COURSE DESCRIPTION CARD - SYLLABUS

Course name
SIX SIGMA METHODOLOGY IN PRODUCTION MANAGEMENT

Course

Proposed by Discipline
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Year/Semester
II/3

Type of studies
Doctoral School

Course offered in
English

Form of study
full-time

Requirements
elective

Number of hours

Lecture
4

Tutorials

Projects/seminar

Number of credit points

1

Lecturers

Responsible for the course/lecturer:
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Responsible for the course/lecturer:

Prerequisites

Knowledge: Basic knowledge of practical production company management including statistical approach in problem solving.

Skills: Basic statistical reasoning, task management.

Social competences: leadership based on practical statistics.

Course objective

Purpose is to introduce students into specific way of managing production company; based on simple statistics tools and strong analytical approach.

Course-related learning outcomes

Knowledge

A PhD student who graduated from doctoral school knows and understands:
1) global achievements, covering theoretical foundations as well as general and selected specific issues that are relevant to scientific disciplines studied at the Doctoral School, to the extent that enables revision of existing paradigms, [P8S_WG/SzD_W01]
2) scientific research methodology in disciplines represented at the Doctoral School, [P8S_WG/SzD_W03]
3) principles of disseminating results of scientific activity, also in an open access mode, [P8S_WG/SzD_W04]
4) basic principles of knowledge transfer to the economic and social sphere as well as those of commercialization of results of scientific activities and knowhow related to these results, [P8S_WK/SzD_W07]

Skills

A PhD student who graduated from doctoral school can:
1) communicate on specialist issues on the level that allows active participation in the international scientific community, [P8S_UK/SzD_U04]
2) plan and implement individual and team research projects, also in the international community, [P8S_UK/SzD_U09]
3) independently plan and act for their self-development as well as inspire and organize development of others, [P8S_UK/SzD_U10]
4) plan classes and groups of classes and conduct them with the use of up-to-date methods and tools, [P8S_UK/SzD_U11]

Social competences

A PhD student who graduated from doctoral school is ready to:
1) acknowledge the importance of knowledge in solving cognitive and practical problems, [P8S_KK/SzD_K03]
2) think and act in an entrepreneurial manner, [P8S_KO/SzD_K06]

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

PQF code	Methods for verification of learning outcomes	Assessment criteria
W01, W03, W04, W07	test	assessment of knowledge and skills by the completion of test
U04, U09, U10, U11	Case studies in teams	assessment of knowledge and skills by solving case study
K03, K06,	Case studies in teams	assessment of knowledge and skills by solving case study

Programme content

Programme covers usage of statistical tools in production management including process and human resources management

Course topics

1. Introducing Six Sigma fundamentals with DMAIC.
2. Histogram and Pareto analysis. SPC and process capability in production environment.
3. KPIs management.
4. Task Management Leadership in sixsigma

Teaching methods

Lecture: Multimedia presentation including illustrations and examples.

Bibliography

Basic

1. Brue G., Six Sigma for Managers – 2nd edition, ISBN-10: 0071838635, 2015
2. Pawłowski E., Trzcieliński S., Zarządzanie przedsiębiorstwem: funkcje i struktury, 2011

Additional

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Breakdown of average student's workload

	Hours	ECTS
Total workload	25	1,0
Classes requiring direct contact with the teacher	4	0,0
Doctoral student's own work (literature studies, preparation for tutorials, project preparation) [1]	21	1,0

[1] delete or add other activities as appropriate