

Course title	Circular Economy and Sustainable Development				
Course code	GTS1706				
Course type	Special Background/Specialization of General Knowledge/Skills Development/Core				
Level	Master (Level 7)				
Year / Semester	1 st / 2 nd				
ECTS	10	Lectures / week	6 in total (distance learning)	Laboratories / week	-
Course purpose and objectives	<p>This course aims to introduce students to the principles of the Green and Circular Economy and Bioeconomy approaches, outlining their benefits and limitations. Students will learn practical tools for adopting these approaches and measuring their impact, enhancing their competencies in green management. The knowledge gained will enable students to contribute to or lead green transition initiatives in their workplaces. Learning will be reinforced through practical applications, including case studies and analysis of current policy reports.</p> <p>Specifically, the objectives of the course are the following:</p> <p>Objective 1: To understand the principles of the green economy</p> <p>Objective 2: To implement models and concepts of the circular economy</p> <p>Objective 3: To conduct Life Cycle Assessments (LCA) effectively</p> <p>Objective 4: To analyze solutions within the bioeconomy</p> <p>Objective 5: To optimize circular supply chains</p>				
Learning outcomes	<p>After completing this module, the student should be able to:</p> <ol style="list-style-type: none"> 1. Evaluate and apply sustainability concepts, frameworks, and principles of the green and circular economies to propose integrated, innovative solutions for global sustainability challenges, enhancing resource efficiency and sustainable business practices. 2. Analyze and assess life cycle concepts, including life cycle assessment, integrate environmental considerations into sustainable product development, decision-making, and business practices. 3. Propose strategies to improve recycling efficiency and resource management within key circular economy sectors, addressing waste measurement challenges and contributing to policy development for enhanced sustainability. 				

	<p>4. Understand and apply value and supply chain concepts to optimize efficiency, sustainability, and resource use in modern business contexts, foster responsible business practices and innovative approaches to the bioeconomy.</p> <p>5. Analyze bioeconomy visions and strategies to develop interdisciplinary solutions that integrate economic and environmental considerations for addressing global sustainability challenges.</p>		
Prerequisites	None	Required	-
Course content	<p>The content of the course is as follows:</p> <ul style="list-style-type: none"> • Integrating the Green Economy, Circular Economy, and Bioeconomy in a Strategic Sustainability Framework • Green economy • Conceptual framework for circular and green economy • Postulating circularity • Principles and action areas of CE • Sustainable and circular business models • The concepts of life cycle assessment and eco-design • Circular supply chains • Bioeconomy • Strategies in bioeconomy • Case studies for green and circular economy and bioeconomy 		
Teaching methodology	<p>The integration of Microsoft Teams and Moodle in our distance learning programs ensures a robust and interactive learning environment that meets the needs of modern learners. Microsoft Teams facilitates real-time communication through live sessions, screen sharing, and collaborative tools such as whiteboards and breakout rooms, enhancing student engagement and fostering dynamic discussions. Meanwhile, Moodle serves as a comprehensive Learning Management System, offering structured access to course materials, assessments, and discussion forums. This combination of synchronous and asynchronous tools supports effective teaching and learning, enabling flexibility, accessibility, and high-quality education delivery. Our approach aligns with global standards for online learning, emphasizing both technological innovation and pedagogical excellence.</p>		
Language	English		