University of Gdańsk

Subject card

Subject name and code	Circular Economy, PG_00178099		
Field of study	Economics, International Economic Relations		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2025/2026
Education level	Master's studies	Subject group	Obligatory subject group in the field of study Optional subject group
Mode of study	full-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	English English
Semester of study	3	ECTS credits	5.0
Learning profile	academic	Assessment form	credit
Conducting unit			
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Marcin Wołek	
	Teachers	dr hab. Marcin Wołek	

Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	0.0	0.0	0.0	30
	E-learning hours included: 0.0						

Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours	Self-study	SUM
	Number of study hours	30	0.0	0.0	30

Subject objectives	To make participants familiar with the concept, theoretical background, goals and principles of circular economy supported with living examples from the selected sectors (including city level, waste management, urban mobility and automotive).

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[MSGMU2_U02] can observe, evaluate and critically analyse the causes and course of processes and phenomena taking place in the open economy; can formulate his/her own opinions on the subject, interpret statistical data and economic indicators necessary in this respect, and also forecast economic processes and phenomena using advanced methods and tools applied in economic sciences	The student is able to make observations, evaluate, and critically analyze the causes and course of processes and phenomena occurring in the field of the circular economy; formulate their own opinions on the subject; interpret the necessary statistical data and economic indicators; and forecast economic processes and phenomena using advanced methods and tools applied in economic sciences.	[SU1] oral statement/conversation/ discussion [SU2] presentation/project/paper/ report
	[MSGMU2_U01] can creatively interpret and explain complex and atypical economic phenomena and the relations occurring between them, using the acquired knowledge in economics, finance and international economic relations	The student is able to creatively interpret and explain complex and unusual economic phenomena, as well as the relationships between them, in the field of the circular economy, using their knowledge of economics, finance, and international economic relations.	[SU1] oral statement/conversation/ discussion [SU2] presentation/project/paper/ report
	[EKONMU2_U01] can creatively interpret and explain economic and social phenomena and relations between them, using acquired knowledge of economics, finance and management sciences	The student is able to creatively interpret and explain phenomena in the field of the circular economy, as well as the relationships between these phenomena, using their knowledge of economics, finance, and management sciences.	[SU1] oral statement/conversation/ discussion [SU2] presentation/project/paper/ report
	[MSGMU2_K01] is ready to recognise the importance of knowledge of economics in the process of identifying and solving problems in the area of international economic relations and to consult experts in case of difficulties in solving them independently	The student is ready to acknowledge the importance of knowledge in the field of economics in the process of identifying and solving problems in the area of the circular economy, as well as to consult experts when difficulties arise in solving them independently.	[SK1] oral statement/conversation/ discussion [SK2] presentation/project/paper/ report
	[MSGMU2_W01] has an in-depth and structured knowledge of economic sciences, in particular economics, its place in the system of sciences, its relations with other sciences and fields of knowledge	The student has in-depth and structured knowledge of the circular economy in economic terms and is aware of its relationships with other sciences and fields of knowledge.	[SW1] oral statement/ conversation/discussion [SW2] presentation/project/paper/ report
	[EKONMU2_U02] can use acquired knowledge to describe and analyse the causes and course of economic and social processes and phenomena, and can formulate his/her own opinions and critically select data and analysis methods based on the achievements of economic and social sciences	The student is able to use their knowledge to describe and analyze the causes and course of processes and phenomena in the field of the circular economy, as well as to formulate their own opinions and critically select data and analytical methods based on the achievements of economic and social sciences.	[SU1] oral statement/conversation/ discussion [SU2] presentation/project/paper/ report
	[MSGMU2_K02] is ready to critically assess the level of acquired knowledge, skills and professional competence in the area of international economic relations	The student is ready to critically assess the level of their knowledge, skills, and professional competences in the field of the circular economy.	[SK1] oral statement/conversation/ discussion [SK2] presentation/project/paper/ report
	[EKONMU2_U03] can analyse causes and course of economic and social processes and phenomena, formulate his/her own opinions on the subject, construct research hypotheses, and select and apply methods of their verification	The student is able to analyze the causes and course of economic and social processes and phenomena occurring within the circular economy, formulate their own opinions on the subject, develop research hypotheses, and select and apply methods for their verification.	[SU1] oral statement/conversation/ discussion [SU2] presentation/project/paper/ report
	[MSGMU2_U03] can identify and analyse relations between business entities and institutions in their national and international environment	The student is able to identify and analyze the links between economic entities and institutions in the international environment of the circular economy.	[SU1] oral statement/conversation/ discussion [SU2] presentation/project/paper/ report

Course outcome	Subject outcome	Method of verification
[EKONMU2_W03] has an in-depth knowledge of relations between economic phenomena, entities and organisations as well as public institutions functioning in the national, international and intercultural spheres	The student has in-depth knowledge of the relationships between phenomena, economic entities and organizations, and public institutions that are relevant to the circular economy. They are able to identify them at both the national and international level.	[SW1] oral statement/ conversation/discussion [SW2] presentation/project/paper/ report
[MSGMU2_W02] knows an advanced terminology in the field of international economics, international economic relations and complementary disciplines	The student knows advanced terminology in the field of the circular economy and complementary disciplines.	[SW1] oral statement/ conversation/discussion [SW2] presentation/project/paper/ report
[EKONMU2_W04] knows different types of economic and social ties and regularities governing them; has an in-depth knowledge of economic and financial ties between enterprises	The student knows various types of economic and social ties relevant to the circular economy and has in-depth knowledge of the economic and financial links connecting enterprises operating within the circular economy.	[SW1] oral statement/ conversation/discussion [SW2] presentation/project/paper/ report
[EKONMU2_K01] recognises the importance of knowledge in the field of economics in the process of identifying and solving economic problems and of consulting experts when having difficulties in solving them independently	The student recognizes the importance of knowledge in the field of economics in the process of identifying and solving problems in the area of the circular economy, as well as consulting experts when difficulties arise in solving them independently.	[SK1] oral statement/conversation/ discussion [SK2] presentation/project/paper/ report
[EKONMU2_K02] is aware of the level of his/her knowledge in the field of economics; understands the need to extend and update this knowledge throughout his/her life	The student is aware of their level of knowledge in the field of the circular economy, understands the need to deepen it, and to update this knowledge throughout their life.	[SK1] oral statement/conversation/ discussion [SK2] presentation/project/paper/ report

Subject contents	1. Introduction to circular economy The concept of sustainable development Renewable & non-renewable resources and environmental economics United Nations Sustainable Development Goals (SDGs) 2. What is circular economy? Why circular economy? (Inefficiencies of traditional businesses) The evolution of the concept of the Circular Economy Limitations of circular economy 3. CE as an element of corporate social responsibility Economic, social and ecological potential of circular economy CE as an element of non-financial reporting Implementation of the CE in a company 4. Levels of CE implementation (macro, meso, micro-level) CE on a macroeconomic level [European Union Action plan towards Circular economy, country profiles comparison - an exercise] CE on mesoeconomic level (region & metropolitan area) CE on a microeconomic level (company & organization) 5. How CE impacts business models What is a business model Green Business Models CE in a business models 6. Measuring the impact of CE Circulations (technical-based circulations, biobased circulations) Carbon Footprint RESOLVE framework Introduction to the Life Cycle Assessment

	Environmental Impact Study Setting the standardized metrics for CE monitoring and evaluation 7. Circular Supply Chains Introduction to Closed-Loop Supply Chains (CLSCM) CLSCM in companies and logistics operators Case studies of CLSCM in different sectors (e.g. pharmaceuticals, food industry, FMCG) 8. CE and processes in organisations Introduction to Business Process Management (BPM) Business Process Mapping and measuring KPIs for CE in Business Process Management 9. Governing Circular Economy in the Urban Context Introduction to urban resources management Case studies for CE in water management (e.g. sponge city) and other resources management (e.g. green city, resilient city) Circular Economy in the strategic context of selected cities 10. Circular Economy in the transportation sector - using the Circularity Compass CE for infrastructure management - case studies based on the CE4CE project CE for fleet management - case studies based on the CE4CE project CE for Energy, fuel and similar resources - case studies based on the CE4CE project 11. CE in practical approach: a study visit to the tram depot of the GAiT sp. z o.o. (urban public transport operator in Gdansk) - an equivalent of 4 lecturing hours 12. Circular economy in the Automotive sector CLSCM in the automotive industry Recycling in the automotive industry - case studies based on the CE4CE project Models for reverse logistics and CLSCM in different automotive capital groups - case studies
Prerequisites and co-requisites	

<table>
<tr><td>Assessment methods and criteria</td><td colspan="2"><table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>Attendance rate</td><td>75.0%</td><td>25.0%</td></tr>
<tr><td>Final project</td><td>65.0%</td><td>75.0%</td></tr>
</table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td>C. Weetman: A Circular Economy Handbook for Business and Supply Chains. Kogan Page 2017

H. Lehmann and others: The Impossibilities of the Circular Economy: Separating Aspirations From Reality. Routledge. 2023

The Circularity Gap Report 2024. Circle Foundation 2024.

World Economic Forum publications on the Circular Economy</td></tr>
<tr><td>Supplementary literature</td><td>Other data sets and websites, including https://www.circularcityfundingguide.eu/</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="2">The phenomenon of greenwashing in the selected industry

Circular economy in a chosen country.

Environmental Impact Assessment in the circular economy

Circular business models

Is my city circular? An evaluation of the circularity level of a selected city.

Circularity assessment of the selected company.

Carbon footprint in the evaluation of circularity.

Life Cycle Assessment in the evaluation of circularity.

Circularity at a household level.</td></tr>
<tr><td>Work placement</td><td colspan="2">Not applicable</td></tr>
</table>

Document generated electronically. Does not require a seal or signature.