

Memorandum

6 August 2012

From: Captain James J. Quinn, USN (ret.)

To: Cadets enrolled in Meteorology (MT 3131)

Subject: Syllabus for Meteorology (MT 3131) Fall 2010

**Enclosure: (1) Reading List and lecture topic
(2) Office hours**

1. **Learning Objective:**, Cadets must develop an understanding of the principles of weather and climate and how the six basic elements of weather interact to form present and future meteorological conditions. This knowledge is considered vital to the safety of personnel, equipment, and cargo of the vessel. Utilizing reading assignments, lecture and class discussion, cadets will understand weather maps, weather text warnings and messages, satellite and graphical data as it pertains to weather at both present and future locations. Cadets will be required to obtain weather information on Buzzards Bay, MA. And another geographic location specified for each class. Additionally Cadets will brief the weather obtained for Buzzards Bay and explain what system or weather factor is predominant in the daily weather report. Climate data exercise will be conducted to allow cadets to research climate data in preparation for voyage planning. An STCW assessment requiring 80% accuracy will be given to ensure cadets can interpret weather fax charts for upper level air, surface and wind /wave predictions both at present and future locations along a track route. In addition cadets will learn rules for maneuvering in heavy weather along with heavy weather avoidance techniques. Critical Thinking and data analysis will be required throughout this course. Case studies on Maritime disaster's and project presentations will be utilized to present facts, answer questions on how a disaster could have been avoided and develop a lessons learned to prevent future disaster.
2. **Learning Outcomes.** Cadets will understand how the atmosphere interacts and produces weather. The difference between weather and climate. How to determine true wind from a moving vessel and what course to steer to achieve a desired relative wind. Additionally cadets will interpret weather charts, satellite images and text information to assess present and future weather conditions. Cadets will know how to assess cloud types, fronts, sea heights, fog conditions to assist in confirming validity of weather reports. These learning outcomes will be assessed by written tests, classroom briefing, project presentations and research tasks. A 70% overall level of knowledge must be attained to pass this course. To meet STCW assessment of weather forecast interpretation a grade of 80% will be required on the STCW assessment. Upon successful completion of this course

cadets will be prepared for the Meteorology section of the Navigation General portion of their license exam.

3. **Absences:** Attendance is **mandatory** for all classes. **Any unauthorized absence will result in a cadet being placed on report and subject to disciplinary action. Three unexcused absences will result in a grade of F for the course.**
4. **Mustering:** One cadet from each section will be appointed as mustering officer. This cadet shall submit at the beginning of each class a muster of all cadets in the section using the following format:
 - (a) Cadet name followed by
 - (b) P= present
 - (c) AA= authorized absence and the reason for absence (i.e. firefighting school, MMA authorized athletic event etc.)
 - (d) UA= Unauthorized absence

The mustering cadet is responsible for the accuracy of the muster and will sign and date each muster attesting to the validity of the muster. **False or incomplete muster will result in disciplinary action.**

5. **Cadet responsibilities:** Each cadet is responsible for all material covered in this course regardless of whether the material was presented in class. Due to limited class time not all reading assignments will be discussed. Cadets are responsible for completing reading assignments and research material (see enclosed reading assignment for the semester). **If a test or quiz is missed due to an authorized absence it is the cadet's responsibility to make up the test /quiz at a time designated by me. All Tests & quizzes must be made up not later than 5 class days from the date of the exam.** This may mean making up exams and quizzes outside of normal class hours. **Unauthorized Absences will not be allowed to make up tests/quizzes and cadet will receive a grade of zero.** Project assignments submitted late will receive letter grade degradation for each day late including weekends.
6. **Grading: Meteorology is a knowledge level STCW assessment; a minimum of 70% (C-) is required to receive academic and STCW certification.** In addition a practical exam in synoptic interpretation and analysis **with 80% accuracy** will be required to receive STCW practical certification. Each cadet will have two chances to achieve the 80% synoptic proficiency; **however the grade on the first proficiency exam will count toward overall academic grade. Any cadet receiving a final grade of D will receive academic credit but not STCW credit.** Grading will be according to Massachusetts Maritime Academy Policy. Class grade will be determined based on the following:

Classroom participation, quizzes & exams	=	50%
STCW practical	=	15%
Final Exam	=	25%
Homework and presentations	=	10%
7. **Cheating:** Any cadet found cheating will be given a grade of **zero for the exam and a semester grade of F, along with being placed on report. Failure to participate in group project or falsely stating participation in a group project will result in a grade of zero**

8. Uniform standards: All cadets shall adhere to academy dress and department standards. Cadets not in proper uniform will be dismissed from class and placed on report. **Boiler Suites and work uniforms are not permitted in class.** Failure to be in proper uniform will mean dismissal from class and being placed on report.
9. **Academic Accommodations:** [Mass Maritime Academy is committed to providing reasonable accommodations to students with documented disabilities. Students who believe that they may need accommodations in this class are required to contact Director of Disability Compliance Dr. Fran Tishkevich ext 2208.](#)
10. **Office Hours:** [I am available for help during Office Hours and at any mutually agreeable time. Please e-mail me if you desire extra help to confirm an appointment time. My e-mail is \[jquinn@maritime.edu\]\(mailto:jquinn@maritime.edu\). My campus phone extension is 2110.](#)

11. Texts: The following Texts will be primary source for material covered:

(a) [American Practical Navigator Pub 9 2002 edition](#)

(b) [Understanding Weather and Climate 6th edition](#)

(c) [Radio Facsimile Guide from Ocean prediction center web site](#)

The following texts may prove helpful in understanding material presented in this course:

(d) [The Atmosphere, 8th edition by Lutkins and Tarbuck](#)

(e) Knights modern seamanship 18th edition

(f) Observing Handbook number 1 from National weather service

The following web pages will be of interest:

National weather service www.nws.noaa.gov

Internet weather source www.weather.noaa.gov

Ocean prediction center www.opc.ncep.gov

National Hurricane center www.nhc.noaa.gov

Joint typhoon warning center www.metocph.nmci.navy.mil

Weather channel www.weather.com

Navy Meteorological & Oceanography www.weather.navy.mil

I highly recommend you view these sites and bookmark them on your computer.

Respectfully

J. J. Quinn, Captain, USN (ret.)