AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Toxicology								
Course Code	TL301		Couse Level		Short Cycle (Associate's Degree)				
ECTS Credit	3	Workload	75 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	Toxin, toxicity, Majorclasses of environmental contaminants. Uptake, biotransformation, detoxification, elimination and accumulation of toxicants. To give the necessary information on hygiene and working environment								
Course Content	Toxic substances in the body in, distribution, biotransformation and excretion, effect of poisonsshapes, lead, mercury, arsenic, antimony, cadmium, barium, etc.,and metal salts, carbonmonoxide, hidrojen siyanür, sulfurhydrogen, phosgenegases, etc., hydrocarbons, halogenatedaliphatichydrocarbons, aromatic hydrocarbons , aliphatic aromatic amines, alcohols, esters, aminesandorganicsulfurcompounds, toxicity, effecttypes, and hygienic conditions.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion, Case Study, Individual Study								
Name of Lecturer(s)									

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

Recommended or Required Reading	
1	Toksikoloji ,Prof.Dr.Nevin VURAL,Ankara Universitesi Eczacilik Fakültesi Yayınları No: 73, 2005

Week	Weekly Detailed Course Contents	
1	Theoretical	Definition and History of toxicology, toxicology,General Concepts, Place of Toxicology in Environmental Engineering
2	Theoretical	Classification of toxic substances according to Chemical Structure
3	Theoretical	The ROUTE of toxic substances to live organisms
4	Theoretical	Assesment of toxic impact
5	Theoretical	Mutagen and Teratogen substances, chemical karsinogens
6	Theoretical	Chemical substances in the surrounding abiotic and contaminants
7	Theoretical	Effect of metal contaminants
8	Theoretical	Gas and particulate contaminants in air
9	Theoretical	The toxic effect of organic solvents
10	Theoretical	Pesticides and soil pollutants
11	Theoretical	Behavior of Pesticides in the surrounding of Biotic and abiotic
12	Theoretical	Radiation and Toxicology of radioactive isotopes
13	Theoretical	İmportant toxic substances in used industry
14	Theoretical	İmportant toxic substances in used industry

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	14	0	3	42
Midterm Examination	1	1	2	3
Final Examination	1	0	2	2
			Total Workload (Hours)	75
			[Total Workload (Hours) / 25*] = **ECTS**	3
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	1.Define Venom and poison, the active ingredient and the sources of leadpoisoning, diagnostic and the rapeutic approachescomments.
2	2.Define toxic Substances to explain theissue of ways to access the live organism
3	3.Define Toxic mode of action
4	4.Recognize the effects of metallic pollutants.
5	Recognize the effects of gaspollutants in theair.
6	Recognize the effects of dust in theairpollutants
7	Recognizes the toxic effects of organic solvents.
8	List importantissue of toxic substances used in industry reviews.

Programme Outcomes *(Environmental Health)*	
1	They have the appropriate level of knowledge about the basic sciences which has an interaction with the environment and the environment itself.
2	They have gained the basic concepts, skills and qualifications in the Environmental health theorical and practical lessons. And then they can establish the connections that are necessary to protect the environment and people's health in the light of these competencies.
3	They can use the approaches and the information of basic and applied research in different disciplines. They can follow the innovations and developments in their field, and have self-development competency with the terms of the day.
4	They know and apply the analysis methods used in the evaluation of environmental factors (drinking water, waste water treatment, air pollution, meteorological data, land values, food control, radiation measurement, etc.).
5	They have a professional and ethical consciousness, and have the ability to recognize the environmental problems and also can formulate a solution to these problems. They apply the gained knowledges and skills faced in real life situations, transfers the knowledge to individuals around, and wins the life-long learning behavior.
6	They are able to use their professional knowledge in their lives and behave sensitively toward the local and global environmental problems and effectively uses to the legislation and management tools the necessary for the solution.
7	Gained the ability to adapt the changing in a positive way themselves, to understand the core values and cultures of the society which are living. Sensitive to the universal and the social values, interests of the country, have adopted the concept of sustainable development, environmentally conscious, productive, behaves aware of the ethical and professional responsibility.
8	Provides a healthy interact of individual, society and the environment and take responsibility in the necessary situations for the continuity.
9	They gain the ecologically-based solving skills the problems and the delays that may arise in interaction with each other of living and nonliving environment. Interests of local and national, and Ecological and historical values of our country, and contribute to the protection and the development of them.
10	Exhibits the appropriate behaviours for the protection and the development of plants, animals, and inanimate environment, and the especially human health.
11	Knows the value of energy for life, recognizes the types of energy, and have conscious of the importance, using and dissemination of renewable energy sources.
12	Knows the properties of information and communication technologies, and uses them in the process efficiently and professionally.
13	They aware of the democracy, rule of law, human rights, the national and universal cultural characteristics, and sensitive towards to the nature, society and people.
14	Knows the importance of Ataturk’s principles and reforms, make them a way of life.
15	Uses effectively the Turkish in speaking and writing.
16	Has at least one foreign language ability to be able to follow the knowledge in their profession and to communicate with colleagues.
17	To have the appropriate knowledge of medical sciences at the level of interest, to use specific medical terms and terminology of field

Contribution of Learning Outcomes to Programme Outcomes *1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High*

	L1	L2	L3	L4	L5	L6	L7	L8
P1	5	5	5	5	5	4	4	4
P2	5	5	5	5			5	5
P4	3	3	3	3	3	5	5	5
P6	4	4	4	4				
P7	4	4	4	4	4	4	4	4
P8	5	5	5	5	5	5	5	5
P9	5	5	5	5	5	5	5	5
P10	4	4	4	4	4	4	4	5
P11	5	5	5	5	5	5	5	5