Course title:	Modern theories of cell aging
Course title in Polish:	Współczesne teorie starzenia komórek
Course for discipline:	biological sciences, agriculture and horticulture, veterinary science

Semester:	8	**Status of course:**	faculty	**Language:**	english
Academic year:		**Catalog number:**			

Coordinator of course:	dr hab. Urszula Krasuska, prof. SGGW
Lecturer od course:	dr hab. Urszula Krasuska, prof. SGGW
Executing unit:	Institut of Biology, Department of Botany and Plant Physiology
Ordering unit:	Doctoral School SGGW
Assumptions, goals and description of the course:	The aim of the course is to present the factors involved in the ageing process at the cellular level of animals and plants. Presentation of modern concepts related to normal and pathological aging (accelerate ageing). Demonstration of basic mechanisms that accelerate aging. Discussion of anti-aging factors in plants and animals. Initiating discussions on how the aging of people, animals and plants affects society (the problem of an aging society), the economy (e.g. seed aging) and the environment. Discuss the differences between programmed aging (programmed cell death) and progressive aging. Experiment: viability test.
Didactic form, number of hours:	exercises, 10 h
Teaching methods:	Presentation, discussion conducted in subgroups, lecture using audiovisual techniques
Limit of people in the group:	10

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:	presentation of a selected topic
Form of documentation of achieved learning outcomes:	student's name worksheet
Elements and weights of the final grade:	presentation of the selected topic 100%
Place of the course:	seminar room

Basic and supplementary literature

Current publications on the topic from reputable journals with a high impact factor, e.g. nature aging, Age and ageing

Comments:	

Estimated number of hours of work of the doctoral student necessary to achieve the assumed learning outcomes:	10

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