

COURSE: Technological Competitiveness in Operations
 DEPARTMENT: POI
 PROGRAM: CMCD AE
 SEMESTER AND YEAR: 2023/2
 CLASS-HOURS: 30 horas ou 15 horas (selecionar)
 PROFESSOR: Ely Paiva
 LANGUAGE: English

COURSE DESCRIPTION

The discipline explains how managerial and hard technologies affect a company's competitiveness. The discussion includes key theories such as RBV and institutional theory. The focus shifts from the focal companies to their suppliers and other players in the competitive ecosystem.

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 CMCD AE.

GRAU DE CONTRIBUIÇÃO / LEVEL OF CONTRIBUTION *			
Forte / High	Intermediário / Medium	Reduzido / Low	Nenhum / None
●●●	●●○	●○○	○○○

Objetivos do CMCD AE CMCD AE Objectives	Objetivos da disciplina Course learning goals	Grau de contribuição / Level of Contribution *
Métodos qualitativos de pesquisa Qualitative research methods	Case studies with discussions of methodological procedures.	●●○
Métodos quantitativos de pesquisa Quantitative research methods	Experiments and surveys: methodological procedures for both are thoroughly discussed.	●●○
Conhecimento do tema de pesquisa / teoria Knowledge of research themes and theory	Technology-based competitiveness is in depth discussed.	●●●
Procedimentos de pesquisa Research procedures	Those aspects are present in qualitative and quantitative studies.	●○○
Relevância e inovação em pesquisa Relevance and innovation in research	New topics and research opportunities are presented.	●○○
Elaboração de artigos Development of academic papers	Structure and basic elements are discussed in the classes.	●○○
Outros objetivos da disciplina / Other course learning goals:.....		

A descrição completa dos objetivos de aprendizagem do CMCD AE e outras informações podem ser encontradas em <https://rebrand.ly/cmae-eaesp> (mestrado) e <https://rebrand.ly/cdae-eaesp> (doutorado).

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

CONHECIMENTO PRÉVIO, SE HOVER / PREVIOUS KNOWLEDGE REQUIRED, IF APPLICABLE

CONTEÚDO/METODOLOGIA / CONTENT/METHODOLOGY

Seminars
Lecture classes

CRITÉRIO DE AVALIAÇÃO / ASSESSMENT

Participation 30%
Final Assignment 70%

BIBLIOGRAPHICAL REFERENCES (BASIC)

- ARGOTE, L., & HORA, M. (2017). Organizational learning and management of technology. *Production and Operations Management*, 26(4), 579–590.
- BAI, C., LI, H. A., & XIAO, Y. (2022). Industry 4.0 technologies: Empirical impacts and decision framework. *Production and Operations Management*.
- CHOI, TSAN-MING, SUBODHA KUMAR, XIAOHANG YUE, HAU-LING CHAN. (2022). Disruptive technologies and operations management in the Industry 4.0 era and beyond. *Production and Operations Management* 31, no. 1, 9-31.
- FINGER, A.B., FLYNN, B.B., PAIVA, E.L. (2014), Anticipation of new technologies: supply chain antecedents and competitive performance, *International Journal of Operations & Production Management*, Vol. 34 No. 6, pp. 807-828.
- HUQ, F. A., CHOWDHURY, I. N., & KLASSEN, R. D. (2016). Social management capabilities of multinational buying firms and their emerging market suppliers: An exploratory study of the clothing industry. *Journal of Operations Management*, 46, 19–37.
- LIU, XIAOJIN, YEUNG, ANDY C.L., LO, CHRIS K.Y., CHENG, T.C.E., The moderating effects of knowledge characteristics of firms on the financial value of innovative technology products, *Journal of Operations Management*, Volume 32, Issue 3, 2014, Pages 79-87.
- MITHAS, S., CHEN, Z. L., SALDANHA, T. J., & DE OLIVEIRA SILVEIRA, A. (2022). How will artificial intelligence and Industry 4.0 emerging technologies transform operations management?. *Production and Operations Management*.
- PAIVA, E. L.; ROTH, A. and FENSTERSEIFER, J., Organizational Knowledge and Manufacturing Strategy: A Resource-based View. *Journal of Operations Management*, 2008.
- PENG, D.X.; SCHROEDER, R.G.; SHAH, R., Linking routines to operations capabilities: a new perspective. *Journal of Operations Management*, v.26, n.6, p.730-748, 2008.
- PRIM, A., FREITAS, K., PAIVA, E., KUMAR, M., Quality Capabilities Development in Brazilian Breweries: A Co-evolutionary Approach, *International Journal of Production Economics*, forthcoming.
- SETIA, P., & PATEL, P. C. (2013). How information systems help create OM capabilities: Consequents and antecedents of operational absorptive capacity. *Journal of Operations Management*, 31(6), 409-431.
- WU, S. J.; MELNYK, S. A.; FLYNN, B. B. Operational capabilities: A secret ingredient. *Decision Sciences*, v.41, n.4, p. 721-754, 2010.
- ZHANG, Y., GREGORY, M., NEELY, A., (2016), Global engineering services: Shedding light on network capabilities, *Journal of Operations Management*, Volumes 42–43, , Pages 80-94.
- ZHOU, KEVIN ZHENG, ZHANG, QIYUAN, SHENG, SHIBIN XIE, EN, BAO, YEQING, Are relational ties always good for knowledge acquisition? Buyer–supplier exchanges in China, *Journal of Operations Management*, Volume 32, Issue 3, 2014, Pages 88-98.

COURSE SCHEDULE (OPTIONL)

PROFESSOR MINI CV (OPTIONL)

Full Professor at FGV-EAESP. He was Visiting Scholar at the University of North Carolina/Chapel Hill, and Visiting Professor at the University of Texas Pan American and at ISC Paris. He has published in journals like *Journal of Operations Management*, *International Journal of Operations and Production Management*, *Supply Chain Management*, *International Journal of Production Economics*, *International Journal of Logistics Management*, and the main Brazilian journals. He has worked as a consultant for Brazilian and international companies. Ely's research project is funded by the Brazilian Research National Agencies (CNPq and Capes). He is Regional Editor for Latin America of the *Journal of Supply Chain Management Journal*.

OTHER INFORMATION (OPTIONAL)