**COURSE: Auxiliary Machinery II (EN-2111)** 

**FALL 2012** 

INSTRUCTOR: Lt. Roger Gill Office: Room 217A Harrington

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Office Hours: Mon. 6<sup>th</sup> period, Weds. 6<sup>th</sup> period, Fri. 6<sup>th</sup> period.

ATTIRE: Uniform of the Day.

## **NO CELL PHONES IN CLASS!**

No Programmable calculators to be used during exams.

**TEXT:** Engineering Training Manual by William E. Haynes. Handouts. Marine Engineering Workbooks, Vol. 1, 2 and 3, sixth edition. <a href="web.mewb@maritime.edu">web.mewb@maritime.edu</a>. Auxiliary Machinery; US Department of Energy.

PREREQUISITE: Auxiliaries 1 (En-1222)

**LEARNING OUTCOMES:** The Student should be able to understand the design, operation, and function of shipboard auxiliary equipment. The relationship between the Steam cycle engineering components and the Steam Table. To be proactive in preparing for the USCG Third Assistant Engineers License Exam.

**Homework:** Homework assignments will be given during class. The assignment topic matter, along with "Safety" topic matter, may be included in exams.

**GRADING:** There will be five (5) tests given through the semester these tests will be announced beforehand. The tests will be given during class and will consist of 40 questions in both multiple choice and essay format. If you have an "A" average for all five (5) tests you will be exempt from the final and I will use your tests average as your final exam grade. If you do not have an "A" average after taking all (5) tests I will drop the lowest of the tests and compute your test average using the remaining four (4) tests.

Auxiliary Machinery II is an STCW Course. STCW policy requires a passing grade of 70 or higher for any STCW course. The STCW course grading will be A, A-, B+, B, B-, C+, C and F. No "D" grading policy.

The test average will constitute 60% of your final grade. A laboratory grade will be generated by the laboratory instructors and will constitute 10% of your final grade. The final examination grade will constitute the remaining 30% of your final grade.

**ATTENDANCE:** Attendance is mandatory along with class participation. Daily Attendance will be taken. (3) Points will deducted from your Final grade for each class missed.

## **LEARNING OUTCOMES:**

MMA 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 Mr. Fran Tishkevich, Acting Director of Disability Compliance, within the first two weeks of class at ext. 2208 or by email at ftishkevich@maritime.edu

## **TOPICS**

## **READING ASSIGNMENTS**

TS Kennedy Training Manual, Ch3

TS Kennedy Training Manual, Ch 7

Handout(s)

1. Thermodynamic Properties/Steam Traps	Aux. Mach. DOE pp. 1-42; pp. 251-255 Handout(s)
	TS Kennedy Training Manual, Ch(s) 1, 2,
2. Centrifugal Pumps	Aux. Mach. DOE pp. 265 – 280.
	Handout(s) TS Kennedy Training Manual, Ch. 3
3. Positive Displacement Pumps	Aux. Mach. DOE pp. 282-292
	Handout(s)
	TS Kennedy Training Manual, Ch. 3
4. Heat Exchangers/Cooling Towers	Aux. Mach. DOE pp. 293-310; pp. 328-333.
	Handout(s)
	TS Kennedy training Manual, Ch 3, 7.
5. Air Compressors and Compressed	Aux. Mach. DOE pp. 311-318
Air Systems	Handout(s)
	TS Kennedy Training Manual, Ch 7
6. Hydraulics and Hydraulic Systems	Aux. Mach. DOE pp. 320-323.
	Handout(s)
	TS Kennedy Training Manual, Ch 7
7. Air Removal Equipment	Handout(s)

8. Evaporators, MSD units and Oil/Water separators