Course title:	BIOECONOMY
Course title in Polish:	Biogospodarka
Course for discipline:	Economics and Finance

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

Coordinator of course:	dr hab. Mariusz Maciejczak, prof. SGGW
Lecturer od course:	dr hab. Mariusz Maciejczak, prof. SGGW and employees of Dep. of Economics and Organisation of Enterprises
Executing unit:	Institute of Economics and Finance
Ordering unit:	Doctoral School SGGW
Assumptions, goals and description of the course:	The aim of the course is for doctoral students to learn and understand the theoretical achievements in the field of the bioeconomy, trends and mechanisms of its development, as well as the formulation and innovative solution of scientific problems regarding the economic and financial aspects of the bioeconomy. The course program includes the following thematic blocks: 1. The concept of bioeconomy. Economic, social and environmental context of the development of the bioeconomy. Inter and transdisciplinary bioeconomy. 2. Economics of bioeconomy sectors. Biomass, its sources and directions of use. Primary production sectors (agricultural production, forestry, fishing production). Biomass processing sectors. Value chain in the bioeconomy. 3. Markets for biological resources and products. Deriving demand and supply curves. Determinants of price and quantity. Policy instruments supporting biobased products. Bioeconomy in the concept of sustainable development. Entrepreneurship in the bioeconomy. 4. Transformation towards a bioeconomy. The economics of change. 5. Modeling and tools supporting the transition to the bioeconomy Innovation system in the bioeconomy.
Didactic form, number of hours:	Excercises, 10 h
Teaching methods:	Multimedia presentation; scientific discussion, case studies
Limit of people in the group:	30

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:	The exam covers issues discussed in 5 thematic block. Students' activity during classes and their involvement in scientific discussions
Form of documentation of achieved learning outcomes:	Final exam report, attendance list
Elements and weights of the final grade:	Exam – 90%, Activity – 10%
Place of the course:	Classroom

Basic and supplementary literature

Adamowicz, M. (2017). Biogospodarka: koncepcja, zastosowanie i perspektywy. Zagadnienia Ekonomiki Rolnej, 350(1), 29-49. doi:DOI: 10.5604/00441600.1232987
Hanna Dudek, M. K., Joanna Landmesser. (2011). Podstawy analizy statystycznej w badaniach rynku.
Gołębiewski, J. (2013). ZRÓWNOWAŻONA BIOGOSPODARKA - POTENCJAŁ I CZYNNIKI ROZWOJU. Paper presented at the IX Kongres Ekonomistów Polskich, Warszawa.
Keswani, C. (Ed.) (2020). Bioeconomy for Sustainable Development. Singapore: Springer Nature Singapore.
Lewandowski, I. (Ed.) (2018). Bioeconomy Shaping the Transition to a Sustainable, Biobased Economy. Cham: Springer.
Maciejczak, M., & Hofreiter, K. (2013). HOW TO DEFINE BIOECONOMY? STOWARZYSZENIE EKONOMISTÓW ROLNICTHWOAW IT AO GDERFOINBEI BZINOEECSOUN, XV(4).

Comments:	

Estimated number of hours of work of the doctoral student necessary to achieve the assumed learning outcomes:	30

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