

Course Syllabus

Course Name: Boat Hauling Procedures

Course Number: MARR 21

Course Credits and Hours: 4 credits; (120 hours) lecture/lab

Prerequisites: MARR 20 & 22

Course Description: Trains students in boat yard skills. It covers the procedures followed in de-masting a sailboat, hauling and launching a vessel with a straddle-lift, pressure-washing a boat hull, waste water containment and treatment, moving a vessel with a marine hydraulic trailer and forklift, and blocking a boat. Personal safety is stressed throughout the course.

Course Objectives:

Upon successful completion of this course, the student will be able to:

1. State and practice waterfront safety rules and regulations
2. Operate telescoping crane to pull and step sailboat masts
3. Operate Forklift
4. Operate Marine Travel-Lift and perform start up check
5. Properly place Travel-Lift straps to safely lift vessel from the water
6. Operate pressure wash system
7. Operate and maintain wash-water treatment system
8. Block and secure vessel on land
9. Operate electric and pneumatic sanders.
10. Operate Marine Hydraulic Trailer
11. Choose appropriate anti-fouling bottom paint and apply
12. Perform launch of vessel

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Course Outline

I. PERSONAL SAFETY (METC Regulations Review for Water Front Operations.)

II. CRANE OPERATION

- A. Safety
- B. Strap Placement

III. FORK LIFT OPERATION

- A. Safety
- B. Pre-start Check

IV. MARINE STRADDLE-LIFT OPERATION

- A. Safety
- B. Pre-start check
- C. Strap Placement
 - 1. Balance considerations
 - 2. Underwater components precautions

V. WASTE WATER TREATMENT

- A. Preventing Storm Water Run Off.
- B. Vessel Wash Down Water Containment And Collection
- C. Waste Water Treatment
- D. Novachem System Maintenance

VI. BLOCKING AND SECURING VESSEL

- A. Safety
- B. Keel Blocking
- C. Stand Placement

VII. OPERATE ELECTRIC AND PNEUMATIC SANDERS

- A. Safety
- B. Grit of sandpaper

VIII. HYDRAULIC TRAILER OPERATION

- A. Safety
- B. Support Arm Placement

IX. ANTI- FOULING COATINGS

- A. Types
- B. Application

X. LAUNCHING PROCEDURES.

- A. Checking For Possible Leaks
- B. Mast Stepping Procedures

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Evaluation:

Standard Alpha System:

A	94- 100
B	88- 93
C	80- 87
D	70- 80
F	below 70

Evaluation by percentages:

40%- Hands on projects and excercises are graded for accuracy, neatness, and attention to detail.

40%- Written tests are given to determine understanding of principals.

20% - METC's Work Habits Evaluation (previously issued)

The evaluation addresses behavior such as "Does the student report to class on time and prepared? Does the student use lab time wisely? Does the student cooperate with the instructor and team members? Is METC policy followed? Does the student participate in class discussions?"

Many handouts will be issued to you throughout your career at the METC. It is imperative that you keep a three ring binder with labeled dividers. During some written tests you will be allowed to refer to your notes. You will also find it beneficial to refer to your notebook while executing projects. Your notebook will directly effect your written and "hands on" project scores. Your notebooks will periodically be turned in and evaluated.

Prompt attendance is vital to your success. Many "hands-on" projects and demonstrations simply can not be repeated. The table below demonstrates how absences and tardiness will limit how high a grade you will be eligible to receive for this course.

If you miss:	You are eligible for a(n)
7.5 hours or less	A
11.5 hours or less	B
16.5 hours or less	C
21.5 hours or less	D
More than 21.5 hours	F

Each Tardy will equal 1/2 Hour absent. This includes being late returning to class from break.

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Please call to inform if you are going to be absent. Many of our projects are tackled as a team. We need to know if a team member is going to be absent. The answering machine is on phone # **832-3682**.

If you do not call to notify of your absence and there is a test, and you are granted permission to take a make-up test, a 14 point (based on 100 pt. scale) penalty can be deducted from your make-up score. Be advised that any make-up exam administered may be different in format from the original exam, and may include oral examination.

Required Textbooks:

Boatowner's Mechanical and Electrical Manual, 2nd Edition, Nigel Calder, International Marine/McGraw-Hill

Other Comments:

Much of the reading assignments in this course will be from the equipment operation manuals.