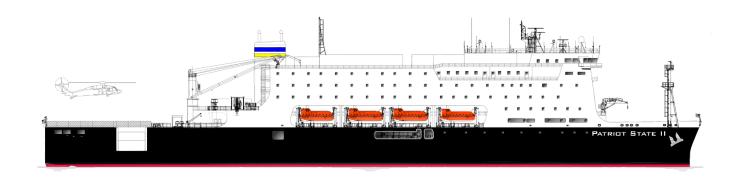


2025 WINTER CRUISE TRAINING PROGRAM

SEA TERM II - MT-2371 THIRD CLASS CRUISE



COURSE

MT-2371 - Sea Term II: Marine Transportation

CREDITS

6 academic credits

COURSE DESCRIPTION

Provides an opportunity for students to obtain sea service as an officer in charge of a navigational watch in a structured shipboard training program. The training uses a building block approach, bringing the student up to an acceptable level of proficiency in each area of required competence. Shipboard training is closely integrated with the shore-based academic curriculum at the Academy. The Sophomore Sea Term focuses upon all facets of shipboard operations and provides students an opportunity to practice terrestrial navigation skills.

PREREQUISITE

All Students <u>MUST HAVE PASSED Coastal Navigation (MT-1221) and Sea Term I (ST-0999)</u> with a C- or better to be eligible to participate in Sea Term II. Sea Term II is a prerequisite for Sea Term III (MT-3371) / Commercial Sea Term (MT-3372).

COURSE OUTCOMES

- Demonstrate effective and safe voyage planning
- Acquire basic celestial navigation skills such as azimuth computation
- Examine the basics of RADAR, GMDSS and ECDIS electronic navigation equipment
- Further knowledge of at sea safe watch keeping requirements
- Obtain sea service days needed to apply for a US Coast Guard OICNW unlimited Third Mate license

STCW KNOWLEDGE-BASED LEARNING OBJECTIVES

Completion of this course will demonstrate knowledge and understanding of the following STCW elements:

- OICNW-A1.08 Knowledge of steering control systems
- OICNW-A1.08 Steering system operational procedures
- OICNW-A1.08 Steering system change-over from manual to automatic control and vice versa
- OICNW-A1.08 Adjustment of steering system controls for optimum performance
- RFPNW-X1.3 Change-over from automatic pilot to hand steering and vice versa

STCW PRACTICAL ELEMENT LEARNING OBJECTIVE

Completion of this course may demonstrate proficiency in the following skills:

- OICNW 1-3B Chart Selection
- OICNW 1-3C Route Planning
- OICNW 2-3A Voyage Plan Appraisal
- OICNW 2D3B Voyage Plan Preparation

STCW ASSESSMENT PROCEDURES

3/C students are required to demonstrate their proficiency of:

1) Chart Selection,



Assessment OlCNW-1-3B

Chart selection

Condition

On a ship, or in a navigational laboratory, given a voyage of at least 500 NM between the port of departure and the port of arrival, given the appropriate chart catalog.

Performance requirement

Behavior	Standard
The student will:	During assessment, the student shall, at a minimum:
Identify the charts needed for the voyage.	The name and number of the charts are correctly identified and recorded. The charts selected are the largest scales appropriate for the area transited. There is no gap in chart coverage for any portion of the voyage requiring coastal navigation and departure and arrival at any port.

2) Route Planning.



Assessment OlCNW-1-3C

Route planning

Condition

On a ship, a full mission ship simulator, or in a navigation laboratory, when given three way points consisting of a position of departure, a position of arrival, and one other way point, with the total distance of more than 500 nm.

Performance requirement

Behavior	Standard	
The student will:	During assessment, the student shall, at a minimum:	
Determine the appropriate courses and distances between way points and plot the intended courses on the charts selected.	Courses and distances between waypoints were correctly calculated. The route was the most direct. The courses were plotted on the appropriately scaled charts noting the ETA at each way point, including the final way point.	

3) Voyage Plan Appraisal, and



Assessment OlCNW-2-3A

Voyage Plan - Appraisal

Condition

On a ship, a full mission ship simulator, or in a navigation laboratory, when given a port of departure and a port of arrival more than 500 miles apart.

Performance requirement

Behavior	Standard		
The student will:	During assessment, the student shall, at a minimum:		
collect and consider the information required to plan a safe and environmentally sound voyage plan, taking into account paragraph 2 of the annex to IMO Assembly Resolution A893(21).	 Collect and consider: The condition of the vessel, its stability, equipment, operational limitations, draft and maneuvering characteristics; Any special characteristics of the cargo and its stowage; Crew members competency and rest status; The status of all ship's certificates and documents were up to date; Up to date charts of proper scale, and the latest notices to mariners and radio navigational warnings; Up to date coast pilots, sailing directions, and other information sources appropriate for the voyage; Relevant routing guides; Up to date tide and current tables and atlases; Weather information; Weather routing services; Ship reporting systems, VTS and environmental protection measures; Vessel traffic density for the route; Pilotage requirements and information exchange; and, Port information, including emergency response capability. 		

4) Voyage Plan Preparation



Assessment OlCNW-2D3B

Voyage Plan - Preparation Condition

On a ship, a full mission ship simulator, or in a navigation laboratory, when given a port of departure and a port of arrival between 600 nm and 1,000 nm apart.

Performance requirement

Behavior	Standard		
The student will:	During assessment, the student shall, at a minimum:		
prepare a safe and environmentally sound voyage plan, taking into account	 Plot courses on appropriately scaled charts noting the ETA at each way point, including the final way point; 		
paragraph 3 of the annex to IMO Assembly Resolution A893(21).	 Correctly calculate and indicate courses and distances between way points on the charts; 		
	 Calculate the most direct route that avoids all hazards to navigation by a margin of safety of 3.0 nm; 		
	4. Determine the areas of all required speed changes;		
	5. Determine positions requiring a change of machinery status;		
	6. Determine the waypoint for all course changes;		
	7. Determine the state of the tide and currents at the port of departure for the times of departure and transit;		
	8. Create a contingency plan for alternative actions in cases of emergency;		
	 Determine all relevant navigation information used to identify protected marine habitats, areas and sanctuaries; and 		
	10. Review the voyage plan with the Master and deck officers.		

Assessments <u>OICNW 1-3B</u> - Chart Selection, OICNW 2-3A - Voyage Plan - Appraisal, and OICNW 2D3B - Voyage Plan - Preparation will be conducted as part of the Voyage Plan training and project preparation

Assessment OICNW 1-3C - Route Planning will be completed during the Chart & Publication training

COURSE CONDUCT

- Course conduct will be in accordance with the MMA regimental system and T.S. Patriot State rules.
- All Students shall wear the appropriate uniform to each training session, watch, and maintenance assignment.
- The MMA honor code will be strictly followed during the course of the semester. The code states that students do not "lie, cheat, or steal." This code applies to the Regiment as well as Academics. Any student work is expected to be only your work. No outside sources may be used in the production of your work. No collaboration with any individual is permitted unless specifically authorized by the instructor for example during group projects. If an instructor has any concern about a possible violation of the MMA Honor Code, or if you cheat on a quiz, test, exam, or copy someone else's work and turn it in as your own, or turn in the same assignment you completed for another course, or violate the Honor Code in any other way, you will receive a grade of zero and the instance may be pursued with the honor Board via the Commandant of Cadets after referral to the Vice President of Academic Affairs. In serious cases, violations of the Honor Code may result in suspension or expulsion from the Academy. So don't cheat—ultimately, it's not worth it!
- Laptops are allowed in training sessions to take notes and follow slide decks. However, any use of laptops for other than class-related activities is prohibited and will result in the rescission of the privilege of laptop use during class periods. Repeated violations of this classroom policy may result in a reduction of your overall grade by one letter.
- Cell phone use during training for any reason is prohibited except when given approval by the instructor. Cell phones SHALL be put away and remain away until the end of training session. Repeated violations of this policy may result in a reduction of your overall grade by one letter
- Unless allowed by an academic accommodation, earbuds are not to be used during training, watch, or maintenance.
- Only covered drinks will be permitted in classrooms.

COURSE INTRODUCTION

Sea Term II is intended to build upon skills achieved in all previous Marine Transportation Departmental Programs to attain professional competency level in the following STCW / USCG areas:

TRAINING

- Celestial Navigation
 - Marine Sextant Intro
 - Sunline/Azimuth, Rising/Setting, LAN, Star Sights
 - Azimuth calculation
- Quartermaster Communications
 - VHF Radio Telephone
 - GMDSS Workstation
- Quartermaster Logbooks
 - Logbook Review and Procedures
 - Bell Book Entries
- Electronic Navigation
 - Automatic Identification Systems(AIS)
 - Satellite Navigation Systems (GPS)
 - ECDIS
- Firefighting
 - Fire Theory & Shipboard Detection
 - o Firefighting Equipment Primary, Fixed, Portable
 - Firefighting On scene
 - Breathing Apparatus-Scott Air Pack
- Naval Architecture
 - Ship's Construction
- Navigation
 - Magnetic Compass and Compass Adjustment
 - Gyro Compass
 - Chart & Pub Corrections
- Steering Systems
 - Steering Systems Controls, Change-Over, Autohelm
 - After Steering System
- Marine Weather
 - Weather Observation I & II
- Voyage Planning
 - Voyage Planning Project
- Piloting
 - Terrestrial Lines of Position
 - Advanced Piloting Evolution
- RADAR
 - RADAR Watch Standing, Plotting, Navigation
- Rigging
 - Boatswain's Chair, Staging
 - Rigging Basics
 - Rigging Exercises

COURSE INTRODUCTION CONT.

- Shipboard Safety
 - Hand Tools
 - Safety Procedures Aboard TS Kennedy
 - Safety Management Systems
- Seamanship
 - Marlinspike: Knots
 - o Marlinspike: Splicing Fiber Rope
 - Mooring Lines
 - Splicing Braided Line
 - Block & Tackle
- Confined Space
 - o Atmosphere Testing
- Watchstanding
 - o Bridge Command and Control Systems
 - Bridge Introduction
 - Collision Avoidance

WATCHKEEPING

- Assistant Navigator
 - Fixing Vessel Position
 - Computing Compass Error
 - Determine SMG & SMG
 - Effective Communication
- Quartermaster
 - Proper Use of PA, Sound-Powered Telephone, & Ship's Alarm Systems
 - Updating Course Board
 - Making Proper Logbook Entries
 - Use of EOT & Bell Book Entries
- Helmsman
 - Proper Relief
 - Accurate Steering
 - o Use and Understanding of Commands
- Weather observer
 - True Wind Direction & Speed
 - Cloud Observation
 - Sea State Estimation
 - Transmission of NOAA VOS Reports
- RADAR Observer
 - Maintain Vigilant Watch
 - Identify Contacts
 - Effective Communication

MAINTENANCE

- Work on Deck with Chief Mate & Bosun
 - Coating Upkeep
 - Shipboard Equipment Upkeep

COURSE INTRODUCTION CONT.

We are fortunate to have the training opportunity afforded by the <u>T.S. Patriot State</u>. What we accomplish on her over the next two months towards achieving the Marine Transportation Department's Sea Term II training objectives and each student's personal cruise goals will be largely up to you. You will be expected to use every opportunity that the vessel affords to make yourself professionally the best.

COURSE REQUIREMENTS

All 3/C students will be required to complete the four STCW practical assessments.

It will be the student's responsibility to ensure completion and proper sign off for ALL these requirements. Failure to do so will result in a grade of INCOMPLETE for Sea Term II, and require re-assessment at MMA after the end of the sea term.

If there is any doubt or confusion concerning the assessment requirements, contact the Deck Training Coordinator or Marine Transportation Department Chair.

Additionally, all 3/C students will be required to complete a Voyage Plan covering one segment of the cruise. Students will be assigned a group who will work together to prepare the voyage plan. Detailed procedures for completing the Voyage Plan and minimum content requirements are available in the printed Voyage Plan Project distributed at the start of this Sea Term. The 3/C Voyage Plan will comprise 30% of the student's overall cruise grade. It is expected that it will be completed in a professional manner in accordance with published time frames. If any difficulty is experienced with any aspect of the 3/C Voyage Plan, see the Deck Training Coordinator for assistance.

COURSE GRADING PROCEDURES

The following grading policy applies to all students participating in Sea Term II.

- Successful completion of Sea Term II is a prerequisite for Sea Term III/Commercial Sea Term and eventually, graduation.
- In accordance with the Massachusetts Maritime Academy academic policy, the minimum passing grade for Sea Term II (MT-2371) is a C- or at least a 70%.
- Grades will not be scaled.
- The + system will be used.
- Final grades for Sea Term II will be based on the following percentage values:

3	J 1	J
Mid Term Exam*		30%
Final Exam*		30%
Voyage Plan Project		30%
Maintenance (Provided by Chief Mate)		10%

^{*}Two written examinations will be administered during the cruise training cycle. Examinations will be scheduled as follows:

MID TERM Covering Phase One Training Subjects ALL DIVISIONS 30 January FINAL Covering Phase Two Training Subjects ALL DIVISIONS 21 February

Final Course Grading:

100 - 93% A	76.9 - 73%	С
92.9 - 90% A-	72.9 - 70%	C-
89.9 - 87% B+	69.9 - 67%	D+
86.9 - 83% B	66.9 - 63%	D
82.9 - 80% B-	62.9 - 60%	D-
79.9 - 77% C+	Below 60%	F

NOTE: If removed from cruise due to disciplinary actions, the student will fail sea term. They will be required to make up the sea term including any previously passed assessments. They will also receive no sea time credit for the partial sea term.

TRAINING MATERIAL AND EQUIPMENT

The following equipment and textbooks will be <u>required</u> to complete the 3/C Deck Training Program:

- 1. Rules of the Road Manual USCG
- 2. Coastal & Deep Sea Nav Class Notes
- 3. Vessel Fam & Safety Training Class Notes
- 4. Personal calculator
- 5. Laptop Computer
- 6. Plotting Equipment Navigation triangles, dividers, compass, mechanical pencil
- 7. Pocket knife, flashlight (with red lens), hard hat, accurate watch, and work gloves

DEPARTMENTAL TRAINING SCHEDULES

Students are advised to consult the 3/C Deck Long Term Training Schedule posted outside the Deck Training Office. A Divisional Training Schedule will be posted about the vessel the evening before each rotation changes to update the Long Term Training Schedule to reflect last minute changes resulting from ship operational requirements, weather or other circumstances.

<u>The Divisional Posted Deck Training Schedule will take precedence over the long-term schedule.</u>

<u>Make sure you look at the Divisional Deck Training Schedule if you are scheduled for Deck Training that day.</u>

A similar schedule will be posted for examination days.

Students will be held accountable for its contents and must report for all classes as scheduled.

Students failing to attend a training session as scheduled, leaving a session without the permission of the instructor, or returning late from a Fire/Abandon Ship or other drill will be placed on report. Students unsure of any of these schedules or any other questions relating to your Deck Training should see the Deck Training Coordinator at the Deck Training Office for clarification or assistance.

SAMPLE TRAINING SCHEDULE PHASE 1

TRAINING DAY & DATE	PERIOD	TRAINING PROGRAM TITLE - UNIT
TD #1	1 2 3 4	Voyage Plan 1 Fixed Firefighting Systems Confined Space Entry Seamanship: Splicing Dyneema Line
TD #2	1 & 2 3 & 4	Charts & Publications Voyage Plan 2
TD #3	1 & 2 3 4	Cel Nav & Sextant Introduction Seamanship: Mooring Lines & Stoppers Azimuth Calculations 1

SAMPLE TRAINING SCHEDULE PHASE 2

TD #4	1 & 2 3 4	Gold/Blue: Ship Construction Blue/Gold: Steering System Azimuth Calculations 2 Voyage Plan 3
TD #5	1 & 2 3 & 4	Introduction to RADAR/ARPA BLUE/GOLD - GMDSS GOLD/BLUE - ECDIS
TD #6	1 &2 3 4	Seamanship - Cleats & Rigging Safety Management Systems Voyage Planning 4

CONSULT POSTED MASTER TRAINING SCHEDULE OUTSIDE THE DECK TRAINING OFFICE AND POSTED DIVISIONAL TRAINING SCHEDULE FOR ACTUAL SCHEDULE

A MID-TERM EXAMINATION will be administered after the end of Training Phase 1 for all divisions and a FINAL EXAMINATION will be administered after the end of Training Phase 2 for all divisions. Schedules for EXAMINATION times and locations will be posted

HELPFUL TRAINING MATERIALS

Standard Engine Order Telegraph (E.O.T.) signals and symbols will be used by the Bridge and Engine room Watches aboard the *T. S. Empire State* as follows:

ENGINE ORDER TE	LEGRAPH S	IGNALS & SYMBOLS
ENGINE ORDER SIGNAL	SYMBOL	TELEGRAPH POSITION TACHOMETER INDICATION
STAND BY ENGINE	S.B.E.	S.B.E. Position + ± 0 RPM [prior to getting underway
AHEAD MODE +		
FULL THROTTLE +	4	Full Ahead Position Requested by sound-powered- telephone. 80 RPM AHEAD +
EMERGENCY FULL AHEAD +	Щ	Full Ahead Position Ring Full Ahead two or more times in succession. "Jingle" the telegraph. 60 RPM AHEAD +
FULL AHEAD +	4	Full Ahead Position 60 RPM AHEAD +
HALF AHEAD +	4	Half Ahead Position 40 RPM AHEAD +
SLOW AHEAD +		Slow Ahead Position 20 RPM AHEAD +
DEAD SLOW AHEAD + DS	ov D	Dead Slow Ahead Position 10 RPM AHEAD +
STOP + ± 0 RPM [Oor*	Stop Position +±0 RPM[
ASTERN MODE [
DEAD SLOW ASTERN [DS]	ov D	Dead Slow Astern Position 10 RPM ASTERN [
SLOW ASTERN [Slow Astern Position 20 RPM ASTERN [
HALF ASTERN[+	Half Astern Position 30 RPM ASTERN [
FULL ASTERN [+	Full Astern Position 40 RPM ASTERN [
EMERGENCY FULL ASTERN [+++1	Full Astern Position Ring Full Astern two or more times in succession. "Jingle" the telegraph. 60 RPM ASTERN [
FINISHED WITH ENGINES	F.W.E.	F.W.E. Position + ± 0 RPM [

When a mistake is made in the bell book or logbook, cross out the mistake with one line and initial it, then correct the entry made. Never erase logbook entries.

INCLUSION AND ACADEMIC ACCOMODATIONS

- MMA welcomes students of all backgrounds, identities, and abilities, and is committed to fostering a learning community in which all students are treated with respect and civility. Students are encouraged to share their unique perspectives while remaining open to the views of others and appreciating the opportunity to learn from one another. The Academy is committed to inclusivity, diversity, and equity, and believes that all students, no matter their race, gender, sexual orientation, religious beliefs, abilities, nationality, or economic status, have the right to access the resources they need to achieve their educational and professional goals.
- Title IX prohibits all forms of gender-based discrimination, including sexual assault and harassment, in educational programs that receive federal funding. Title IX reads, "[N]o person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance." If you have been subjected to discrimination, harassment, or assault, please contact Title IX coordinator Lauren Salem (Isalem@maritime.edu, x5148), or Elizabeth Benway, Dean of Human Resources (ebenway@maritime.edu, x5086). You may also want to file a report with MMA Police (x5060) or the local police (dial 911) regarding assault.
- The Family Education Rights and Privacy Act (FERPA) is a federal law designated to protect the privacy of a student's records and academic work. All files, records, and academic work completed within this course (or as related to this course, like tutoring) are considered educational records and are protected under FERPA. This means that faculty members cannot share information about your performance in this course or any other course with anyone, including your parents/guardians, unless you expressly name and grant written permission for them to have access to that information.
- Massachusetts Maritime Academy is committed to providing academic accommodations to students who qualify. Students who had an IEP or 504 Plan in high school, or others who believe they may need and qualify for accommodations in this class are encouraged to contact Dr. S. Elaine Craghead, Assistant Dean and Academic Accessibility Services Coordinator, ideally within the first two weeks of class. Please remember that academic accommodations are not retroactive. Dr. Craghead can be contacted at ADAcompliance@maritime.edu or at x5350.
- If you are experiencing anxiety, depression, alcohol or drug concerns, difficulty concentrating, or other mental health issues, please contact Jennifer Levesque in Counseling Services at jlevesque@maritime.edu, or at x5180.

CONCLUSION

The Department of Marine Transportation's practical goal for Sea Term II is to ensure each student has progressed through their training to the level of competency of a professional Able-Bodied Seaman. Should a student feel they need assistance at any time, they should seek out the Deck Training Coordinator or any Deck Training Officer. Do not wait until the end of the training cycle to achieve these performance skills. Every student will be tested during the mid-term exam period and during the final exam to determine their progress in meeting these performance standards. Further, the Voyage Plan project and presentation will play a key role in the final grade for Sea Term II. Overall, you will get out of cruise what you put into it.