

## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

| Course Title Gametogenesis                           |   |  |             |             |              |                                |                 |              |                      |       |
|--|---|--|-------------|-------------|--------------|--------------------------------|-----------------|--------------|----------------------|-------|
| Course Title   |   | Gametogenesis  |             |             |              |                                |                 |              |                      |       |
| Course Code  |   | VST502   |             | Couse Level |              | Second Cycle (Master's Degree) |                 |              |                      |       |
| ECTS Credit  | 4 | Workload   | 101 (Hours) | Theory      | /            | 2                              | Practice        | 0            | Laboratory           | 0     |
| Objectives of the Course                             |   | To give information about producing of male and female gametes, the precess of transmission of gametes in male and female genital tract, factors effecting gametogenesis |             |             |              |                                |                 |              |                      |       |
| Course Content                                       |   | Spermatogenesis, oogenesis, transr<br>meiosis in gametes   |             |             | smiss        | sion of game                   | etes in male ar | nd female ge | nital tracts, mitosi | s and |
| Work Placement                                       |   | N/A  |             |             |              |                                |                 |              |                      |       |
| Planned Learning Activities and Teaching Methods Exp |   |  | Explar      | natior      | n (Presentat | ion), Individua                | l Study         |              |                      |       |
| Name of Lecturer(s)                                  |   | Prof. Ahmet CEYLAN, Prof. İlker SE   |             |             | ERİN         |                                |                 |              |                      |       |

| Assessment Methods and Criteria |          |                |  |  |  |  |
|---------------------------------|----------|----------------|--|--|--|--|
| Method                          | Quantity | Percentage (%) |  |  |  |  |
| Midterm Examination             | 1        | 20             |  |  |  |  |
| Final Examination               | 1        | 60             |  |  |  |  |
| Assignment                      | 3        | 20             |  |  |  |  |

| Recommended or Required Reading |  |  |  |  |  |
|---------------------------------|--|--|--|--|--|
| 1                               | Alaçam E.: Evcil Hayvanlarda Reprodüksiyon, Suni Tohumlama, Doğum ve İnfertilite. First Edition,Konya,1994         |  |  |  |  |
| 2                               | Hafez E.S E., Hafez B. (2000) Reproduction in Farm Animals. Lippincott Williams & Wilkins, Philadelphia            |  |  |  |  |
| 3                               | Feldman E. C., Nelson R. W. (2004) Canine and Feline Endocrinology and Reproduction. Saunders, St. Louis           |  |  |  |  |
| 4                               | Pineda M. H., Dooley M. P. (2003) McDonald's Veterinary Endocrinology and Reproduction, Iowa State Press, New York |  |  |  |  |

| Week | <b>Weekly Detailed Cour</b> | se Contents   |  |  |  |
|------|-----------------------------|---|--|--|--|
| 1    | Theoretical                 | Physiology of gametes in embryonic and fetal term   |  |  |  |
| 2    | Theoretical                 | Mitosis and meiosis                                 |  |  |  |
| 3    | Theoretical                 | Anatomy and histology of testis                     |  |  |  |
| 4    | Theoretical                 | Endocrine mechanism of spermatogenesis              |  |  |  |
| 5    | Theoretical                 | Spermiositogenesis                                  |  |  |  |
| 6    | Theoretical                 | Spermatogenesis                                     |  |  |  |
| 7    | Theoretical                 | Transmission of sperm in genital tract              |  |  |  |
| 8    | Intermediate Exam           | Midterm exam  |  |  |  |
| 9    | Theoretical                 | Anatomy and histology of ovaries                    |  |  |  |
| 10   | Theoretical                 | Oogenesis and Endocrine mechanism of oogenesis      |  |  |  |
| 11   | Theoretical                 | Folliculogenesis                                    |  |  |  |
| 12   | Theoretical                 | Failures in oogenesis and folliculogenesis          |  |  |  |
| 13   | Theoretical                 | Endocrine control of oogenesis and folliculogenesis |  |  |  |
| 14   | Theoretical                 | Fertilization                                       |  |  |  |
| 15   | Theoretical                 | zygote  |  |  |  |
| 16   | Final Exam                  | Final term exam                                     |  |  |  |

| Workload Calculation |          |             |          |                |
|----------------------|----------|-------------|----------|----------------|
| Activity             | Quantity | Preparation | Duration | Total Workload |
| Lecture - Theory     | 14       | 0           | 2        | 28             |
| Assignment           | 1        | 0           | 10       | 10             |
| Reading              | 14       | 0           | 2        | 28             |
| Midterm Examination  | 1        | 14          | 1        | 15             |



| Final Examination                       | 1 |  | 18                | 2                           | 20  |  |
|---|---|--|-------------------|-----------------------------|-----|--|
|   |   |  | To                | tal Workload (Hours)        | 101 |  |
|   |   |  | [Total Workload ( | Hours) / 25*] = <b>ECTS</b> | 4   |  |
| *25 hour workload is accepted as 1 ECTS |   |  |                   |                             |     |  |

| Learn | Learning Outcomes  |  |  |  |  |  |  |
|-------|--|--|--|--|--|--|--|
| 1     | to be able to define gametogenesis   |  |  |  |  |  |  |
| 2     | to be able to name the formation of gametes in male and female genital tract, mitosis and meiosis in gametes |  |  |  |  |  |  |
| 3     | to be able to use this knowledge in practise   |  |  |  |  |  |  |
| 4     | Spermatogenesis, oogenesis, transport of gametes in genital tract  |  |  |  |  |  |  |
| 5     | Hormonal control of gametogenesis.   |  |  |  |  |  |  |

| Progr | amme Outcomes (Reproduction and Artificial Insemination (Veterinary Medicine) Master)   |  |  |  |  |  |
|-------|---|--|--|--|--|--|
| 1     | To get knowledge about Reproduction and Artificial Insemination with theoretical lessons and practise   |  |  |  |  |  |
| 2     | To get knowledge about reproductive systems of animals, reproductive organs and functions of these organs   |  |  |  |  |  |
| 3     | To get knowledge about reproductive physiology of male and female animals, reproductive endocrinology, synchronisations and reproductive health   |  |  |  |  |  |
| 4     | To get experience about diagnosis of oestrus, proper insemination time and method   |  |  |  |  |  |
| 5     | To get experience to join reproductive scientific research, to follow scientific advances own field. To transfer all these experiences and knowledge to students and society  |  |  |  |  |  |
| 6     | To gain ability to reach scientific references, to plan an experiment, study this experiment, evaluation of experimental results and compare this result similar experimental result                                |  |  |  |  |  |
| 7     | To get experience about cryopreservation and short term storage of sperm, examination of sperm  |  |  |  |  |  |
| 8     | To get knowledge about reproductive biotechnology (artificial insemination, in-vitro fertilisation, freezing of sperm and embryo, embryo transfer, laparoscopic insemination). To Contribute and advance to science |  |  |  |  |  |
| 9     | To get knowledge about infertility, diagnosis of infertility, treatment of infertility in domestic animals especially commercial farms  |  |  |  |  |  |

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

|    | L1 | L2 | L3 |
|----|----|----|----|
| P1 | 5  | 5  | 2  |
| P2 | 5  | 4  | 3  |
| P3 | 4  | 4  | 4  |
| P4 | 3  | 2  | 3  |
| P5 | 3  | 2  | 4  |
| P6 | 2  | 4  | 4  |
| P8 | 4  | 3  | 3  |
|    |    |    |    |

