

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

Course Introduction and Application Information

Course Code:	UNI197		
Course Name:	Toxic Substances in Nutrients		
Semester:	Spring		
Course Credits:	<div>ECTS</div> <div>5</div>		
Language of instruction:	Turkish		
Course Condition:			
Does the Course Require Work Experience?:	No		
Type of course:	University Elective		
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:	E-Learning		
Course Coordinator:	Dr. Öğr. Üy. BUKET ÇETİNER		
Course Lecturer(s):	Doctoral Lecturer Buket ÇETİNER		
Course Assistants:			

Course Objective and Content

Course Objectives:	To provide information about basic concepts of food safety and food additives. Providing information on toxicity assessments of chemicals To provide information about toxic substances formed in foods and toxic substances formed from external sources and their effects. To provide information about food allergies.
Course	Food safety, food additives, toxicity assessments of chemicals, classification, identification and

Learning Outcomes

The students who have succeeded in this course;

- 1) Learn about the food safety
- 2) She/He has information about natural contaminants.
- 3) She/He has information about pesticides and their effects.
- 4) She/He has information heavy metals and their effects.
- 5) She/He has information about food allergy.
- 6) Have knowledge about additives
- 7) She/He has information about toxic substances in foods and their effects
- 8) Have knowledge about toxicity assessments of chemicals.

Course Flow Plan

Week	Subject	Related Preparation
1)	General Information About the Course, Food Safety Introduction	
2)	Food Safety and General Concepts	
3)	Food Additives	
4)	Toxicology – Toxicity Testing of Chemicals	
5)	Classification and Definitions of Toxic Substances in Foods	
6)	Toxic Substances Naturally Found in Foods – Natural Food Toxins (Plant-derived Toxins, Fungal Toxins, Animal-derived Toxins)	
7)	Toxic Substances Naturally Found in Foods – Microbial Toxins (Mycotoxins, Bacterial Toxins)	
8)	Mid term exam	
9)	Toxic Substances Contaminated in Foods During Food Processing and Consumption Chemical Pollutants Environmental Pollutants	
10)	Environmental Pollutants Pesticide Residues (Agricultural Drugs)	
11)	Veterinary Drug Residues Pollutants Transferred from Packaging Materials to Food Detergent/Disinfectant Residues	
12)	Pollutants Formed During Cooking Process (PAH-HA-Acrylamide-N-Nitroso Compounds)	

13)	Detection of Harmful Substances Limitations of Toxic Substances in Foods	
14)	Food Allergy - Intolerans	
15)	Final Exam	

Sources

Course Notes / Textbooks:	o Dersin öğretim üyesinin notları - Lecturer's notes.
References:	o Karakaya, A.E., Kimyasaldan Gıdaya Doz ve Risk: Uzun ve Sağlıklı Bir Yaşam Gerçekleşmeyen Risklerden Artakalandır, The Kitap Yayınları, 2019. o Ayaz, A., Yurttagül, M., Besinlerdeki Toksik Öğeler I-II, Sağlık Bakanlığı Yayın No: 727, 2008.

Course - Program Learning Outcome Relationship

Course Learning Outcomes	1	2	3	4	5	6	7	8
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) Knows well and effectively uses devices, tools, and materials specific to diagnosis and treatment in the field of dentistry.								
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.								
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 Course Learning Outcomes recommends the most appropriate treatment with a patient-centered approach.	1	2	3	4	5	6	7	8
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.								
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
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		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.	
2)	Knows well and effectively uses devices, tools, and materials specific to diagnosis and treatment in the field of dentistry.	
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.	
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.	
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.	
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	situations regarding their urgency and patient priority.	
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.	

Assessment & Grading

Semester Requirements	Number of Activities	Level of Contribution
Midterms	1	% 40
Final	1	% 60
total		% 100
PERCENTAGE OF SEMESTER WORK		% 40
PERCENTAGE OF FINAL WORK		% 60
total		% 100

Workload and ECTS Credit Calculation

Activities	Number of Activities	Workload
Course Hours	15	28
Field Work	13	27
Study Hours Out of Class	13	46
Presentations / Seminar	4	8
Homework Assignments	2	4
Quizzes	2	2
Midterms	1	1
Final	1	1
Total Workload		117