[MLA001] Continuous improvement models

GENERAL INFORMATION

Studies	UNIVERSITY MASTER'S DEGREE IN PRODUCTIVE LOGISTICS OPERATIONS MANAGEMENT			**Subject**	Improvement of industrial processes
Semester	2	**Course**	1	**Mention / Field of specialisation**	
Character	COMPULSORY				
Plan	2022	**Modality**	Face-to-face	**Language**	CASTELLANO
Credits	3	**Hours/week**	0	**Total hours**	58 class hours + 17 non-class hours = **75 total hours**

PROFESSORS

UNZUETA ARANGUREN, GORKA

REQUIRED PREVIOUS KNOWLEDGE

Subjects	Knowledge
(No specific previous subjects required)	*(No previous knowledge required)*

LEARNING RESULTS

LEARNING RESULTS	KC	SK	AB	ECTS
MLR121 - Identifies key elements and characteristics of Continuous Improvement (CI): continuous improvement models (CIMs that characterise CI), CI maturity level.	x			1,16
MLR122 - Identifies the main operational methods and methodologies that can support Continuous Improvement as well as their deployment process in different industrial environments	x			1,44
MLR301 - Works in multidisciplinary teams, without distinction, with a cooperative and participative attitude and efficiently communicates the results obtained orally and in writing in different languages. Without any limitation of accessibility to achieve the established objectives.	x		x	0,2
MLR302 - Understands the impact of their profession on the environment in order to practice with social responsibility	x			0,2
			Total:	3

KC: Knowledge or Content / SK: Skills / AB: Abilities

SECONDARY LEARNING RESULTS

RML120 **[!]** ***Identifica elementos y características clave de la Mejora Continua (MC): modelos de mejora continua (MMC que caracterizan la MC), nivel de madurez de la MC***

LEARNING ACTIVITIES	CH	NCH	TH
Conducting tests, giving presentations, presenting defences, taking examinations and/or doing checkpoints	3 h.		3 h.
Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams	5 h.	6 h.	11 h.
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects	7 h.		7 h.
Seminars, debates and/or workshops to deepen and/or share experiences.	8 h.		8 h.

EVALUATION SYSTEM	W
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	30%
Presentation and defence of exercises, case studies, computer practical work, simulation practical work, laboratory practical work, term projects, end of degree project, master's thesis, challenges and problems	30%
Individual written and/or oral tests or individual coding/programming tests	40%

MAKE-UP MECHANISMS

Individual written and/or oral tests or individual coding/programming tests

CH - Class hours: 23 h.
NCH - Non-class hours: 6 h.
TH - Total hours: 29 h.

RML121 **[!]** ***Identifica los métodos operativos y metodologías principalesque pueden dar soporte a la Mejora Continua así como***

su proceso de despliegue en diferentes entornos industriales

LEARNING ACTIVITIES	CH	NCH	TH
Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams	7 h.	9 h.	16 h.
Conducting tests, giving presentations, presenting defences, taking examinations and/or doing checkpoints	3 h.		3 h.
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects	8 h.		8 h.
Seminars, debates and/or workshops to deepen and/or share experiences.	9 h.		9 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	40%	Individual written and/or oral tests or individual coding/programming tests
Presentation and defence of exercises, case studies, computer practical work, simulation practical work, laboratory practical work, term projects, end of degree project, master's thesis, challenges and problems	30%	
Individual written and/or oral tests or individual coding/programming tests	30%	

CH - Class hours: 27 h.
NCH - Non-class hours: 9 h.
TH - Total hours: 36 h.

RML301 **[!]** ***Trabaja en equipos multidisciplinares, sin distinción ninguna, con actitud cooperativa, participativa y comunica eficiente los resultados obtenidos de forma oral y escrita en distintos idiomas. Sin ninguna limitación de accesibilidad para alcanzar lo***

LEARNING ACTIVITIES	CH	NCH	TH
Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams	3 h.	1 h.	4 h.
Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams	1 h.		1 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	50%	Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems
Presentation and defence of exercises, case studies, computer practical work, simulation practical work, laboratory practical work, term projects, end of degree project, master's thesis, challenges and problems	50%	

CH - Class hours: 4 h.
NCH - Non-class hours: 1 h.
TH - Total hours: 5 h.

RML302 **[!]** ***Entiende el impacto de su profesión en el entorno para ejercer con responsabilidad social***

LEARNING ACTIVITIES	CH	NCH	TH
Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams	3 h.	1 h.	4 h.
Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in	1 h.		1 h.

interdisciplinary contexts, real and/or simulated, individually and/or in teams

EVALUATION SYSTEM	*W*	MAKE-UP MECHANISMS
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	50%	Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems
Presentation and defence of exercises, case studies, computer practical work, simulation practical work, laboratory practical work, term projects, end of degree project, master's thesis, challenges and problems	50%	

CH - Class hours: 4 h.
NCH - Non-class hours: 1 h.
TH - Total hours: 5 h.

CONTENTS

1. TOPIC 1: INTRODUCTION TO CONTINUOUS IMPROVEMENT.1.1. Definitions of Continuous Improvement. 1.2. Definition of Continuous Improvement Model. 1.3. Definition of continuous improvement process. 2. TOPIC 2: IMPROVEMENT PHILOSOPHIES AND METHODOLOGIES2.1. Introduction, frame of reference. 2.2. CM philosophies. 2.3. Improvement methodologies. 3. TOPIC 2: CONTINUOUS IMPROVEMENT MODELS 3.1. Characterization of CM, Types of CMM. 3.2. CM maturity. 4. KEY ELEMENTS - PRINCIPLES OF THE CM.5. TOPIC 3: CONTINUOUS IMPROVEMENT DEPLOYMENT.5.1. Processes of CM deployment (PMC). 5.2. Organizational structure of the CM.

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources
Technical articles
Subject notes
Presentations by external Lecturers

Bibliography

Eguren, J.A., 2012. Desarrollo de un modelo para abordar proyectos de mejora continua de procesos productivos de forma eficaz y eficiente. Mondragon Unibertsitatea, Arrasate

European Foundation Quality Management, 2013. Modelo EFQM de excelencia.

Liker, J.K., 2004. The Toyota way: 14 Management Principles from the world´s greatest manufacturer. McGraw-Hill, New York, NY

Ljungström, M., 2004. Implementation of a Work Development Oriented Strategy for Continuous Improvements. Lulea University of technology, Lulea

National Institute of Standards and Technology, 2017. Baldrige excellence framework

Unzueta Aranguren, G., 2020. Desarrollo y despliegue de un modelo de madurez de mejora continua adaptado a una pyme industrial de bienes de equipo del país vasco. Mondragon Unibertsitatea, Arrasate

Imai, M., 2001. Kaizen: La clave de la ventaja competitiva japonesa, 13th ed. RANDOM HOUSE, INC, México, D.F