



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Radioactive Substances							
Course Code		VFT692		Course Level		Third Cycle (Doctorate Degree)			
ECTS Credit	4	Workload	98 (Hours)	Theory	1	Practice	0	Laboratory	0
Objectives of the Course		Radiation units and forms of action radioactive substances, toxic effects, and to provide information about the resources							
Course Content		Radiation units and forms of action radyoetkin substances, toxic effects, and resources							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Experiment, Demonstration, Discussion, Individual Study, Problem Solving					
Name of Lecturer(s)									

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading

1	Hodgson, E (2010) A textbook of modern toxicology, 4 th Edition, John Wiley and Sons, Inc., Hoboken, Canada.
2	Hayes, WA (2007) Prenciples and Methods of Toxicology, 5th Edition, Taylor and Francis, London
3	Klaassen, C. (2008) Casarett & Doull's Toxicology: The Basic Science of Poisons, 7th Edition, McGraw-Hill Companies, USA.

Week	Weekly Detailed Course Contents	
1	Theoretical	The effect of radiation and animal health
2	Theoretical	Radio active substances and their classification
3	Theoretical	Radiation sources
4	Theoretical	Types of radiation
5	Theoretical	Biological activity
6	Theoretical	Radiation toxicity
7	Theoretical	Mode of action of radiation
8	Intermediate Exam	Mid-term exam
9	Theoretical	Radio active substances in food toxicology
10	Theoretical	Radioactive sources in food
11	Theoretical	Radiation and substances that may be radyioactive
12	Theoretical	Protection from radiation
13	Theoretical	Treatment of radiation poisoning-1
14	Theoretical	Treatment of radiation poisoning-2
15	Theoretical	Discussion
16	Final Exam	Final

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	1	42
Assignment	8	2	1	24
Individual Work	5	2	1	15
Midterm Examination	1	5	1	6
Final Examination	1	10	1	11
Total Workload (Hours)				98
[Total Workload (Hours) / 25*] = ECTS				4

*25 hour workload is accepted as 1 ECTS



Learning Outcomes

1	Learns radioactive effects and forms of materials.
2	To obtain effects of radioactive substances in living organism
3	To obtain measures when exposure of radioactive substances
4	To learn knowledge and propose suggestions on the area
5	To find out and use resources about the profession in the area.

Programme Outcomes (*Pharmacology and Toxicology (Veterinary Medicine) Doctorate*)

1	Gains expert knowledge on field of pharmacology and toxicology in veterinary medicine and, gains expert knowledge on interdisciplinary interaction in pharmacology and toxicology
2	To be equipped with the knowledge to develop original ideas about necessary issues in the field by using of both graduate and expertise levels knowledge, to be able to develop original definitions, products and diagnostic procedures, etc. via deepening and questioning these knowledge.
3	Develops and uses strategies in his/her field of expertise in PhD Program of Pharmacology and Toxicology
4	Reviews, evaluates and interprets any data (field observations, available scientific information etc.) towards a specific purpose.
5	Gains expert knowledge on the function and basic pharmacological features of pharmacology and sub-branches of science, relationship between the drug and poison, pharmacokinetic, effects of the drugs, the dose-intensity and dose-effect relationship.
6	Gains expert knowledge on the function and basic toxicological features of poison, classifications and types of poisoning, toxicokinetic, general principles of treatment of poisoning.
7	Can offer training to technical staff who will work in pharmacology and toxicology laboratory
8	Reach to competence to prepare courses at the undergraduate level
9	Determines and uses laboratory equipment and consumables in a pharmacology and toxicology laboratory.
10	To be able to plan an interdisciplinary project and build team for the known or new defined problems and to manage and complete such a project when necessary.
11	To share his/her knowledge in the field with others by attending at field-related or other congresses, panels, symposiums, workshops, seminars, article discussions and problem solving sessions, etc., and to contribute to the solution in the team by establishing relations with the experts in different fields.
12	To contribute the scientific knowledge in the field via publications in national and international peer-reviewed scientific journals.
13	Takes roles in vocational organizations and institution.
14	Forms ideas to solve complex problems using theoretical and practical information gained throughout the pharmacology and toxicology education.
15	To adopt lifelong learning as a principle and acknowledge that the information gained through research is the most valuable gain.
16	Knows and protects rights of ideas and industrial property (patent right)

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

	L1	L2	L3	L4	L5
P1	4	5	5		
P2					5
P3				5	4
P4				5	
P5		5	5		
P8	4	4	4		
P11				5	
P12					5
P14		3	4	5	

