DISCIPLINA / COURSE: Digital and Sustainable Supply Chain Management
DEPARTAMENTO / DEPARTMENT: **POI**
CURSO / PROGRAM: CMCD AE
SEMESTRE E ANO / SEMESTER AND YEAR:1/2023
CARGA HORÁRIA / CLASS-HOURS: ☒ 30 horas ou ☐15 horas (selecionar)
PROFESSOR: SUSANA CARLA FARIAS PEREIRA and MACIEL M. QUEIROZ
LÍNGUA / LANGUAGE: ENGLISH

COURSE DESCRIPTION

Present and discuss the constructs, theories, and research challenges related to Digital and Sustainable Supply Chain Management.

LEARNING GOALS

The course learning goals are presented in the table below, showing how they contribute to the learning goals related to the objectives of CMCDAE.

Objetivos do CMCDAE **Objectives**	**Objetivos da disciplina** **Course learning goals**	**Grau de contribuição / Level of contribution**
Métodos qualitativos de pesquisa Qualitative research methods	Os egressos serão capazes de compreender e avaliar, com o rigor necessário, métodos qualitativos em pesquisas	○ ○ ○
Métodos quantitativos de pesquisa Quantitative research methods	Os egressos serão capazes de compreender e avaliar, com o rigor necessário, métodos qualitativos em pesquisas	○ ○ ○
Conhecimento do tema de pesquisa / teoria Knowledge of research themes and theory	Os egressos serão capazes de conhecer e compreender o estado-da-arte da literatura e da base teórica sobre Digital and Sustainable Supply Chain Management	○ ○ ○
Procedimentos de pesquisa Research procedures		○ ○ ○
Relevância e inovação em pesquisa Relevance and innovation in research		○ ○ ○
Elaboração de artigos Development of academic papers		○ ○ ○
Outros objetivos da disciplina / Other course learning goals:.....		

The full description of the CMCDAE objectives, and other related information, may be found at https://rebrand.ly/cmae-eaesp (masters) e https://rebrand.ly/cdae-eaesp (doctorate).

PREVIOUS KNOWLEDGE REQUIRED, IF APPLICABLE

NA

CONTENT/METHODOLOGY

Competition between companies does not only occur in the context of the individual firm. Still, it involves its relationships with customers and suppliers and with the entire supply chain in which it operates. The course covers some theoretical fundamentals, the evolution of the field of supply chain management within the area of operations, the definition of the main constructs and definitions related to Digital and Sustainable SCM and their relationships.

- *Supply Chain Management – Evolution of the field*
  - Definition, main construcs
  - Seminal articles
- *Theory in SCM*
  - Transaction Cost Economics
  - Practice-Based View and SC Practice-Based View
  - Social Network Analysis
  -
- *Sustainable SCM*
  - *Definitions and mains constructs*
  - *Seminal articles*
  - *Circular Economy and Circular Supply Chain*
  - *Supply Chain Risk Management and Resilience*
  - *Humanitarian Supply Chains*

- *Digital Supply Chain*
  - *Definitions and mains constructs*
  - *Seminal articles*
  - *Digital supply chain and resilience*
  - *Value creation in supply chains leveraged by the digital approach*

The basic learning method will be individual preparation and plenary discussion. In addition, eventually, other combined methods such as presentations, group discussions, and seminars can be used. Students are expected to read and study the texts indicated for each class in depth and come to the same with their notes and conditions to discuss them properly. Individual readings should not, however, be limited to the texts referenced for each class. Individual research is encouraged, searching databases and exploring the references of the texts studied.

CRITÉRIO DE AVALIAÇÃO / ASSESSMENT

During the development of the course, students will do three assignments, one in a group and the other individually:

Class attendance and participation:	20%
Seminar (group assignment):	20%
Final Paper/theoretical essay	60%

The participation grade will be an individual evaluation made by the teacher on the frequency and content of the participation in the discussions. The group work will be a seminar prepared by the students on the theories and topics covered in the discipline. The groups and sequence of presentations will be defined in the first class. The final paper or theoretical essay is individual and must be about an SCM theme/construct.

AULA-A-AULA (OPCIONAL) / COURSE SCHEDULE (OPTIONL)

It will be available on e-class

BIBLIOGRAPHICAL REFERENCES (AN UPDATED VERSION WILL BE PUBLISHED ON THE E-CLASS)

DIGITAL SUPPLY CHAIN

Büyüközkan, G., & Göçer, F. (2018). Digital Supply Chain: Literature review and a proposed framework for future research. *Computers in Industry*, *97*, 157–177. https://doi.org/10.1016/j.compind.2018.02.010

Enrique, D. V., Lerman, L. V., Sousa, P. R. de, Benitez, G. B., Bigares Charrua Santos, F. M., & Frank, A. G. (2022). Being digital and flexible to navigate the storm: How digital transformation enhances supply chain flexibility in turbulent environments. *International Journal of Production Economics*, 108668. https://doi.org/10.1016/j.ijpe.2022.108668

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Holmström, J., Holweg, M., Lawson, B., Pil, F. K., & Wagner, S. M. (2019). The digitalization of operations and supply chain management: Theoretical and methodological implications. *Journal of Operations Management*, *65*(8), 728–734. https://doi.org/10.1002/joom.1073

Ishfaq, R., Davis-Sramek, B., & Gibson, B. (2022). Digital supply chains in omnichannel retail: A conceptual framework. *Journal of Business Logistics*, *43*(2), 169–188. https://doi.org/10.1111/jbl.12277

Ivanov, D., & Dolgui, A. (2020). Viability of intertwined supply networks: extending the supply chain resilience angles towards survivability. A position paper motivated by COVID-19 outbreak. *International Journal of Production Research*, *58*(10), 2904–2915. https://doi.org/10.1080/00207543.2020.1750727

Mak, H., & Max Shen, Z. (2021). When Triple-A Supply Chains Meet Digitalization: The Case of JD.com's C2M Model. *Production and Operations Management*, *30*(3), 656–665. https://doi.org/10.1111/poms.13307

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Shen, Z. M., & Sun, Y. (2023). Strengthening supply chain resilience during COVID-19: A case study of JD.com. *Journal of Operations Management*, *69*(3), 359–383. https://doi.org/10.1002/joom.1161

Xu, X., Sethi, S. P., Chung, S., & Choi, T. (2023). Reforming global supply chain management under pandemics: The GREAT-3Rs framework. *Production and Operations Management*, *32*(2), 524–546. https://doi.org/10.1111/poms.13885

SUSTAINABLE SUPPLY CHAIN MANAGEMENT

Carter, C. R., & Rogers, D. S. A framework of sustainable supply chain management: moving toward new theory. International journal of physical distribution & logistics management, 2008

LINTON, J. D.; KLASSEN, R.; JAYARAMAN, V., Sustainable Supply Chains: An Introduction. Journal of Operations Management, v. 25, n. 6, p. 1075-1082, 2007.

Pagell, M., & Shevchenko, A. (2014). Why research in sustainable supply chain management should have no future. *Journal of supply chain management*, *50*(1), 44-55.

SEURING, S.; MÜLLER, M., From a Literature Review to a Conceptual Framework for Sustainable Supply Chain Management. Journal of Cleaner Production, v. 16, n. 15, p. 1699-1710, 2008.

SRIVASTAVA, S. K., Green Supply-Chain Management: A State-of-the-Art Literature Review. International Journal of Management Reviews, v. 9, n. 1, p. 53-80, 2007.

Touboulic, A. & Walker, E. Theories in sustainable supply chain management: a structured literature review, International Journal of Physical Distribution & Logistics Management, 2015, 45 (1/2), 16-42.

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RISK AND RESILIENCE IN SUPPLY CHAIN MANAGEMENT

BHAMRA, Ran; DANI, Samir; BURNARD, Kevin. Resilience: the concept, a literature review and future directions. International Journal of Production Research, v. 49, n. 18, p.5375-5393, 2011.
BODE, Christoph et al. Understanding responses to supply chain disruptions: Insights from information processing and resource dependence perspectives. Academy of Management Journal, v. 54, n. 4, p. 833-856, 2011.
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GHADGE, Abhijeet; DANI, Samir; KALAWSKY, Roy. Supply chain risk management: present and future scope. The International Journal of Logistics Management, v. 23, n. 3, p. 313-339, 2012.
PEREIRA, S.C.F.; SCARPIN, M.S.; FERREIRA Neto, J.. Agri-food risks and mitigations: a case study of the Brazilian mango, Production Planning & Control, 2020, ahead of print, DOI: 10.1080/09537287.2020.1796134
SÁ, M.; MIGUEL, P.; BRITO, R.; PEREIRA, S.C.F. Supply Chain resilience: the whole is not the sum of the parts. International Journal of Operations & Production Management, 2020, 40 (1), 92-115.
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WIELAND, A.; HANDFIELD, R.B.; & DURACH, C.F. Mapping the landscape of future research themes in supply chain management. Journal of Business Logistics, v. 37, n.3, 2016, pp.205-212

THEORIES

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RINDFLEISCH, A.; HEIDE, J. B., Transaction Cost Analysis: Past, Present, and Future Applications. The Journal of Marketing, v. 61, n. 4, p. 30-54, 1997.
WILLIAMSON, O. E., Outsourcing: Transaction Cost Economics and Supply Chain Management*. Journal of Supply Chain Management, v. 44, n. 2, p. 5-16, 2008.