program Outcomes	1	2	3	4	5
	1	Knows the normal structures and functions of the human body, specifically the structures and teeth in the mouth area, on the basis of cells, tissues, organs and systems, and their interactions with each other.					X
	2	Describes the causes and formation mechanisms of oral, dental and jaw diseases, the findings they cause, structural and functional disorders and how they affect the organism.					
	3	Knows, grasps, correlates and evaluates the symptoms and findings in the national core education program of dentistry and Gazi University Faculty of Dentistry Extended Education Program, diseases and conditions and professional practices at a determined level.					
	4	Knows to reach the best up-to-date scientific evidence, evaluate its reliability and validity in line with personal learning needs.					
	5	Knows the legislation on professional legal responsibilities, deontology and ethical principles.					
	6	Knows and performs the professional practices in the national core education program of dentistry and Gazi University Faculty of Dentistry Extended Education Program.					
	7	It conducts diagnosis, treatment and follow-up processes by prioritizing evidence-based practice, critical thinking and ethical principles					
	8	Aware of its limitations, sets personal learning goals to support professional development, directs the patient to the appropriate center when necessary.			X		

	9	Knows the prevalence of diseases in the mouth, teeth and jaws in the society, contributes to prevention and reduction.					
	10	Acts in accordance with the laws, regulations, legislation and ethical principles regarding their duties and responsibilities while independently practicing their profession.					
	11	Has teamwork and leadership skills, and becomes a role model for colleagues and society.					
	12	Plans personal professional development and realizes it with the principle of lifelong learning.			X		
	13	Establishes effective written and verbal communication with patients, their relatives, other healthcare professionals, society, relevant sectors and media.					
	14	Follows the innovations in his profession by using foreign language and information communication technologies.			X		
Lecturer(s) and Contact Information	1. Sibel Elif Gültekin sibelg@gazi.edu.tr 2. Benay Yıldırım benay@gazi.edu.tr 3. Emre Barış emrebaris@gazi.edu.tr 4. Burcu Toközlü bsenguven@gazi.edu.tr						