

Sea Term II EN-2231

Winter 2016

Cruise Coordinator: LT K. McClellan

Office: Engineering Training Office

Requisite:

Sea Term I and Calculus I

Text:

Excerpts from DOE Fundamentals Handbook

Engineering Training Manual TS Kennedy (Haynes)

USCG books

Entrance Requirements:

- Demonstrate marine engineering knowledge by achieving a 70% or higher on the Cadet Fireman's Qualification Exam
- Respond to shipboard emergency signals
- Safely evacuate engine room when required
- Use hand tools for maintenance and repair of shipboard equipment
- Conduct oneself safely in a shipboard environment

Course Description:

EN-2231 provides an opportunity for cadets to obtain sea service and engineering watchstanding experience in a structured shipboard training program, which is compliant with Chapter III of STCW and the requirements of 46 CFR. The training uses a building-block approach bringing the cadet up to an acceptable level of proficiency in each area of required competence. Shipboard training is closely integrated with the shore-based academic curriculum at the Massachusetts Maritime Academy, which includes a range of simulation and practical laboratory experiences. STCW Qualified Instructors and Designated Examiners will conduct all phases of training.

Learning Objectives:

Demonstrate knowledge and understanding of the following STCW elements:

- AB-E-A5.2 Basic understanding of main propulsion machinery control pressures, temperatures, and levels
- AB-E-A5.2 Basic understanding of auxiliary machinery control pressures, temperatures, and levels
- AB-E-A6.1 Knowledge of the function and operation of fuel system
- AB-E-A6.1 Ability to correctly measure and report fuel tank levels
- AB-E-A7.1 Knowledge of the safe function, operation, and maintenance of the bilge and ballast systems
- AB-E-A7.1 Knowledge of how to report incidents associated with transfer operations
- AB-E-A7.1 Ability to correctly measure and report ballast tank levels
- OICEW-A5.2 Operation of bilge, ballast, and cargo pumping systems
- OICEW-A5.3 Oily-water separators requirements
- OICEW-A5.3 Oily-water separators operation

Demonstrate proficiency in the following skills:

- OICEW-5-1M Monitor main steam turbine operation
- OICEW-5-3A Check boiler water level
- OICEW-6-1B Operate fire pump
- OICEW-6-2A Operate bilge system
- OICEW-8-2C Gear pump maintenance
- OICEW-8-2D Inspect valve manifold
- OICEW-8-2E Overhaul valve
- OICEW-8-2F Overhaul heat exchanger
- OICEW-8-2G Routine maintenance feed pump lube oil system
- OICEW-8-2H Routine maintenance compressed air system
- OICEW-9-1A Monitor sanitary flushing water system
- OICEW-9-1B Monitor sewage waste treatment plant
- OICEW-9-1C Monitor oily water separator system
- RFPEW-5-2E Change Burner

Additional Learning Objectives:

- Demonstrate engineering knowledge by achieving a 70% or higher on the Cadet Oiler Qualification Exam
- Perform duties of the Cadet Oiler, and other positions
- Perform shipboard maintenance duties as assigned by the ship's Officers
- Exhibit knowledge in responding to causality control issues
- Comprehend basic components of a diesel engine
- Demonstrate a high level of familiarity with the principles of hydraulics
- Be able to identify deck machinery

Attendance:

- Attendance is mandatory for all class lectures and lab instruction.

Grading:

Reference the Engineering Training Program Manual

Note:

During cruise you will have to successfully complete and pass your Oiler's Exam with above a 70% and pass all assessments before the end of Cruise 2016.

Dress Code:

You are expected to be in the proper uniform of the day as announced by the Commandant of Cadets.

Cheating:

Cheating will not be tolerated!!!!

Disability Accommodation:

Massachusetts Maritime Academy is committed to providing reasonable accommodations to students with documented disabilities. Students who believe they may need accommodations in this class are required to contact the Director of Disability Compliance.

Reading Assignments:

Will be given out to cadets during class time. It is strongly recommended that all cadets read the Engineering Training Manual to become familiar with the assessments.

Student Learning Outcomes:

Success in this course will be measured through examination and assessments. These will take place during Cruise 2016.

STCW Qualified Instructors and Designated Examiners:

- LT McClellan
2016
Engineering
Coordinator
- CDR Haynes
- LT Splaine
- CDR Murray
- Mr.
Coleman
- Mr.
Schreiber
- Mr. Cruse
- Mr.
Shepard
- Mr. Collins
- LT Trudeau
- CDR Bausch
- LCDR Pulis