Course title:	Environmental Sustainability Reporting Standards
Course title in Polish:	Środowiskowe standardy raportowania zrównoważónego rozwoju
Course for discipline:	Environmental Engineering, Mining and Energy

Semester:	6	**Status of course:**	faculty	**Language:**	english
Academic year:	2027/28	**Catalog number:**	139/2025/26		

Coordinator of course:	dr hab. inż. Agnieszka Karczmarczyk, prof. SGGW
Lecturer od course:	dr hab. inż. Agnieszka Karczmarczyk, prof. SGGW
Executing unit:	Institute of Environmental Engineering
Ordering unit:	Doctoral School SGGW
Assumptions, goals and description of the course:	The aim of the course is to deepen knowledge in the field of sustainable development, with particular emphasis on issues covered by the European Sustainability Reporting Standards (ESRS E1-E5) along with an overview of the methods and tools used in reporting.
Didactic form, number of hours:	15 hours
Teaching methods:	lecture, discussion, workshop, case study
Limit of people in the group:	15

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:	evaluation of the report
Form of documentation of achieved learning outcomes:	task in Teams group
Elements and weights of the final grade:	reporta and active participation in discussion with equal weights
Place of the course:	classroom

Basic and supplementary literature

1. European Commission. (2018). Product Environmental Footprint (PEF) Guide. Publications Office of the European Union https://share.google/CIA57e66DoFz3lxIT
2. Hogeboom R.J., 2020. The Water Footprint Concept and Water's Grand Environmental Challenges One Earth 2, 218-222; https://doi.org/10.1016/j.oneear.2020.02.010
3. Idaya, M. M., Chapagain, A. K., Hoekstra, A. Y., & Mekonnen, M. M. (2011). The water footprint assessment manual: Setting the global standard
4. Fang Yu, Qian Yuan, Xuerou Sheng, Mengyue Liu, Leping Chen, Xueliang Yuan, Dantong Zhang, Shuqi Dai, Zhinan Hou, Qingsong Wang, Qiao Ma, Understanding carbon footprint: An evaluation criterion for achieving sustainable development, Chinese Journal of Population, Resources and Environment, Volume 22, Issue 4, 2024,367-375,https://doi.org/10.1016/j.cjpre.2024.11.001.
5. Mauro Cordella, Rafael Horn, Sun Hea Hong, Marco Bianchi, Marina Isasa, Rosan Harmens, Thomas Sonderegger, Hanna Pihkola, Addressing sustainable development goals in life cycle sustainability assessment: Synergies,
challenges and needs, Journal of Cleaner Production, Volume 415, 2023,
137719,https://doi.org/10.1016/j.jclepro.2023.137719

Comments:	

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

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