

Dentistry (English)			
Bachelor	TR-NQF-HE: Level 6	QF-EHEA: First Cycle	EQF-LLL: Level 6

## Course Introduction and Application Information

Course Code:	DENT302		
Course Name:	Dental Anesthesia		
Semester:	Fall		
Course Credits:	<div>ECTS</div> <div>2</div>		
Language of instruction:	English		
Course Condition:			
Does the Course Require Work Experience?:	No		
Type of course:	Compulsory Courses		
Course Level:	<div> <div>Bachelor</div> <div>TR-NQF-HE:6. Master`s Degree</div> <div>QF-EHEA:First Cycle</div> <div>EQF-LLL:6. Master`s Degree</div> </div>		
Mode of Delivery:	Face to face		
Course Coordinator:	Dr. Öğr. Üy. RİZA KEREM DEDEOĞLU		
Course Lecturer(s):	Dr. R. Kerem Dedeoğlu		
Course Assistants:			

## Course Objective and Content

Course Objectives:	The aim of this course is to teach the dental anesthesia application technics, dental anesthesia related complications and basic principles of medical emergency response methods.
Course Content:	This course covers, 1. Introduction and history of anesthesia 2. Toothache and conduction 3. Nerve physiology 4. Mechanism of action of local anesthetics 5. Pharmacokinetics 6. Systemic effects of local anesthetics 7. Vasoconstrictor selection 8. Types of local anesthesia – Ester type

9. Amide type local anesthetics 10 Topical anesthetics 11. Materials used in local anesthesia 12. Local anesthesia techniques 13. Regional Local anesthesia techniques 14. Regional Local anesthesia techniques 15. Regional Local anesthesia techniques 16. Regional Local anesthesia techniques 17. Other anesthesia techniques 18. Local anesthesia in children 19. Local complications 20. Local complications 21. Systemic complications.

## Learning Outcomes

The students who have succeeded in this course;

- 1) Knows about acting mechanisms of local anesthetics
- 2) Knows local anesthesia application techniques
- 3) Can diagnose possible local and systemic complications due to local anesthesia applications and provide early intervention.

## Course Flow Plan

Week	Subject	Related Preparation
1)	Introduction to anesthesia	
2)	Definition of dental pain and transmission mechanism of pain.	
3)	Nerve physiology	
4)	Interaction mechanisms of local anesthetics	
5)	Pharmacokinetics	
6)	Systemic effects of local anesthetics	
7)	Vasoconstrictor selection	
8)	Local anesthetic types- ester type-	
9)	Local anesthetic types - amide type-	
10)	Topical anesthetics	
11)	Materials used in local anesthetic applications	
12)	Local anesthesia application technics	
13)	Regional local anesthesia application technics	
15)	Regional local anesthesia application technics	
17)	Regional local anesthesia application technics	
18)	Regional local anesthesia application technics	

19)	Other anesthesia application technics	
20)	Local anesthesia in children	
21)	Local anesthesia related complications	
22)	Local anesthesia related complications	
23)	Systemic complications	

## Sources

Course Notes / Textbooks:	Diş hekimliğinde lokal anestezi (Prof.Dr. Hülya Koçak Berberoğlu Prof.Dr. Banu Gürkan Köseoğlu Prof.Dr. Çetin Kasapoğlu)
References:	<p>1. Handbook of Local Anesthesia 6th Edition by Stanley F. Malamed DDS (Author)</p> <p>2. Local Anesthesia for Dental Professionals (2nd Edition) 2nd Edition by Kathy Bassett (Author), Arthur DiMarco (Author), Doreen Naughton (Author)</p>

## Course - Program Learning Outcome Relationship

Course Learning Outcomes	1	2	3
Program Outcomes			
1) Has basic and up-to-date knowledge in the field of dentistry, follows scientific publications, and applies evidence-based data to his/her professional practice.	2	2	2
2) Knows well and effectively uses devices, tools, and materials specific to diagnosis and treatment in the field of dentistry.	2	2	2
3) Evaluates the knowledge in the field of dentistry critically, integrates it with the knowledge of disciplines in the field of health, uses it by analyzing and synthesizing it.			
4) Produces projects related to the field of dentistry, can work with other health disciplines, takes part as a member of the research team and evaluates and reports the results obtained at a scientific level.			
5) Uses information that will contribute to the dentistry profession during practice, takes responsibility, and produces solutions in unforeseen situations.	3	3	3
6) Shares, compares, and exchanges dental knowledge with professional colleagues in social and scientific environments in written, verbal, and visual forms.			
7) Within the framework of social, scientific, and ethical values including patient privacy,			

communicates with patients and their relatives, knows all the characteristics of the patient, and recommends the most appropriate treatment with a patient-centered approach.	1	2	3
8) Follows technological developments, participates in national and international studies, and shares and presents own observations, experiences, and research to further advance dental practices.			
9) By adopting the principle of lifelong learning throughout the dentistry profession, follows current evidence-based dental knowledge and uses it during his professional practice.			
10) During dental practice, in cases such as abuse and addiction, performs the treatment by exhibiting the behaviors required by social ethics and legal rules, and collects and records the relevant data.			
11) Uses basic and current knowledge in the field of dentistry during professional practice for the benefit of society within the framework of national values and country realities.			
12) In natural disasters and emergency cases, takes the protective measures required by the dentistry profession; performs professional practices that benefit patients and society			
13) Generates ideas regarding health policy in dentistry, prioritizes individual and public health, and carries out preventive and therapeutic medical practices within the framework of scientific, ethical, and quality processes.			
14) Differentiates the signs and symptoms commonly encountered in the dentistry profession, makes a treatment plan and refers when necessary, and manages diseases and clinical situations regarding their urgency and patient priority.	3	3	3
15) Can assume the leadership responsibility of the team he/she works for, manage it following scientific criteria, and support the professional development of the team.			

### Course - Learning Outcome Relationship

No Effect	1 Lowest	2 Average	3 Highest

	Program Outcomes	Level of Contribution
1)	Has basic and up-to-date knowledge in the field of dentistry, follows scientific publications, and applies evidence-based data to his/her professional practice.	3
2)	Knows well and effectively uses devices, tools, and materials specific to diagnosis and treatment in the field of dentistry.	3
3)	Evaluates the knowledge in the field of dentistry critically, integrates it with the knowledge	3

	of disciplines in the field of health, uses it by analyzing and synthesizing it.	
4)	Produces projects related to the field of dentistry, can work with other health disciplines, takes part as a member of the research team and evaluates and reports the results obtained at a scientific level.	3
5)	Uses information that will contribute to the dentistry profession during practice, takes responsibility, and produces solutions in unforeseen situations.	3
6)	Shares, compares, and exchanges dental knowledge with professional colleagues in social and scientific environments in written, verbal, and visual forms.	3
7)	Within the framework of social, scientific, and ethical values including patient privacy, communicates with patients and their relatives, knows all the characteristics of the patient, and recommends the most appropriate treatment with a patient-centered approach.	3
8)	Follows technological developments, participates in national and international studies, and shares and presents own observations, experiences, and research to further advance dental practices.	3
9)	By adopting the principle of lifelong learning throughout the dentistry profession, follows current evidence-based dental knowledge and uses it during his professional practice.	3
10)	During dental practice, in cases such as abuse and addiction, performs the treatment by exhibiting the behaviors required by social ethics and legal rules, and collects and records the relevant data.	3
11)	Uses basic and current knowledge in the field of dentistry during professional practice for the benefit of society within the framework of national values and country realities.	3
12)	In natural disasters and emergency cases, takes the protective measures required by the dentistry profession; performs professional practices that benefit patients and society	3
13)	Generates ideas regarding health policy in dentistry, prioritizes individual and public health, and carries out preventive and therapeutic medical practices within the framework of scientific, ethical, and quality processes.	3
14)	Differentiates the signs and symptoms commonly encountered in the dentistry profession, makes a treatment plan and refers when necessary, and manages diseases and clinical situations regarding their urgency and patient priority.	3
15)	Can assume the leadership responsibility of the team he/she works for, manage it following scientific criteria, and support the professional development of the team.	3

## Assessment & Grading

Semester Requirements	Number of Activities	Level of Contribution

Midterms	1	% 40
Final	1	% 60
<b>total</b>		<b>% 100</b>
PERCENTAGE OF SEMESTER WORK		% 40
PERCENTAGE OF FINAL WORK		% 60
<b>total</b>		<b>% 100</b>

### Workload and ECTS Credit Calculation

Activities	Number of Activities	Preparation for the Activity	Spent for the Activity Itself	Completing the Activity Requirements	Workload
Course Hours	28	1	1		56
Midterms	1	6	1		7
Final	1	6	1		7
<b>Total Workload</b>					<b>70</b>