
Course title: BIOTECHNICS IN HORSE REPRODUCTION

ECTS credit allocation (and other scores): 1,5

Semester: autumn

Level of study: ISCED-7- long-cycle programmes (EQF-7)

Branch of science: Agricultural sciences

Language: English

Number of hours per semester: 15

Course coordinator/ Department and e-mail: Andrzej Raś / andrzej.ras@uwm.edu.pl

Type of classes: classes and lectures

Substantive content

CLASSES: Exercises are conducted in the stud, on mares, which are examined clinically and ultrasounded, undergo pharmacological synchronization of heat, hormonal induction of ovulation (hcg and GnRH preparates) and procedure of artificial insemination (AI). Students perform the procedures themselves and examine its effects by ultrasound examination of mares (pregnancy proof).

LECTURES: The lectures introduce students to the knowledge about reproductive processes regulated by biotechnical methods. In horses reproduction AI techniques are used, which could be performed after biotechnical preparation of mare in periovulatory period (synchronization of heat and ovulation, different techniques of insemination). Semen collection and conservation are also discussed as well as kriopreservation and embryo transfer as the methods of the future in horse breeding.

Learning purpose: The aim of the education is to prepare students for the best use of biotechnical methods in the reproduction of horses.

On completion of the study programme the graduate will gain:

Knowledge: Students have theoretical and practical knowledge of physiology of reproduction, biotechnical methods influencing reproduction processes in horses and practical possibilities to use them in order to achieve best results in horse- breeding.

Skills: During lectures and practical classes students acquire the ability to use knowledge, which enables them to perform biotechnical exertions leading to AI, semen collection and preservation. Students master their skills in clinical and sonographical examination of mare reproductive organs.

Social Competencies: Students show initiative in practical activities connected with biotechnics in horse reproduction, update theoretical knowledge of the subject and is conscious of the benefits of biotechnology in the daily work of a veterinary doctor and in the development of horse- breeding

Basic literature: 1) Kosiniak-Kamysz, K., Wierzbowski, S., 2004r., "Rozród koni", wyd. Drukrol w Krakowie, s.11-298,
2) Dietz, O., Huskamp, B., , 2008r., "Praktyka kliniczna: konie", wyd. Wyd. Galaktyka, s.637-713,
3) Tischner, M., Kosiniak-Kamysz, K., , 1996r., "Kierowany rozród koni", wyd. Drukrol w Krakowie, s.1-204

Supplementary literature: 1) Bielański, W., , 1979r., "Rozród zwierząt", wyd. PWRiL Warszawa, s.1-489,

2) Bielański, A., Tischner, M., , 1997r., "Biotechnologia rozrodu zwierząt domowych", wyd. Drukrol w Krakowie, s.1-631.

The allocated number of ECTS points consists of:

Contact hours with an academic teacher: 17

Student's independent work: 20,5