|  |  |
| --- | --- |
| Course Title | **Marine Engines**  |
| Course Code | MANS-215 |
| Course Type | Required |
| Level | 1st Cycle |
| Year / Semester | 2nd Year, Fall Semester |
| Teacher’s Name |  |
| ECTS | 3 | Theory | Laboratory | Simulation | Tutorial |
| 2 | --- | --- | --- |
| Course Purpose and Objectives | The main objectives of the course are to:* present the operational and constructional principles of the marine main engines and the auxiliary machinery
* provide the terminology of marine mechanology
* offer details on remote controls, automation and engine room operational observation
* explain the basics on fuels and lubricants
 |
| Learning Outcomes | After completion of the course students are expected to be able to: * comprehend the basic working principles of a modern engine room
* name all the major machinery parts, components and networks in the engine room
* recognize the automated way a modern engine room is run
* identify the major characteristics of the fuels and lubricants used in marine engines
 |
| Prerequisites | None | Required | None |
| Course Content | * Operational description of the vessel’s propulsion system
* Main engine systems
* Auxiliary machinery and installations
* Engine room safety plans
* Remote control systems, automations, engine room operation’s observation systems
* Distance, speed, consumption
* Deck machinery
* Pumps, pumping net
* Steering system
* Systems failures
 |
| Teaching Methodology | Lectures, in-class assignments, sound and video equipment, computer, projector, simulation software |
| Bibliography | * + - 1. **Required Textbooks/Reading:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Authors** | **Title** | **Publisher** | **Year** | **ISBN** |
| McGeorge, H., D.  | General engineering knowledge | Routledge  | 2011 | 9780750600064 |

* + - 1. **Recommended Textbooks/Reading:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Authors** | **Title** | **Publisher** | **Year** | **ISBN** |
| Embleton, W. | Instruments & control systems for deck officers | Reeds  | 2002 | 9780901281159 |
| Taylor, D., A.  | Introduction to marine engineering | Butterworth-Heinemann | 1996 | 9780750625302 |

 |
| Assessment | Homework, in-class assignments, projects, exams, final exam. |
| Language | English  |