



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

|                                                  |   |                                                                                                                                                                           |                      |                                                                                          |   |                                |   |            |   |
|--------------------------------------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------------------------------------------------------------------------------|---|--------------------------------|---|------------|---|
| Course Title                                     |   | Examination of the Mammary Glands and Milk                                                                                                                                |                      |                                                                                          |   |                                |   |            |   |
| Course Code                                      |   | VDJ522                                                                                                                                                                    |                      | Course Level                                                                             |   | Second Cycle (Master's Degree) |   |            |   |
| ECTS Credit                                      | 5 | Workload                                                                                                                                                                  | 125 ( <i>Hours</i> ) | Theory                                                                                   | 2 | Practice                       | 2 | Laboratory | 0 |
| Objectives of the Course                         |   | Explanation of the methods applied today for mamma health in dairy farms                                                                                                  |                      |                                                                                          |   |                                |   |            |   |
| Course Content                                   |   | This course gives information about clinical examination of mamma used as a dignosis for mamma diseases and physical, chemical and laboratory examination methods of milk |                      |                                                                                          |   |                                |   |            |   |
| Work Placement                                   |   | N/A                                                                                                                                                                       |                      |                                                                                          |   |                                |   |            |   |
| Planned Learning Activities and Teaching Methods |   |                                                                                                                                                                           |                      | Explanation (Presentation), Demonstration, Case Study, Individual Study, Problem Solving |   |                                |   |            |   |
| Name of Lecturer(s)                              |   |                                                                                                                                                                           |                      |                                                                                          |   |                                |   |            |   |

### Assessment Methods and Criteria

| Method              | Quantity | Percentage (%) |
|---------------------|----------|----------------|
| Midterm Examination | 1        | 20             |
| Final Examination   | 1        | 60             |
| Assignment          | 4        | 20             |

### Recommended or Required Reading

|   |                                                                                                                                          |
|---|------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Alaçam, E. (2002) Doğum ve İnfertilite, Medisan Yayınları, Ankara.                                                                       |
| 2 | Johnston, S.D., Kustritz, M.V.R., Olson, P.N.S. (2001) Canine and Feline Theriogenoiogy, W.B. Saunders Comp., Philadelphia.              |
| 3 | Noakes, D.E., Parkinson, T.J., England, G.C.W. (2001) Artur's Veterinary Reproduction and Obstetrics, W.B. Saunders Comp., Philadelphia. |
| 4 | Hafez, E.S.E. (1993) Reproduction in Farm Animals, Lea & Febiger, Philadelphia.                                                          |
| 5 | Dinç, D.A. (2008) Ultrason fiziği ve ineklerde reproduktif ultrasonografi, Pozitif Matbaacılık Ltd. Şti, Ankara.                         |
| 6 | Baştan, A. (2007) İneklerde Meme Hastalıkları, Alp Ofset Matbaacılık Ltd. Şti, Ankara                                                    |
| 7 | Dinç, D.A. (1995) Evcil hayvanlarda memenin deri hastalıkları, dolaşım bozuklukları ve operasyonları, Konya                              |

| Week | Weekly Detailed Course Contents |                                                                     |
|------|---------------------------------|---------------------------------------------------------------------|
| 1    | Theoretical                     | Basic principals of control programs of udder health in dairy farms |
|      | Practice                        | Udder anatomy                                                       |
| 2    | Theoretical                     | Udder anatomy                                                       |
|      | Practice                        | Examination of the udder                                            |
| 3    | Theoretical                     | Defence system of the udder                                         |
|      | Practice                        | Examination of the teat                                             |
| 4    | Theoretical                     | The use of appropriate methods of milking                           |
|      | Practice                        | Macroscopic examination of the milk                                 |
| 5    | Theoretical                     | Machine milking                                                     |
|      | Practice                        | Macroscopic examination of the milk                                 |
| 6    | Theoretical                     | Examination of udder                                                |
|      | Practice                        | Diagnostic methods of clinical mastitis                             |
| 7    | Theoretical                     | Examination of the teat                                             |
|      | Practice                        | Microbiological examination                                         |
| 8    | Theoretical                     | Mastitis                                                            |
|      | Practice                        | Microbiological examination                                         |
| 9    | Practice                        | Preparation of CMT solution                                         |
|      | Intermediate Exam               | Intermediate exam                                                   |
| 10   | Theoretical                     | Subclinical mastitis                                                |
|      | Practice                        | Diagnostic methods of subclinical mastitis                          |
| 11   | Theoretical                     | Subclinical mastitis                                                |
|      | Practice                        | Diagnostic methods of subclinical mastitis                          |



|    |             |                                                      |
|----|-------------|------------------------------------------------------|
| 12 | Theoretical | Examination of the milk                              |
|    | Practice    | Anaesthesia of the udder                             |
| 13 | Theoretical | Teat injuries                                        |
|    | Practice    | operations of indoor teat on slaughterhouse material |
| 14 | Theoretical | Udder operations                                     |
|    | Practice    | operations of indoor teat on slaughterhouse material |
| 15 | Theoretical | Protection from the mastitis                         |
|    | Practice    | Udder operations                                     |
| 16 | Final Exam  | Final exam                                           |

### Workload Calculation

| Activity                              | Quantity | Preparation | Duration | Total Workload |
|---------------------------------------|----------|-------------|----------|----------------|
| Lecture - Theory                      | 14       | 0           | 2        | 28             |
| Lecture - Practice                    | 14       | 0           | 2        | 28             |
| Assignment                            | 4        | 0           | 3        | 12             |
| Reading                               | 14       | 0           | 3        | 42             |
| Midterm Examination                   | 1        | 5           | 2        | 7              |
| Final Examination                     | 1        | 6           | 2        | 8              |
| Total Workload (Hours)                |          |             |          | 125            |
| [Total Workload (Hours) / 25*] = ECTS |          |             |          | 5              |

\*25 hour workload is accepted as 1 ECTS

### Learning Outcomes

|   |                                                                                   |
|---|-----------------------------------------------------------------------------------|
| 1 | To be able to comprehend udder anatomy                                            |
| 2 | To be able to determine Hygiene standards which should be applied in dairy farms  |
| 3 | To be able to comprehend protective measures for mastitis that can occur in udder |
| 4 | To be able to learn the examination of milk                                       |
| 5 | To be able to learn about what needs to be done in dry period                     |
| 6 | To be able to learn treatment methods in mastitis                                 |

### Programme Outcomes (Obstetrics and Gynecology (Veterinary Medicine) Master)

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Acquiring basic principles and establishing crucial links in the theory and practical aspects in the field of Obstetrics and Gynecology. Getting grip on the animal's reproductive systems, organs, structures and their functional features.                                                                                                                                                                                                                                                                                                   |
| 2 | Reproductive anatomy of the female animals, embryonic development of the gonads, maturation, cellular and hormonal mechanisms of oogenesis and mechanisms of ovulation and transport of ovum. Sexual cycles of the female animals and their species related differences.                                                                                                                                                                                                                                                                        |
| 3 | Being informed about the fertilisation, early embryonic development, implantation and pregnancy. Fetal development, intrauterine life and detection of risked pregnancies. Learning to deal with the the issues of abortion. Knowing the hormonal and obstetrical aspects of normal parturition. Recognizing dystocia cases and being aware of predisposing and effective etiology of dystocia. Learning the initial approach to dystocia cases and learning to choose the appropriate intervention. Learning to apply the obstetrical methods. |
| 4 | Being informed about the puerperium and postpartum periods, learning the physiology and diagnosis and treatment of pathological conditions (metabolic, infectious and traumatic) during the transition period. Learn the ability to perform intrauterine applications. Acquiring right approaches on handling mother and the offspring in the puerperal period. Learning about the care and diseases of the newborn.                                                                                                                            |
| 5 | Gaining experience about the fertility parameters in the farm animals. Being informed about the diagnosis and therapy of infertility cases and management of them in the herd scale. Learning necessary precautions and management practices for establishing the reproductivity as a branch of herd health. Being informed about the effects of nutrition and management on reproduction.                                                                                                                                                      |
| 6 | Acquiring the knowledge of the hormones and their clinical applications, affecting reproduction directly or indirectly. Learning methods of sexual synchronisation and appropriate timing of insemination or mating. Being able to administer medical and operative contraceptive methods to female animals. Being informed about assisted reproductive techniques.                                                                                                                                                                             |
| 7 | Administering specialized systematic examination of female animals, performing morphologic and functional examination of the female genitalia and mammary glands thus learning the diagnosis of hormonal, infectious, traumatic and tumoral diseases. Gaining skills in surgical therapy or/and elective gynaecological-oncological, udder and teat operations of the related diseases.                                                                                                                                                         |
| 8 | Having knowledge of the etiology, diagnosis and therapy of mastitis. Learning necessary precautions and management practices to control mastitis incidence in farm animals particularly in dairy enterprises. Having knowledge of etiology, diagnosis and therapy of circulatory disorders and infectious and non-infectious skin diseases.                                                                                                                                                                                                     |
| 9 | Being informed about frequently used anesthetic methods and anesthetic agents, analgesics, antibiotics, liquid therapy and other medical agents. Gaining skills in solving problems due to reproductive emergency cases, being able to make definitive diagnosis by clinical symptomatic data and administer appropriate therapy in various animal species.                                                                                                                                                                                     |



|    |                                                                                                                                                                                                                                                                                                         |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10 | Learning methods and principles of scientific research, learn and acquire scientific ethics concept. Being aware of current developments by surveying and analyzing scientific literature. Gaining skills in interpreting classical knowledge of the scientific area to the students and the community. |
| 11 | Being able to plan, conduct and accomplish an original scientific study that can deliver novelty, develop a new scientific method or adopt a known method to a new area and present the results as a scientific article, in the area of obstetrics and gynaecology.                                     |

**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 |
|----|----|----|----|----|----|----|
| P1 | 5  | 5  | 5  | 4  | 5  | 4  |
| P8 |    | 5  | 5  | 4  |    | 3  |

