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| Course Title | **ARPA & RADAR– Watch Keeping** | | | | | | |
| Course Code | MANS-431 | | | | | | |
| Course Type | Required | | | | | | |
| Level | 1st Cycle | | | | | | |
| Year / Semester | 4th Year, Spring Semester | | | | | | |
| Teacher’s Name |  | | | | | | |
| ECTS | 6 | Theory | | Laboratory | Simulation | | Tutorial |
| 1 | | --- | 2 | | --- |
| Course Purpose and Objectives | The main objectives of the course are to:   * introduce the Regulations for avoiding collisions at sea * describe the COLREGs field of application * display the use of RADAR / ARPA in collision avoidance * demonstrate the target plotting procedure * discuss about the use of RADAR / ARPA in accordance with the COLREGs provisions * present the navigation procedures in Vessel Traffic Separation Schemes | | | | | | |
| Learning Outcomes | After completion of the course students are expected to be able to:   * recognize the lights, shapes, sounds and the related COLREGS procedures * realize the rules’ field of application * comprehend the role of RADAR / ARPA in collision avoidance * execute in detail the target plotting procedure * implement the appropriate use of RADAR /ARPA according to the COLREGs provisions * apply the required procedures when navigating close or in a Vessel Traffic Separation Scheme | | | | | | |
| Prerequisites | MANS-214 | | Required | | | None | |
| Course Content | * Description of ARPA devices * IMO standards * Target acquisition (auto and manual) * Warning alarms (operational and system’s) * Trial maneuver * Factors affecting the system’s accuracy * Errors, limitation precautions * ARPA initiation procedure * ARPA overreliance dangers * Watch keeping * Definition, explanation, and application of the COLREGs rules * Detailed explanation and application of VTS procedures * Distress signals * Marine accident case studies * The failure to comply with the COLREGs rules as a cause for accidents | | | | | | |
| Teaching Methodology | ARPA simulation and theory at BSM Maritime Training Centre | | | | | | |
| Bibliography | 1. **Required Textbooks/Reading:**  |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Authors** | **Title** | **Publisher** | **Year** | **ISBN** | | Bole, A., Wall, A., Norris, A. | RADAR and ARPA manual | Elsevier | 2014 | 978-0-08-097752-2 |  1. **Recommended Textbooks/Reading:**  |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Authors** | **Title** | **Publisher** | **Year** | **ISBN** | | Cahill, R.A. | Collisions and their causes | Nautical institute | 2002 | 1-87077-60-1 | | IMO | Ships’ routing | IMO | 2013 | 978-92-801-15543 | | | | | | | |
| Assessment | Examination on ARPA simulator and provision of Certificate by approved and certified training center – BSM Maritime Training Centre | | | | | | |
| Language | English | | | | | | |