هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

2023
TPG-153

Course Specification
(Postgraduate)

Course Title: SUSTAINABLE AND CIRCULAR SUPPLY CHAINS
Course Code: SCM 523
Program: EXECUTIVE MASTER IN SUPPLY CHAIN MANAGEMENT
Department: MANAGEMENT
College: COLLEGE OF BUSINESS
Institution: AL YAMAMAH UNIVERSITY
Version: 1
Last Revision Date: 18/03/2025

Table of Contents

A. General information about the course:

1. Course Identification:

1. Credit hours: 3				
(3, 0, 0)				
2. Course type				
A.	☒ University	☐College	☐Department	☐Track
B.	☒ Required		☐ Elective	
3. Level/year at which this course is offered: (1st year)				
4. Course general Description:				
This course explores sustainability and circular economy principles within supply chain management. It examines strategies, technologies, and policies that support sustainable and circular supply chains, including green logistics, reverse logistics, ethical sourcing, and waste reduction. The course integrates theoretical foundations with practical case studies to prepare students for addressing economic, environmental and social challenges in supply chain operations.				
5. Pre-requirements for this course (if any)**:**				
SCM 511 (Supply Chain Management)				
6. Pre-requirements for this course (if any)**:**				
Not Applicable				
7. Course Main Objective(s):				
The course aims at providing students with in depth knowledge and understanding of different topics related to the sustainability and circular economy in supply chains. The purpose of this course is to allow students to explore new business models and sustainable design principles for reinventing products and services to drive business value while reducing environmental and social impact, sourcing raw materials and working effectively with suppliers to safeguard labor and human rights, and protecting and restoring natural resources, while reducing total cost and risk. The course has special focus on circular economy strategies and closed-loop supply chains. Upon successful completion of this course, students will be able to: 1. Understand and define sustainability and circular economy concepts in supply chain management. 2. Explore circular economy models and their applications, including closed-loop supply chains, reverse logistics, and product life cycle management. 3. Evaluate sustainable sourcing and procurement practices based on different sustainability criteria. 4. Analyze green logistics and transportation strategies, and explore carbon footprint reduction, fuel efficiency, and green warehousing solutions. 5. Examine and study global and regional regulations related to sustainability and				

corporate responsibility.

2. Teaching Mode: (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	3 hrs. per week	75%
2	Distance-Learning	0 hrs. per week	0%
3	E-learning	1 hrs. per week	25%

3. Contact Hours: (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	3
2.	Group Case studies	1
3.	Field assignments	0
4.	Others (Seminars)	1
	Total (per week)	5

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods:

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	**Knowledge and understanding**			
1.1	Acquire advanced knowledge related to sustainable supply chains and circular economy.	CLO1 Knowledge and Understanding (K2)	Student-Centric: Discussion, Analysis, Abstraction, and Seminars	Mid-terms, Quizzes, Presentations and Final exam
2.0	**Skills**			
2.1	Enhance skills in modeling closed-loop supply chains.	CLO2 Cognitive Skill (S1)	Student-Centric: Discussion, Analysis, Abstraction, and Seminars	Mid-terms, Quizzes, Presentations and Final exam
2.2	Process data quantitatively to solve problems in sustainable and circular supply chains.	CLO3 Communication and ICT Skills (S3)	Student-Centric: Discussion, Analysis, Abstraction, and Seminars	Mid-terms, Quizzes, Presentations and Final exam
3.0	**Values, autonomy, and responsibility**			
3.1	Contribute to planning specialized tasks of sustainable supply chains.	CLO4 Autonomy and Responsibility (V2)	Student-Centric: Discussion, Analysis, Abstraction, and Seminars	Presentations, Group-work Project, and Final exam

C. Course Content:

No	List of Topics	Contact Hours
1	Introduction to Sustainability and Circular Economy Principles	03
2	Circular Economy Business Models and Closed-loop Supply Chains	06
3	Green Logistics, Eco-friendly Warehousing, and Transportation	06
4	Reverse Logistics and Waste Management in Supply Chains	09
5	Life Cycle Assessment (LCA) and Carbon Footprint Analysis	09
6	Regulatory Frameworks and Global Sustainability Policies	03
7	Circular Economy and Sustainability in Saudi Arabia and MENA (Case Studies)	09
Total		**45**

D. Students Assessment Activities:

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quizzes	4 quizzes After Weeks 3, 6, 9 and 12	20%
2.	Mid-terms	After week 7	20%
3.	Presentations/Group Project/Case Studies	13th week onwards	20%
4.	Final exam	After week 15	40%

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.)

E. Learning Resources and Facilities:

1. References and Learning Resources:

Essential References	**Sarkis, J. (2024).** *Handbook on Sustainable Supply Chains*. Edward Elgar Publishing. ISBN: 978 1 78643 426 5 https://www.e-elgar.com/shop/gbp/catalogsearch/result/?q=Handbook+on+the+Sustainable+Supply+Chain **David B. Grant, Alexander Trautrims, Chee Yew Wong (2022).** *Sustainable Logistics and Supply Chain Management: Principles and practices for sustainable operations and management. Kogan Page Ltd* EAN: 9781398604438 https://www.koganpage.com/logistics-supplychain-operations/sustainable-logistics-and-supply-chain-management-9781398604438
Supportive References	**Orji, I & Ojadi, F. (2024).** *The Circular Supply Chain Basic Principles and Techniques. Routledge Inc.* ISBN 9781032171562 https://www.routledge.com/The-Circular-Supply-Chain-Basic-Principles-and-Techniques/Orji-Ojadi/p/book/9781032171562

Electronic Materials	Related research papers and case studies.
Other Learning Materials	**Industry Reports** **1. Almarai's Sustainability Report (2023)** https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://sustainabilitystag.almarai.com/2023/en/pdf/AlmaraiSustainabilityReport-2023-PDF.pdf&ved=2ahUKEwi0_47u_tiLAxXLhIkEHQJYG4QQFnoECBQQAQ&usg=AOvVaw3gGTyM1GsQSpXDNWMTDful **2. SABIC's Circular Solutions Helping to Address Key Sustainability Challenges (2024)** https://www.sabic.com/en/newsandmedia/stories/our-world/sabics-circular-solutions-helping-to-address-key-sustainability-challenges

2. Educational and Research Facilities and Equipment Required:

Items	Resources
Facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Classrooms
Technology equipment (Projector, smart board, software)	Projector, smart board, software
Other equipment (Depending on the nature of the specialty)	To be requested as per need

F. Assessment of Course Quality:

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students	Indirect method (Course evaluation survey)
Effectiveness of students assessment	Program Leaders, Peer Reviewer	Direct and Indirect method (Course results and survey)
Quality of learning resources	Faculty and Students	Indirect method (Resources evaluation survey)
The extent to which CLOs have been achieved	Faculty and Students	Direct method (Course results) Indirect method(Course evaluation survey)
Other		

Assessor (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)

Assessment Methods (Direct, Indirect)

G. Specification Approval Data:

COUNCIL /COMMITTEE	
REFERENCE NO.	
DATE	