



**Course Objective:** A study of the rules and regulations that govern marine inspection, lifesaving, firefighting, environmental pollution and hazardous materials. Prepare future licensed officers for shipboard responsibilities.

**Learning Outcomes:** candidates will demonstrate

- Facility with the CFR and other references.
- Understanding of human error, and biases in decision-making.
- Recognition of on-board hazards including HazMat certification
- An understanding of the regulatory environment, local, federal, national, and international, and the mariner's responsibility and culpability
- Familiarity with pollution prevention and regulations
- A knowledge of the development of structural and organizational fire protection
- The essentials of record keeping
- A basic understanding of piracy, terrorism, and ship security.

**Grading policy:**

1. Attendance at all classes is mandatory. Missing class or tardiness without prior Instructor approval will result in grade point reduction. Missing a quiz without prior instructor approval will result in a grade of zero. Students are responsible for all material presented in class even if officially excused. Officially excused exams may be made up by a comprehensive exam. A grade of less than... C- ... will result in non-compliance with USCG/STCW mandated competency standards and result in license track students repeating the course.

Students shall wait at least 25 minutes after the scheduled class start time for the instructor.

2. Office hours are established to allow students the opportunity to consult with the instructor. Please seek help immediately when you need it.

3. The Academic Code of Conduct will be strictly enforced.

4. No eating, drinking, smoking. Electronic devices must be off.

5. ACCOMMODATIONS -- Mass Maritime 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 Fran Tishkevich - Disability Resource Coordinator, Phone ext: 2208: [ftishkevich@maritime.edu](mailto:ftishkevich@maritime.edu), within the first two weeks of class. Remember, you must notify me, *in advance* if you require accommodations for class or testing.

6. Final Grades in this course will be determined as follows:

- A. Six Regular Tests (plus HAZMAT) averaged together account for 60% of final grade.
- B. Assignments, including work sheets begun in class: 20%
- C. The final exam (no exemptions) accounts for 20% of Final Grade.
- D. Unexcused absences are an automatic 5 point deduction from final grade.
- E. HAZMAT, week following, immediately upon Coasties, requires a 70% for license, graduation, etc.
- F. The numerical average that corresponds to the USCG/STCW required passing grade of (C-) is 70%.

Required Course Materials for Marine Safety:

- 46 CFR parts 1-40, 70-89, 90-139, 156-165, 125-199, 199 (CFRs semester loan)
- 33 CFR parts 125-199, particularly subchapter "O"
- Marine Fire Prevention..., Brady (Semester loan),
- HAZMAT regulations handbook Keller( Semester loan),
- 49 CFR parts 171-185 (Hazardous Material Regulations)
- Tanker Operations by Mark Huber.
- Chemical Data Guide (Semester Loan)
- Thinking, Fast & Slow; Kahneman (also available as iBook)
- Access to Blackboard and the Internets

John Christensen

**MT-4251 Marine Safety**

A study of the rules and regulations that govern marine inspection, lifesaving, firefighting, and environmental pollution. This course prepares future licensed officers for shipboard responsibilities including: inspection of lifesaving and, firefighting equipment, the hazards of confined space entry, emergency situations, and pollution prevention and abatement. Case studies of marine casualties are used to apply the **concepts and theories** of marine safety. The course provides the student with a mix of **critical analysis, application, and communication**.

Contact Information

Office HA 320A Hours Wednesday 1100-1150 & 1300-1350

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Home phone: 508 693 0050

Cell phone: 508 662 1238 Contact me before you get in over your head. Same goes for all your instructors—we can help you if you come to us.

Complete the reading **before** the date listed

Lecture schedule

MT 4251 Spring 2012

| Lecture Sections 21 and 22 |        |     |      |         |                                |         |                          |
|----------------------------|--------|-----|------|---------|--------------------------------|---------|--------------------------|
|                            | Date   |     | Test | Lecture |                                | Remarks | homework                 |
|                            | Date   | Day |      | #       | Topic                          |         |                          |
| Week 1                     | 27-Feb | Mon |      | -       | Orientation                    |         |                          |
|                            | 28-Feb | Tue |      | 1       | It takes a calamity            |         |                          |
|                            | 1-Mar  | Thu |      | 2       | The Regulatory Environment     |         | IMO report               |
| Week 2                     | 6-Mar  | Tue |      | 3       | Use and structure of the CFRs  |         | Report due               |
|                            | 8-Mar  | Thu | 1    | 4       | Hazardous Material Regulations |         |                          |
|                            |        |     |      |         | HMR, 49 CFR                    |         |                          |
| Week 3                     | 13-Mar | Tue |      | 5       | The Titanic and its Aftermath  |         |                          |
|                            | 15-Mar | Thu |      | 6       | SOLAS & IMO                    |         | Immersion suit report    |
|                            |        |     |      |         | US Code to NVIC                |         |                          |
| Week 4                     | 20-Mar | Tue |      | 7       | Fire Case Studies              |         | Report due               |
|                            | 22-Mar | Thu | 2    | 8       | Inspections                    |         |                          |
|                            |        |     |      |         | Audits                         |         |                          |
| Week 5                     | 27-Mar | Tue |      | 9       | SMS                            |         |                          |
|                            | 29-Mar | Thu |      | 10      | Structural Fire protection     |         |                          |
|                            |        |     |      |         | Fire fighting CFRs             |         | Report on MARPOL Annexes |
| Week 6                     | 3-Apr  | Tue |      | 11      | Pollution                      |         | Report due               |
|                            | 5-Apr  | Thu | 3    | 12      | MARPOL                         |         |                          |
|                            |        |     |      |         | US Regulations                 |         |                          |
| Week 7                     | 10-Apr | Tue |      | 13      | CFRs on pollution              |         |                          |
|                            | 12-Apr | Thu |      | 14      | CFRs on pollution              |         |                          |
|                            |        |     |      |         |                                |         |                          |

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|----------------------------|--------|-----|----------|---------|--|---------|----------|
|                            | Date   |     | Test     | Lecture |  | Remarks | homework |
|                            | Date   | Day |          | #       | Topic                                  |         |          |
| Week 8                     | 17-Apr | Tue |          | 15      | Life Saving Equip                      |         |          |
|                            | 19-Apr | Thu | 4        | 16      | Sea Survival                           |         |          |
| Week 9                     | 24-Apr | Tue |          | 17      | Tanker Operations                      |         |          |
|                            | 26-Apr | Thu |          | 18      | Enclosed Space Entry                   |         |          |
|                            |        |     |          |         | CFR practice                           |         |          |
| Week 10                    | 1-May  | Tue |          | 19      | Record keeping                         |         |          |
|                            | 3-May  | Thu | 5        | 20      | Oil Record Book, Oil from Mach. spaces |         |          |
| Week 11                    | 8-May  | Tue |          | 21      | Human Error                            |         |          |
|                            | 10-May | Thu |          | 22      | Security and Piracy                    |         |          |
| Week 12                    | 15-May | Tue | Coasties | 23      | Human Error                            |         |          |
|                            | 17-May | Thu |          | 24      | Human Error                            |         |          |
| Week 13                    | 22-May | Tue |          | 25      | Hazmat Training                        |         |          |
|                            | 24-May | Thu | 6        | 26      | Hazmat Training                        |         |          |
| Week 14                    | 29-May | Tue |          |         | <b>Monday Schedule</b>                 |         |          |
|                            | 31-May | Thu |          | 27      | Security and Piracy                    |         |          |
| Week 15                    | 5-Jun  | Tue | Finals   | 28      | Local air/water pollution Regs         |         |          |
|                            | 7-Jun  | Thu |          |         |  |         |          |
|                            | 13-Jun | Wed |          |         |  |         |          |