MARA A215: RATING FORMING PART OF A NAVIGATIONAL WATCH (RFPNW)

Item	Value
Curriculum Committee Approval Date	12/02/2020
Top Code	095900 - Marine Technology
Units	1 Total Units
Hours	27 Total Hours (Lecture Hours 18; Lab Hours 9)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Open Entry/Open Exit	No
Grading Policy	Standard Letter (S), • Pass/No Pass (B)

Course Description

Students will be trained to stand watch as a competent member of a bridge team on commercial and private vessels. Steering, following helm commands, understanding the navigation rules for collision avoidance, and emergency procedures are included. Along with required sea time, this course is intended to qualify students for the international "Standards of Training Certification and Watchkeeping" (STCW) designation as "Rating Forming Part of a Navigational Watch" (RFPNW). It is designed to satisfy RFPNW training requirements as designated by the US. Coast Guard and the International Maritime Organization. PREREQUISITE: MARA A152 with a minimum grade of B, or sixty days of sea time as a deckhand, watchstander, or greater responsibility. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Students will accurately communicate with the bridge team in a real or simulated bridge environment.
2. Students who successfully completes this course will be trained to stand a watch as helmsman and lookout.

Course Objectives

- 1. steer a ship, complying with helm orders on a simulated ship's bridge or a vessel underway.
- 2. keep a proper look-out by sight and hearing on a simulated ship's bridge or a vessel underway.
- 3. contribute to monitoring and controlling a safe watch on a simulated ship's bridge or a vessel underway.
- 4. operate emergency equipment and apply emergency procedures under simulated conditions on a ship's bridge or a vessel underway.
- 5. effectively and efficiently communicate within a ship's command structure on a simulated ship's bridge or a vessel underway.

Lecture Content

1. Bridge simulator controls and effects. 2. Watch standing requirements and duties per US Coast Guard regulations and recommendations. 3. Environmental responsibilities and protections at sea and in port. 4. Analyzing and communicating navigation signals and responses. 5. Case studies and analysis of collisions and avoidance. 6. Reacting to emergencies including analyzing alarms, communicating the emergencies, and engaging in correct responses.

Lab Content

Simulator familiarization - students will understand controls and functions of the simulator. Helm duties - students will understand how to adjust steering of a ship and react to helm commands. Lookout duties will be performed and correct handover procedures will be practiced. Midterm assessment of skill performance in helm and watch duties. Emergencies will be simulated and students will practice appropriate reactions. Bridge communication, helm, and lookout duties will be practiced. Practice in reacting to emergency alarms, signals, communication, and distress signals. Final simulator assessment of skills.

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)
- Lab (04)
- DE Live Online Lab (04S)

Instructional Techniques

Lectures, videos, discussion, simulation, demonstration, feedback, quizzes and exams are all included in the instruction of this course.

Reading Assignments

Reading assignments from textbooks as directed by instructor. Examples of assignments are on watchstanding, navigational rules, and emergencies. 2 hrs/wk

Writing Assignments

Review and summarize a maritime case studies regarding fatigue and watchkeeping 6 hrs total.

Out-of-class Assignments

Discussions posted on Canvas regarding current events that directly relate to watchstanding accidents. 3 hours total.

Demonstration of Critical Thinking

Simulated scenarios including emergencies will test students' critical thinking skills as they react to various collision situations, potential threats, and emergency signals.

Required Writing, Problem Solving, Skills Demonstration

Demonstration of proper reactions to helm commands in the simulator. Demonstration of concise and efficient communication within a bridge team. Demonstration of correct protocol during simulated emergencies. Written assignment from case study on fatigue and watchkeeping.

Eligible Disciplines

Marine diving technology: Any bachelor's degree and two years of professional experience, or any associate degree and six years of professional experience. Marine engine technology: Any bachelor's

degree and two years of professional experience, or any associate degree and six years of professional experience.

Textbooks Resources

1. Required John Keever. Cornell Manual for Lifeboatman, Able Bodied Seaman QMED, 2 ed. Cornell Maritime Press, Inc. , 2009 Rationale: Industry Standard - This is the manual used by Merchant Mariners and is still applicable and used in the industry. 2. Required Robert J> Meurn. Watchstanding Guide , 1 ed. Cornell Maritime Press, Inc., 2004 Rationale: Industry standard for Merchant Mariners. Still applicable and used within the industry.

Other Resources

1. Current magazine and news articles pertaining to watchkeeping.