

SYLABUS

Nazwa przedmiotu/ Course title	Recent trends in animal breeding and livestock production
Nazwa jednostki prowadzącej przedmiot/Unit name	National Research Institute of Animal Production
Kierunek studiów/Field of study	Doctoral School of Natural and Agricultural Sciences
Forma studiów/Type of study	Stationary
Rodzaj przedmiotu/ Course type	Compulsory
Rok i semestr studiów/Year and semester	Summer semester 2024/2025
Stopień, imię i nazwisko koordynatora przedmiotu/ Name of co-ordinator	Dr hab. Anna Arczewska-Włosek
Stopień, imię i nazwisko osoby prowadzącej (osób prowadzących) zajęcia z przedmiotu/ Degree, name and surname of person(s) teaching the course	According to the schedule of classes
Forma(y) zajęć, liczba realizowanych godzin/ Type of course, number of hours	Lectures, 8 hours per semester
Cele przedmiotu/Aim of the course	
This course presents the latest research in livestock breeding and production, innovative genetic evaluation methods, the role of nutrition in livestock production, biotechnological advancements in reproduction, and the conservation of native livestock breeds.	
Wymagania wstępne/ Requirements	Basic knowledge in biology at the 2 nd level of the studies.

<p>Efekty kształcenia / Effects of education</p>	<p><u>Wiedza /Knowledge:</u></p> <p>After completing this course, the student will have a comprehensive knowledge of the latest research trends and achievements in livestock breeding and production. The student will comprehend innovative genetic evaluation methods and their application in modern livestock management. Additionally, the student will gain insights into the role of nutrition in optimizing livestock production and acquire knowledge about biotechnological advancements in animal reproduction. The student will recognize the importance of conserving native livestock breeds and their genetic diversity.</p> <p><u>Umiejętności/Skills:</u></p> <p>Knowledge of the environmental risks resulting from various livestock management systems and production specifics. Understanding how to assess animal welfare levels. Knowledge of the basic principles of livestock nutrition, genetic evaluation techniques, molecular biology tools application in animal breeding and production, biotechnological methods in animal reproduction and conservation programs for native livestock breeds.</p> <p><u>Kompetencje społeczne/Attitudes:</u></p> <p>The PhD student will demonstrate awareness of ethical considerations and animal welfare in livestock production. The PhD student understands the importance of protecting the genetic resources of farm animals, and is aware of continuous education and gaining knowledge.</p>
<p>Treści programowe/ Program content</p>	
<p>The course includes:</p> <ol style="list-style-type: none"> 1. Animal welfare as a challenge for modern agriculture. 2. The role of nutrition in livestock production on the example of pigs. The influence of nutritional factors on meat quality. 3. Molecular biology and genomics in animal breeding and livestock production. 4. Genetic evaluation methods in modern animal breeding. 5. Biotechnics in livestock reproduction. Transgenic organisms/directions of genetic modification. The role of animals in human medicine. 	

6. Animal Genetic Resources conservation in Poland.	
Metody dydaktyczne / Teaching methods	Lecture with multimedia presentation
Sposób(y) i forma(y) zaliczenia/ Evaluation	The course is completed based on participation in lectures and achieving a positive grade on the final test exam.
Metody i kryteria oceny/ Methods and criteria of assessment	Attendance in lectures confirmed by signing the attendance list. If lectures switch to online format due to sanitary restrictions, attendance will be confirmed on MS Teams. Final credit from the material presented in lectures.
Całkowity nakład pracy studenta potrzebny do osiągnięcia założonych efektów w godzinach oraz punktach ECTS/ Total student workload needed to achieve the assumed effects in hours and in ECTS credits	Participation in lectures (8 hours); Self-preparing to pass exam (12 h) Participation in the exam (1 h). 0,5 ECTS
Język wykładowy/ Language	English
Praktyki zawodowe w ramach przedmiotu / Internship as part of the subject	-
Literatura /Literature	Basic literature: 1. Brown T.A. 2012. Genomy. PWN, Warszawa 2. Broom D.M., Fraser A.F. 2007. Domestic animal behaviour and welfare. CAB International 3. Jamroz D. (red.). 2001. Żywnienie Zwierząt i Paszoznawstwo. Tom 1, 2, 3. PWN, Warszawa 4. Bielański A., Tischner M. 1997. Biotechnologia rozrodu zwierząt udomowionych. Drukpol 5. Smorąg Z. 2010. Dokonania biotechnologii rozrodu zwierząt na przestrzeni ostatnich 20 lat – przykłady badań własnych.

	Biotechnologia 3(90): 47-52 6. http://www.bioroznorodnosc.izoo.krakow.pl 7. Publications recommended by lecturers
Podpis koordynatora przedmiotu/ Signature of coordinator	Dr hab. Anna Arczewska-Włosek
Podpis dyrektora jednostki/ Signature of the Head of Doctoral School	Dr hab. Grażyna Szarek-Łukaszewska

Passing rules

1. The exam is conducted and graded by the course coordinator.
2. The exam is conducted in the form of a written test.
3. The written exam consists of open and closed questions - single-choice or multiple-choice scored according to the following rules:
 - a) maximum 2 points are awarded for a correct answer in an open question;
 - b) a correct answer in a single-choice question is awarded 1 point;
 - c) for a correct answer to a multiple-choice question, 0.5 point is awarded for each correct answer.
4. The exam grade is based on the total points obtained in the written test and is determined according to the following rules:

Percentage (%) of the total points available	Grade	
	Verbal	Numerical
91 – 100	Very good	5,0
81 – 90	Good plus	4,5
71 – 80	Good	4,0
61 – 70	Satisfactory plus	3,5
55 – 60	Satisfactory	3,0
0 – 54	Fail	2,0

5. An unexcused absence (Terms and Conditions of the Doctoral School § 11 item 1e) from the examination will result in a grade of "2.0" (Fail).
6. The exam is passed when 55% of the total points possible in the written test have been obtained.
7. Positive grades in the examination are not subject to improvement to a higher grade.
8. If a doctoral student receives a fail grade in an exam, she/he is entitled to only one resit exam during the academic year.
9. The resit exam shall be conducted in accordance with these rules.
10. The grade is entered in the student book by the person conducting the exam.