

## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

| Course Title   | Volatil Poisons | s and Analysis | ;                |                 |                                |                               |                     |                      |        |
|--|-----------------|----------------|------------------|-----------------|--------------------------------|-------------------------------|---------------------|----------------------|--------|
| Course Code  | VFT545          |                | Couse Level      |                 | Second Cycle (Master's Degree) |                               |                     |                      |        |
| ECTS Credit 4  | Workload        | 100 (Hours)    | Theory           | ,               | 1                              | Practice                      | 2                   | Laboratory           | 0      |
| Objectives of the Course To be informed about volatile poisons, volatile poisons diagnosis and characteristics, methods of extraction and analysis applications in biological environments |                 |                |                  |                 | f                              |                               |                     |                      |        |
| Course Content Volatile poisons, volatile pois techniques are examined   |                 | sons di        | agnos            | sis and cha     | racteristics, e                | xtraction me                  | thods and analysis  |                      |        |
| Work Placement   | N/A             |                |                  |                 |                                |                               |                     |                      |        |
| Planned Learning Activities and Teaching Methods   |                 |                | Explar<br>Study, | ation<br>Indivi | (Presentat<br>dual Study       | ion), Experim<br>, Problem So | ent, Demons<br>ving | stration, Discussion | , Case |
| Name of Lecturer(s)  |                 |                |                  |                 |                                |                               |                     |                      |        |

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

| Reco | mmended or Required Reading  |
|------|--|
| 1    | Veteriner Hekimliğinde Toksikoloji, Prof. Dr. Sezai KAYA, Prof. Dr. İbrahim PİRİNÇCİ, Prof. Dr. Ayhan ÜNSAL, Prof. Dr. Ali BİLGİLİ, Prof. Dr. Ferda AKAR, Prof. Dr. Abdullah DOĞAN, Doç. Dr. Ender YARSAN; Medisan Yayınevi, 2002. |
| 2    | Zehirli Maddelerin Laboratuar Analizi, Prof. Dr. Sezai KAYA; Medisan Yayınevi, 2006.   |
| 3    | Laboratuvar Testleri Klinik Klavuzu, Alan H. B. WU; Güneş Tıp Kitabevi, 2011   |
| 4    | Toksikoloji, Prof. Dr. Nevin VURAL; Ankara Üniversitesi Basımevi, 2005   |
| 5    | Principles and Methods of Toxicology, A. Wallace HAYES, Edward BROTHERS; Ann Arbor Press, 2001   |
| 6    | Modern Toxicology, Ernest HODGSON, Patricia E. LEVI; Elsevier, London,   |
| 7    | Principles of Biochemical Toxicology, 3rd Edition, John TIMBRELL; Taylor & Francis Group Press, London, 2000   |
| 8    | Handbook of Experimental Pharmacology – 199; Comparative and Veterinary Pharmacology, Fiona CUNNINGHAM, Jonathan ELLIOTT, Peter LEES (Editors); Springer Press, 2009   |

| Week | <b>Weekly Detailed Cour</b> | se Contents   |
|------|-----------------------------|---|
| 1    | Theoretical                 | Volatile material selection poisons                                     |
|      | Practice                    | The purchase of essential laboratory practices zehirlenmalerde material |
| 2    | Theoretical                 | Sampling and the importance of volatile poisons                         |
|      | Practice                    | Uptake of volatile material intoxication laboratory practices           |
| 3    | Theoretical                 | Send samples of volatile poisons  |
|      | Practice                    | Volatile sample review of toxicity                                      |
| 4    | Theoretical                 | Volatile reporting of poisonings  |
|      | Practice                    | Volatile toxicity study report  |
| 5    | Theoretical                 | Toxins and methods of separation of volatiles                           |
|      | Practice                    | Volatile sample analysis preparation stages of intoxication             |
| 6    | Theoretical                 | Methods of analysis of volatile poisons                                 |
|      | Practice                    | Volatile analysis of toxicity   |
| 7    | Theoretical                 | Article discussion  |
|      | Practice                    | Paper presentation  |
| 8    | Intermediate Exam           | Midterm exam  |
| 9    | Theoretical                 | Volatile poisons and essential featur                                   |
|      | Practice                    | Determination of alcohol  |
| 10   | Theoretical                 | Volatile poisons and essential features                                 |
|      | Practice                    | Determination of phenol   |
| 11   | Theoretical                 | Volatile poisons and essential features                                 |
|      | Practice                    | Determination of phosphorus and phosphine                               |



| 12 | Theoretical | Volatile poisons and essential features   |
|----|-------------|---|
|    | Practice    | Determination of halogenated hydrocarbons |
| 13 | Theoretical | Volatile poisons and essential features   |
|    | Practice    | Determination of iodic acid               |
| 14 | Theoretical | Volatile poisons and essential features   |
|    | Practice    | Determination of cyanide                  |
| 15 | Theoretical | Article discussion                        |
|    | Practice    | Paper presentation                        |
| 16 | Final Exam  | Final                                     |

| Workload Calculation                    |          |                    |                             |                |
|---|----------|--------------------|-----------------------------|----------------|
| Activity                                | Quantity | Preparation        | Duration                    | Total Workload |
| Lecture - Theory                        | 14       | 1                  | 1                           | 28             |
| Lecture - Practice                      | 15       | 1                  | 2                           | 45             |
| Midterm Examination                     | 1        | 10                 | 2                           | 12             |
| Final Examination                       | 1        | 13                 | 2                           | 15             |
|   |          | То                 | tal Workload (Hours)        | 100            |
|   |          | [Total Workload (I | Hours) / 25*] = <b>ECTS</b> | 4              |
| *25 hour workload is accepted as 1 ECTS |          |                    |                             |                |

| Learn | ing Outcomes  |
|-------|---|
| 1     | To obtain information about the properties of volatile poisons                    |
| 2     | Learn about the methods of extraction and volatile poisons                        |
| 3     | Learn about analysis and evaluation of volatile poisons                           |
| 4     | To find out and use resources about the profession in the area.                   |
| 5     | To give lectures and/or presentations and discuss with professionals in the area. |

| Progr | amme Outcomes (Veterinary Pharmacology and Toxicology Master)  |
|-------|--|
| 1     | to be able to comprehend expert knowledge on field of pharmacology and toxicology in veterinary medicine   |
| 2     | to be able to define expert knowledge on interdisciplinary interaction in pharmacology and toxicology  |
| 3     | to be able to formulate ideas to solve complex problems using theoretical and practical information gained throughout the pharmacology and toxicology education  |
| 4     | to be able to integrate and interpret information in the area of pharmacology and toxicology with information in different fields and, if the need arises, provides scientific information and solutions to solve problems.  |
| 5     | to be able to develop and use strategies in his/her field of expertise in Master's Program of Pharmacology and Toxicology  |
| 6     | to be able to comprehend methods of obtained and submitted scientific knowledge  |
| 7     | to be able to analyse current information related to his/her field of expertise (scientific information, procedures etc.) and use them when necessary.   |
| 8     | to be able to apply technological tools in social relationships of vocational and professional environment.  |
| 9     | to be able to review, evaluate and interpret any data (field observations, available scientific information etc.) towards a specific purpose.  |
| 10    | to be able to comprehend expert knowledge on the function and basic pharmacological features of pharmacology and sub-<br>branches of science, relationship between the drug and poison, pharmacokinetic, effects of the drugs, the dose-intensity and<br>dose-effect relationship. |
| 11    | to be able to identify expert knowledge on the function and basic toxicological features of poison, classifications and types of poisoning, toxicokinetic, general principles of treatment of poisoning.   |
| 12    | to be able to define and use laboratory equipment in a pharmacology and toxicology laboratory.   |

## 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 | 5  | 5  | 5  |    |    |
| P3 |    | 4  |    |    | 5  |
| P4 |    |    | 5  |    | 4  |
| P5 |    |    |    |    | 5  |
| P6 |    | 4  |    | 5  | 5  |
| P7 |    |    |    | 4  |    |
| P8 |    |    | 5  |    | 4  |



| P9  |   |   |   | 5 | 5 |
|-----|---|---|---|---|---|
| P10 |   |   | 5 |   |   |
| P11 | 5 | 5 |   |   |   |
| P12 |   |   | 5 |   |   |

