

[MLC002] Digital Company

GENERAL INFORMATION

Studies	UNIVERSITY MASTER'S DEGREE IN PRODUCTIVE LOGISTICS OPERATIONS MANAGEMENT		Subject	21st century business	
Semester	1	Course	1	Mention / Field of specialisation	
Character	OPTIONAL		Modality	Face-to-face	
Plan	2022	Hours/week	0	Language	CASTELLANO
Credits	3	Total hours	47 class hours + 28 non-class hours = 75 total hours		

PROFESSORS

FERNANDEZ ARRIETA, MIGUEL
EGUREN EGUIGUREN, JOSE ALBERTO

REQUIRED PREVIOUS KNOWLEDGE

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

LEARNING RESULTS

LEARNING RESULTS	KC	SK	AB	ECTS
MLR021 - Identifies, knows and understands the fundamental concepts and the impact and benefits of Industry 4.0 technologies applied to production and logistics operations	x			2,2
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	0,4
MLR302 - Understands the impact of their profession on the environment in order to practice with social responsibility	x			0,4
Total:				3

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

SECONDARY LEARNING RESULTS

RML103 [!] *Identifica, conoce y comprende los conceptos fundamentales y el impacto y beneficios de las tecnologías de la Industria 4.0 aplicados a las operaciones productivas y logísticas*

LEARNING ACTIVITIES

Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects

CH	NCH	TH
40 h.	15 h.	55 h.

EVALUATION SYSTEM

Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems
Individual written and/or oral tests or individual coding/programming tests

W

30%

MAKE-UP MECHANISMS

Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems

CH - Class hours: 40 h.
NCH - Non-class hours: 15 h.
TH - Total hours: 55 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

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

CH	NCH	TH
3 h.	7 h.	10 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

100%

Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems

CH - Class hours: 3 h.

NCH - Non-class hours: 7 h.

TH - Total hours: 10 h.

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

LEARNING ACTIVITIES

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

CH

4 h.

NCH

6 h.

TH

10 h.

EVALUATION SYSTEM

W

Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems

100%

MAKE-UP MECHANISMS

Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems

CH - Class hours: 4 h.

NCH - Non-class hours: 6 h.

TH - Total hours: 10 h.

CONTENTS

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources

Moodle Platform
Class presentations

Bibliography

P. Leita˜o, A. W. Colombo and S. Karnouskos, “Industrial automation based on cyber-physical systems technologies:Prototype implementations and challenges,” Computers in Industry, vol. 81, pp. 11-25, 2016.
Guardian News & Media Limited, “Google Glass – hands-on review,” 2019. [Online]. Available: <https://www.theguardian.com/technology/2013/jul/02/google-glass-review-augmented-reality>. [Accessed 1 May 2019].
. Lee, B. Bagheri and H.-A. Kao, “A Cyber-Physical Systems architecture for Industry 4.0-based manufacturing systems,” Manufacturing Letters, vol. 3, pp. 18-23, 2015.
Nayyar A., - Kumar A., A Roadmap to Industry 4.0: Smart Production, Sharp Business and Sustainable Development. Springer 2020. <https://doi.org/10.1007/978-3-030-14544-6>
“IMPULS, Industrie 4.0 readiness, dr. Karl lichtblau dr. Roman bertenrath, matthias blum , martin bleider , agnes millack , katharina schmitt , edgar schmitz , moritz schr  ter aachen, cologne, october 2015”
Franka, A., Dalenogareb, L. , Ayalac, N., Industry 4.0 technologies: Implementation patterns in manufacturing Companies, International Journal of Production Economics, 2019