



COURSE DETAILS

“ UNMANNED MARINE PLANTS ”

ING-IND/02

DEGREE PROGRAMME: AUTONOMOUS VEHICLE ENGINEERING (MOVE)

ACADEMIC YEAR 2022-2023

GENERAL INFORMATION – TEACHER REFERENCES

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GENERAL INFORMATION ABOUT THE COURSE

YEAR OF THE DEGREE PROGRAMME: II
SEMESTER: I
CFU: 6

REQUIRED PRELIMINARY COURSES

None

PREREQUISITES (IF APPLICABLE)

None

LEARNING GOALS

The course aims to provide the student with the basic knowledge of the propulsion and auxiliary systems of marine vessels, particularly with reference to automatic management. Furthermore, notions will be provided for the integration of these devices with each other, with navigation systems and remote control station. Safety and regulatory issues will also be considered in the course.

Students will be given indications to use a simulator in dedicated software environment.

EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

Knowledge and understanding

The student will be familiar with the ship technology and the marine environment. He should know the main aspects of the most important system onboard and their automatic operation under different environment conditions. He will be able to understand P&I diagrams of ship plants in order to provide automatic operation.

Applying knowledge and understanding

The student must demonstrate that he is able to read and interpret P&ID diagram relating to the main ship installations and its connection with the relative automatic control logic. He must also show an understanding of the operating principles of the systems presented during the course

COURSE CONTENT/SYLLABUS

Introduction on ship technology and conventions

The function of classification society and their rules. – 1 CFU

Propulsion plants and machinery automation – 2 CFU

Electrical power generation station and its management – 1 CFU

Integrated ship automation – 0.5 CFU

Simulation – 1.5 CFU

READINGS/BIBLIOGRAPHY

Harrington, R.L., *Marine Engineering, Society of Naval Architects & Revised 1992*

Cowley, J., *The Running and Maintenance of Marine Machinery, Marine Management (Holdings) Ltd.; 6th edition (January 1, 1992)*

TEACHING METHODS

Lectures (80% of the hours) and practical exercises and laboratories (20%)

EXAMINATION/EVALUATION CRITERIA

a) Exam type:

Exam type	
written and oral	
only written	
only oral	X
project discussion	
other	

b) Evaluation pattern:

The examination committee establishes the grade according to the result of the oral interview.