

Ship handling and Safety of Navigation

Training Module assisted by use of a Full Mission Virtual Ship Handling Simulator

Module Description

Country BG	Institution NVNA	Course title: SHIP HANDLING AND SAFETY OF NAVIGATION <i>Training Module assisted by use of a Full Mission Virtual Ship Handling Simulator</i>	ECTS 2
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Service Navy	Minimum Qualification for Lecturers <ul style="list-style-type: none"> • Naval experience as CO, XO or OOW. • English language proficiency: NATO STANAG 6001 - Level 3. 		
Languages English			
Prerequisites for international participants: <ul style="list-style-type: none"> • English language skills: NATO STANAG 6001 - Level 2. 		Goal of the Module: <ul style="list-style-type: none"> • Basic Knowledge on 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. 	

Learning outcomes	Knowledge	<ul style="list-style-type: none"> • Formulate the basic principles of conducting Simple Maneuvering exercises and safety at sea based on the Command and Control procedures in the Navy related to the ship's safety. • Define the Bridge Resource Management.
	Skills	<ul style="list-style-type: none"> • Ability to obtain common situational awareness in dynamic navigational environment. • Use basic voice communication techniques, procedures on bridge and within the bridge team.
	Competence	<ul style="list-style-type: none"> • Control resources on Navigational Bridge in accordance with the basic voice communication techniques and procedures related to operations of naval vessel. • Establish and exploit efficiently 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 battle ship navigational bridge.
- **Tests:**
 - The module learning outcomes verification concept is based on assessment of trainee's knowledge, skills, and competences revealed after personal tasking during training process supported by fictitious scenarios developed into a virtual environment.
- **Evaluation:**
 - The final evaluation of trainees is made on basis of observation of results and practical tests during the final stage of the presented module. Certificate of attendance and individual feedback is provided to participants.

Module details

Main Topic	Reco- mmended WH	Details
Command, Control and Communication (C3) principles in the Navy	2	<ul style="list-style-type: none"> • Theoretical basis of C3 principles • Implementation of C3 principles on Tactical Level in the Navy
Organization of Surface Naval Ship Navigational Bridge	2	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Resources of the bridge. • Leadership and Adequate Management of Available Resources.
International Rules of the Road	4	<ul style="list-style-type: none"> • Description of General Rules, Steering and Sailing Rules. • Navigational Lights and Day-shapes. • Sound and Light Signals.

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		<ul style="list-style-type: none"> Common critical situations at sea and good practices to avoid a collision between vessels.
Harbor and Anchorage	2	<ul style="list-style-type: none"> General principles and planning. Organization of Navigational Bridge. Leaving harbor. Entering harbor. Mooring and unmooring to a pier. Anchoring.
Man Overboard	4	<ul style="list-style-type: none"> Procedures, Communications, Specialized Equipment on Board, Recovery Maneuvering.
Surface Formations and Maneuvering of Surface Task Group	2	<ul style="list-style-type: none"> Naval Groups, Units and Elements. Responsibilities. Line and Circular Formations.
Bridge to Bridge Communications and Tactical Signals	2	<ul style="list-style-type: none"> Tactical signals for maneuvering in surface formation. Processing of Tactical Signals.
Joint Sailing of Surface Task Group	8	<ul style="list-style-type: none"> Implementation of knowledge and skills for safe tactical maneuvering in Surface Task Group.
Final Evaluation	2	<ul style="list-style-type: none"> 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		
Self-Studies	20	References: <ul style="list-style-type: none"> MTP-01, Volume I MTP-01, Volume II IMO Regulatory update – Officer of the Watch. Naval Ship Handling guide book.
Total WH	50	30 residential hours (10 teaching hours + 18 practical exercises + 2 hours final assessment); 20 hours self-study.