

WM9PZ-15 Operations Management and Sustainability

24/25

Department

WMG

Level

Taught Postgraduate Level

Module leader

Di Li

Credit value

15

Module duration

4 weeks

Assessment

100% coursework

Study location

University of Warwick main campus, Coventry

Description

Introductory description

The module will deliver the fundamental understanding as well as the applied aspects of operations, supply chain, and logistics management as well as the sustainability aspect within the international trade and business management context. The module will follow the supply chain flow to introduce the key operational functions including sourcing, making, delivering, and planning and how these functions work together to support the trade and business management. The module will discuss operations management from both the company level and the whole supply network level. Students will develop their understanding of the company operations and its supply network, the relationships between companies within the same network, as well as the multiple roles a company could play within different networks. Another essential part of this module is sustainability. The module will also look into the details of the sustainability aspect including but not limited to the triple bottom line (TBL), Environmental, Social, and Governance (ESG), Circular Economics, Reduce, Reuse and Recycle (3Rs) and so on, and embeds these into operations and supply chain management towards closed-loop supply chain and ultimately in support the 17 Sustainable Development Goals.

Students will have opportunities to apply this knowledge and practice skills by working in a team environment on a project to design and optimize the existing supply network for the case company

towards sustainability, resilience, and circular economics. The module will adopt a blended teaching approach (including both offline and online) via various teaching methods to maximize students' study experience and engagement with both subject knowledge and transferable skills.

Module aims

This module will provide a good foundation on knowledge subjects of operations, supply chain and logistics management as well as sustainability for students to complete their related degree course study. Through the module, students will gain a comprehensive understanding of concepts, theories, and tools of operations management and sustainability at both firm and supply chain levels, and apply them to practical scenarios in international trade and management. Students will be trained in logical thinking and critical analysis for strategic decisions. They will also obtain subject skills related to global supply chain mapping and operations optimization, as well as professional skills in teamwork, time management, problem-solving, data analysis, communication and presentation.

Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

- Operations, Supply Chain, and Logistics Management
- Global Supply Network
- Sourcing (Procurement and Supplier/Customer Relationship Management)
- Making, Vertical Integration and Outsourcing
- Inventory and Distribution Management
- Logistics optimization
- Sustainability and Sustainable Operations
- Tripple Bottom Line
- Environmental, Social, and Governance (ESG)
- Green Supply Chain Practices
- Closed Loop Supply Chain
- Risk and Resilience
- Circular Economics
- The 17 Sustainable Development Goals pulished by the United Nations
- COP26 and Net Zero

Learning outcomes

By the end of the module, students should be able to:

- Demonstrate a critical understanding of operations, supply chain and logistics management, and global supply network.
- Effectively evaluate and present, via group collaboration, the relevance and interconnections of operations functions across business in a real industrial context.
- Critically appraise sustainability issues and the role of supply chain sustainability, with the triple bottom line.

- Critically discuss sustainability practices along with the loop of end-to-end supply chain, to develop a plan towards circular economics.
- Apply subject knowledge, theories, models, and techniques to solve practical problems for optimization in real business contexts via innovative thinking.

Indicative reading list

Books:

Slack, N. and Brandon-Jones, A. (2022) Operations Management. 10th edn. Harlow, England: Pearson.;

Slack, N. and Brandon-Jones, A. (2021) Operations and process management: principles and practice for strategic impact. 6th edn. Harlow, England; London; New York: Pearson.;

Christopher, M.(2023) Logistics & Supply Chain Management. 6th edn. Harlow, England: Pearson.;

Grant, D. B., Trautrim, A. and Wong, C. Y. (2023) Sustainable logistics and supply chain management: principles and practices for sustainable operations and management. 3rd edn. London and New York: Kogan Page.;

Grzybowska, K., Awasthi, A. and Sawhney, R. (2020) Sustainable Logistics and Production in Industry 4.0. Cham: Springer.;

Morana, J. (2013) Sustainable supply chain management. John Wiley & Sons.;

Ramanathan, R. and Ramanathan, U. eds. (2020) Sustainable Supply Chains: Strategies, Issues, and Models. Cham, Switzerland: Springer.;

Ivanov, D. (2021) Introduction to Supply Chain Resilience:Management, Modelling, Technology. Cham, Switzerland: Springer.;

Elkington, J. (1998) Cannibals with forks: the triple bottom line of 21st century business. Oxford: Capstone.

Journal Articles:

Elkington, J. (2018) "25 years ago I coined the phrase 'triple bottom lines.' Here's why it's time to rethink it." Harvard Business Review Digital Articles 25: 2-5.

International

The nature of the module provides students with knowledge and skills in an international standard. Meanwhile, the module allows students to discuss and apply knowledge in the context of international organisations and takes account of intercultural differences and the international diversity of the student body in the degree programmes.

Subject specific skills

Through the module, students will gain subject knowledge in operations management, supply chains, and sustainability. It will also train students with skills in global supply network mapping and design, operations optimization, sustainable practices, strategic thinking, decision-making, data collection, and resource evaluation.

Transferable skills

Students will obtain transferable skills within the module including but not limited to teamwork, time management, pressure management, problem-solving, data analysis, communication, presentation, critical thinking and discussion, self-awareness, and reflecting learning etc.

Study

Study time

Type	Required
Lectures	8 sessions of 2 hours (11%)
Seminars	7 sessions of 2 hours (9%)
Online learning (independent)	8 sessions of 1 hour 30 minutes (8%)
Private study	48 hours (32%)
Assessment	60 hours (40%)
Total	150 hours

Private study description

Students will be asked to undertake studies of preparatory background reading, case company briefing, and practising relevant platforms and tools that are adopted within the module. Also, students will use these hours to read/watch the teaching materials, conduct further studies post lectures, and perform further work needed for on-time completion of in-module exercises; Furthermore, they spend time developing better interpretations of the requirements for all of the assessments within the module.

Costs

No further costs have been identified for this module.

Assessment

You do not need to pass all assessment components to pass the module.

Assessment group A

	Weighting	Study time	Eligible for self-certification
Group Poster Presentation	20%	12 hours	No

It is a 15mins poster presentation of group work conducted during the in-module exercises,

	Weighting	Study time	Eligible for self-certification
accounting for 20% of the total marks. The presentation will be marked collectively, and tutors may adjust the mark for individuals based on their observations of individuals' contributions as well as the departmental peer adjustment principle.			
Assignment	80%	48 hours	Yes (extension)
This module assignment is a piece of coursework, that accounts for 80% of the total marks. Word count is up to 3200 words includes everything in the main body of the text (including headings, tables, citations, quotes, lists, etc). The assignment details will be released to students at the beginning of the module. The assignment question will be divided into several sub-questions and encourage students to complete part by part along the ongoing of the module. E.g. the first sub-question is expected to be completed by the end of the first week, and students will be reminded regarding their assessment progress and time scale.			

Feedback on assessment

In-class debrief of performance on in-module group presentation; Written feedback will be provided in a report for the essay assessment.

Availability

There is currently no information about the courses for which this module is core or optional.