

## Course Syllabus

**Course Name:** Mold Station Construction

**Course Number:** MARR 41

**Course Credits and Hours:** 2 credits; 60 hours lecture/lab

**Prerequisites:** MARR 31 & 40

**Course Description:** Provides detailed instruction in creating mold stations and a stem from the lofting completed in MARR 40. Station and stem bevels and skin deductions are emphasized. The end product of this course will be completed mold stations and a stem for the project boat/plug.

### Course Objectives:

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

1. Calculate skin or "planking" deduction from lofting
2. Practice mold station bevel determination
3. Add stem and keel details to lofting
4. Fabricate stem and stem forms from lofting
5. Mold station construction
6. Fabricate keelson
7. Fabricate building platform (strongback)
8. Practice erecting stations, stem, keelson and transom per lofting
9. Apply longitudinal members (adding ribbands and sheer clamps)

### Course Outline:

#### I. DEDUCTING PLANKING THICKNESS

##### A. Angular Measurement of Planking

1. Demonstrating use of bevels to deduct planking thickness
2. Transferring Deductions

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II. BEVELING MOLD STATIONS

III. ADDING KEEL AND STEM DETAILS

- A. Sub Stem
- B. Deducting for Keel/keelson
- C. Understanding “Ghost” Lines

IV. FABRICATING STEM AND SUB STEM FROM LOFTING

V. MOLD STATION CONSTRUCTION

VI. FABRICATING KEELSON

VII. FABRICATE BUILDING PLATFORM (Strongback)

- A. Use of Surveyor’s Quadrant
- B. Demonstrating Importance of Platform being Plumb and Straight

VIII. SETTING UP STATIONS, KEELSON, STEM ON PLATFORM

- A. Importance of Accuracy
- B. Overhead Center-line

IX. ATTACHING RIBBANDS, SHEER CLAMPS TO STATIONS

**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 exercises; graded for accuracy, neatness and attention to detail.

40% - Written tests; given to determine understanding of principals

20% - METC’s Work Habits Evaluation\*

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\*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.

<b>If you miss:</b>	<b>You are eligible for a(n)</b>
3.5 hours or less	A
7 hours or less	B
10.5 hours or less	C
14 hours or less	D
More than 14 hours	F

**Each Tardy will equal 1/2 Hour Absent. This includes being late to returning to class after a designated break.**

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.

**Textbooks:**

Gougeon Brothers On Boat Construction, Meade Gougeon, Pendell Printing, Inc.