

[MHD304] TRANSPORTATION AND INDUSTRIAL MAINTENANCE

GENERAL INFORMATION

Studies	UNIVERSITY MASTER IN INDUSTRIAL ENGINEERING		Subject	?
Semester	1	Course	1	Mention / Field of specialisation
Character	COMPULSORY		Language	CASTELLANO
Plan	2025	Modality	Face-to-face	Total hours 30 class hours + 45 non-class hours = 75 total hours
Credits	3	Hours/week	1.67	

2030 AGENDA GOALS



PROFESSORS

SAN MIGUEL UGARTE, AMAIA

DIEZ RODRIGUEZ, OLATZ

REQUIRED PREVIOUS KNOWLEDGE

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

LEARNING RESULTS

LEARNING RESULTS	KC	SK	AB	ECTS
MH2517 - Demonstrate capacity for the design, construction and operation of industrial plants.		x		0,8
MH2521 - Demonstrate knowledge of industrial transportation and handling methods and techniques.		x		1,48
MH2522 - Demonstrate knowledge and skills to perform verification and control of facilities, processes and products.		x		0,36
MH2526 - Apply acquired knowledge and problem-solving skills in new, unfamiliar or changing environments within broader (or multidisciplinary) contexts related to their area of study.		x		0,12
MH2528 - Communicate its conclusions and the ultimate knowledge and rationale behind them to specialized and non-specialized audiences in a clear and unambiguous manner.		x		0,12
MH2530 - Work with people, involving them and leading them in a dynamic directed towards a common objective that includes reflection on their ethical and social responsibility, with a global vision of the work to be carried out and the characteristics required (quality, deadlines, etc.), assuming responsibility for the decisions taken.		x		0,12

Total: 3

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

SECONDARY LEARNING RESULTS

RMH111 [!] *Conoce los distintos sistemas de elevación (grúas, montacargas, ascensores...), la tecnología asociada a los mismos y es capaz de plantear alternativas según las necesidades del proceso productivo.*

LEARNING ACTIVITIES	CH	NCH	TH
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects	2 h.	3 h.	5 h.
Carrying out visits and/or learning trips to other university centres, laboratories, companies and/or thermal power plants	3 h.	2 h.	5 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
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	20%	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
Individual written and/or oral tests or individual coding/programming tests	80%	Individual written and/or oral tests or individual coding/programming tests

CH - Class hours: 5 h.
NCH - Non-class hours: 5 h.
TH - Total hours: 10 h.

RMH110 [!] *Conoce y diseña los medios de almacenaje, transporte y distribución de los materiales y productos terminados o en curso de fabricación dentro de la planta.*

LEARNING ACTIVITIES

	CH	NCH	TH
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects	20 h.	35 h.	55 h.
Carrying out visits and/or learning trips to other university centres, laboratories, companies and/or thermal power plants	5 h.	5 h.	10 h.

EVALUATION SYSTEM

W

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

80%

MAKE-UP MECHANISMS

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

CH - Class hours: 25 h.

NCH - Non-class hours: 40 h.

TH - Total hours: 65 h.

CONTENTS

1- Introduction to industrial conveying and handling systems
2- Industrial conveying
3- Warehousing
3.1-Introduction
3.2-Warehouse function
3.3-Selection of the type of warehouse
3.4-Pre- and post-storage processes
3.5-Warehouse operations
3.6-Warehouse Zones
3.7-Product zoning
3.8-Warehouse design factors
3.9-Warehouse elements
4- Unit load
5- Storage methods
5.1-Introduction
5.2-How goods are placed
5.3-Utilization of available space
5.4-Inbound and outbound flows
5.5-Warehouse management
6-Storage elements for pallets
7-Storage elements for boxes
8-Handling equipment
9-Order picking systems
10-Industrial distribution
11-Logistics
4.0 and Internet of things

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources

Subject notes
Presentations by external Lecturers
Moodle Platform
Class presentations
Video projections
Slides of the subject
Topic related web quires

Bibliography

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Rodríguez, R. (2015). Guía de Seguridad en procesos de almacenamiento y manejo de cargas. A Coruña: FREMAP.

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