

<b>Course title</b>		Operational improvement management						<b>ECTS code</b>		04.0.EM.SZ.3200		
								<b>ECTS credits</b>		3		
<b>Name of unit administrating study</b>		KL		<b>Field of study</b>		MSG**		<b>Field of specialisation</b>		IB;		
<b>Teaching staff</b>		Leszek Reszka, Associate Professor ; Cezary Mańkowski, Associate Professor										
<b>Number of hours</b>												
<b>Lectures</b>	0	<b>Classes</b>	0	<b>Tutorials</b>	0	<b>Laboratory</b>		30	<b>Seminars</b>	0	<b>Language classes</b>	0
<b>Forma aktywności</b>								<b>Year&amp;Type of studies*</b>		2 SS2,		
<b>Hours with the participation of the academic teacher (including office hours, exams, others):</b>						60		<b>Semester:</b>		3,		
<b>Hours without the participation of the academic teacher (student's self-study, homeworks):</b>						15		<b>Type of course:</b>		obligatory		
<b>Total number of hours:</b>						75		<b>Language of instruction:</b>		English		
<b>Teaching form</b>		in-class learning										
<b>Teaching methods</b>		Lectures including multimodal presentations, Activating methods in training classes, Work in computer laboratories, Collaborating, group activities,										
<b>Prerequisites (required courses and introductory requirements)</b>												
<b>Required courses</b>		No requirements										
<b>Introductory requirements</b>		No requirements										
<b>Assessment method, forms and criteria</b>												
<b>Assessment method</b>		Exam										
<b>Assessment criteria</b>		Assessment test. Student's work during the classes is also recorded by the teacher. Students prepare team projects										
<b>Course objectives</b>												
The aim of the subject is to provide the knowledge, practical skills and social competences in making of managerial decisions in business processes.												
<b>Learning outcomes</b>												
<b>Knowledge</b>		MSG2_W13		Student has got a knowledge on operational improvement management								
<b>Verification of learning outcomes - Knowledge</b>												
<b>Outcomes</b>		written exam	oral exam	test	essay/paper /portfolio	tasks/ homeworks	individual presentation	group presentation	classroom activities	classroom discussion	individual project	group project
MSG2_W13				X								X
<b>Skills</b>		MSG2_U11		Student applies methods and tools to solve practical managerial problems.								
		MSG2_U12		Student can work in teams, in particular an international one								
<b>Verification of learning outcomes - Skills</b>												
<b>Outcomes</b>		written exam	oral exam	test	essay/paper /portfolio	tasks/ homeworks	individual presentation	group presentation	classroom activities	classroom discussion	individual project	group project
MSG2_U05				X								X
MSG2_U12												X

Attitudes	MSG2_K03	The student develops the social competences of individual and team work
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## Verification of learning outcomes - Attitudes

Outcomes	written exam	oral exam	test	essay/paper /portfolio	tasks/ homeworks	individual presentation	group presentation	classroom activities	classroom discussion	individual project	group project
MSG2_K03								X			X

## Course contents

**Decision-making process**

Optimization versus sub-optimization. Decision-making process in the organization. The decision-making model as a tool to support the decision-making process

**Planning targets for business processes**

Targets to achieve, targets to keep. Key performance indicators. Flexible budgeting. Break-even point/safety margins targets

**Identifying targets variance and assessing products/services profitability**

The problem of identifying target variance and assessing the products/services profitability. Strong/weak products. Hierarchy of products/services profitability. Propositions for making decisions

**Variance analysis**

Methods and tools of variance analysis. Creating confidence interval for controlled parameters. Usage of statistical test for identifying the significance of variance.

**Linear programming models**

Features of linear programming models, the SOLVER tool, examples of linear programming models: optimal selection of production range, mixture problem, transportation problem, transshipment model, assignment model, shortest route model, maximum flow model.

## Recommended reading lists

## Core literature:

- Mankowski C.: Planning key logistics indicators as targets to be achieved or kept. (pages 141-158) - article is available at <http://ekonom.ug.edu.pl/web/download.php?OpenFile=1690>
- Powell S. G., Baker K. R.: Management Science: The Art of Modeling with Spreadsheets, John Wiley and Sons, 2011
- Shim J.K., Siegel J.G., Dauber N.: Corporate controller's handbook of financial management. CCH, Inc., 2008

## Additional literature:

- Bragg S.M.: Controllorship: the work of the managerial accountant. John Wiley & Sons, 2009
- Drury C.: Management and cost accounting. Cengage Learning EMEA, London 2015
- Plenert G. J.: Supply Chain Optimization through Segmentation and Analytics (Resource Management), CRC Press, 2014
- L. Reszka: Decision Making Process in the Management of Logistics Support System [in:] C. Mańkowski, L. Reszka (eds.): Modelowanie procesów i systemów logistycznych, part. XXII Wydawnictwo Uniwersytetu Gdańskiego, Gdańsk 2021, p. 167-176
- Reszka L.: Multicriteria optimization methods in logistics on the example of warehouse location, "Journal of Positive Management", vol. 9, nr 3/2018, Toruń 2018, ISSN: 2083-103X, p. 3-16
- Reszka L.: The Applicability of the Simos' Method to Determination of Weights in Optimal Multicriteria Decision Making in Logistics [in:] M. Chaberek, L. Reszka (eds): Modelling of Logistics Processes and Systems, part XVII. Research Journal of the University of Gdańsk Transport Economics and Logistics vol. 66. Gdańsk University Press, Gdańsk 2017, p. 81-88
- Yalaoui A., Chehade H., Yalaoui F., Amodeo L.: Optimization of logistics, Wiley, Hoboken 2012

## Contact

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\* SS1 - undergraduate studies \* SS2 - graduate studies \* SDang - doctoral studies

\*\* MSG - International Economic Relations