**Course:** **Diesel Engines EN-7142-29** **Fall 2022**

Instructor: LCDR. Olivia Humphrey, Associate Professor

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Office Hours: MW 3rd Period

**Text:**  Marine Diesel Engines, Author: Daniel Charnews

Pounder’s Marine Diesel Engines, Author: Doug Woodyard

Handouts

**Course Information**

Description: This course lays the foundation for the basic operation of Diesel Engines. Student will learn the basic principles of construction, operation, maintenance and repair of both 2 stroke and 4 stroke diesel engines of medium and high speed.

**Prerequisite:** Algebra/ Trig

**Learning Objectives**

* Identify the engine components and use the correct terminology
* Correctly start and operate a diesel engine
* Correctly maintain and repair diesel engines
* Trouble shoot operational problems

**Grading:** 20% Homework, 20% Lab Quiz, 30% Midterm, 30% Final

**Grading Scale:**

**A:** 94-100 **C+:** 77-79

**A-:** 90-93 **C:** 73-76

**B+:** 87-89 **C-:** 70-72

**B:** 83-86 **F:** < 70

**B-:** 80-82

**Attendance:** There will be no quiz make –up. For each unexcused absence there will be a 1% deduction from the final course average. Labs are mandatory and any missed labs will result in an “F” for the course.

**Note:** Phones must be OFF during labs and classrooms

*MMA is committed to providing reasonable accommodations to students with documented disabilities. Student who believe they may need accommodations in this class are required to contact Fran Tishkevish, Director of Disability Compliance, within the first two weeks of class at ext 2208 or by email* [*ftishkevich@maritime.edu*](mailto:ftishkevich@maritime.edu)

Topics/ Assignments Reading

1. Introduction to the Diesel Engines Chapter 1 and 2

2. Operating Principles, 2 and 4 Stroke Chapter 3

3. Emergency Diesel Generator Handout

4. Constructions and Terminology Handout

5. Bedplates and Construction Handout

6. Maintenance and Repairs Handout

7. Cooling System Handout

8. Batteries Handout

9. Fuel and Fuel Injection System Chapter 11, 12, 15

10. 2 Stroke and 4 Stroke Tuning Handouts