[MHB201] METHODOLOGICAL GUIDELINES FOR PREPARING A DOCTORAL THESIS

GENERAL INFORMATION

Studies	UNIVERSITY MASTER IN INDUSTRIAL ENGINEERING			**Subject**	?
Semester	1	**Course**	2	**Mention / Field of specialisation**	???
Character	OPTIONAL				
Plan	2022	**Modality**	Face-to-face	**Language**	CASTELLANO
Credits	3	**Hours/week**	0.67	**Total hours**	12 class hours + 63 non-class hours = **75 total hours**

PROFESSORS

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REQUIRED PREVIOUS KNOWLEDGE

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

LEARNING RESULTS

LEARNING RESULTS	KC	SK	AB	ECTS
MHRA19 - To demonstrate capacity for the management of technological Research, Development and Innovation		x		1,5
MHR125 - To possess and understand knowledge that provides a basis or opportunity to be original in the development and/or application of ideas, often in a research context		x		1,5
			Total:	3

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

ENAEE LEARNING RESULTS	ECTS
ENA126 - Knowledge and comprehension: Critical knowledge of the broad multidisciplinary context of engineering and the interrelations existing between the knowledge of the different fields.	0,38
ENA130 - Analysis in engineering: Ability to identify, formulate and solve engineering problems in emerging areas of their speciality.	0,37
ENA132 - Engineering projects: Ability to project while applying the knowledge and cutting-edge understanding of their engineering speciality.	0,37
ENA134 - Research and innovation: Ability to carry out bibliographic searches and consult and use databases and other information sources with discretion, in order to carry out simulations with the aim of conducting research on complex topics of their speciality.	0,37
ENA136 - Research and innovation: High-level capacity and ability to project and carry out experimental investigations, interpret data with criteria, and draw conclusions.	0,37
ENA137 - Research and innovation: Ability to investigate the application of the most advanced technologies in their speciality.	0,37
ENA145 - Preparation of judgements: Ability to manage complex technical or professional activities or projects that require new approach approaches, assuming responsibility for the decisions made.	0,37
ENA148 - Continued training: Ability to undertake their own continued training independently.	0,37
Total:	3

CONTENTS

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources

Class presentations
Presentations by external Lecturers

Bibliography

OCDE (2015), Frascati Manual 2015: Guidelines for Collecting and Reporting Data on Research and Experimental Development, The Measurement of Scientific, Technological and Innovation Activities. Publicado por acuerdo con la OCDE, París (Francia). DOI: http://dx.doi.org/10.1787/9789264239012-en

Leyton Castillo, A. (2012). Clases y tipos de Investigación Científica. https://investigacionestodo.wordpress.com/2012/05/19/clases-y-tipos-de-investigacion-cientifica/.

Cegarra Sanchez, J.(2004). Metodología de la investigación científica y tecnológica. Madrid. Diaz de Santos.

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Hernandez Sampieri, R. (2017). Fundamentos de investigación. Méjico. Mc Graw Hill.

Nallaperumal, K.(2013). Engineering Research Methodology A Computer Science and Engineering and Information and Communication Technologies Perspective. Manonmaniam Sundaranar University. Tirunelveli, Tamil Nadu, India. https://www.researchgate.net/publication/259183120_Engineering_Research_Methodology_A_Computer_Science_and_Engineering_and_Information_and_Communication_Technologies_Perspective

Kumar, R. (2011). Research methodology – A step-by-step guide for beginners. New Delhi. SAGE Publications.

Sáez de Buruaga, M. (2018). A Novel Procedure Based on 2D Finite Element Modeling and Orthogonal Cutting Tests to Predict Machinability and Tool Wear Evolution Considering the Microstructure Effect of Lamellar Ferrite-Pearlite Steels (tesis doctoral).MU-MGEP.

Bunge, M. (2001). La ciencia, su método y su filosofía. Editorial Sudamericana, Buenos Aires.