

Course title:	Circular Economy and Sustainable Development Strategies
Course title in Polish:	Gospodarka o obiegu zamkniętym i strategię zrównoważonego rozwoju
Course for discipline:	Interdisciplinary course – for doctoral candidates from all disciplines of the SGGW Doctoral School

Semester:	6	Status of course:	faculty	Language:	english
Academic year:	2027/2028	Catalog number:	92/2025/26		

Coordinator of course:	prof. dr hab. inż. Magdalena Vaverková	
Lecturer od course:	prof. dr hab. inż. Magdalena Vaverková	
Executing unit:	Department of Sustainable Construction and Geodesy	
Ordering unit:	Doctoral School SGGW	
Assumptions, goals and description of the course:	The course introduces doctoral candidates to interdisciplinary strategies supporting the transition toward a circular economy and sustainable development in response to global environmental and socio-economic challenges. Its goal is to develop the ability to critically analyze resource management systems, integrate sustainability principles into research and professional practice, and design innovative solutions aligned with climate neutrality objectives and the Sustainable Development Goals (SDGs). The course emphasizes evidence-based decision making, systems thinking, and the application of circular economy concepts across different sectors and disciplines.	
Didactic form, number of hours:	15 hours	
Teaching methods:	Lectures supported by interactive discussion, case study analysis, problem-based learning, and group work. The course includes critical analysis of scientific literature, discussion of real-world sustainability challenges, and student presentations focused on interdisciplinary solutions related to circular economy and sustainable development. Active participation and peer exchange are encouraged to support analytical thinking and knowledge integration across disciplines.	
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 paradigms in the field/discipline - the world achievements, 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 achievements 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:	Assessment is based on active participation in discussions, critical analysis of scientific literature, and an individual or group presentation addressing a selected topic related to circular economy and sustainable development strategies. Evaluation considers analytical thinking, interdisciplinary understanding, and the ability to apply theoretical concepts to practical sustainability challenges.	
Form of documentation of achieved learning outcomes:	Multimedia presentations, student evaluation cards, entry in the eHMS system.	
Elements and weights of the final grade:	The final grade is based on active participation in classes and discussions (30%), critical analysis of scientific literature or case studies (30%), and a final presentation or project addressing selected circular economy and sustainable development challenges (40%). Assessment considers analytical thinking, interdisciplinary understanding, and the ability to apply theoretical concepts to research and practical contexts.	
Place of the course:	Classroom	
Basic and supplementary literature		
Peer-reviewed scientific articles published in international journals indexed in Scopus and Web of Science, accessed through databases such as ScienceDirect, SpringerLink, and Wiley Online Library. Current research literature identified using Google Scholar. Selected policy and strategy documents of the European Commission, United Nations Sustainable Development Goals (SDGs), and reports of international organizations related to circular economy and sustainable development.		
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Comments:		

Estimated number of hours of work of the doctoral student necessary to achieve the assumed learning outcomes:	30
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Learning 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 paradigms in the field/discipline - the world achievements, 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 achievements 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