Course title:	Diversification of animal products
Course title in Polish:	Dywersyfikacja produktów pochodzenia zwierzęcego
Course for discipline:	Animal science and fisheries

Semester:	5	**Status of course:**	faculty	**Language:**	english
Academic year:		**Catalog number:**			

Coordinator of course:	Dr hab. Martyna Batorska
Lecturer od course:	Members of staff of the Institute of Animal Sciences
Executing unit:	Department of Animal Breeding and Nutrition
Ordering unit:	Doctoral School SGGW
Assumptions, goals and description of the course:	Assumptions The aim of the course will be to familiarise you with the production volume and genetic base of livestock in the world, nationally and in the EU. To introduce the issue of globalisation in animal breeding (causes and effects). To introduce the quality constraints associated with intensive selection in animal production over the years. Presentation of the main alternative animal husbandry systems. Description: The subject will be delivered in several thematic blocks on selected farm animal species (poultry, pigs, cattle): Advantages and disadvantages of intensive production taking into account the effects of selection and its impact on the value of the raw material obtained and taking into account the new legislation on the restriction of the use of antibiotics in production and the impact of production on the environment. Trends in world animal production. Breeding organisation within species in relation to new rearing systems, e.g. in poultry production: Label Rouge system in relation to organic and certified production in Poland (homestead chicken, corn, premium) or exclusive products, i.e. capon or pullet. Quality of extensively reared pork (organic vs intensive), meat of native breeds of pigs, PQS quality system. In the case of dairy cattle farming, reducing the phenomenon of antibiotic-resistant bacteria by exploiting the synergistic effect of silver and copper nanoparticles in formulations supporting the treatment of subclinical mastitis.
Didactic form, number of hours:	Lectures, number of hours 10
Teaching methods:	Lecture, discussion, interpretation of source texts, consultation
Limit of people in the group:	

Learning outcomes

KNOWLEDGE - the graduate knows and understands:	**SKILLS - the graduate is able to:**	**COMPETENCES - the graduate is ready to:**
To the extent enabling to revise the existing pradigms in the field/discipline - the world achievments, gathering theoretical background as well as general and selected detailed issues	Carry out critical assessment of the scientific research findings and expert activities and their contribution to the knowledge development in the field/discipline	Critically evaluate the achievments in the field/discipline represented
Major general development trends in the field/discipline		Recognise knowledge in solving cognitive and practical problems characteristic for the area of research (field/discipline) and in an interdisciplinary aspect
		Support the ethos of scientific circles and conduct independent research

The method of verification of learning outcomes:	Project work in subgroups
Form of documentation of achieved learning outcomes:	Pass mark for project work
Elements and weights of the final grade:	100% - pass mark
Place of the course:	Didactic classroom, laboratory

Basic and supplementary literature

Branch scientific journals: Poultry Sciences, Polish Journal of Food and Nutrition Sciences, Journal of the Science of Food and Agriculture, Journal of Dairy Science, Journal of Food Science, The Journal of Animal & Plant Sciences, International Dairy Journal, Meat Science, Animal Science Papers and Reports, Animals, Journal of Animal and Feed Sciences Animal Science, Animal Bioscience.

Comments:	

Estimated number of hours of work of the doctoral student necessary to achieve the assumed learning outcomes:	15

Leraning outcomes reference to the second degree characteristics of the National Qualification Framework (level 8) covering doctoral competences:		
Symbol:	**Learning outcomes:**	**8 level NQF**
SD1_KW01	To the extent enabling to revise the existing pradigms in the field/discipline - the world achievments, gathering theoretical background as well as general and selected detailed issues	P8S_WG
SD1_KW02	Major general development trends in the field/discipline	P8S_WG
SD1_KU05	Carry out critical assessment of the scientific research findings and expert activities and their contribution to the knowledge development in the field/discipline	P8S_UW
SD1_KK01	Critically evaluate the achievments in the field/discipline represented	P8S_KK
SD1_KK03	Recognise knowledge in solving cognitive and practical problems characteristic for the area of research (field/discipline) and in an interdisciplinary aspect	P8S_KK
SD1_KK08	Support the ethos of scientific circles and conduct independent research	P8S_KR