



TEACHER'S MANUAL

Course:

Occupational Safety Onboard

Part I - Introduction for a vessel as a working environment

OCCUPATIONAL SAFETY ON BOARD – VESSELS AS A WORKING ENVIRONMENT, 1 ECTS = 27 HOURS

TEACHER'S MANUAL

The purpose of the teacher's manual is to assist teachers in organizing and introducing training courses. It is not the intention of teacher's manual to provide teachers with a rigid teaching package which they are expected to "follow blindly", because national educational systems, groups size and the cultural backgrounds of trainees in maritime subjects vary considerably from country to country. The teacher can choose suitable parts for target group and can even make changes that is needed to achieve the learning outcomes.

The teacher's manual has been designed to give ideas how to you use material developed in the OnBoard Med –project. Teacher's manuals content is: objectives, content, target group and student's amount, implementation and learning methods, assessment, learning process (summary) and tips for the teacher.

Due to the immensely different environment on a ship as compared to ashore, new seafarers must be prepared for a life at sea. The work, methods and organization vary depending on the size and type of ship. Ships come in many types; small and large dry cargo ships, ferries and ro-ro ships for short or long trips, tankers are only a few examples. Working on a ship can be hazardous occupation for the uninitiated.

This course will give new seafarers an insight into the vessel as a working environment, various safety hazards on board the ship and elements of a ship and working procedures on board so that they adjust to the shipboard environment and are better prepared to cope with any unforeseen circumstances.

Objectives: Student

A trainee successfully completing this course will be able to:

- recognize different types of ships;
- understand different areas of the ship;
- recognize different emergency situations
- recognize different working environments during common ship's operations such as mooring operations, cargo handling, work on height etc.
- to know how to perform higher risk ship's operations such as entry to enclosed space, hot works etc.

Target group and student amount:

- Mariners, nurses and students for those fields.
- Online learning no limitation, practical exercise max 15 person exception big virtual simulation

Content:

CONTENT	TIME	LEARNING METHODS and MATERIAL	ASSESSMENT
Shipboard Familiarization. Introduction to Basic Safety onboard.	2 h	Individual V1; T2, ch.4	study diary
Different types of cargo ships	1 h	Lecture PP1; T1, ch.24;	study diary
International rules and regulations	1h	Lecture PP1;	study diary
Crew onboard and occupation groups in different working environment. (Choose any known ships to show as example) <ul style="list-style-type: none"> ▫ Deck (outside), ▫ Kitchen, ▫ Engine room, ▫ Accomodation; 	2 h	Lecture PP1; PP2; T2, ch3; T3, ch3;	study diary
Different workplaces: <ul style="list-style-type: none"> ▫ mooring operations, ▫ safety during Lifeboat drills, ▫ load-unload cargo, ▫ work on height (outboard), ▫ use of equipment and machinery 	2h	Lecture PP1; T3, ch4;	study diary
Introduction to High risk shipboard operations, such as: <ul style="list-style-type: none"> ▫ access to enclosed spaces ▫ hot works ▫ work at height 	3h	Workshop PP2 V3	study diary
Online discussion: <ul style="list-style-type: none"> ▫ Investigation of shipboard accident(s) 	4h	Group exercises T4; T5;	Pass/fail
Use of PPE – use of breathing apparatus		Workshop V4	Pass/fail
Investigation of accident(s)	2h	Workshop T6	Pass/fail
Simulation. Entrance into enclosed space. Use of PPE	3 h	Simulations T7	Pass/fail
Final test	1h		Pass/fail

Implementation and learning methods:

- Individual, pair and group exercises
- Lectures (online and face to face)

- Workshops
- Skill labs and simulations

Assessment:

- study diary (fail, 1-5)
- written paper (group work) (fail, 1-5)
- online discussions (pass / fail)
- skill lab and simulations (fail / pass)

Learning materials

PowerPoint Presentation (PP)

- PP1 - Vessel as a Working Environment. Part 1 -Cargo ship. (Optima)
- PP2 - Vessel as a Working Environment. Part 2 -Emergency situations. (Optima)

Textbooks and topics (T)

- T1- ACCIDENT PREVENTION ON BOARD SHIP AT SEA AND IN PORT (https://www.ilo.org/wcmsp5/groups/public/@ed_protect/@protrav/@safework/documents/normativeinstrument/wcms_107798.pdf)
- T2 - CODE OF SAFE WORKING PRACTICES FOR MERCHANT SEAFARERS (COSWP), 2018 (<https://www.gov.uk/government/publications/code-of-safe-working-practices-for-merchant-seafarers-coswp-2018>)
- T3 - THE ULTIMATE GUIDE TO PERSONAL SAFETY ON BOARD SHIPS (<HTTP://TIPS.SEAMENSCLUB.RO/PDF/THE-ULTIMATE-GUIDE-TO-PERSONAL-SAFETY-ON-SHIPS.PDF>)
- T4 - CASE STUDIES (1): MV SAVA LAKE (LATVIAN FLAG) – TWO FATALITIES ONBOARD
- T5 - PASSENGER CRUISE SHIP SAGA ROSE - FATALITY ON BOARD / 11 JUNE 2008
- T6 - MV VIKING ISLAY - FATALITIES ON BOARD -ENCLOSED SPACE
- T7 – Simulation scenario – Entrance in enclosed space. Use of PPE

Video (V)

- V1 - Shipboard Familiarization (<https://www.youtube.com/watch?v=x6Tz0Yf3FZc>)
- V2 - Healthy and Safety Requirements (https://www.youtube.com/watch?v=ygwc7DRxes0&list=PLIXNHuHUDcsiRUeYS_u6in1qTGA2tT-hh&index=5&t=161s)
- V3 - Enclosed Space Entry - Confined Space Entry (<https://www.youtube.com/watch?v=yEqJUfqW7DM&list=PLXNEJpAaCDcwmxkZlvSw6O0jIPm8WsdSw>)

- V4 - Breathing Apparatus - Different Types of Breathing Apparatus (<https://www.youtube.com/watch?v=Iz-9Xn95Twk&list=PLXNEJpAaCDcwmxkZlvSw6O0jIPm8WsdSw&index=13>)

Learning methods

eLearning is learning utilizing electronic technologies to access educational material outside a traditional classroom. eLearning can be f. ex. online videos, lectures, discussions, teacher consultation, e-testing.

Exercise is an activity carried out for a specific purpose in online or face to face and can be individual or group exercise. F. ex. pre tasks, classroom exercise, model answer questions.

Lecture: an educational and theoretical talk to the students which should be interactive. When the instructor incorporates engagement triggers and breaks the lecture at least once per class to have students participate in an activity that lets them work. The engagement triggers capture and maintain student attention and allow students to apply what they have learned or give them a context for upcoming lecture material. Lecture can be online, video lecture or face to face.

Skill lab provide students with an opportunity to learn and develop the skills essential to nursing / maritime practice within a supportive and safe environment.

Simulation is a form of experiential learning. Where teacher sets problems, events or scenario that can be used for training students, how to behave in authentic situation within a supportive and safe environment. It includes introduction, simulation and debriefing.

Workshop is a period of practical work on a particular subject in which a small group of people share their knowledge or experience. Workshop can also be like learning café where you develop new ideas or approaches to specific subject.

SUMMARY

From this summary you as a teacher can easily choose by the learning subjects and material you want to use with you students (depends on the target group and the group size).

And also depending on the time that you can use in the subject, there is lectures, exercises to do in the classroom with bigger group.

T4. CASE STUDIES (1)

MV SAVA LAKE (LATVIAN FLAG) – TWO FATALITIES ONBOARD



Photo: https://www.parismou.org/sites/default/files/Sava%20Lake_0.jpg

On 18 January 2008, the Latvian registered cargo vessel Sava Lake was proceeding towards the Dover Strait when it was discovered that two of the vessel's able seamen were missing. During a search of the vessel, the bodies of the two missing crew were found at the bottom of the access ladder inside the forward store. The deaths were reported to the UK authorities, and Sava Lake diverted to Dover, where an investigation into the causes and circumstances of the accident was commenced.

Sava Lake had loaded parcels of "steel turnings" in Copenhagen and Horsens, Denmark, before sailing for Leixoes, Portugal on 15 January. Prior to loading, the master of Sava Lake had received conflicting information about the properties of the intended cargo. Notwithstanding this uncertainty, the master accepted the cargo, which was in fact an IMDG Code Class 4.2 material, ferrous metal turnings. This type of cargo is liable to self-heat, and can therefore reduce the levels of oxygen within the cargo hold. Documentation held on board the vessel specifically prohibited Sava Lake from carrying this type of cargo.

The investigation found that:

1. To clear the cargo hold ventilation trunking of any build up of cargo residues from the hold, or sea water from the deck ventilator, an earlier crew had cut the flexible bellow pieces that were fitted adjacent to the ventilation fan. This created a direct air path from the cargo hold into the forward store.
2. Air in the hold, with oxygen levels of around 6% by volume, almost certainly migrated into the forward store, leading to the asphyxiation of the two ABs when they entered the unventilated space. The reason why the two men entered the forward store, without the knowledge of the vessel's senior officers, could not be established.
3. Notwithstanding the nature of the cargo stowed in the adjacent hold, the ship's staff did not consider the forward store to be an enclosed space, therefore no precautions were taken before the store was entered.

[Report on the investigation of the death by asphyxiation of two crewmen on board Sava Lake approaching Dover Strait on 18 January 2008](#)

T5. CASE STUDIES (2)

PASSENGER CRUISE SHIP SAGA ROSE - FATALITY ON BOARD / 11 JUNE 2008



On 11 June 2008, a motorman found an experienced petty officer lying at the bottom of a ballast tank on board the passenger cruise ship Saga Rose while the ship was visiting Southampton, UK.

The petty officer was the vessel's second bosun who had been sent to the tank to determine whether it contained fresh or salt water. The motorman raised the alarm and then returned to the scene and entered the tank to help the petty officer, who was a close friend. The motorman then also collapsed.

The onboard emergency response team quickly arrived with breathing apparatus, and the local emergency services were called to assist. The motorman was successfully revived and evacuated from the tank, but the second bosun died before he could be recovered.

The second bosun was instructed to test the water in the tank on the assumption that the tank was full and the water was within easy reach from outside the tank.

As a result, a permit to work was not deemed to be necessary. However, the tank contained only a small amount of water and the second bosun entered it despite being aware of, and practised in, the vessel's procedures for entering enclosed spaces. The atmosphere inside the tank contained insufficient oxygen to sustain human life due to the corrosion of the tank's steel structure.

1. The second bosun entered the ballast tank, the atmosphere of which contained insufficient oxygen to sustain human life, despite being fully aware of the vessel's procedures for entering enclosed spaces.

2. The motorman's attempt to rescue the second bosun was undoubtedly instinctive and well intended. Nevertheless, he put himself into serious danger and ultimately hindered the recovery of his friend.
3. The need for further action to improve seafarers' knowledge and appreciation of the risks involved with entry into enclosed spaces and compliance with onboard procedures is compelling.

[Report on the investigation of the fatality on board passenger cruise ship Saga Rose in Southampton, England on 11 June 2008](#)

T6 CASE STUDIES (3)

MV VIKING ISLAY - FATALITIES ON BOARD -ENCLOSED SPACE




WP-3. Occupational Safety

Marine Occupational Safety
Simulation Scenario

LMA
06/03/2019

Rīga



WP-3. Occupational Safety

Objectives

- UNDERSTAND THE SHIP AS A SPECIFIC WORKING ENVIRONMENT;
- UNDERSTAND PHISICAL RISKS ONBOARD THE SHIP;
- UNDERSTAND BASIC PRINCIPLES OF RISK ASSESMENT;
- UNDERSTAND USE OF PERSONAL PROTECTIVE EQUIPMENT;

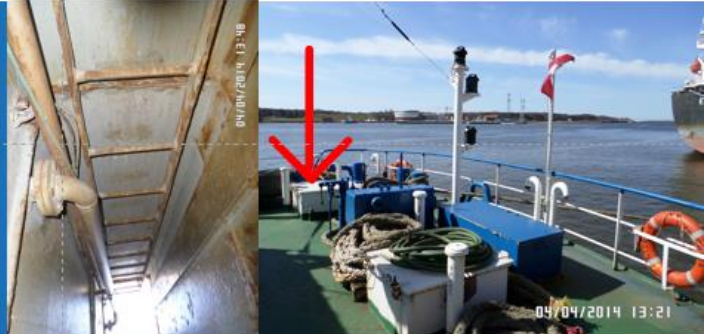
Prework:

- use Optima to prepare for simulations
- study Occupational Safety (online lecture, presentations)
- Watch [online videos of Enclosed Space Entry - Confined Space Entry – \(V3\)](#)
- Complete pre-test – [Occupational Safety](#). (not less than 80% of correct answers) **(to be developed!)**

Marine Occupational Safety simulation scenario – Objectives/Prework

WP-3. Occupational Safety

- The vessel, dry cargo ship carrying the cargo: iron scrap. Following the heavy storm weather it was appeared that necessary to attend the cargo hold through the access hatch (red arrow on the photo).
- Describe possible physical risks, and action to mitigate that risks
- Describe PPE to be used during activities



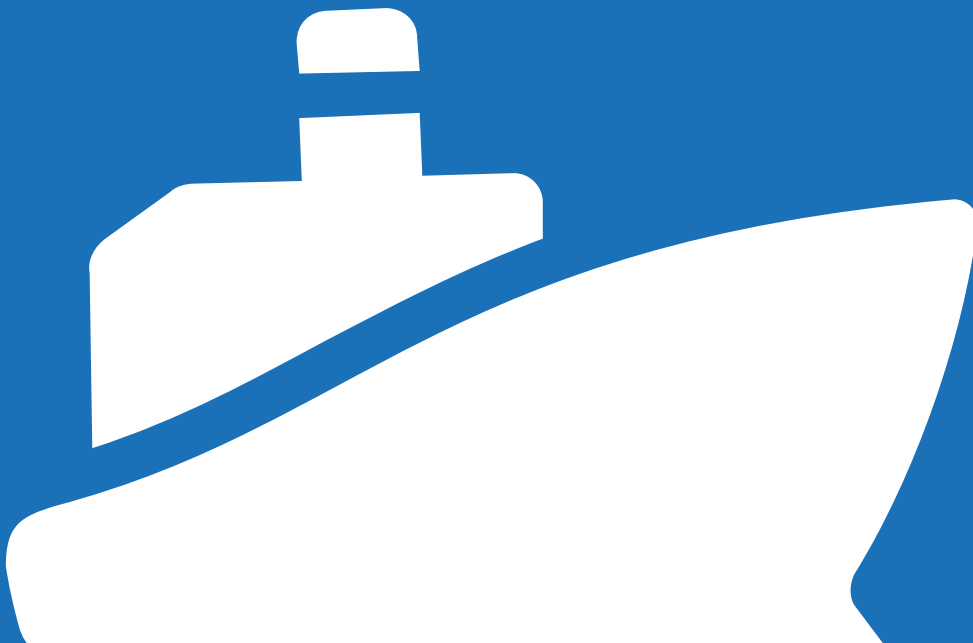
Situation description



onboardmed.turkuamk.fi



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TEACHER'S MANUAL

Course:

Occupational Safety Onboard

Part II - Ergonomics

TEACHER'S MANUAL

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Occupational Safety On Board – Ergonomics, 6 hours

OBJECTIVES

To teach students the basics of ergonomics onboard for the safe work to avoid injuries and development of work-related musculoskeletal and psycho-emotional diseases. Training in ergonomics can give the basic knowledge on performing work activities in safe way, minimizing the health risks of heavy workload, heavy lifting, maintaining awkward postures, etc. Completing the course gives possibility for trainees to notice and understand the ergonomic risks in the working environment, as well as to find the ways to improve the arrangement of the workplace and solve the problem. Following the main rules of ergonomics in everyday life can improve the well-being of employees and even reduce already developed work-related health problems.

CONTENT

The course is a part of educational program on occupational safety and risk assessment onboard. The course provides training in recognizing ergonomic risks and hazards onboard, evaluation of the working posture, ways of improvement and individual adjustments at workplace, main principles of finding the solution of the ergonomic problem.

The participants should learn what the main ergonomic risks are on board; how to identify the ergonomic problem; how to improve the workplace design, work procedures and organize work in more efficient and safe way. Topics of the course are: main rules of ergonomics, basic principles of safe movements, safe heavy lifting, evaluation of ergonomic risks.

TARGET GROUP AND STUDENT AMOUNT:

All the specializations of mariners, supportive staff, service personnel on board, ship nurses, and marine students. For workshops the limit is 12 students.

IMPLEMENTATION

- E-learning:
 - o Reading of the learning materials
 - o Lecture material (pp)
 - o Workshops (groups can differ by target group)

ASSESSMENT

- lecture material – done
- pre-task – reading, document created individually and sent before deadline
- workshop/practical skill training – done

LEARNING METHODS

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Lecture: an educational and theoretical talk to the students which should be interactive. When the instructor incorporates engagement triggers and breaks the lecture at least once per class to have students participate in an activity that lets them work. The engagement triggers capture and maintain student attention and allow students to apply what they have learned or give them a context for upcoming lecture material. Lecture can be online, video lecture or face to face.

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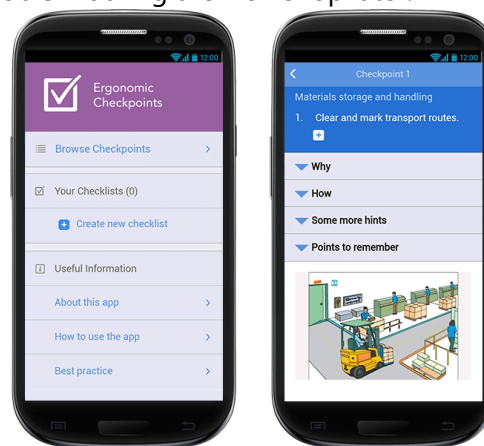
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SUMMARY

CONTENT	TIME	LEARNING METHODS and MATERIAL	ASSESSMENT
Ergonomics onboard	2 h	Lecture material (pp)	done
Pre-task: - basics of ergonomics - manual heavy lifting - ergonomic solutions for different workplaces - evaluation of the ergonomics at own workplace	2 h	Reading, preparation of the document	document sent before deadline
Workshop	2 h	Group work online (4-5 persons per group)	done

TIPS FOR TEACHER

- Initially students should be familiarized with the main rules of ergonomics (see provided lecture material).
- Then students should read provided material on guidelines for manual heavy lifting.
- The next step would be filling in the ergonomic assessment checklist for their own workplace to understand the procedure, how to notice main ergonomic problems at workplace.
- Then the solutions for the problems should be found. This can be done using the provided material (Ergonomic checkpoints. Practical and easy-to-implement solutions for improving safety, health and working conditions. ILO, 2nd edition, 2010 or additional materials can be explored). Mobile phone application https://www.ilo.org/safework/info/publications/WCMS_438082/lang--en/index.htm can be used as well. If questions appear during this task, teacher can provide support through the chat or solve the problem during the workshop later.



- Training situations for workshop can include (according to the target group):
 - o practical manual heavy lifting techniques (certain examples of heavy objects can be used for training the skills, e.g. big sack, large box for lifting alone and for two persons, etc.), some ergonomic aids to reduce the load can be demonstrated as well,
 - o patient transfer in different situations,

- adjustment of the workplace arrangement (work with computer, sitting posture, standing posture, holding hand tools).
- In parallel, as students read the provided material, they can make remarks in their personal diary to ask questions later during the discussion.

List of provided materials

Lecture material "Ergonomics onboard" divided in 5 parts (5 pdf files or the same slides in one MS PowerPoint document)

Ergonomic assessment checklist (Pre-task, pdf file)

Ergonomic Guidelines for Manual Material Handling, Cal/OSHA Consultation Service, 2007

Ergonomic checkpoints. Practical and easy-to-implement solutions for improving safety, health and working conditions. ILO, 2nd edition, 2010

Additional literature

Elements of ergonomics programs

<https://www.cdc.gov/niosh/topics/ergonomics/ergoprimer/default.html>

Ergonomic interventions in shipyards <https://www.cdc.gov/niosh/topics/ergonomics/ergship/easyfix.html>

Ergonomic Interventions in the Building, Repair, and Dismantling of Ships

<https://www.cdc.gov/niosh/topics/ergonomics/ergship/>

Ergonomic Checkpoints app https://www.ilo.org/safework/info/publications/WCMS_438082/lang--en/index.htm

Video:

- Workplace ergonomics <https://www.youtube.com/watch?v=QeDUCXfzI6U>
- Ergonomics onboard <https://www.youtube.com/watch?v=S4-7QwE2mSg>

RECOMMENDED REQUIREMENTS FOR TEACHERS

The teacher should be familiar with basics of ergonomics, main principles of correct manual heavy lifting and should have understanding in development of musculoskeletal diseases due to poor ergonomics (education in medicine or work safety is preferred).

Topic leader:

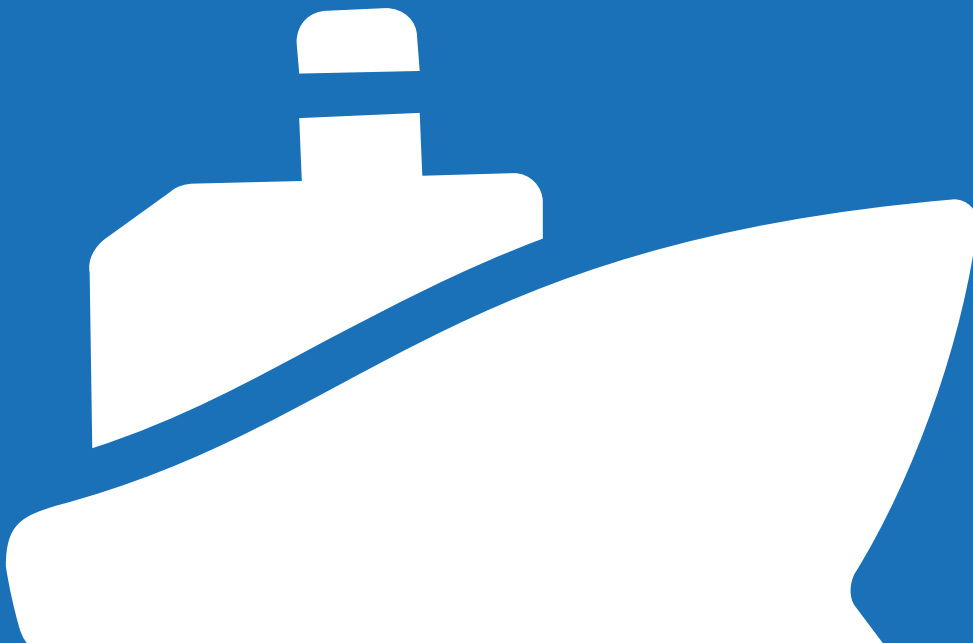
Jelena Reste, assistant professor, occupational physician, MD, PhD, Riga Stradiņš University



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TEACHER'S MANUAL

Course:
Occupational Safety Onboard

Part III - Physical risks

TEACHER'S MANUAL

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Occupational Safety On Board – Physical Risks, 1 ECTS = 27 hours

OBJECTIVES

Occupational safety issues are important to all members of the crew. Further, if there is a nurse on board, occupational health care is an important part of his/her work. Working environment on board is more demanding than on land. First, the crew is often working long hours in confined space, where the persons are exposed to variety of occupational risks including physical risks), chemical risks, accidents (equipment, slips/trips and falls etc.)

CONTENT

The course is related to management of occupational risks on board. The learning objectives are: The participants should learn what occupational safety is; what are the occupational risks on board; the factors and situations that expose persons to accidents; and the ways of preventing them. Topics of the course are: Occupational safety; occupational risks on board; noise, vibration; radiation; preventive risk assessment on board; early observation (alcohol) and mini-interventions; nursing the crew on board and wellbeing of the crew on board.

TARGET GROUP AND STUDENT AMOUNT:

Mariners, Ship nurses and Service Personnel on board.

IMPLEMENTATION

E-learning:

- Reading articles – Online discussion
- Learning material
- Risk assessment pictures / Text

ASSESSMENT

- Questions – Pass/Fail
- Discussions in Optima done
- Document sent before deadline

LEARNING METHODS

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Exercise is an activity carried out for a specific purpose in online or face to face and can be individual or group exercise. F. ex. pre tasks, classroom exercise, model answer questions.

Lecture: an educational and theoretical talk to the students which should be interactive. When the instructor incorporates engagement triggers and breaks the lecture at least once per class to have students participate in an activity that lets them work. The engagement triggers capture and maintain student attention and allow students to apply what they have learned or give them a context for upcoming lecture material. Lecture can be online, video lecture or face to face.

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SUMMARY

CONTENT	TIME	LEARNING METHODS and MATERIAL	ASSESSMENT
Introduction <ul style="list-style-type: none"> - International Organizations and Conventions - Identifying risks - Risk assessment - Emergency situations - Escape routes 	4-6 H	Online lecture (pp) Articles	Pass/Fail

- Accidents			
Online discussion - Investigation fatal accident	1-2 H	Reading the article Online discussion in Optima	Have participated in the online discussion
Physical Risks - Noise - Vibrations - Motion sickness - Asbestos - Slips and Falls - Ladders - Stairs - Doors - Mooring - Heat - Cold - Chemical risks - Engine room - Hot work - Enclosed spaces - Working aloft	7-10H	Online lecture (pp, articles, film)	Pass/Fail
Working permit	1 H	Online lecture	Pass/Fail
Personal protective equipment (PPE)	1 H	Online lecture	Pass/Fail
Familiarization Training	1 H	Online lecture	Pass/Fail
Communication - Examples	1-3 H	Online lecture Answer questions	
Final test	2-4H		Pass/Fail

TIPS FOR TEACHER

Lectures (persentations)

Physical_Risks_onboard_.pdf

Pre-Work

PRE_WORK_-_Occupational_Risks_and_Challenges_of_Seafaring_-_Oldenburg,_Baur_and_Schlaich.pdf

Pre-task Safety Risks Onboard

Occupational Safety - Safety Risks On Board

Take a look at the films below and write what the risks in these different operations on board are. What should be taken in account and what kind of personal protective equipment is needed?



Mooring

Ditt svar

Mooring Incidents



Pilot Boarding

Ditt svar

Pre-work

- Start course with the pre-work
 - Read the article and make notes in your personal diary – Group discussion later (online or face to face).
 - Do the task. Take a look at the films and write what the risks in these different operations on board are. What should be taken in account and what kind of personal protective equipment is needed?
- Read the presentations in Optima
- The student can choose the order in which he/she read/watch/do the material.
- The student has to read and watch all material in the online educational platform. The teacher can check that everything is done.
- The course ends with the online final test.

Topic leader:

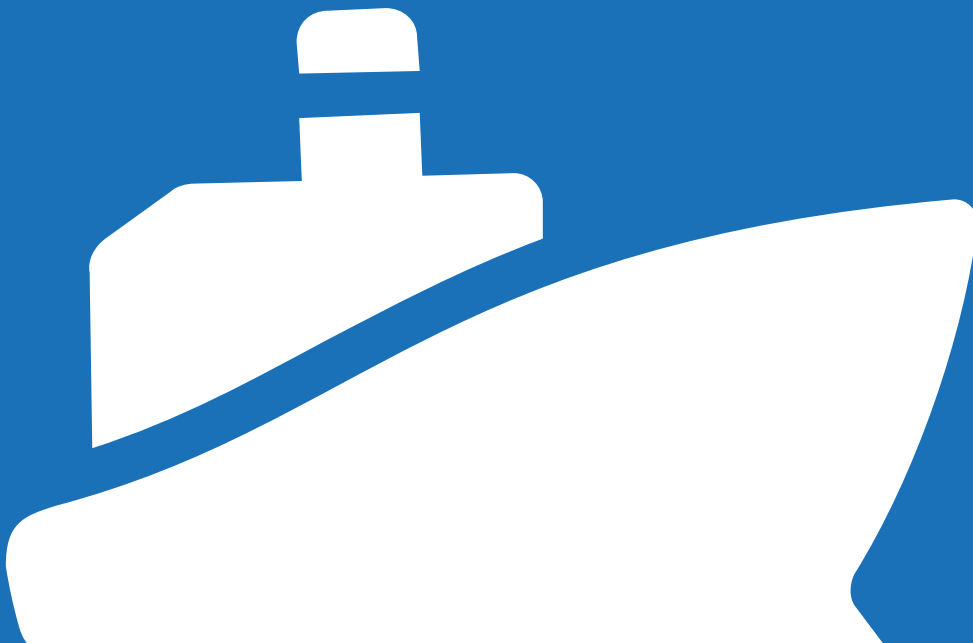
Lindblom Ellinor, Special adviser, Bachelor of Maritime Management, Captain, Åland University of Applied Sciences



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TEACHER'S MANUAL

Course:

Occupational Safety Onboard

Part IV - Mental and social risks

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Occupational Safety On Board – Mental and social risks, 1 ECTS = 27 hours

OBJECTIVES

Psycho-emotional factors appearing on board can affect the health of all the crew members. Work in close space, away from home, with the same people for long period of time can influence the individual reactions on stressors and ability to participate in work processes. The ability to recognize and cope with psycho-emotional problems on board is important for the health of the crew.

CONTENT

The course is a part of educational program on occupational safety and risk assessment onboard. The course provides training in recognizing signs of psycho-emotional problems in crew members, teaches to analyze and identify the reasons and gives clues in solving the problem.

The participants should learn what the main mental and social risks are on board; how to identify the problem; how to react to the situation; and prevention possibilities. Topics of the course are: psycho-emotional burnout, fatigue, stress, long working periods, sleepiness, sleep disturbance, poor communication, multinational team, isolation, violence, procedures necessary for keeping good mental health and wellbeing of the crew on board.

TARGET GROUP AND STUDENT AMOUNT:

Mariners, service personnel on board, and ship nurses. For the group work the limitation is 6 students.

IMPLEMENTATION

- E-learning:
 - o Reading of the learning materials

- Lecture material (pp)
- Online discussion in groups with and without supervision of psychologist (groups can differ by target group)

ASSESSMENT

- lecture material – done
- group work online – document created by group sent before deadline
- online discussion with psychologist – done

LEARNING METHODS

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SUMMARY

CONTENT	TIME	LEARNING METHODS and MATERIAL	ASSESSMENT
Pre-work: - Introduction - Main psycho-emotional and social hazards for mariners - Human reactions on stress - Fatigue and its effects on work process - Violence at work - Isolation - Communication problems	10 h	Reading	done
- Exhaustion disorder and work stress - Assessment and prevention of psycho-emotional problems	3 h	Lecture material (pp)	done
Group work	6 h	Group work online (4-5 persons per group, preparation of the document)	document sent before deadline
Group work under the supervision of the psychologist	8 h	Solving training situations under supervision of psychologist	done

TIPS FOR TEACHER

- Training situations for discussion under supervision of psychologist can include:
 - o long working periods, fatigue,
 - o sleepiness, sleep disturbance, alertness,
 - o multi-national team and communication problems,
 - o isolation,
 - o violence at work (among the staff, from clients/passengers, etc.)
 - o and similar topics about psycho-emotional problems related to work.
- Before the discussion students should make their own list of psycho-emotional problems they have experienced during their work, have heard from colleagues or at least suggest the presence of such situations onboard. The problematic situations should be described as well. Then students should participate in the videochat in small groups (up to 4-5 persons) to discuss the topic together, find the solution and learn the correct way how to react in certain situation. Videochat can be substituted to face-to-face meetings or consultations with the psychologist, or simple chat without video (if videochat is not acceptable by participants due to sensitive psychological reasons).

- To make the discussion easier teacher can use the hints for teaching (Facilitator notes) from the website <https://landing.videotel.com/seafarerwellbeing/thank-you-page-247FZ-5093PQ.html?> (available after registration)
- In parallel, as students read the provided material before the videochat, they can make remarks in their personal diary to ask questions later during the discussion.

List of provided materials

Lecture material "Mental and social risks"

"Harassment and violence in the workplace – OHS requirements for workers and employers"

Brochures available for download from <https://www.seafarerswelfare.org/seafarer-health-information-programme/good-mental-health>

Pre-task template (MS Word document)

Additional literature

Healthy workers, thriving companies – a practical guide to wellbeing at work. Tackling psychosocial risks and musculoskeletal disorders in small businesses (downloadable <https://osha.europa.eu/en/tools-and-publications/publications/healthy-workers-thriving-companies-practical-guide-wellbeing/view>)

<https://osha.europa.eu/en/themes/psychosocial-risks-and-stress>

<https://www.seafarerswelfare.org/seafarer-health-information-programme/good-mental-health>

<https://landing.videotel.com/seafarerwellbeing>

RECOMMENDED REQUIREMENTS FOR TEACHERS

The teacher should be familiar with management of psychological problems (education in psychology or medicine is preferred).

Topic leader:

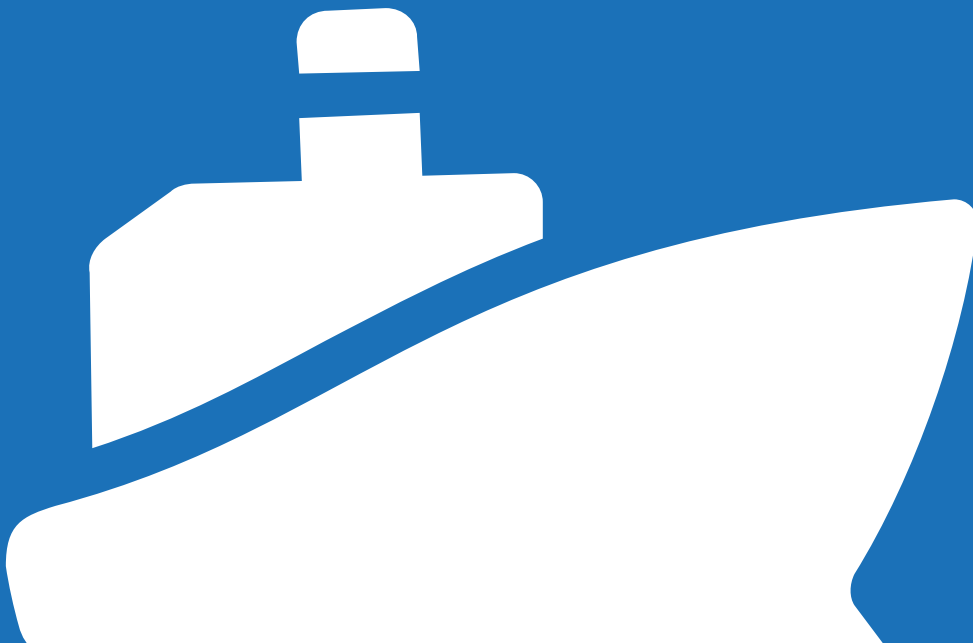
Jelena Reste, assistant professor, occupational physician, MD, PhD, Riga Stradiņš University



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TEACHER'S MANUAL

Course:

Occupational Safety Onboard

Part V - Mariners health and health promotion

TEACHER MANUAL

The purpose of the teacher's manual is to assist teachers in organizing and introducing course. It is not the intention of teacher's manual to present teachers with a rigid "teaching package" which they are expected to "follow blindly". The teacher manual has been designed to give ideas to use material done in OnBoard Med -project.

Occupational Safety and Risk Assessment onboard 5 ECTS

Topic 1. Introduction for vessels in working environments

Topic 2. Risks onboard

Topic 3. Ergonomics onboard

Topic 4. Mariners Health and Health Promotion Onboard

Topic 5. Work wellbeing onboard

Topic 4. Mariners Health and Health Promotion onboard

- Procedures to handle crews health, supportive methods for discussion in difficulty situations onboard | ECTS

OBJECTIVES

- know, how to assess mariner's health condition onboard
- know, which are mariners health problems nowadays
- Know, how to handle these health problems (for example obesity, cardiovascular diseases, diabetes mellitus, drug and alcohol abuse)
- know, how to prevent these-> Health promotion
- Procedures: Guidance dialogy discussion, debriefing (Individual/group)
- NOTE! WP 1 course 1. Debriefing and human factors.

CONTENT /TIME

- Info
- Mariners health and health problems
- Health promotion
- Procedures: Guidance (Online 24/7 or face to face), dialogy discussion, debriefing

IMPLEMENTATION

- Active lectures,
- eLearning tasks
- Workshops
- Low-high fidelity simulation

ASSESSMENT

- Which parts are assessed (Participate/non participate; done/not done)

CONTENT	TIME	LEARNING METHODS and MATERIAL	ASSESSMENT
Information from education (NOTE! At working place)	2 h	Contact lessons ; Information shortly: Optima, learning environment; simulation as a learning method,	Participate/not participate
Pretask 1 2 weeks before Day 1.		Orientation for education, different teaching methods (Task 1. What kind of learner You are? Describe that shortly)	Done/not done
Day 1. History taking, Mariners health problems	1 7	Active lecturers, History taking and mariners health problems Workshop (Different kind of health problems based on literature “Mariners health onboard” - Cardiovascular diseases - Obesitas - Fatigue - Drug and alcohol abuse - Mental health: Psychological crisis and mental illnesses	Participate/not participate
Pretask 2. 2 weeks before Day 2.		Orientation for education day 2. (Task 2. What kind of challenges and difficulties You have met while working onboard? Describe shortly some situations and How You have handle these onboard?)	Done/not done
Day 2. Procedures to handle mariners health -Guidance -Dialog discussion -Debriefing (after acute crises) NOTE! Individual and group guidance situation	1 h 2h 5h	Active lecture Workshops Simulation: Example 1. Sexual harassment onboard between crew members	Participate/not participate
Summary	1h	Contact lesson, Feedback	Participate/not participate

TIPS FOR TEACHER

In this part You will found some examples in pretasks, workshops, simulations. All parts are suitable knowledge to debriefing after simulation. As a teacher You could choose suitable materials based on Your course and target groups.

You can create a folder for participants answers “return box” (group or individual). There is possibility to discussion platform between all participants.

Pretask 1. What kind of learner You are? Describe that shortly.

Pretask 2. What kind of challenges and difficulties You have met while working onboard? Thema will be psychological crisis and mental illnesses. Describe shortly some situations and How You have handle these onboard?

Pretask 3. Before simulation scenario sexual harassment. Have You met, that kind of situation onboard while working as a medical officer/ship nurse? If You had, please describe situation in discussion platform.

Pretask 4. What kind of tools You have as a company`s worker to handle this situation?

Simulation as a learning method.

One example in scenario sexual harassment.

Security man Mikko Laakso will come to ship`nurse office. He has booked time 30 minutes for discussion with ship nurse. He tells that one lady onboard, crew member, has started to follow him all the time, almost. When we see each others, she want to come hug me every time, many times / working shift. We are working in same shift in same vessel, 7 days.

First Mikko thinks that it was ok, and this is only friendly for him, but now it is much, much more than only friendly. Last week she touch Mikko to “private” place. Mikko ask then, that what You are doing. The lady said, nothing.

Scenario. Sexual Harassment

Scenario Sexual harassment onboard	Technical problem One crew member feels, that sexual harassment has been problems at least 4 months onboard	No technical problem: The other person doesn't understand the situation at all
Learning objective know what to do in this kind of situation onboard	Technical objective know the information and content what to tell to crew member, who feels this sexual harassment is really happening know how to act so, that Your professional attitude is objective as a ship nurse	No technical objective Know the supportive methods for discussion, when You have that kind of situation in process onboard Know how to communicate patient, who has depression symptoms
Patient	Pre Health Assessment 4 months	Home medication

Security man Mikko Laakso 050488-123V	ago. BMI 24 He has been now onboard 5 months, no allergies, no other diseases. No any health problems, no sleepiness.	-
Summary of the scenario:	Security man Mikko Laakso will come to ship nurse office. He has booked time 30 minutes for discussion with ship nurse. He tells that one lady onboard, crew member, has started to follow him all the time, almost. When we see each others, she want to come hug me every time, many times / working shift. We are working in same shift in same vessel, 7 days.	
The situation in the beginning	First Mikko thinks that it was ok, and this is only friendly for him, but now it is much, much more than only friendly. Last week she touch Mikko to "private" place. Mikko ask then, that what You are doing. The lady said, nothing.	
Environment: Ship nurse office onboard		
Equipment if needed: Equipment in ship nurse office in passenger vessel, Patient monitoring system (Blood pressure, Pulse, saturation, EKG), Patient monitoring system (Blood pressure, Pulse, saturation, EKG), Ship pharmacy, Mobile phone, Nursing documentation form		
Extra material for sharing to participants: - Patient`s/Participant roles descriptions: Patient: Mikko Laakso 054488 Healthy person onboard, no obesitas, go gyms, when freetime onboard, friendly for everybody, to passenger and to other crew members too. STEP 1. Mikko comes to ship nurse`s office. He looks upset, and nervous. Not so happy face than normally. When the ship nurse starts to ask more specific information, it will come silent moments, that it looks like so that he does`t know what to tell and how much he really want to tell to ship nurse. STEP 2. a.If the ship nurse acts friendly and with supportive way and so, that the patient feels safety with her/him, then Patient start to tell more specific things. b. If ship nurse can not create a safety and peaceful environment, patient will be in silence, no look eyes etc. he looks like a person who has a deep depression. STEP 3. Mikko tells that one lady onboard, crew member, has started to follow him all the time, almost. When we see eachothers, she want to come hug me every time, many times / working shift. We are working in same shift in		

same vessel, 7 days. First Mikko thinks that it was ok, and this is only friendly for him, but now it is much, much more than only friendly. Last week she touch Mikko to “private” place. Mikko ask then, that what You are doing. The lady said, nothing.

If ship nurse ask the name of this lady, Mikko does't want to tell that in beginning of the discussion.

Ship nurse starts ask other questions too.

- How long this has been going on? **2 months more and more, every day, many times.**
- Have You talked about this with this lady? **Yes, twice at least. When she touch to my “private” place, Mikko told, that hey, what You are doing?The lady answered, nothing.**
- Have You told to somebody else about this problem? **No, You are the first one**
- How You feel right now? **I don't know what to do. That was the reason I came to Your appointment.**
- Do You think that You are in good working mood? Your work ability? **Yes, If I don't have to meet this lady anymore. I am so full about her person.**
- Do You have any physical symptoms? Pain, headache, stomach problems, fatigue, sleepiness? **No**
- Something else?
- IF the ship nurse again the name of this lady, patient will tell that. Marion Rivero -66
- If the ship nurse ask, that if this lady will come too to his meeting next time, Patient will tell, that ok.
- If the lady will come right away to situation: She tells that this so normal in Mexican culture. All the time they are touching and hugging, not only relatives, but friends too. But why so much , many times/day? The lady tells that she likes so much about Mikko. One mistake just happened, lady told, I have touched Mikko`s private place, It was only a joke. Sorry about this, really!

STEP 4. If the ship nurse will tell to patient relevant and suitable ways to handle this situation, patient will come quite a soon more happier

If there is no answers to this, patient start to cry.

Preinformation for those Who are going to simulator:

They can use shipnurse's office and equipment onboard.

Patient information and documentation form: preinformation is available.

Information to observers:

Follow these parts below

- Nursing procedures: Discussion as a professional way,
- Communication between ship nurse and patient

Topics in debriefing discussion based on scenario objectives

- know the information and content what to tell to crew member, who feels this sexual harassment is really happening
- know how to act so, that Your professional attitude is objective as a ship nurse
- Know the supportive methods for discussion, when You have that kind of situation in process onboard
- Know how to communicate patient, who has depression symptoms

Teachers roles during simulation

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<p>Teachers 1 and 2 are looking after both the nursing procedures and communication between ship nurse and patient</p>	<p>Teachers 1&2 – debriefing afterwards</p>	
<p>Life savers</p> <p>Director in this simulation could say TIMEOUT, so everybody know that Simulation scenario is over.</p> <p>Participants in simulator can say TIMEOUT too, if they don` t know how to act professionally in this situation.</p>		
<p>Ending criterias in simulation</p> <p>Information in topic sexual harassment has been discussed together so that the patient understands too, what are the procedures onboard in this kind of situation. Patient is calm down.</p>		

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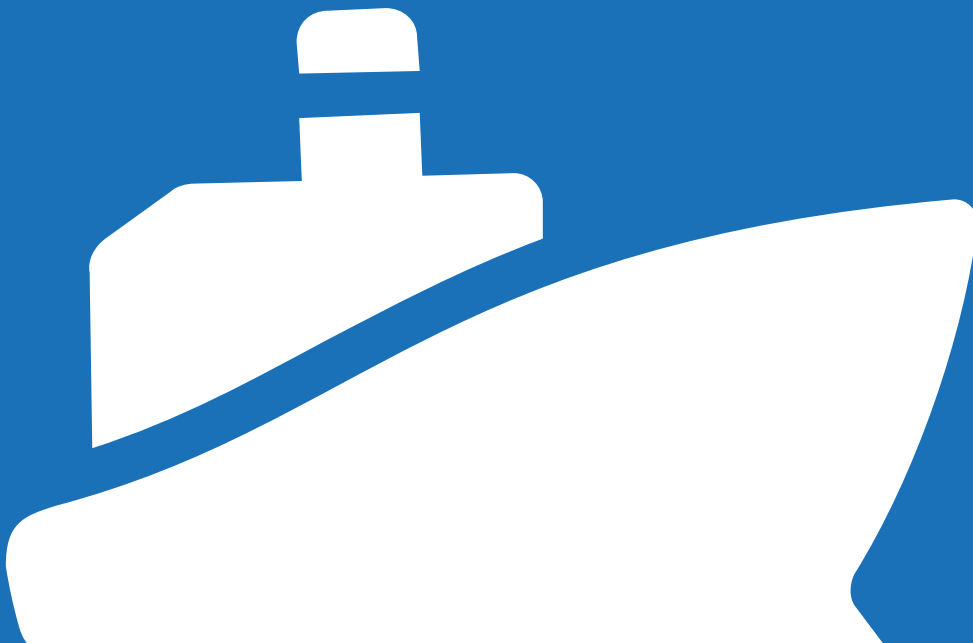
Own ideas for implementation



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TEACHER'S MANUAL

Course:

Occupational Safety Onboard

Part VI - Well-being onboard

TEACHER'S MANUAL

The purpose of the teacher's manual is to assist teachers in organizing and introducing training courses. It is not the intention of teacher's manual to provide teachers with a rigid teaching package which they are expected to "follow blindly", because national educational systems, groups size and the cultural backgrounds of trainees in maritime subjects vary considerably from country to country. The teacher can choose suitable parts for target group and can even make changes that are needed to achieve the learning outcomes.

The teacher's manual has been designed to give ideas how to you use material developed in the OnBoard Med -project. Teacher's manuals content is: objectives, content, target group and student's amount, implementation and learning methods, assessment, learning process (summary) and tips for the teacher.

Main topics

OBJECTIVES

Know what is physical wellness, social wellness, intellectual wellness, mental wellness.

Know good communication, clear leadership, good planning, good housekeeping on ship.

Know Code of Safe Working Practices for Merchant Seafarers.

Know how to use safety equipment.

Know how to get permit to work (hot work).

Know how to organize the fire watch.

CONTENT /TIME

Good physical, social and mental working environment.

Clearly defined expectations, good communication, clear leadership, good planning.

Good housekeeping (food, cleaning, garbage, clean water tanks, ventilation).

Permit to work" (Hot work, electrical testing, enclosed spaces), good ergonomic condition.

Suitable safety equipment "daily used":

High-visibility clothing, gloves, overalls, face mask, non-slip and anti-static footwear with toe protection, safety helmet, goggles, earmuff, plugs, communication equipment.

Procedures: Individual discussion/Group discussion with crew member.

Health assessment regularly; mini-interventions if there is some healthy issues, which are not in good condition.

Education in topics: Basic Safety, Medical care in emergency situations, Teamwork and leadership, communication onboard, risk awareness, effective knowledge management.

TARGET GROUP AND STUDENT AMOUNT: 4x10 students

IMPLEMENTATION

LEARNING METHODS

- E-learning, lecture, low fidelity simulation, exercise

LEARNING PROCESS

- E-learning, lectures, workshop, evaluation and controlling, e-test.

STUDENTS USE OF TIME

- How much time student need to learn things or how many hours there is lectures, simulation etc.
 - o pre-work 3 h
 - o online lecture 4 h,
 - o Independent e-exercise 4 h,
 - o workshop online 4 h
 - o simulation 6 h
 - o test : preparation 4 h and
 - o e-test 2 h

ASSESSMENT - SUMMARY

CONTENT	TIME	LEARNING METHODS and MATERIAL	ASSESSMENT
Pre-work	3 h	e-learning, videos and PP presentations	Pass/fail
Online lecture	4 h	Videos, PP presentation	
E-exercise	4 h	questionnaires	e-test
workshop	4 h	Learning the basic skills	Pass/fail
Simulation	6 h	Simulation of real situations at sea	Pass/fail
Test and preparation	4+2 h	All learning material	e-test

TIPS FOR TEACHER

Learning methods

eLearning is learning utilizing electronic technologies to access educational material outside a traditional classroom. eLearning can be f. ex. online videos, lectures, discussions, teacher consultation, e-testing.

Exercise is an activity carried out for a specific purpose in online or face to face and can be individual or group exercise. F. ex. pre tasks, classroom exercise, model answer questions.

Lecture: an educational and theoretical talk to the students which should be interactive. When the instructor incorporates engagement triggers and breaks the lecture at least once per class to have students participate in an activity that lets them work. The engagement triggers capture and maintain student attention and allow students to apply what they have learned or give them a context for upcoming lecture material. Lecture can be online, video lecture or face to face.

Skill lab provide students with an opportunity to learn and develop the skills essential to nursing / maritime practice within a supportive and safe environment.

Simulation is a form of experiential learning. Where teacher sets problems, events or scenario that can be used for training students, how to behave in authentic situation within a supportive and safe environment. It includes introduction, simulation and debriefing.

Workshop is a period of practical work on a particular subject in which a small group of people share their knowledge or experience. Workshop can also be like learning café where you develop new ideas or approaches to specific subject.

SUMMARY

From this summary you as a teacher can easily choose by the learning subjects and material you want to use with you students (depends on the target group and the group size).

And also depending on the time that you can use in the subject, there is lectures, exercises to do in the classroom with bigger group.

Questionnaire:

Well-being

Wellbeing environment

Expectations, communication

Leadership and planning

Prevention of problems

Housekeeping

Safety on board

Hot Work

Where hot work is permitted

When hot work is permitted

Who authorizes, performs, and monitors hot work activities

What must be assessed before permitting/performing hot work in an area or on a process piece of equipment or area

What to do to prepare an area for hot work

What to do if hot work cannot be avoided in a particularly hazardous area

What hot work tools are required

How to obtain a hot work permit, when they are required, and who can administer them

LEARNING MATERIAL for WP-3

Video material:

<https://www.youtube.com/watch?v=fk0wKFO0CjU>

<https://www.youtube.com/watch?v=D4bJ66GObac> -introduction

https://www.youtube.com/watch?v=I_oNRBsDNaQ -social wellness

https://www.youtube.com/watch?v=hw4meEdl4_I -intellectual wellness

<https://www.youtube.com/watch?v=4PSv5PE1PXI> -physical wellness

<https://www.youtube.com/watch?v=0UycPdr-VTQ&t=5s> -emotional wellness

<https://www.youtube.com/watch?v=fjKHyaZL2Q> -mental health

<https://www.youtube.com/watch?v=jVNmrQcQRwU> -conclusion

<https://www.youtube.com/watch?v=85uO5gbi5oU&index=2&list=PLU7pjB4-GSkiGfWEF4uxZP2Sj8EwJgs8> -loneliness and danger

Literature:

Code of Safe Working Practices for Merchant Seafarers -

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/671403/CSWPMS_GOV_UK_2017.pdf

Guidelines of maritime occupational safety and health

<http://www.oshc.dole.gov.ph/images/Files/IEC%20Materials/DO%20132%20Guidelines%20in%20MOSH.pdf>

Safe working on ships and vessels

Health and safety -

http://ec.europa.eu/taxation_customs/dds2/SAMANCTA/EN/Safety/WorkOnShipsVessels_EN.htm

Health and safety - <https://www.maritimenz.govt.nz/commercial/safety/health-and-safety/documents/HS-guide-for-mariners.pdf>

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