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| **Country**  **BG** | **Institution**  **NVNA** | **Course title:**  **SHIP HANDLING AND SAFETY OF NAVIGATION**  ***Training Module assisted by the use of a Full Mission Virtual Ship Handling Simulator*** | **ECTS**  **4** |

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| Service  **Navy** | **Minimum Qualification for Lecturers**   * Naval experience as CO, XO or OOW. * English language proficiency: NATO STANAG 6001 - Level 3. | |
| Languages  **English** |
| **Prerequisites for international participants:**   * English language skills: NATO STANAG 6001 - Level 2. | | **Goal of the Module:**   * Basic Knowledge of Command and Control procedures in the Navy related to the ship`s safety. * Familiarization with principles of Simple Maneuvering exercises and safety at sea. * Skills for operating NATO Naval Tactical Messages. * Skills for work and leadership in multinational environment. |

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| Learning outcomes | Knowledge | * Formulate the basic principles of conducting Simple Maneuvering exercises based on the Command and Control procedures in the Navy related to the ship`s safety. * Define the Bridge Resource Management. |
| **Skills** | * Obtain common situational awareness in a dynamic navigational environment. * Use basic voice communication techniques and procedures on the bridge and within the bridge team. |
| **Competence** | * Exploit the resources on the Navigational Bridge in accordance with the basic voice communication techniques and procedures. * Establish and exploit efficiently the Command and Control system in accordance with assigned tactical level and ship`s safety requirements. |

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| **Verification of learning outcomes** |
| * **Observation**:   + The course is consisted of theoretical classes followed by practice on Full Mission Virtual Ship Handling Simulator, resembling a warship navigational bridge. During the practice the individual performance of each student is observed. * **Tests**:   + The module learning outcomes verification concept is based on the assessment of the trainee’s knowledge, skills, and competences revealed after their personal tasking during the training process supported by fictitious scenarios developed in a virtual environment. * **Evaluation**:   + The final evaluation of trainees is made on the basis of observation of the results on the practical tests during the final stage of the presented module. Upon completion Certificate of attendance, individual feedback and 2 ECTS are provided to each participant. |

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| **Module details** | | |
| **Main Topic** | **Reco-mmended**  **WH** | **Details** |
| Command, Control and Communication (C3) principles in the Navy | 2 | * Theoretical basis of C3 principles * Implementation of C3 principles on Tactical Level in the Navy |
| Organization of Surface Naval Ship Navigational Bridge | 2 | * Navy surface vessel resembled as complex system. * Structural elements, hierarchical structure, relations between elements, and processes on navigational bridge. * Ship`s safety. |
| Bridge Resource Management | 2 | * Resources of the bridge. * Leadership and Adequate Management of Available Resources. |
| International Rules of the Road | 4 | * Description of General Rules, Steering and Sailing Rules. * Navigational Lights and Day-shapes. * Sound and Light Signals. * Common critical situations at sea and good practices to avoid a collision between vessels. |
| Harbor and Anchorage | 2 | * General principles and planning. * Organization of Navigational Bridge. * Leaving harbor. Entering harbor. * Mooring and unmooring to a pier. * Anchoring. |
| Man Overboard | 4 | * Procedures, Communications, Specialized Equipment on Board, Recovery Maneuvering. |
| Surface Formations and Maneuvering of Surface Task Group | 2 | * Naval Groups, Units and Elements. * Responsibilities. * Line and Circular Formations. |
| Bridge to Bridge Communications and Tactical Signals | 2 | * Tactical signals for maneuvering in surface formation. * Processing of Tactical Signals. |
| Joint Sailing of Surface Task Group | 8 | * Implementation of knowledge and skills for safe tactical maneuvering in Surface Task Group. |
| Final Evaluation | 2 | * Observations of results and practical tests during the final stage of the module. |
| **Total lecture WH** | **30** |  |
| **Additional hours (WH) to increase the learning outcomes** | | |
| E-Learning | 30 | **Main topics:**   * NATO Multinational Tactical signals and maneuvering Procedures. * Bridge Resource Management. * International Rules of the Road. |
| **Total WH** | **60** | 30 hours E-learning.  30 residential hours. |