Course title:	Sustainable food systems
Course title in Polish:	Zrównoważone systemy żywnościowe
Course for discipline:	food technology and nutrition

Semester:	5	**Status of course:**	faculty	**Language:**	english
Academic year:	2027/2028	**Catalog number:**	102/2025/26		

Coordinator of course:	dr hab. Dominika Średnicka-Tober, prof. SGGW
Lecturer od course:	dr hab. Dominika Średnicka-Tober, prof. SGGW, dr hab. Krystyna Rejman, prof. SGGW, dr Ewa Halicka
Executing unit:	Department of Functional and Organic Food, Department of Food Market and Consumer Research
Ordering unit:	Doctoral School SGGW
Assumptions, goals and description of the course:	The aim of the course is to familiarise students with the theoretical and practical foundations as well as issues and trends related to sustainable food systems, including food system management, governance, sustainable food production, processing, and consumption. The aim is also to raise awareness of the need to transform systems to sustainable ones to meet global climate, environmental and health challenges and to realise their potential to ensure the availability of sustainable diets for present and future generations.
Didactic form, number of hours:	15 hours
Teaching methods:	Discussion, Presentation, Problem solving, Analysis of source materials, Teamwork, Individual work
Limit of people in the group:	16

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:	multimedia presentation
Form of documentation of achieved learning outcomes:	multimedia presentations saved in electronic form
Elements and weights of the final grade:	preparation and presentation of a multimedia presentation - 100%
Place of the course:	auditorium class

Basic and supplementary literature

Basic literature:
1. UN Sustainable Development Goals: https://www.un.org/sustainabledevelopment/sustainable-development-goals/
2. Summary Report of the EAT-Lancet Commission Healthy Diets from Sustainable Food Systems, Willett, W. et al. (2019): https://eatforum.org/content/uploads/2019/07/EAT-Lancet_Commission_Summary_Report.pdf.
3. Willett, W. et al. (2019). Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems. The Lancet, 393, 447-492. DOI: 10.1016/S0140-6736(18)31788-4.
4. Rockström, J. et al. (2025). The EAT–Lancet Commission on healthy, sustainable, and just food systems. The Lancet, Volume 406, Issue 10512, 1625 – 1700. DOI: 10.1016/S0140-6736(25)01201-2.
5. Richardson, K. et al. (2023). Earth beyond six of nine planetary boundaries. Science Advances 9, eadh2458. DOI: 10.1126/sciadv.adh2458.
6. Crippa, M. et al. (2021). Food systems are responsible for a third of global anthropogenic GHG emissions. Nat. Food 2, 198–209. DOI: 10.1038/s43016-021-00225-9.
7. Scarborough, P., Clark, M., Cobiac, L. et al. (2023). Vegans, vegetarians, fish-eaters and meat-eaters in the UK show discrepant environmental impacts. Nat Food 4, 565–574 (2023). DOI: 10.1038/s43016-023-00795-w.
8. Li, A.M.L. (2025). Planetary health diets: sustainable nutrition transition for obesity epidemic and eco-environmental sustainability in the Anthropocene. Academia Nutrition and Dietetics, 2(4). DOI: 10.20935/AcadNutr7972.
Supplementary literature:
1. Poore, J. & Nemecek, T. (2018). Reducing food's environmental impacts through producers and consumers. Science 360, 987–992. DOI: 10.1126/science.aaq0216.
2. Benton, T. G., Bieg, C., Harwatt, H., Pudasaini, R. & Wellesley, L. Food System Impacts on Biodiversity Loss (Chatham House, 2021).
3. Aleksandrowicz, L., Green, R., Joy, E.J.M., Smith, P., Haines, A. (2016). The Impacts of Dietary Change on Greenhouse Gas Emissions, Land Use, Water Use, and Health: A Systematic Review. PLOS ONE, 11(11):e0165797. DOI: 10.1371/journal.pone.0165797.
4. Sustainable processing of food waste for production of bio-based products for circular bioeconomy (2021): Sharma P., Vivek K.G., Sirohi R., Varjani S., Hyon Kim S., Wong W.C. Bioresource Technology, 124684.
5. Campbell, B.M., Beare, D.J., Bennett, E.M. et al. (2017). Agriculture production as a major driver of the Earth system exceeding planetary boundaries. Ecology and Society 22(4):8. DOI: 10.5751/ES-09595-220408.
6. Heinrich-Böll-Stiftung, Friends of the Earth Europe, BUND (2021). Meat Atlas 2021. Facts and figures about the animals we eat. Wersja polska (2022).

Comments:	

Estimated number of hours of work of the doctoral student necessary to achieve the assumed learning outcomes:	60

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