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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
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| 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
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| 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
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| Teaching Methodology | ARPA simulation and theory at BSM Maritime Training Centre |
| Bibliography | 1. **Required Textbooks/Reading:**

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| --- | --- | --- | --- | --- |
| **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 |

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| Assessment | Examination on ARPA simulator and provision of Certificate by approved and certified training center – BSM Maritime Training Centre |
| Language | English  |