

## A04 Livestock reproduction physiology

|                        |  |              |           |             |          |             |              |             |
|------------------------|--|--------------|-----------|-------------|----------|-------------|--------------|-------------|
| <b>Module</b>          | <b>Livestock reproduction physiology</b>   |              |           |             |          |             |              |             |
| <b>Code</b>            | <b>A04</b>   |              |           |             |          |             |              |             |
| Coordinator            | Prof. Dr. C. Knorr   |              |           |             |          |             |              |             |
| Language               | English  |              |           |             |          |             |              |             |
| Stud. Workload         | 180 h (56 h contact time)  |              |           |             |          |             |              |             |
| Credits                | 6 ECTS   |              |           |             |          |             |              |             |
| Frequency (WS/SS)      | SS   |              |           |             |          |             |              |             |
| Instructors            | Prof. Dr. C. Knorr, Prof. Dr. Dr. M. Gauly   |              |           |             |          |             |              |             |
| Contents               | Functional anatomy of reproduction; physiology of reproduction in livestock (hormones, growth factors, ovigenesis and fertilization, spermatogenesis, reproductive cycles, mating behaviour, fertilization, gestation, prenatal physiology, parturition, postpartum recovery, lactation); assisted reproductive technologies (artificial insemination, pregnancy diagnosis, preservation of embryos, embryo transfer, in vitro fertilization, sexing, cloning, transgenics); stem cells; ethics. |              |           |             |          |             |              |             |
| Objectives             | Strong foundation in reproduction physiology; develop creative potential and foster independent thought; skills enabling students to gather and integrate information to solve problems; effective communication skills; self learners; awareness of global issues driving changes in livestock sciences.  |              |           |             |          |             |              |             |
| Literature             | Hafez B., Hafez, E.S.E. 2000: Reproduction in Farm Animals 7th ed. Lippincott Williams & Wilkins Publishing; Bearden, H.J., Fuquay, J.W., Willard, S.T. 2004: Applied Animal Reproduction, 6th ed. Pearson Prentice Hall Publishing; Squires, E.J. 2003: Applied Animal Endocrinology 1st ed. CABI Publishing; Pineda, M.H., Dooley, M.P. 2003: Mc Donald's Veterinary Endocrinology and Reproduction 5th ed. Blackwell Publishing.  |              |           |             |          |             |              |             |
| Study system usability | Economy  |              | Organic   |             | Tropical |             |              |             |
|                        | -  |              | E         |             | M        |             |              |             |
| Entrance requirements  | Basic knowledge of animal sciences   |              |           |             |          |             |              |             |
| Instruction type       | Lecture  | Seminar      | Excursion | Practice    | Tutorial | Project     |              |             |
| Duration [contact h]   | 40   |              | 8         | 8           |          |             |              |             |
| Examination type       | Oral test  | Written test | Homework  | Sem. speech | Protocol | Work report | Proj. report | Proj. pres. |
|                        |  | x            |           |             |          |             |              |             |
| Grade composition      | 100% written test  |              |           |             |          |             |              |             |