



SYLLABUS

COURSE DESCRIPTION	
Type of the course:	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Teaching Assistant (TA) <input type="checkbox"/> Thesis/Dissertation
Course Title:	Decision-Making Process Management
Periodicity:	<input checked="" type="checkbox"/> Annual <input type="checkbox"/> Semestral <input type="checkbox"/> Sporadic
Academic term:	Trimester

WORKLOAD		
Workload: 60-hour course	Credits: 4	
Theoretical: (1 credit = WL 15)	Research: (1 credit = WL 15)	Theoretical-empirical: (2 credits = WL 30)
Academic Degree: <input type="checkbox"/> Master <input type="checkbox"/> PhD <input checked="" type="checkbox"/> Master and PhD		
Course Type:		
Master: <input checked="" type="checkbox"/> Elective - <input type="checkbox"/> Compulsory	Doctorate: <input checked="" type="checkbox"/> Elective - <input type="checkbox"/> Compulsory	

COURSE INSTRUCTOR

AREA OF CONCENTRATION / LINE OF RESEARCH
Research Area: Controllershhip and Governance
Research Line: Management Control and Performance Evaluation

COURSE PURPOSE
<p>a) Knowledge – provide the student with knowledge about the theoretical bases that support the construction of Frameworks/Performance Evaluation Systems to support the management of decision-making processes in valid and legitimate terms;</p> <p>b) Skills – develop students' analytical and critical capacity in the practice of the decision support process by analyzing and conducting case studies; and</p> <p>a) Attitudes – motivate the student to model <i>Frameworks</i> /Performance Evaluation Systems, from a constructivist and proactive posture to identify opportunities to improve the performance of an organization/sector/group, making possible the application of theoretical constructs disseminated throughout the course.</p>

COURSE DESCRIPTION
Decision-making processes. Decision-making situations. Types of problems. Multicriteria approaches/methodologies: MCDM and MCDA. Decision making and/or aid (<i>hard</i> and <i>soft</i>): actors. Models/ <i>framework</i> . Structuring, evaluation and management of decision-making processes.

COURSE CONTENT
<ol style="list-style-type: none"> 1. Decision-making processes. Decision-making situations. Types of problems. 2. Multicriteria approaches/methodologies: MCDM and MCDA. 3. Multicriteria Decision Aiding-Constructivist (MCDA-C) methodology: to build a performance evaluation model/ <i>framework</i> /system for an organization (industry/department/complete). 4. Evaluation of the status quo of the organization / sector, analysis of desirable and below performance, construction of proposals / suggestions for improvement, for an organizational context, through the development of phases: (1) Structuring; (ii) Evaluation; and (iii) Recommendation. 5. Structuring: Making/or assists in the decision - actors and models. Identification of the decision context. Construction of the mid - end relationship maps. Transition of influence relationship maps for hierarchical structures of value. Identification of key points of view. Properties of points of view.



6. Evaluation: Nominal; ordinals; range and ratio scales. Construction of key viewpoint descriptors. Ordering of descriptor levels for each viewpoint. The identification of the anchor levels to the key viewpoints. Transformation method of preference judgment matrices in cardinal scales: Macbeth. Construction of the semantic matrix of preference judgment for each key viewpoint. Construction of the semantic matrix of preference judgment of key viewpoints. Aggregation model analysis.
7. Recommendation: Analysis of the impact profile. Sensitivity analysis: graphical and numerical dominance one. Recommendations: generation of actions and analysis.

METHODOLOGY

Lectures, guided works, guided debates and presentation of the requested and developed work(s) throughout the course.

GRADING POLICY

Practical work to manage a decision making process (sector/department/organization) at the student's choice, using the Multicriteria Decision Aiding-Constructivist (MCDA-C) methodology, whose development and evolution will be presented during the course and its final product will be materialized in the form of a scientific article. The following activities need to be performed, presented and delivered: (i) presentation of material(s)/article(s) on the provided theoretical foundations (10%); (ii) text related to the content of the discipline based on articles/materials delivered and discussed in class (20%); (iii) presentation of the material related to the development of practical work (construction of the *framework*) (30%); and (iv) scientific article - case study of practical work made by the student in the discipline (40%).

MAIN REFERENCES

- BANA E COSTA, C. A. Três convicções fundamentais na prática do apoio à decisão. **Revista Pesquisa Operacional**, v. 13, n. 1, 1993.
- ENSSLIN, L.; GIFFHORN, E.; ENSSLIN, S. R.; PETRI, S. M.; VIANNA, W. B. Avaliação do desempenho de empresas terceirizadas com o uso da metodologia multicritério de apoio à decisão- construtivista. **Revista Pesquisa Operacional**, v. 30, n. 1, p. 125-152, 2010.
- ENSSLIN, L.; MONTIBELLER, G. N.; NORONHA, S. M. **Apoio à decisão: Metodologia para estruturação de problemas e avaliação multicritério de alternativas**. Florianópolis: Insular, 2001.
- ENSSLIN, L.; DUTRA, A.; ENSSLIN, S. R. MCDA: A construtivist approach to the management of human resources at a governmental agency. **International Transactions in Operational Research - ITORS**, v. 17, p. 79-100, 2000.
- KEENEY, R. L. **Value-focused thinking: A path to creative decision making**. USA: Harvard University Press, 1992.
- MARTTUNEN, M.; LIENERT, J.; BELTON, V. Structuring problems for multi-criteria decision analysis in practice: A literature review of method combinations. **European Journal of Operational Research**, 2017. doi: 10.1016/j.ejor.2017.04.041
- MINGERS, J. Soft OR comes of age—but not everywhere! **Omega**, v. 39, p. 729-741, 2011.
- ROY, B.; VANDERPOOTEN, D. The European school of MCDA: emergence, basic features and current works. **Journal of Multicriteria Decision Analysis**, v. 5, n. 16, p. 22-38, 1996.
- ROY, B. Decision science or decision-aid science? **European Journal of Operational Research**, v. 66, n. 2, p. 184-203, 1993.
- STEVENS, S. S. On the Theory of Scales of Measurement. **Science**, v. 103, n. 2684, p. 677-680, 1946.



OTHER REFERENCES

AZEVEDO, R. C.; LACERDA, R. T. O.; ENSSLIN, L.; JUNGLES, A. E.; ENSSLIN, S. R. Performance measurement to aid decision making in the budgeting process for apartment building construction: A case study using MCDA-C. **Journal of Construction Engineering and Management**, v. 139, p. 225-235, 2013.

BANA E COSTA, C. A.; VANSNICK, J. C.; ENSSLIN, L.; CORRÊA, E. C. Decision support systems in action: Integrated application in a multicriteria decision aid process. **European Journal of Operational Research**, v. 113, p. 315-335, 1999.

BANA E COSTA, C. A.; VANSNICK, J. C. Applications of the MACBETH approach in the framework of an additive aggregation model. **Journal of Multi-criteria Decision Analysis**, v. 6, n. 2, p. 107-114, 1997.

BORTOLUZZI, S. C.; ENSSLIN, S. R.; ENSSLIN, L. Avaliação de desempenho multicritério como apoio à gestão de empresas: aplicação em uma empresa de serviços. **Gestão & Produção**, v. 18, n. 3, p. 633-650, 2011.

DELLA BRUNA JUNIOR, E.; ENSSLIN, L.; ENSSLIN, S. R. An MCDA-C application to evaluate supply chain performance. **International Journal of Physical Distribution & Logistics Management**, v. 44, p. 5, 2014.

EDEN, C. Cognitive mapping. **European Journal of Operational Research**, v. 36, p. 01-13, 1988.

ENSSLIN, L.; ENSSLIN, S. R.; ROCHA, S.; MARAFON, A. D.; MEDAGLIA, T. A. Modelo multicritério de apoio à decisão construtivista no processo de avaliação de fornecedores. **Produção**, v. 23, n. 2, p. 402-421, 2013.

ENSSLIN, S.R.; ENSSLIN, L.; BACK, F.; LACERDA, R. T. O. Improved decision aiding in human resource management: a case using constructivist multi-criteria decision aiding. **The International Journal of Productivity and Performance Management**, v. 62, p. 735-757, 2013.

IGARASHI, D. C. C.; ENSSLIN, S. R.; ENSSLIN, L.; PALADINI, E. P. A qualidade do ensino sob o viés da avaliação de um programa de pós-graduação em contabilidade: proposta de estruturação de um modelo híbrido. **RAUSP. Revista de Administração**, v. 43, p. 117-137, 2008.

KEENEY, R. L. Value-focused thinking: Identifying decision opportunities and creating alternatives. **European Journal of Operational Research**, v. 92, n. 3, p. 537-549, 1996.

LACERDA, R. T. O.; ENSSLIN, L.; KRUGER, A.; ENSSLIN, S. R. Performance evaluation in the Brazilian public sector. **Public Administration Research**, v. 6, n. 1, p.1-12, 2017.

LACERDA, R. T. O.; ENSSLIN, L.; ENSSLIN, S. R.; DUTRA, A. A constructivist approach to manage business process as a dynamic capability. **Knowledge and Process Management**, v. 21, p. 54-66, 2014.

LONGARAY, A. A.; ENSSLIN, L.; MACKNESS, J. R. An integrated SSM-MCDA-C model to support a complex individual decision. **Independent Journal of Management & Production**, v. 5, p. 677-692, 2014.

LONGARAY, A. A.; ENSSLIN, L. Use of multi-criteria decision aid to evaluate the performance of trade marketing activities of a Brazilian industry. **Management and Organizational Studies**, v. 2, p. 15-31, 2015.

LONGARAY, A. A.; ENSSLIN, L.; MUNHOZ, P.; TONDOLO, V.; QUADRO, R.; DUTRA, A.;



ENSSLIN, S. R. A systematic literature review regarding the use of multicriteria methods towards development of decision support systems in health management. *Procedia Computer Science*, v. 100, p. 701-710, 2016.

MARAFON, A. D.; ENSSLIN, L.; OLIVEIRA, R. T.; ENSSLIN, S. R. The effectiveness of multi-criteria decision aid methodology. **European Journal of Innovation Management**, v. 18, n. 1, p. 86-109, 2015.

ROY, B. Decision-aid and decision-making. **European Journal of Operational Research**, v. 45, n. 2-3, p.324-331, 1990.

ROY, B. On operational research and decision aid. **European Journal of Operational Research**, v. 73, n. 1, p. 23-26. 1994.

ROY, B.; VANDERPOOTEN, D. The European school of MCDA: emergence, basic features and current works. **Journal of Multicriteria Decision Analysis**, v. 5, n. 16, p. 22-38, 1996.

ZAMCOPÉ, F. C. et al. Modelo para avaliar o desempenho de operadores logísticos: Um estudo de caso na indústria têxtil. **Gestão & Produção**, v. 17, n. 4, p. 693-705, 2010.