

INTRODUCTION

General Program Requirements and Guidelines

This project is designed to provide you with a self-directed program and to serve as a comprehensive record of the progress and experiences of each cadet's commercial sea period. As a cadet, you are privileged to be afforded the opportunity to serve aboard commercial vessels and to represent the California Maritime Academy both domestically and abroad.

The commercial cruise sea project is a major undertaking and you should read through the entire project carefully before departing for your first vessel. It is your responsibility to ensure that any questions you have concerning this project are answered before you leave; contacting faculty over the summer months is difficult at best.

All work must be your own. You may not collaborate with other cadets aboard your vessel, or with cadets who were aboard the same vessel on previous cruises. The Cadet Regulations Handbook, the Academic Senate Policy on Inappropriate Student Academic Conduct, and all applicable State and Federal laws concerning academic dishonesty, plagiarism, and other intellectual property rights are hereby incorporated by reference and are binding. Please familiarize yourself with the elements of the Academic Senate Policy on Inappropriate Student Academic Conduct before you depart for commercial cruise. If you have any questions on this issue, it is your responsibility to have them resolved prior to departing for commercial cruise.

Also, be aware that U.S. Coast Guard regulations regarding drug and alcohol use/abuse apply to cadets. The current limit for crew aboard U.S. flag vessels anywhere, and any vessel in U.S. waters is a Blood Alcohol Content of 0.04% and no alcohol consumption within four hours of assuming a watch or safety duty.

Officers aboard ship are being paid to do their job, not to teach you. Do not expect the ship's crew to create mini-classes or adventures for you. Any time you are given or interest you are shown is a gift. You can best show your appreciation by maintaining the highest levels of integrity, grooming, promptness, cheerfulness, and a general "can-do" attitude and willingness to volunteer and help-out.

This is an extremely small industry. Behaviors that seemed funny or harmless at the time will be long remembered. You don't want to be the new third mate signing on and have another officer say, "Oh, I remember him...he was the one who . . ." Guard your reputation jealously. Remember that you are a junior officer – act accordingly. Cadet misbehavior has cost the Academy lost shipping berths, which can adversely affect the entire program for many years. **REMEMBER, IN OUR INDUSTRY YOU WILL BE COMPETING WITH EVERY OTHER OFFICER OUT THERE FOR CAREER OPPORTUNITIES!!**

The Academy considers CRU 200 to be a summertime project, and anticipates cadets will be working on their projects both before and after their shipboard cycles. The project is, however, intended to be primarily completed aboard ship with perhaps only minor polishing completed

afterwards. You should be devoting at least several hours a day outside of your normal watch and daywork hours to work on your project.

Contact Information

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Capt. Tuuli Messer – Grader 1	tmesser@sum.edu	707-654-1234
Mr. Scott Saarheim – Grader 2	ssaarheim@sum.edu	707-654-1206
Mr. James Dalske – Cruise Coordinator	jdalske@sum.edu	707-654-1070

IMPORTANT – Your Discharge or Equivalent Seetime Letter must indicate that you served aboard in the capacity of “Cadet.”

Sea Time Requirement:

A minimum of 60 sea days is required to pass both CRU 200 and CRU 200L. The project is intended to be completed at sea, but, if necessary, some may need to perform shore side research to complete and polish their projects. By enrolling in Commercial Cruise, you are indicating your understanding that Commercial Cruise must be a minimum of 60 days. If you do not complete the 60 days, you will be required to repeat CRU 200 and CRU 200L. PIC/DL candidates will need 90 days sea time aboard a tank vessel and the required observed loads and discharges. Those who choose the tanker PIC slots may not leave the vessel before the conclusion of their 90 days, even if they subsequently change their minds and decide they do not want the PIC endorsement.

Cruise Project Guidance:

- Immediately upon joining your first ship, you should ensure that the Personnel Register is completed along with the Vessel Particulars and Familiarization sections found in Section 1 of this project.
- You should show the project to the licensed officer most involved in your commercial cruise, and discuss the requirements of the project with him/her. This should be done when you first join the ship.
- ALL sections of this project must be completed in order to pass the commercial cruise. There will be tasks that may not apply to your vessel and should be indicated as NOT APPLICABLE in the appropriate section, **with an officer’s signature/initials**.
- You should participate and document your involvement in any activities that arise but that are not included in this project, especially on special purpose/task vessels (dredges, research vessels, fishing vessels, etc.).
- When you return to campus in September, submit the project in the folders given to you by the Career Development Department before you departed on cruise. Do not place your work in plastic sheets (except your evaluations, PIC, and discharge papers).
- Universal plotting sheets, radar transfer plotting sheets, a spiral bound notebook for navigation calculations and a tablet of blank cardstock for drawings will be included with the CRU 200 project portfolio.

- Scratch work or submissions on scratch paper will not be considered and will adversely affect your grade.
- Make certain that the project sections are in their proper order.
- Disorganized projects will receive lower grades.

Grading

There will be three MT faculty members involved in grading the 2009 Commercial Cruise projects. Capt. Pecota will be the overall project coordinator, receiving finished projects, checking them for completeness, and assigning each a code number. He will also determine whether you get CR or NC for the requirements of CRU 200L. Capt. Messer and Mr. Saarheim will evaluate the graded portion of the project, CRU 200. They will receive their assigned portion of every project from Capt. Pecota, identified only by the code number. Only Capt. Pecota will know the author of each student's CRU 200 project. **For this system to work, you must not put anything in your project beyond Section 1 that would identify you by name.** Also, make sure that each section remains separate to allow proper distribution to the graders. DO NOT combine work in one section with work in another. After Capt. Messer and Mr. Saarheim complete their grading, they will return all projects to Capt. Pecota who will reassemble the projects, tally up the scores, and assign each student their final grades.

For a breakdown of each section and its value toward the total grade, see the CRU200/CRU200L Grading Matrix on the following page of these instructions.

PIC/DL Documentation:

The PIC/DL form will be included in this project. Make sure you stay current on your PIC documentation. It is imperative that you fill out the form as you complete each requirement. Place your signed PIC/DL form along with your discharge papers in a plastic sheet and include in the first section of your project.

Due Date:

- The project must be delivered to Capt. Pecota's office (Sim Center, second deck) no later than **1700 sharp on Monday, 14 September, 2009.**
- Your project may be turned in as early as the first day of classes, Tuesday, 8 September, 2009.
- If you wish to turn in your project early and Capt. Pecota is not in, you may turn it in to Mr. James Dalske or Ms. Ku'u lei Galatioto in the Career Center. Be sure you have your project properly logged in so that we may be sure you turned it in on time.
- If you know you cannot finish your project by the above due date and time, contact Capt. Pecota to request an extension. If deemed reasonable, a limited (no more than one week) extension may be granted. You must submit your request for extension by 1700 on Friday, 11 September, 2009.
- Projects submitted late without prior request for extension or projects submitted after the agreed upon extension date will not be accepted. You will receive an "F" for CRU 200 and a "NC" for CRU 200L. This will mean that you must repeat Commercial Cruise next

summer as well as be ineligible for junior level courses that have CRU 200 as a prerequisite. There will be no exceptions to this.

- In addition to turning in the hardcopy of the complete project, you must submit the written work in Sections 2-6 online through Turn-It-In.com by the same due date listed above.

NOTE: All sections must be completed or you will receive a failing grade for cruise. Be sure you have responded to all queries before submitting your projects. Finally, make sure all sections are kept separate and self contained for grading distribution.

What to Bring on Cruise:

The following list is a guideline only. Some vessels have many of the listed texts but some do not. You will have to use your judgment and allow some time for shore-side research, especially if you are not on a traditional deep-sea vessel. **Do not call the company or the vessel to see what they have.** The following are recommended:

Extra Universal Plotting Sheets
Extra radar transfer plotting sheets
American Merchant Seaman's Manual
Merchant Marine Officer's Handbook
Marine Cargo Operations or Tanker Operations Texts
Radar Observer Manual
Dutton's or Bowditch on CD
Colored pencils and good vinyl/plastic erasers
Graphics templates for drawing of valves, lettering, etc.
Plotting tools, calculator
Flash drive or CD-RW
Glue sticks
Flashlight
Gloves, work boots, sunglasses, sunscreen, etc.
Battery powered alarm clock

Lastly, **do not** forget to bring your passport, MMD, and TWIC.

Commercial Cruise Grading Matrix

Cadet: _____	Code Number: _____
CRU 200 Letter Grade: _____	CRU 200L: CR / NC
Discharges for 60 days? _____	PIC/DL discharges for 90 days? _____
PIC/DL form completed? _____	Evaluations submitted? _____
Class of Vessel _____	Route _____

Section 1 – CRU 200L – 3 units (must pass all four components for credit)

Part 1 - Supervisor’s Evaluation (must score at least 70%)	Pass / Fail
Part 2 - Signing-On	Pass / Fail
Part 3 - Required Tasks and Observations	Pass / Fail
Part 4 - Cadet Activity Log	Pass / Fail

Section 2 – Vessel Description – 1 unit graded

Part 1 – Vessel Information (50 pts)	_____
Part 2 – Cargo and Vessel Mission (200 pts)	_____

Section 3 – Navigation and Bridge Procedures – 1 unit graded

Part 1 – Navigation Calculations (100 pts)	_____
Part 2 – Navigation and Communication (100 pts)	_____
Part 3 – Meteorology (50 pts)	_____

Section 4 – Vessel Safety and Security – 1 unit graded

Part 1 – Firefighting/Lifesaving/Emergency Procedures (150 pts)	_____
Part 2 – Vessel Security (50 pts)	_____

Section 5 – Ship’s Business – 1 unit graded

Part 1 – ISM/Maritime Law/Charters (50 pts)	_____
Part 2 – Pollution and Environmental Protection (50 pts)	_____
Part 3 – Vessel Manning/Labor Relations/STCW (50 pts)	_____

Section 6 – CRU 200 Reading Assignment – 1 unit graded

Book Report (150 pts)	_____
Total Score CRU 200 (1000 pts)	_____

SUMMER 2009

COMMERCIAL CRUISE PROJECT

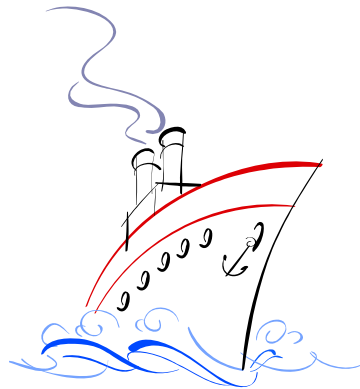


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Project Components, General Instructions and Order of Submission

Section 1 – CRU 200L (White Envelope)

Part 1 – Supervisor’s Evaluation, Discharges, Certificates

Include a plastic sheet protector containing:

- Supervisor’s evaluations in signed, sealed envelopes. The evaluations that will count towards your grade are the one(s) from the officer(s) who directly supervised you. This will normally be the Master or Chief Mate. If more than one officer supervised you, the evaluations will be averaged.
- Discharge papers
- Any PIC/DL or TOAR documentation, any certifications you earned
- Signed copy of the cruise contract

Part 2 – Signing-On

- Personnel Register
- Vessel Particulars
- Vessel Familiarization

Part 3 – Required Tasks and Observations

- Navigation
- Communications
- Port Operations
- Cargo Handling and Stowage
- Pollution Prevention
- Ship Stability and Construction
- Fire Prevention and Firefighting
- Life Saving
- Medical Aid
- Miscellaneous
- Additional Tasks and Observations specific to the type of vessel

Part 4 – Cadet Activity Log

Make copies of the form provided at the end of the project instructions to use as a template. Each page should include a **detailed** daily account of your duties and tasks. The log should be **written legibly** (no cursive) in black ink in your own handwriting, or typed, and must be signed or initialed by both you and an officer each day. Remember, this is an activity **log**. Don’t just say you were on watch or day work. Tell the grader specifically what you **did** on watch/day work. Also, don’t leave this log where others can tamper with it. Cadets have had others make

entries as pranks, which were rather shocking to the grader, which resulted in a lot of headaches and explaining for the cadet.

General Note:

The written portion of your project (Sections 2 – 6) will require you to do research, both aboard the vessel and possibly ashore. If a particular question does not apply to your vessel, do not simply write N/A. If possible, alter the question slightly to better suit your vessel. If a question asks about cargo booms for example, you may have to answer about a towing winch, or stores boom, or barge lifting apparatus for example. If an essay question does not directly apply to your vessel, you are still expected to answer fully by doing additional research, if necessary. Only respond with an N/A if absolutely necessary. **Do not include the entire question in your text. This will only trigger the Turn-It-In program's plagiarism check. Only include the question number you are answering.** All written work, such as essays and short answers, are to be typed, black ink and in 12-point Times New Roman font, with 1" margins all around. Proof read your submissions. Points will be deducted for careless, sloppy spelling and poor grammar.

Section 2 – Vessel Description (Manila Envelope)

Part 1 – Vessel Information

Part 2 – Cargo and Vessel Mission

Section 3 – Navigation and Bridge Procedures (Blue Envelope)

Part 1 – Navigation Calculations

The Navigation Calculations are to be submitted in spiral bound notebook in which all navigation calculations are neatly written. Entries in the spiral notebook should include calculations such as tides, currents, slip calculations, etc. Solutions to problems should include clear step-by-step flow with intermittent solutions included along with proper and logical form from beginning to end. **Do not** just record intermittent solution numbers from calculator registers and expect someone else to following what you have done. Do not submit any work on scratch paper as it will not be considered and will adversely affect your grade.

- Noon slips and other documentation should be submitted neatly and not just stuffed in a rear pocket. Do this by gluing or taping them to a page in the spiral notebook.
- All pertinent navigational diagrams are to be neatly hand-drawn, in pencil, on cardstock provided and should be included the navigation spiral notebook and clearly identified. Drawings must be hand drawn. Computer graphics are unacceptable.

Part 2 – Navigation and Communication

Part 3 – Meteorology

Section 4 – Vessel Safety and Security (Red Envelope)

Part 1 – Firefighting/Lifesaving/Emergency Procedures

Part 2 – Vessel Security

Section 5 – Ship’s Business (Yellow Envelope)

Part 1 – ISM/Maritime Law/Charters

Part 2 – Pollution and Environmental Protection

Part 3 – Vessel Manning/Labor Relations/STCW

Section 6 – Book Report (Gray Envelope)

Section 1
Part 2 – Signing-On

Personnel Register
(First Vessel)

To identify the persons involved in assisting the cadet with their assigned tasks.

Vessel Name: _____

Master’s Printed Name	Signature	Date
Name: _____ /	_____ /	_____
Name: _____ /	_____ /	_____
Name: _____ /	_____ /	_____

Supervising Officer’s Printed Name	Rank	Signature	Date
Name: _____ /	_____ /	_____ /	_____
Name: _____ /	_____ /	_____ /	_____
Name: _____ /	_____ /	_____ /	_____

Other crew and officers involved in your training:

Printed Name	Rank	Signature	Date
Name: _____ /	_____ /	_____ /	_____
Name: _____ /	_____ /	_____ /	_____
Name: _____ /	_____ /	_____ /	_____
Name: _____ /	_____ /	_____ /	_____
Name: _____ /	_____ /	_____ /	_____

Section 1
Part 2 – Signing-On

Vessel Particulars
(First Vessel)

It is an essential feature of your cadet training that you obtain a thorough knowledge of the ships on which you serve. To assist you in meeting this important requirement, the following particulars are to be recorded during the time spent on each ship:

A. GENERAL

Vessel Name: _____

Official # _____

SS/MV _____

Call Sign _____ MMSI _____ SELCALL _____

EPIRB Registration # _____

LOA _____

LBP _____

Beam (molded) _____

Depth to Main Deck at Side _____

Load Line Draft (Summer) _____

Load Line Displacement (Summer) _____

Max Operating Draft _____

Displacement at Max Operating Draft _____

Light Ship Displacement _____

Light Ship Draft _____

Light Ship VCG ABL _____

Light Ship LCG from FP _____

Light Ship TCG from CL & STBD _____

Ship's Service Diesel Oil Capacity _____

Ship's Lube Oil Capacity _____

Ship's Service Reserve Feed Water Capacity _____

Ship's Service Potable Water Capacity _____

Tonnage (Gross) _____

Tonnage (NET) _____

Tonnage (DWT) _____

Propeller: Fixed, Pitch (Type) _____

Adjustable, Pitch (Type) _____

CPP (Type) _____

Out-drive / Jet-drive (Type) _____

Thrusters: Location _____

Horse Power _____

Rudder Type and Number _____

Full Speed Turning Circle Data Corrected for Drift

STBD Turn:

Advance _____

Transfer _____

Tactical Diameter _____

Final Diameter _____

Time Required to Alter CSE to STBD 90° _____

Quick Reversal Astern from Full Sea Speed

Time to Stop Ship _____

Distance to Stop Ship _____

B. ENGINE PARTICULARS

Engines (Type) _____

Boilers (Type & No.) _____

Bunker Capacity _____

Daily Consumption _____

Service Speed _____

Main Engine Output: Horse Power or KW _____

At _____ Revs Per Minute

C. LIFESAVING

Lifeboats (No.) _____

Liferafts (No.) _____

Lifeboat Dimensions _____

Capacity Per Boat _____ (Persons)

Capacity Per Liferaft _____ (Persons)

Davits (Type) _____

Size of Falls (Diam.) _____

Lifebuoys (No.) _____

GMDSS Equipment (Type) _____

EPIRB (Type) _____

SARTS (Type)_____

D. FIRE FIGHTING

Fire Detection System _____

Fire Extinguishers (Number and Capacity) _____

Types Soda/Acid _____

Foam _____

Dry Chemical _____

CO₂ _____

Fire Hoses (No. and Size) _____

Breathing Apparatus (No.) _____

E. MOORING

Mooring Lines _____

Natural Fiber _____

Synthetic Fiber _____

Wires _____

Towing Spring _____

Towing Bitts _____

F. CARGO OPERATIONS

Derricks/Cranes No. and SWL _____

Winches (Types) _____

Other Cargo Equipment _____

Cargo Pumps (Type) _____ No. _____ Rating _____

Towing Equipment _____

G. ANCHORS (weight, type, length of anchor chain, method of securing)

Port_____

Starboard_____

Spare_____

Stream_____

H. NAVIGATIONAL EQUIPMENT

GPS (Type)_____Software Version_____

ECDIS or ECS_____Software Version_____

Radar(s) (Type)_____No._____Are Charts Installed? Yes__ No__

Gyro (Type)_____No. of Repeaters_____

MAG Compass (Type)_____

Steering Control System_____

I. LIST ALL NAVIGATION PROGRAMS, i.e. WEATHER ROUTING, TIDES AND CURRENTS, etc.

Section 1
Part 2 – Signing-On

Vessel Familiarization
(First Vessel)

Observing Officer’s Initials / Date

1. Read the Standing Orders.	
2. Know bridge layout thoroughly.	
3. Locate your emergency and abandon ship stations and list below: Emergency Station: Abandon Ship Station:	
4. Locate medical and first aid equipment.	
5. Locate all alarm activation points, including general alarm.	
6. Locate fire fighting equipment and stations.	
7. Locate CO2 bottle room and control valves (or other fixed system(s)) for extinguishing apparatus in pump room, cargo tanks and hold, machinery space, and galley.	
8. Locate and understand the activation of all emergency shutdowns & mechanisms.	
9. Locate EPIRB and SARTS. Explain operation to ship's officer.	
10. Locate GMDSS suite and distress activation procedures.	
11. Locate and understand the operation of emergency generator.	
12. Locate and understand the operation of emergency fire pump(s).	
13. Locate the operation of power and manually operated watertight & Fire Screen Doors and other hatch/scuttle openings.	
14. Locate and list tank/pump room extraction equipment.	
15. Locate and list locations of Emergency Gear Lockers	
16. Locate the station bill and describe your duties in an emergency	

Section 1
Part 2 – Signing-On

Personnel Register
(Second Vessel)

To identify the persons involved in assisting the cadet with their assigned tasks.

Vessel Name: _____

Master’s Printed Name	Signature	Date
Name: _____ /	_____ /	_____
Name: _____ /	_____ /	_____
Name: _____ /	_____ /	_____

Supervising Officer’s Printed Name	Rank	Signature	Date
Name: _____ /	_____ /	_____ /	_____
Name: _____ /	_____ /	_____ /	_____
Name: _____ /	_____ /	_____ /	_____

Other crew and officers involved in your training:

Printed Name	Rank	Signature	Date
Name: _____ /	_____ /	_____ /	_____
Name: _____ /	_____ /	_____ /	_____
Name: _____ /	_____ /	_____ /	_____
Name: _____ /	_____ /	_____ /	_____
Name: _____ /	_____ /	_____ /	_____

Section 1
Part 2 – Signing-On

Vessel Particulars
(Second Vessel)

It is an essential feature of your cadet training that you obtain a thorough knowledge of the ships on which you serve. To assist you in meeting this important requirement, the following particulars are to be recorded during the time spent on each ship:

A. GENERAL

Vessel Name: _____

Official # _____

SS/MV _____

Call Sign _____ MMSI _____ SELCALL _____

EPIRB Registration # _____

LOA _____

LBP _____

Beam (molded) _____

Depth to Main Deck at Side _____

Load Line Draft (Summer) _____

Load Line Displacement (Summer) _____

Max Operating Draft _____

Displacement at Max Operating Draft _____

Light Ship Displacement _____

Light Ship Draft _____

Light Ship VCG ABL _____

Light Ship LCG from FP _____

Light Ship TCG from CL & STBD _____

Ship's Service Diesel Oil Capacity _____

Ship's Lube Oil Capacity _____

Ship's Service Reserve Feed Water Capacity _____

Ship's Service Potable Water Capacity _____

Tonnage (Gross) _____

Tonnage (NET) _____

Tonnage (DWT) _____

Propeller: Fixed, Pitch (Type) _____

Adjustable, Pitch (Type) _____

CPP (Type) _____

Out-drive / Jet-drive (Type) _____

Thrusters: Location _____

Horse Power _____

Rudder Type and Number _____

Full Speed Turning Circle Data Corrected for Drift

STBD Turn:

Advance _____

Transfer _____

Tactical Diameter _____

Final Diameter _____

Time Required to Alter CSE to STBD 90° _____

Quick Reversal Astern from Full Sea Speed

Time to Stop Ship _____

Distance to Stop Ship _____

B. ENGINE PARTICULARS

Engines (Type) _____

Boilers (Type & No.) _____

Bunker Capacity _____

Daily Consumption _____

Service Speed _____

Main Engine Output: Horse Power or KW _____

At _____ Revs Per Minute

C. LIFESAVING

Lifeboats (No.) _____

Liferafts (No.) _____

Lifeboat Dimensions _____

Capacity Per Boat _____ (Persons)

Capacity Per Liferaft _____ (Persons)

Davits (Type) _____

Size of Falls (Diam.) _____

Lifebuoys (No.) _____

GMDSS Equipment (Type) _____

EPIRB (Type) _____

SARTS (Type) _____

D. FIRE FIGHTING

Fire Detection System _____

Fire Extinguishers (Number and Capacity) _____

Types Soda/Acid _____

Foam _____

Dry Chemical _____

CO₂ _____

Fire Hoses (No. and Size) _____

Breathing Apparatus (No.) _____

E. MOORING

Mooring Lines _____

Natural Fiber _____

Synthetic Fiber _____

Wires _____

Towing Spring _____

Towing Bitts _____

F. CARGO OPERATIONS

Derricks/Cranes No. and SWL _____

Winches (Types) _____

Other Cargo Equipment _____

Cargo Pumps (Type) _____ No. _____ Rating _____

Towing Equipment _____

Section 1
Part 2 – Signing-On

Vessel Familiarization
(Second Vessel)

Observing Officer’s Initials / Date

1. Read the Standing Orders.	
2. Know bridge layout thoroughly.	
3. Locate your emergency and abandon ship stations and list below: Emergency Station: Abandon Ship Station:	
4. Locate medical and first aid equipment.	
5. Locate all alarm activation points, including general alarm.	
6. Locate fire fighting equipment and stations.	
7. Locate CO2 bottle room and control valves (or other fixed system(s)) for extinguishing apparatus in pump room, cargo tanks and hold, machinery space, and galley.	
8. Locate and understand the activation of all emergency shutdowns & mechanisms.	
9. Locate EPIRB and SARTS. Explain operation to ship's officer.	
10. Locate GMDSS suite and distress activation procedures.	
11. Locate and understand the operation of emergency generator.	
12. Locate and understand the operation of emergency fire pump(s).	
13. Locate the operation of power and manually operated watertight & Fire Screen Doors and other hatch/scuttle openings.	
14. Locate and list tank/pump room extraction equipment.	
15. Locate and list locations of Emergency Gear Lockers	
16. Locate the station bill and describe your duties in an emergency	

Section 1

Part 3 – Required Tasks and Observations

General Instructions:

The "Required Tasks and Observations" (Part 3 of Section 1) will be used by the project grader to assess the cadet's commercial cruise experience. The cadet must complete this section in order to successfully pass CRU 200L. This section is graded on a credit/no credit basis.

The specific areas addressed in this section are based on the STCW minimum standard of competence for officers in charge of a watch on ships of 500 gross tons or more at the operational level. It has been designed to give the cadet a high level of exposure to the skills and subjects necessary for an officer in training.

The officer that signs off a required observation or task is **not** certifying a minimum standard of competence, knowledge, understanding or proficiency.

Successful completion of the section does **not** certify STCW competence or certification; it is merely used for academic assessment.

Some tasks will require work to be documented in other sections, such as Section 3, Part 1 - Navigation Calculations. These tasks will be so indicated by a "*" next to them.

The required tasks and observations will be grouped under the following subject headings:

- Navigation
- Communications
- Port Operations
- Cargo Handling and Stowage
- Pollution Prevention
- Ship Stability and Construction
- Fire Prevention and Fire Fighting
- Life Saving
- Medical Aid
- Miscellaneous
- Additional Tasks and Observations specific to the type vessel

Section 1 Part 3 – Required Tasks and Observations

Navigation

The purpose of this section is to give the cadet exposure to the basic skills and knowledge needed to stand a navigation watch.

Tasks marked with a “*” require inclusion in Section 3, Part 1 – Navigation Calculations.

General	Officer’s Initials	Date
1. Describe to a ship's officer the use of Deck Log Book.		
2. Describe to the ship's officer the use of Night Order Book.		
3. Assist in preparation of a voyage plan.		
4. Assist in the correcting of charts and publications.		
5. Observe the operation and use of the course recorder.		
6. Calculate tides and currents for every Arr/Dep port. *		
7. Calculate slip. *		
8. Assist in the pre-departure gear tests. Fill out a pilot card.		
9. Practice the use of the Bell Book and the Auto Bell Log (if applicable).		

Terrestrial and Coastal Navigation
 Demonstrate fixing the vessel's position using:

1. Landmarks, using visual fixes and compass bearings.	
2. Aids to navigation, including lighthouses, beacons and buoys. Make use of proper publications to aid identification.	
3. Dead reckoning positions and estimated positions (taking into account predicted set and drift)	

Electronic Position Fixing and Navigation

Officer's Initials

Date

1. Fix the vessel's position with the use of GPS.	
2. Assist in the set-up of the GPS, including the selection of routes and waypoints.	

Echo-Sounder/Fathometer

1. Operate speed and distance recorder.	
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Compass - Magnetic and Gyro

1. Practice obtaining an Azimuth and determining gyro error. * (optional)	
2. Describe to the ship's officer the use of the compass error book.	
3. Correct magnetic courses/bearings for variation and deviation.	
4. Describe to the ship's officer the gyro start-up and shutdown procedures.	

Steering Control Systems

1. Describe to the ship's officer the operation of the steering control system.	
2. Change over from manual to automatic control and vice versa.	
3. Describe adjustment of controls at steering station for optimum performance.	

Meteorology	Officer's Initials	Date
1. Use and interpret information obtained from ship's meteorological instruments, psychrometer, anemometer, barograph.		
2. Fill out a weather observation log and send it.		
3. Program the weather fax. Look-up stations.		
4. Program the NAVTEX for the reception of meteorological forecasts other than meteorological warnings.		
5. Observe the operation of all weather programs or software used aboard.		
<p>6. Use and interpret information obtained from ship's meteorological instruments.</p> <p>Calculate relative humidity. *</p> <p>Determine relative/true wind, look up corresponding Beaufort force. *</p> <p>Observe 6-Hour barograph trend and describe possible resultant weather trends.</p>		
7. Use Pub. 117 to determine local/GMT time of Sat C SafetyNet Broadcasts for current ocean region.		
8. Use Pub. 117 to identify nearest NAVTEX stations and broadcast time.		
9. Use Pub. 117 to identify VHF weather broadcast channels and times.		

Watchkeeping

1. Know and understand the various watch conditions that pertain to the vessel.	
2. Describe to the ship's officer the correct procedure for changing the watch.	
3. Describe the conditions requiring extra lookouts.	
4. Describe to the ship's officer how various lights, shapes, and sound signals are reported.	

Radar/ARPA	Officer's Initials	Date
1. Start-up and adjust display.		
2. Plot contacts.		
3. Determine: - Range & Bearing - Course & Speed (True & Relative) - CPA & TCPA		
4. Identify: - Critical contacts - Contact course and speed changes		
5. Switch between true and relative motion display, North-Up and Head-Up mode.		
6. Obtain Information from true and relative vectors/check with alphanumeric data.		
7. Practice using trial maneuver.		
8. Fix the vessel's position with the use of radar. Practice parallel indexing.		
9. Set up exclusion areas.		

Emergency Procedures/Search and Rescue

1. Locate and familiarize yourself with the IAMSAR (search and rescue) manual.	
2. Know the maneuvers and procedures for the rescue of a person overboard.	
3. Describe to the ship's officer the operation of SARTs and EPIRBs for search and rescue.	
4. Describe the proper operation of the 3cm radar so that the detection of a SART is optimized.	
5. Describe to the ship's officer the local on-scene SAR organization and how it functions.	

Communications

Routine	Officer's Initials	Date
1. Practice making calls on the VHF for traffic or ship's business.		
2. Practice making calls using DSC, VHF, MF and HF.		
3. Send routing, ship's business or messages via Telex, SAT C, and/or SAT B.		
4. Prepare and send AMVER/weather reports.		
5. Locate the GMDSS reserve source of energy.		
6. Describe use of UHF radios during vessel operations. Describe radio and battery safety requirements.		

Distress

1. Describe to the ship's officer how to send a distress on all GMDSS/comms equipment.	
2. Describe the appearance of a SART on a radar screen.	
3. Describe how to cancel a false distress alert.	
4. Describe the activation of a SCT (Survival Craft VHF Transceiver).	

Port Operations

General	Officer's Initials	Date
1. Assist in the preparation of the ship for mooring.		
2. Observe and assist rigging the pilot ladder or pilot hoist.		
3. Read drafts for arrival and departure.		
4. Observe and assist in mooring operations a. Forward b. Aft c. On the Bridge		
5. Observe and assist in anchoring operations.		
6. Tend mooring lines and gangway while alongside.		
7. Observe and assist rigging the accommodation ladder.		
8. Observe and assist in the operation of self-tensioning winches.		
9. Locate the hydrometer and associated equipment and determine salinity. Determine the maximum allowable fresh water allowance.		

Cargo Handling and Stowage

General	Officer's Initials	Date
1. Observe and assist in preparation and interpretation of a cargo plan.		
2. Assist in preparing cargo documentation.		
3. Carry out a ship inspection prior to cargo work.		
4. Observe and assist in cargo gear operation and maintenance.		
5. Observe and assist loading and discharging of cargo.		
6. Assist in the keeping of a cargo operations record book/log.		
7. Assist in cargo calculations.		
8. Observe opening and closing of hatches/doors/ramps/ports.		
9. Accompany the person in charge of the reefer containers as they make their rounds.		
10. Accompany the Watch Mate or Chief Mate as they make the rounds checking lashings prior to departure.		
11. Assist Chief Mate in cargo/stores handling equipment inspection, testing, and recording.		
12. Using a sling psychrometer, take humidity readings in the cargo holds.		

Tank Vessel Specific Tasks	Officer's Initials	Date
1. Observe the entries made in the Oil Record Book.		
2. Observe and assist in tank cleaning operations and procedures.		
3. Observe and assist in operating the inerting system.		
4. Determine which type of purging system your vessel has: Dilution Method Displacement Method		
5. Observe and assist in the operation of fixed tank washing equipment.		
6. Observe and assist in the operation of tank gauging tapes.		
7. Observe and assist in the maintenance of a pressure vacuum valve.		
8. Observe and assist in tank stripping.		
9. Observe and assist in topping-off operations.		
10. Observe and assist in gas freeing operations.		
11. Draw your Ship's Piping Systems: * Tank Piping Pump Room Piping Deck Piping (including valves, gauges, pipes, and control mechanisms)		
12. Observe all pre-transfer conferences and inspections.		
13. Read and observe the use of the Declaration of Inspection.		
14. Observe and assist with the connection/disconnect of cargo hoses or chiksans.		
15. Observe and assist with draining of the manifold containment system.		
16. Observe and assist in the testing of cargo tank atmospheres.		
17. Observe and assist in the maintenance and calibration of atmospheric testing equipment.		
18. Observe and assist in the operation of portable tank washing equipment.		

Tank Vessel Specific Tasks (cont.)	Officer's Initials	Date
19. Observe and assist with continuity testing of portable tank washing hose.		
20. Observe and assist with a pump room inspection during cargo operations.		
21. Determine cargo load and discharge rates, estimated time of completion and total cargo on board.		
22. Draw the Following Ship's Piping Systems: * Vapor Control Inert Gas Crude Oil Wash Stripping System Ballast System Ballast Eductor System Cargo Eductor System Cargo Control Consol		
23. Observe and assist with enclosed space entry.		
24. Observe and assist with cargo piping pressure testing prior to discharge.		
25. Observe cargo and vapor exposure precautions taken by crew during cargo operations (connecting, disconnecting, inerting, purging, tank cleaning)		
26. Observe and assist with vapor control during loading.		
27. Become familiar with the Oil Transfer Procedure Manual.		
28. Observe and assist the engineers with starting cargo pumps from engine room.		
29. Observe and assist engineers with starting the inert gas system.		

Pollution Prevention

General	Officer's Initials	Date
1. Observe and assist in making entries in the Oil Record Book.		
2. Observe and assist in precautions taken to prevent oil pollution in the marine environment, (i.e., prior to fueling, loading or discharging oil cargos)		
3. Observe rainwater management during cargo operations.		
4. Observe and participate in inventory of spill response gear.		
5. Observe location of all oil spill response and clean-up equipment.		
6. Become familiar with the Oil Spill Response Plan.		
7. Observe and assist with the operation of the oil content monitoring system.		
8. Observe the use of slop tanks and decanting systems during tank cleaning operations.		
9. Observe and assist with pump room bilge liquid management.		
10. Observe precautions taken to ensure ballast water is free of oil.		
11. Observe and participate in a ballast water change out.		

Ship Stability and Construction

Stability	Officer's Initials	Date
1. Observe the calculating of the ship's stability.		
2. Try to learn to use the ship's stability program to calculate trim and stresses.		
3. Inspect the vessel's hydrostatic curves drawings.		
4. Observe and assist in ballasting operations.		
5. Draw your Vessel's Ballast System. *		
6. Observe the calculation of sheer stress and bending moments for both in-port and at sea conditions. Note maximum allowable limits.		
7. Observe the calculation of vessel sag following loading and hog following discharge.		
8. Observe the procedures for dirty (storm) ballasting.		

Construction	Officer's Initials	Date
1. Determine if vessel is primarily transverse or longitudinally framed.		
2. Determine TPI at the summer loadline.		
3. Determine MT1 at the summer loadline.		
4. Find the shell expansion plan.		
5. Find and examine the capacity plan.		
6. Find and examine dry dock plan.		
7. Locate the outboard profile drawing and determine the frame spacing for your vessel.		
8. Locate and describe the use of the deadweight scale.		

Fire Prevention and Fire Fighting

General	Officer's Initials	Date
1. Observe and assist the officer in charge when he/she is organizing and conducting fire & emergency drills.		
2. Practice sounding the general alarm.		
3. Observe and assist in testing fire detection systems. a. Fire Alarms b. Fixed Auto Sprinklers c. Fixed Steam System d. Fixed Foam Systems e. Fixed CO2/Halon Systems f. Additional Systems		
4. Observe and assist an officer in the inspection of fire stations.		
5. Observe and assist an officer in the inspection of all fire fighting equipment.		
6. Observe and assist in the maintenance of fire and foam deck isolation valves.		
7. Observe precautions taken to prevent cargo vapor from entering the accommodations.		
8. Observe and assist with inspection, testing and maintenance of Self Contained Breathing Apparatuses and Emergency Escape Breathing Devices and any re-filling/cascade systems.		
9. Draw and describe the water firefighting piping system, including pumps, stations, isolation valves, deck foam monitors, etc. *		
10. List locations of local and remote ventilation shutdowns and fixed extinguishing systems associated with them.		

Life Saving

General	Officer's Initials	Date
1. Observe and assist an officer in the organization and implementation of abandon ship drills.		
2. Practice sounding the abandon ship signal.		
3. Observe and assist an officer while inspecting survival craft (lifeboats/rafts) and other life saving appliances		
4. Observe and assist an officer in the inspection of immersion suits, thermal protective aids (TPAs) and life rings.		
5. Practice donning an immersion suit.		
6. Observe and assist an officer in the inspection and readiness of rescue boat(s).		

Medical Aid

General	Officer's Initials	Date
1. Observe and assist an officer in the inspection of medical stations and appliances.		
2. Observe and assist an officer in the inspection of emergency stations (eye wash, chemical wash, etc.)		
3. Observe and assist an officer in the organization and implementation of a medical evacuation drill.		
4. Become familiar with the procedures for helicopter evacuation.		
5. Observe and note the location of trauma kits, litters, etc.		
6. Observe use of chemical data guide and material safety data sheets (MSDS).		

Miscellaneous

General	Officer's Initials	Date
1. Stand one entire sea watch with each of the deck watch-standing officers. 8-12 12-4 4-8		
2. Stand at least one arrival and one departure watch with the engineering watch officer.		
3. Stand one watch with an engineer in port.		
4. Observe and assist in bunkering operations.		

Section 1

Part 4 – Cadet Activity Log

You will be expected to keep a daily log/journal of your activities while on-board the vessel. Use the Cadet Activity Log template at the end of the project instructions. Make 60 - 90 copies. Entries shall be in black ink or typed. Each daily entry must be signed by you and a ship's officer. Log all-important evolutions in which you were involved. Include your role in these evolutions. Be as detailed as possible. Don't just say you were on watch or daywork; describe what you **did** on watch. Diary-like entries will detract from your grade.

Unacceptable examples:

“...I woke up today at 0610 and really craved a ham and cheese omelet...” or “...peering over the bow bulwark, I suddenly became transfixed with awe upon spying six bottlenose dolphins cavorting merrily in the crystal clear cobalt blue of the mighty Pacific rushing by...” etc...

Try to emulate the same type of writing your officers use in their deck log.

General Instructions for Written Work in Sections 2 – 6:

All written work must be typed, font size 12, in Times New Roman font [as are these instructions], no “comic” or “chiller” for example, with 1-inch margins, double-spaced. No handwritten work will be accepted. Single-spaced work, not following instructions, will automatically be graded down. Use appropriate headings to organize your work. Use as many words as necessary to completely answer the question without reverting to “filler” or redundancy. Again, quantity does not necessarily equal quality, but an incomplete response or one hardly longer than the question asked will not generate many points.

If a question does not apply to your vessel, try to modify the intent of the question to better fit your vessel, and indicate this to the grader. If you are unable to answer the question because the officers aboard can't answer your queries, or a specific text, document or feature does not exist aboard your vessel, do your best to research the matter before or after cruise and indicate your difficulties to the grader. If you are having extreme problems responding to the project, contact Capt. Pecota or Mr. Dalske as soon as possible.

Spelling and grammar count, so proof read your work before submitting it. Organize your thoughts before you start writing. Write as if this was to be published in a maritime magazine. Submit only your very best work.

Emphasis – While content is important, so is being able to present your thoughts and observations. As college level cadets, and soon to be licensed professionals, your ability to express your technical work in clear, concise and writing skill is extremely important. A significant portion (25%) of the grade for written work will be lost if the structure, spelling, punctuation and grammar or your written work are below satisfactory levels for your education level. So, be careful and pay attention to accuracy in writing skills as well as content.

General Instructions for Drawings

All drawings shall be submitted using only the drawing cardstock provided in this project, be clearly labeled and **neatly** drawn. Crude freehand sketches are **unacceptable**. Draw only on one side of each page. Photocopies and computer drawings (CAD) are also unacceptable. Drawings and diagrams must be done by hand using straightedges, triangles, compasses, drawing templates, etc. Lists of specifically required drawings are included in the instructions for Sections 2, 3 and 4.

Section 2 – Vessel Description

Part 1 – Vessel Information

- A. Give a general description of your ship. This should include, but not be limited to: when and where she was built, who owns her, what type of cargo she carries, ports of call, trade she is in, charter or liner, etc.
- B. What organizations are responsible for the inspection of your ship (U.S. Coast Guard, American Bureau of Shipping, etc.) and how these inspections are scheduled and conducted?
- C. Explain how the ship gets support when needed. Is maintenance support provided, and how is it coordinated?
- D. Describe the ship's main propulsion systems, steering system and power generation systems. Describe the safe operating limits of the ship's propulsion, steering and power systems.
- E. Describe how your vessel handles in various load conditions:
 - a. Stopping Distances
 - b. Effects of Wind and Current
 - c. Effects or Squat in Shallow Water
 - d. Effects of Trim
 - e. Effects of Stability (stiff vs. tender ship)

Section 2 - Vessel Description

Part 2 – Cargo and Vessel Mission

Note: You need to complete only one cargo section for the type of vessel on which you sailed. Include the drawings at the end of the essay answers for this part.

General Cargo/RO-RO/LASH/Heavy Lift Ship

Required Drawings:

- Main Deck Cargo Equipment Arrangement
- Diagram of the Main Equipment Used for Cargo Operations
- Bridge Layout (including arcs of visibility)
- Main Deck Line Handling and Anchoring Equipment
- Lashing or Cargo Securing Gear Used

Essay Answers:

- A. Describe all cargo handling equipment. This should include cranes, booms and any other equipment used to load or off-load cargo. This description should include:
 - a. Manufacture of Equipment
 - b. Type of Equipment
 - c. Capability of Equipment, Lift Capabilities, etc.
 - d. Source of Power for Equipment
 - e. Any Special Operating Instruction or Procedures
 - f. Hatches, Ramps, Doors, Side Ports
- B. What sort of preparations must be done prior to loading? Cleaning, outside inspectors, fumigation, equipment testing, cool down, etc. Discuss the use of cargo plans and established safety rules and regulations.
- C. Describe the dangerous cargo manifest. What reference books were available to the mate in regards to this manifest and dangerous cargos? How much time did the Chief Mate need to spend dealing with this manifest alone?
- D. Describe procedures for the completion of cargo operations. Explain how the cargo is secured for sea. Discuss: lashing systems, shoring/tomming, etc. Who does this work? How long does it take? How much strain can the cargo lashings withstand?
- E. Discuss procedures and permissions for opening and closing of hatches, scuttles & side ports, and any related required logbook entries.
- F. Discuss maritime labor used in your operation, how it is organized and how the crew interfaces with it.

- G. Describe how ventilation or dehumidification systems are used for cargo operations.
- H. Is your vessel subject to any weather/sea state restrictions? What can be done to protect the cargo if adverse weather is expected
- I. What is a cargo damage survey and who conducts them? What forms and log entries are completed?
- J. When are drafts logged in the smooth and official logs? Who logs them? Does your ship have a changeable tonnage?
- K. Describe in detail the normal states of stability aboard your vessel. What is the normal GM and rolling period? Are stability calculators used? How often is stability calculated and by whom? Is stress calculated aboard your vessel? How is stability information recorded?
- L. Describe a Master's Note of Protest.
- M. Describe a Notice of Readiness.
- N. Discuss any cargo related incidents, especially damage, that happened aboard your vessel. Describe what forms were completed as a result of the incident and any log entries.

Container Ship

Required Drawings:

- Main Deck Hatch Arrangement
- Profile Loading Plan Showing Maximum Load
- Bridge Layout (including arcs of visibility)
- Main Deck Line Handling and Anchoring Equipment
- Lashing or Cargo Securing Gear Used (e.g. a stacking cone)

Essay Answers:

- A. Describe all cargo handling equipment. This should include cranes, booms and any other equipment used to load or off-load cargo, including shore side equipment. This description should include:
- a. Manufacture of Equipment
 - b. Type of Equipment
 - c. Capability of Equipment
 - d. Source of Power for Equipment
 - e. Any Special Operating Instruction or Procedures
- B. What sort of preparations must be done prior to loading? Cleaning, outside inspectors, fumigation, equipment testing, etc. Discuss the use of cargo plans and safety rules and regulations. What happens when ship and shore numbers don't match?
- C. Does your vessel have a load program or is the load provided by shore? How is stability calculated? Who is responsible for the vessel's stability calculations? Describe how final stability numbers are determined. Describe in detail the normal states of stability aboard your vessel. What is the normal GM and rolling period? Are stability calculators used? How often is stability calculated and by whom? Is stress calculated aboard your vessel? How is stability information recorded?
- D. Describe the dangerous cargo manifest. What reference books were available to the mate in regards to this manifest and dangerous cargos? How much time did the Chief Mate need to spend dealing with this manifest alone?
- E. What is the maximum list your vessel can have and still accept containers? If you have anti-heeling tanks, how do they work?
- F. Describe how containers are lashed aboard your vessel. How is lashing gear maintained? How much lashing gear does your vessel carry? Describe the different lashing methods used aboard your vessel by season or route.

- G. How much strain can the cargo lashings withstand? What is the maximum stack height? What determines stack height limits? Does it depend on your route or weather? What are the stress limits of a stacking cone or twist lock? What is the deck capacity of the hatch covers?
- H. Describe the procedures for the load and discharge of refrigerated containers. How are locations, temperatures recorded? How can a problem be detected?
- I. Discuss procedures and permissions for opening and closing of hatches, scuttles and side ports, and any related required logbook entries.
- J. Discuss maritime labor used in your operation, how it is organized and how the crew interfaces with it.
- K. How are lines tended during cargo operations? Who tends them? Was there ever a mooring-related incident aboard your vessel?
- L. Describe if/how ventilation or dehumidification systems are used for cargo operations.
- M. Is your vessel subject to any weather/sea state restrictions? What can be done to protect the cargo if adverse weather is expected?
- N. When are drafts logged in the smooth and official logs? Who logs them? Does your ship have a changeable tonnage?
- O. Describe a Master's Note of Protest.
- P. Describe a Notice of Readiness.
- Q. What is a cargo damage survey and who conducts them? What forms and log entries are completed?
- R. Discuss any cargo related incidents, especially damage, that happened aboard your vessel. Was any damage done to cell guides while you were aboard? Describe what forms were completed as a result of the incident and any log entries.

Tanker

Required Drawings:

- Tank Arrangement
- Main Deck Cargo Gear Piping Diagram
- Bridge Layout (including arcs of visibility)
- Main Deck Line Handling and Anchoring Equipment
- Manifold Area

Essay Answers:

- A. Describe all cargo handling equipment. This should include cranes, booms and any other equipment used to load or off-load cargo. This description should include:
- i. Manufacture of Equipment
 - ii. Type of Equipment
 - iii. Capability of Equipment, Pump Capacities, etc.
 - iv. Source of Power for Equipment
 - v. Any Special Operating Instruction or Procedures
- B. What is your usual cargo? At what temperature is it carried? If the cargo is heated, describe the heating mechanisms used.
- C. Describe procedures that are followed prior to commencing cargo operations. Include the use of cargo plans and safety rules and regulations. Describe how cargo orders are received. Who sends them? What is included in them? Describe all the forms and papers necessary to prepare for a load or discharge.
- D. Describe the checklists used prior to and during cargo operations to avoid errors. Who double-checks the line up? How are valve positions indicated? How are they verified?
- E. What type of communication is maintained between the cargo mate and the deck? What communications are between ship and dock?
- F. Describe the order in which tanks are discharged. Explain why the order is important. What is a normal discharge rate and pressure for your vessel? Which pumps are used? What are their rates? How are they checked and by whom? Describe stripping practices in detail. Are allowances made for trim and list?
- G. Describe the order in which tanks are loaded. Explain why the order is important. What is a normal load rate? How long does the process take? Which lines are used? Describe topping-off practices in detail. What rates are used?
- H. Describe how the tanks are gauged after cargo operations are completed. What is done when ship and shoreside numbers don't match? Describe your vessel's gauging system

in detail. How is the system calibrated? What system used for final official gauging of the ship?

- I. What is a “vessel experience factor” and what was normal for your ship?
- J. Describe pre-voyage stress calculations. What type of stability program does your vessel use? Who uses it?
- K. When are drafts logged in the smooth and official logs? Who logs them? Does your ship have a changeable tonnage?
- L. Describe the type and components of the inert gas system. Below what limit is the oxygen concentration maintained? Describe the deck seal and what purpose it serves. Discuss P/V valves. What logs or instruments monitor the IG system?
- M. If your vessel has a vapor recovery system, fully describe its components and use.
- N. Discuss any cargo related incidents that happened aboard your vessel and any required log entries

Passenger Ship

Required Drawings:

- Main Deck Arrangement
- Profile Plan
- Bridge Layout (including arcs of visibility)
- Main Deck Line Handling and Anchoring Equipment

Essay Answers:

- A. How many passengers does the vessel carry? What market is it in? Is it a family oriented cruise or does the ship cater to an older crowd? Are there any age/health limitations placed on passengers? Were any disabled passengers aboard? If so, what accommodations were made for them?
- B. Describe the manning and crew organization aboard your vessel for each department. What nationality are the officers and crew? Are there language difficulties? Where did the officers get trained and how does their training compare with US training? How long have most been working on passenger ships? Describe the pay and vacation schedule?
- C. Describe any additional STCW training and/or certificates required of crew aboard passenger ships.
- D. Describe the duties of the vessel's safety officer and any additional training or certification required. Describe any special security systems, inspections and process.
- E. Describe the ballast and stabilization capabilities of your vessel. Under what conditions and at what speeds can stabilizers not be used? How much ballast does the vessel carry? Describe normal stability conditions aboard your vessel. How often is stability calculated and by whom? What is a normal GM and rolling period?
- F. Describe the computer systems used aboard your vessel and the department responsible for running them.
- G. What are food costs? Describe the provisioning of the vessel and galley operations.
- H. Describe onboard revenue streams such as casinos, bars and restaurants. What percentage of profit do these revenue streams represent?
- I. Discuss the medical department. How many patients do they treat on an average day? What are typical maladies? How are deaths handled?
- J. Discuss any passenger related incidents that happened aboard your vessel and any required log entries.

Hopper Dredge

Required Drawings:

- Main Deck Equipment Arrangement (especially dredging gear)
- Inboard Profile
- Bridge Equipment and Console Layout (including pipeman's console)
- Pumproom Layout
- Dragarm, showing all articulations
- Dredgepiping, Valves, Overflows, Bottomdoors
- Dredging System Hydraulics
- Jetting System (if fitted)
- Pump Ashore System (if fitted)
- Cross Section of Dredgepump from Suctionmouth to Pumpshaft Bearing

A. Describe in detail your vessel statistics including but not limited to: dimensions, propulsion and dredging equipment, performance, capacities, areas of service, and reliability (how often does she break down?).

B. Give a detailed description of the project on which your vessel is currently working. Who is the client? Does the project involve new work or maintenance work? How large is the project in cubic yards? What is the project's estimated total duration? What is the expected project revenue (if you are on a private dredge)?

C. If the vessel goes to shipyard during the time you are aboard, describe the scope of any repairs, maintenance or modifications being done. Does the company keep the crew during extended shipyard periods or lay most of them off? Why?

D. During the 60 days of your assignment to the dredge you are likely to see at least one of the following normal operations: replacing a draghead, changing out a drag wire, rebuilding a dredgepump, replacing a section of dredge piping, or replacing a sluice valve. Describe in detail how one of these operations is conducted and any safety precautions that must be observed.

E. How does the vessel get survey information of the project? Who is in charge of surveying? How often does the dredge receive survey information?

F. What type of electronic position system does the dredge use? Is it produced by the dredging company or an independent contractor? How does it compare with the vessel's ECDIS in function and ease of use?

G. How often does your vessel stop for fuel? Does she always go to the dock or to anchor for fuel? Are the mates allowed to dock the vessel or just the captain?

H. Does your vessel have pump ashore capabilities? If so, even if you did not actually observe the operation, describe how it is done. What are the procedures used for approach, hook-up, line-up and start up, pumping ashore, shut down, disconnecting and moving away from the pump ashore station? Are tugs or assist boats used? How?

I. What does it mean to ‘sit on a draghead’? When does it normally happen, and under what conditions? How can it be avoided? What should you do if it does happen?

J. Did the dredge ever run aground severely or suffer a collision when you were aboard? Describe what happened. Was there any serious damage?

Tug

Required Drawings:

- Main Deck Arrangement Including Line Handling and Anchoring Equipment
- Profile Plan Including Underwater Propulsion Gear
- Bridge Layout (including arcs of visibility)
- Main Winch or Tow Handling Equipment

Essay Answers:

- A. Provide detailed description of the vessel including type, class, horsepower and various types of bollard pull.
- B. Describe main propulsion arrangement. Is the vessel conventional, Z-drive, Azipod, Voith-Schneider, etc. Give the number of screws and whether they are open or ducted. What is the rudder type and arrangement? Describe the steering control arrangement. Describe any thrusters or pods. Describe the maneuverability of the vessel. Does she have a skeg and what purpose does it serve.
- C. Describe hull shape and how it relates to vessel performance. Describe the fendering system.
- D. What is meant by the term “tripping the tug?” What procedures are enlisted to prevent or minimize danger to the tug during towing operations?
- E. Describe towing arrangements; towline, Articulated Tug and Barge, Integrated Tug and Barge, notch, pushing or other. What precautions are taken when the vessel is towing that are not taken when the vessel is running light?
- F. Describe the tow. Is the tow dedicated to the tug? What is the usual cargo, length over all (LOA), beam and any specialized equipment or construction aboard the barge?
- G. Describe the deck machinery including type and capacity of tow winch and associated wire or line. Describe any anchor windlasses, line handling winches, tuggers, fairleads or cranes. Describe any remote operating stations for the tow winch.
- H. What is the procedure if the tow begins to sink? Does your vessel have any winch tension or line slippage alarm systems?
- I. What is the procedure and equipment used to retrieve the tow if a towline parts?
- J. How is a catenary maintained on the towline? How is towline shock cushioned?

K. Describe the wheelhouse layout and equipment. Are there any specialized controls, gauges or monitors. Is the vessel ARPA or AIS equipped? How is the visibility from the wheelhouse?

L. Describe any mission related incidents that happened aboard your vessel.

Offshore Supply Vessel (OSV)

Required Drawings:

- Main Deck Arrangement Including Line Handling and Anchoring Equipment
- Profile Plan Including Underwater Propulsion Gear
- Inboard Profile
- Bridge Layout (including arcs of visibility)
- Main Winch/Crane or Cargo Handling Equipment

Essay Answers:

- A. Provide a more detailed description of the vessel including type, class, and horsepower.
- B. Describe all cargo handling equipment. This should include cranes, booms and any other equipment used to load or off-load cargo. This description should include:
 - a. Manufacture of Equipment
 - b. Type of Equipment
 - c. Capability of Equipment, Lift Capabilities, etc.
 - d. Source of Power for Equipment
 - e. Any Special Operating Instruction or Procedures
- C. Describe procedures that are followed prior to and at completion of cargo operations. Include the use of cargo plans and established safety rules and regulations. Explain how the cargo is secured for sea aboard your vessel. Discuss lash-down points, shoring/tomming, etc. Who does this work? How long does it take? How much strain can the cargo lashings withstand?
- D. Is your vessel subject to any weather/sea state restrictions? What can be done to protect the cargo if adverse weather is expected?
- E. Describe main propulsion arrangement. Is the vessel conventional or Z-drive? Give the number of screws and whether they are open or ducted. Describe the steering control arrangement. Describe any thrusters or Azipods.
- F. Describe the size of the clear deck and its deck capacity and any specialized cargo handling gear or procedures. What types of cargo does the vessel carry. How does the vessel stay in position while offloading and loading? How long does it take to load and offload the vessel. What personnel are responsible for the cargo operations and how is cargo handled? What log entries are made?
- G. Describe the vessel stability letter and any operating constraints imposed by it. Describe the ballast and stabilization capabilities of your vessel. How much ballast does the vessel carry? Describe normal stability conditions aboard your vessel. How often is stability calculated and by whom? What is a normal GM and rolling period?

- H. Describe any below deck bulk capacities and offloading systems. Describe any below-deck cargo carrying and securing systems. How are tanks cleaned?
- I. Describe the deck machinery including type and capacity of tow winch and associated wire or line. Describe any anchor windlasses, line handling winches, tuggers, fairleads or cranes.
- J. Describe the purpose of the rig, platform, installation or vessel that the vessel is servicing.
- K. Describe the bridge layout and equipment. Are there any specialized controls, gauges or monitors. Is the vessel ARPA or AIS equipped?
- L. Describe any cargo related incidents that occurred aboard your vessel and any required log entries.

Miscellaneous Vessel

Required Drawings:

- Main Deck Arrangement Including Line Handling and Anchoring Equipment
- Profile Plan Including Underwater Propulsion Gear
- Inboard Profile
- Bridge Layout (including arcs of visibility)
- Main Equipment Used to Complete the Vessel's Mission

Essay Answers:

- A. Describe the mission of your vessel in detail. Was the vessel originally constructed for this purpose or has she been modified? If so, describe the modifications.
- B. Describe the construction of your vessel required for its mission. Does the vessel have unique stability requirements or operating constraints?
- C. Describe the bridge layout and equipment. Are there any specialized controls, gauges or monitors. Is the vessel ARPA or AIS equipped?
- D. Does the vessel have any special maneuvering capabilities or equipment (thrusters, nozzles, etc.)? What special techniques are utilized by the officers to maneuver the vessel? Is special training or documentation required?
- E. Describe the vessel stability letter and any operating constraints imposed by it. Describe the ballast and stabilization capabilities of your vessel. How much ballast does the vessel carry? Describe normal stability conditions aboard your vessel. How often is stability calculated and by whom? What is a normal GM and rolling period?
- F. Are there any weather, visibility and/or sea state conditions that would prevent your vessel from conducting operations?
- G. Who runs the gear that allows the vessel to conduct its mission (scientists, mates, ABs, etc.)? What does it do? Who maintains it? It is required to be inspected? Explain.
- H. What documentation is required of the vessel in relation to its mission? Are any special documents, other than those carried by a "normal" vessel, required? Describe all documents and forms necessary.
- I. Describe in detail all equipment used in conducting the vessel's mission.
- J. Who tends lines or maneuvers the vessel while she is conducting her mission? Are any special signals shown?

- K. What precautions are taken before and during vessel operations to protect the crew and equipment from injury and damage?
- L. Describe any mission related incidents aboard your vessel.

Section 3 – Navigation and Bridge Procedures

Note: In this section you will be expected to use the notebook and drawing paper provided and enter **all** the navigation work, calculations and drawings you completed for this section while onboard the ship. Clearly indicate which task or requirement you are fulfilling, such as: noon slip calculations, sailings, and tides and current calculations. Take advantage of any opportunity you may get to do celestial work such as: sunrise and sunset calculations, star and sun reductions, compass error determination, chronometer error and rate.

Part 1 – Navigation Calculations

All calculations must be calculated by you and all drawings and diagrams must be drawn by you. The grader is not interested in seeing the expertise of the ship's officers! Noon slips calculated by a ship's officer will not enhance your grade and are no indication of your skills or progress. The list of required calculations and drawings follows.

If you are on a non-traditional vessel, you still will be expected to display your navigational skills by generating problems for ports you would like to visit. Be creative, but you must demonstrate your skills. If your vessel has equipment for celestial navigation you are expected to avail yourself of any opportunity (with permission) to try to use it.

All cadets are expected to submit 5 calculations of sunrise or sunset or civil twilight. Additional celestial opportunities should be seized as described below, and will be considered for extra credit in the Navigation Calculations part. **If your vessel does not have a sextant or gyrocompass repeater to work off of you must have the master sign a form so stating.**

All navigation calculations must be submitted in the spiral notebook provided, and included in your project folder. Each entry should be clearly dated and labeled. Scratch paper and sloppy submissions will not be considered and will adversely affect your grade.

Minimum required submissions:

- (1) One noon slip per week (eight minimum). If your vessel does not calculate noon slips, so state and provide examples of whatever daily calculations the vessel does. Regardless of what the vessel does, you are expected to calculate some version of a noon slip and a day's run for each of the eight weeks you're at sea.
- (2) Calculate slip for your vessel. Include at least five slip calculations for different days. If your vessel does not have a shaft counter, ask the engineers for an estimate, or generate one yourself.
- (3) A copy of a voyage plan that you helped generate. Have an officer sign or otherwise indicate that you participated in the generation of the plan. If your vessel does not use voyage plans, explain what type of trip planning is done.
- (4) Include three examples of set and drift calculations you have done.

- (5) Tides and currents for every arrival and departure. Include a minimum of five tide and five tidal current calculations. Use tide and tidal current table publications and work out the problems by hand, showing all work. Readouts from a computer tide table program are **unacceptable**.
- (6) Calculate the relative humidity at an arrival port. Include at least one example.
- (7) Calculate the relative and true wind, and associated Beaufort Force. Include at least five calculations. Use your radar transfer plotting sheets to do your graphical calculations.
- (8) Include a photocopy of the vessel's hydrostatic curves or stability letter. Provide handwritten explanations on these documents as to what they mean and what they are used for.

Section 3

Part 2 – Navigation and Communications

- A. Were pre-arrival meetings held where the arrival into port, pilotage, mooring arrangements, etc. were discussed? Describe.
- B. What criteria are used for selecting the appropriate chart scale and frequency of fixing the ship's position? How is the reliability of position fixing cross-checked?
- C. If the vessel is equipped with an Electronic Chart Display and Information System (ECDIS) or Electronic Chart System (ECS), describe the unit and its features in detail. What make and model is it? How easy is it to use? Do you think the mates tend to over-rely on it and not use other more traditional navigation methods? Are paper charts still used? If so, are they kept up to date as required?
- D. If your vessel has radar equipped with AIS integration, describe how it is used? Do the mates use it mainly for collision avoidance? Do they use it for communications with other vessels?
- E. What criteria are used (or who) to determine vessel routing in bad weather?
- F. Describe the process of handing over a navigational watch aboard your vessel. What time does it occur? What information is passed? In your opinion, is the watch turn-over done in a professional manner or is it too relaxed?
- G. Describe how/when your vessel posts a lookout. Who qualifies as a lookout? Does the lookout have binoculars? How does the lookout report lights? How does the watch officer respond? In your observation, are the lookouts diligent, or do they only call out lights that are very obvious?
- H. Describe the watch conditions (I, II, III, IV) on your vessel. How many officers are required on the bridge for various conditions? Who determines what watch condition is set? Is it logged?
- I. What log entries are to be in red ink?
- J. What is the CPA for vessels:
 - a. Meeting
 - b. Crossing
 - c. Overtaking

How are these values derived?

- K. Describe all gear testing and preparatory procedures to be followed prior to arrival and departure.
- L. Is your ship GMDSS compliant? If so, what sea area is the ship certified for? If your ship is not GMDSS compliant how would distress alerting be accomplished?
- M. How is the ship's GMDSS/radio equipment maintained?
- N. Explain what GMDSS/communication equipment tests are performed on daily/monthly basis, before arrival/departure? Who maintains and tests the batteries?
- O. How and when are AMVER reports sent? What events require AMVER reporting? Describe how AMVER is sent on your vessel. If not, why?
Even if your vessel does not participate (this information is in Pub. 117).
- P. List the GMDSS publications that are required/carried onboard your vessel. Briefly describe the purpose and use of each of the publications.
a. Does your vessel have an IAMSAR manual? What kind of information is contained in it?
b. What items are logged (required) in GMDSS station log?
- Q. Describe how the NAVTEX system identifies stations and messages. Can all message subjects be disabled? What frequency(s) did your NAVTEX operate on?
- R. What communications equipment does the vessel have for High Speed Data if any, and if so how is utilized? Does the ship have an internet connection, how is used? Does it have instant messaging? What is the ship's primary means of communicating with shore side support?
- S. Explain how your ship would access medical advice from shore. What publications would be used? Does your ship have access to Telemedicine?
- T. What communication systems and services are used to provide for crew entertainment or email?
- U. If applicable, describe new and innovative programs and services the ship can access through the internet.

Section 3

Part 3 – Meteorology

- A. Does your ship use a weather routing service? If used, is it considered reliable by the officers?
- B. What is the “navigable semicircle of a tropical storm?” By observing the weather, can you determine which part of the semicircle you are in?
- C. Does your vessel participate in the Voluntary (weather) Observation System (VOS)? How often does your vessel send weather observations and how are they sent? Does the vessel use AMVER SEAS program.
- D. Describe any weather related incidents aboard your vessel. Include cargo damage, injuries, hull or machinery damage, going off-hire, etc.
- E. What weather concerns were centered on the cargo? Explain how, if at all, weather could impact the vessel’s mission or damage the cargo. Describe how humidity, heat, cold, and precipitation could impact vessel operations. Describe how sea state and wind impacts vessel operations. Describe how fog or reduced visibility may impact vessel operations.
- F. Describe any interesting weather or oceanographic phenomenon you witnessed during your cruise. What likely caused it?

Section 4 – Vessel Safety and Security

Part 1 – Firefighting/Lifesaving/Emergency Procedures

Required Drawings:

- Water Firefighting Piping System. Including pumps stations and isolation valves
- Foam System Piping Arrangement
- Fixed CO₂ System Arrangement
- Lifesaving Gear Layout (Main Deck)

Essay Answers:

- A. Describe the Fixed Fire Fighting Systems:
- i. Describe the fixed CO₂ fire system
 - ii. Describe the fixed foam fire fighting system
 - iii. Describe any fixed chemical fire fighting system
 - iv. Describe the types of fire pumps on your vessel and give their location. How are they started? What are their capacities?
 - v. May the fire pumps be used for any other purposes besides fire fighting?
 - vi. Where is the International Fire Hose Connector stored? How and when is it used?
- B. Describe the fire door system. How are they released? Who can release them and who is allowed to re-open them? How long are they designed to withstand fire? How are they tested?
- C. What types of emergency breathing apparatus are found on your vessel and where are they located? Describe their function and how long they last. Describe any cascade or refill system onboard.
- D. Describe all emergency escape routes aboard your vessel. Which routes are marked? How are they marked and why? Is a low-light system or reflective signage used for evacuation routes? Describe emergency lighting and power generation. What equipment and lights will be serviced by the emergency generator or power source?
- E. Before entering a tank or void space, or doing hot work, what safety procedures should be followed, and who can authorize entry into a tank or void space? Describe all atmospheric testing equipment aboard your vessel.
- F. How many and what type of survival craft are aboard your vessel. Describe in detail each type of survival craft aboard. How many people can they hold? How are they launched? Who inspects them and how often?

- G. Describe how the ship would get medical assistance if it needed to. Does the vessel carry a doctor? What medical training have the people aboard your vessel had? What medical or first aid publications are available on the vessel?
- H. What are the actions to be taken following a collision or grounding of the vessel? What types of damage control equipment does your vessel carry?
- I. Describe the water tight divisions aboard your vessel. Does your vessel meet or exceed regulatory subdivision requirements? Describe the operation of all the water-tight doors. Describe the various types aboard and how they are actuated. Who is allowed to close them? Who is allowed to open them? How are they tested?
- J. Describe a fire and emergency drill aboard your vessel. Was it a substantial drill? Did people take it seriously? What could be done to improve the quality of the weekly drills?
- K. Who is responsible for routine checks and tests of the vessel's safety gear? How is this information recorded?

Section 4 - Vessel Safety and Security

Part 2 – Vessel Security

- A. Did the vessel ever conduct or did the officers ever discuss security drills and concerns? Who is the vessel's security officer? Was the vessel ever modified for security reasons (e.g. additional lighting, doors modified, panic buttons, etc.)?
- B. Were you made aware of any vessel security features?
- C. When were you required to show your Transportation Worker Identity Card (TWIC)? Describe the level of security awareness aboard your vessel and the facilities it visited.
- D. What Maritime Security (MARSEC) level did your vessel usually maintain? Who determines what MARSEC level is set aboard the ship? What type of manning or rounds did this require? Describe precautions (if you can get this information) to be taken at various MARSEC levels.
- E. What security training and/or certifications did the officers and crew have?
- F. Describe how access to your vessel is controlled. Are pass keys readily available? How is the gangway controlled? Are rounds routinely made on watch?
- G. Did the MARSEC level of the vessel ever differ from the MARSEC level of the facility it was servicing? What did this mean?
- H. Describe any security related equipment aboard your vessel. Describe any security related incident aboard your vessel.

Section 5 – Ship’s Business

Part 1 – ISM/Maritime Law/Charters

- A. What is the International Safety Management code? Who implemented it and when? When did it become “law” for U.S. flag vessels? If your vessel is not U.S. flag, when did it become binding for your vessel? How does the vessel prove it is in compliance? What happens if it is not in compliance? What certificates relate to ISM?
- B. Discuss how ISM is implemented aboard your vessel. When it was implemented, did it dramatically affect the way your vessel operates? Do most officers feel it was a good thing? What additional training, if any, was required of the officers aboard your ship to implement ISM? Roughly how many binders are there aboard that deal with ISM requirements?
- C. Discuss the safety program that was implemented on your vessel including, but not limited to, safety meetings, crew training, training scenarios, drills, equipment training, etc. Do you feel that your vessel was a safe vessel? Support your conclusion.
- D. Who is the safety officer aboard your vessel. What are his or her duties?
- E. Describe a monthly ISM/safety meeting. What was discussed? How was it recorded or logged? How was the company notified of the meeting? Who attended?
- F. What forms or procedures are required before going aloft on your vessel? What forms or procedures are required before working on a piece of electrical equipment? Describe the type of personal protective equipment supplied by the company to the vessel’s crew.
- G. What is the purpose of the Certificate of Documentation? Who issues it? What information does it contain? Does it expire?
- H. What is the Certificate of Inspection? Who issues it? What information does it contain? Does it expire?
- I. What information is entered into the Official Logbook? What is done with this log? Is it submitted to a regulatory body? What information is entered in it? How long is it maintained aboard?
- K. What papers or documents must a mariner present in order to be signed on to your vessel?
- L. What papers or documents must the Master present to officials when calling at a foreign port?
- M. Who is the charterer of your vessel? What is the vessel’s charter or hire rate? How much money does the vessel make?

- N. Who is the vessels insurer? What types of insurance does she carry and what exactly is covered, or not covered? How much does it cost?
- O. What is a Master's Note of Protest?
- P. What is a Notice of Readiness?

Section 5 – Ship’s Business

Part 2 - Pollution and Environmental Protection

- A. What is the Marine Pollution Act of 1973/1978? Does it apply to your vessel? How does your vessel prove compliance with MARPOL? Does the vessel have any documentation or certificates relating to MARPOL? If the vessel violates a provision of MARPOL, what happens?
- B. Describe precautions that your vessel takes to prevent pollution of the marine environment by garbage. Does your vessel maintain a garbage log? Who maintains the log? What is logged? What is done with the log once it’s full? What regulations require maintenance of this log? How is plastic waste handled?
- C. Describe the precautions your vessel takes to prevent pollution by stack emissions.
- D. Does your vessel engage in active emission controls such as speed limits, changing of fuel grades, etc?
- E. Describe precautions your vessel takes to prevent pollution due to sewage. Describe the sewage treatment system aboard your vessel. Describe methods your vessel uses to implement MARPOL Annex IV (Sewage).
- F. Describe the precautions your vessel takes to prevent invasive species in ballast water? What regulations govern this? Are any logs maintained regarding ballast water? Who maintains these logs? What is ultimately done with these logs?
- G. When is the oily water separator used on the vessel? Describe the legal discharge limits for oily waste.
- H. Discuss how your vessel handles hazardous waste, including medical waste.
- I. Discuss any regulatory schemes (domestic or foreign) that impact the operations of the vessel. Do requirements change as you pass from one region to another? How is this handled?
- J. If a tank vessel, describe the operation, record keeping, tests and training associated with the Oil Discharge Monitoring Equipment (ODME).

Section 5 – Ship’s Business

Part 3 – Vessel Manning/Labor Relations/STCW

- A. If applicable, describe the various unions represented aboard your vessel. How are they perceived on your ship?
- B. Describe the watch rotations for officers and crew. Describe how many people stand the bridge and cargo watches, and who stands each watch. How many hours per day do the officers and crew work? Does this change in port or during vessel mission operations? How does the vessel implement mandatory STCW rest periods? How does the Master/mate ensure people are getting enough rest? Is this logged? In port, or during cargo operations, are the required rest periods often violated?
- C. Were modern bridge team management/bridge resource management concepts employed aboard your vessel, or was the leadership style very “top down?” Were all officers encouraged to provide input when decisions had to be made? Was the Master responsive when a watch officer notified him of heavy traffic or reduced visibility?
- D. Describe the backgrounds of the various officers aboard. Did most graduate from academies? Did you have any “hawsepipers” aboard? For the officers, what was the average age and how long had they been to sea? For the unlicensed crew, what was the average age and how long had they been to sea? What was your perception of their personal relationships with spouses/children/significant others? Will this observation affect your decision regarding a seagoing career?
- E. What STCW certificates and endorsements did the personnel aboard your vessel have? Who requires this training? Who paid for it, where was it taken, how long did it take and does the training need to be repeated?
- F. Was anyone allowed to sit on watch? How about play music? Drink coffee? Did officers and crew dine together or were there separate messhalls? How did people address each other? Was alcohol allowed aboard? Was a company policy on alcohol use posted? Was it followed? Describe any incidents related to alcohol or drugs aboard your vessel. Describe your opinions regarding the level of formality aboard your vessel.
- G. One of the important aspects of your cruise is to observe the leadership of officers on the ship. Observation of leadership is important in your development as you can learn from the officers. Describe a situation where you observed an officer display positive leadership skills. Discuss the background of the event, what you observed as positive leadership and why you thought it was positive leadership. Also discuss the impact of that leadership on the rest of the department or the ship in general. Then, describe a situation where you observed an officer displaying negative leadership skills. As above, discuss the background, the leadership event, why it was negative and also the impact this had. Discuss what you think should have been done to turn this to a positive leadership event.

Section 6 – CRU 200 Reading Assignment

Choose a book from the list Provided. Read the book over the summer and write a book report of no more than 4 pages in length.

In your report, state whether or not you would recommend the book to others. Give specific reasons why you feel the book was worth reading or not. Was the author's writing style hard to follow? If a work of fiction, was the book entertaining or thought provoking? If non-fiction, was the author's message clearly stated? Was it researched adequately in your opinion? Why would the author have written such a book? If the book changed how you think, feel or believe, explain how.

Do not write a summary of the book's theme(s) or plot.

Supervising Officer’s Cadet Evaluation Form

This form will be used to assess the performance of the cadet while employed aboard the vessel.

Cadet _____

Served Aboard: _____ From: _____ To: _____

To the Cadet’s Supervising Officer (Chief Mates or Masters only):

In order for us to accurately assess the cadet’s performance while onboard your vessel, we would appreciate your personal evaluation of his/her performance.

Please feel free to comment on any of the strong or weak areas of the cadet’s performance you have noticed. (Attach a separate sheet if necessary). This evaluation will count as 10% of the cadet’s overall cruise grade.

Please return this evaluation to the cadet in the envelope provided, with **your signature across the flap**. You may provide the student with a copy at your discretion.

Should you wish to discuss this cadet’s performance aboard your vessel, please don’t hesitate to contact me at specota@csum.edu or (707) 654-1164. Thank you for your time and careful consideration in this important matter.

Capt. Samuel R. Pecota – Chair, Marine Transportation Department

To be completed by the supervising officer (Chief Mates or Masters only):

Please rate the cadet by “checking” the following areas using the scale indicated below:

	Excellent	Very Good	Good	Fair	Un-sat.
1. Attitude					
2. Aptitude					
3. Knowledge					
4. Dependability					
5. Responsibility					
6. Appearance					

I supervised the above cadet for approximately _____ days.

Officer’s Printed Name: _____ Position: _____

Officer’s Signature: _____ Date: _____

Officer’s Contact Information (optional) _____

Remarks: (Attach separate sheets as needed)

Cadet Ship Evaluation Form

Cadets shall complete this form and return to the instructor of record with your cruise project. Please be honest and thorough in your answers. Use the reverse side if necessary.

Cadet: _____ Vessel: _____
 Dates Aboard: _____

1. Rate the following by circling the appropriate number for each item:

(1=Very Poor, 2=Poor, 3=No opinion, 4=Good, 5=Very good)

a.	Vessel familiarization	1	2	3	4	5
b.	Hands-on experience	1	2	3	4	5
c.	Equalization of bridge/deck time	1	2	3	4	5
d.	Integration into ship's routine	1	2	3	4	5
e.	Officer's interest shown in cadet	1	2	3	4	5
f.	Opportunities to try new skills	1	2	3	4	5
g.	Quality of berthing	1	2	3	4	5
h.	Quality of food	1	2	3	4	5
i.	Overall ship rating	1	2	3	4	5
j.	Overall cruise experience	1	2	3	4	5

2. Comments on any items for which you circled "1" above.

3. In your opinion, what were the **most helpful** aspects of the ship and officers?

4. In your opinion, what were the **least effective** aspects of the ship and officers?

5. In your opinion, was there sufficient emphasis on practical, hands-on experience?

6. Did you feel as if you were treated like a junior officer? Please explain why or why not.

7. Explain your response to 1 (j) above.

8. Any additional comments:

Sample PIC/DL Letter on Company Letterhead

Date
Officer-in-Charge
UNITED STATES COAST GUARD

RE: Tankerman Assistant Endorsement

To Whom It May Concern:

Cadet _____, SS# _____, has completed at least ninety days aboard the steam tanker Prince William Sound, having employed in the capacity of Cadet between the dates of March 7 to June 13, 2002.

During his employment on board, the vessel loaded and discharged Alaskan North Slope crude oil at Valdez, Alaska and has discharged at various ports in the states of Washington and California.

Cadet _____ has participated in at least five loading operations, including at least two commencements and two completions. He/she also has participated in at least five discharge operations, including at least two commencements and two completions. He/she has also participated in at least five discharges that included crude oil washing.

The seaman above has demonstrated the following:

- Knowledge of pre-transfer inspection requirements
- Basic knowledge of the inert gas system, including vapor recovery operations
- Basic knowledge of pre-transfer conference and execution of Declaration of Inspection
- Able to assist in connection of cargo hoses and loading arms
- Able to assist in line-up of cargo system for loading
- Able to assist in line-up of cargo system for discharging
- Observed start of liquid flow for loading
- Able to assist with start of cargo pump and increasing pressure to normal discharge pressure
- Able to assist with topping off of cargo tanks during loading operation
- Able to assist with monitoring of ballast transfer
- Able to assist with stripping of cargo tanks
- Able to assist with ballasting and deballasting
- Able to assist with disconnection of the cargo hoses or arms
- Able to assist with securing the cargo system
- Ability to safely execute duties assigned by the PIC without direct supervision of the PIC

For further information concerning Cadet _____'s employment with Alaska Tanker Company, LLC, please contact me at the numbers listed below. Thank you for your attention.

Best regards,

PERSON-IN-CHARGE (PIC)

Cadet Full Name: _____
SSN# _____

Sea Time: 90 Days Required

Vessel	Date Shipped	Date of Discharge	# of Days	Master's Signature

Loadings: 5 Required

Vessel	Date	Port	Product	PIC Signature

Discharges: 5 Required

Vessel	Date	Port	Product	PIC Signature

Commencement of Loading: 2 Required

Vessel	Date	Port	Product	PIC Signature

Commencement of Discharging: 2 Required

Vessel	Date	Port	Product	PIC Signature

Completion of Loading: 2 Required

Vessel	Date	Port	Product	PIC Signature

Completion of Discharging: 2 Required

Vessel	Date	Port	Product	PIC Signature

EXAMPLE TUG SEA-TIME LETTER

Print on Company Letterhead

Date

Dear Sir or Madam:

This letter is to certify that First MI Last Name, S.S. # XXXXXXXXXX, was employed with Company Name from start date MM/DD/YY to end date MM/DD/YY on the vessel(s) and served in the position(s) listed below, on a schedule of 6 on – 6 off watch for a total 12 hour day: Mr. or Ms. Last Name sailed for a total of XX days with Company Name. During this time period Mr. or Ms. Last Name served a minimum of 30 days (or list actual number of days observation and training on the bridge meeting the requirements of 46 CFR 10.465 (d) (1)

VESSEL/OFFICIAL NO.	TYPE	TONS	POSITION	FROM	TO	DAYS
				TOTAL DAYS		

* Number of days listed are actual days worked.

The vessels listed above have been operating in the Inland Waters of the United States between Panama City, Florida and Brownsville, Texas and in the Western Rivers above Morgan City, Louisiana on the Atchafalaya River and the Mississippi River above the Huey P. Long Bridge, transporting various types of products in the tank barges.

During his employment with Company Name, Mr. or Ms. LastName was subject to Company Name Drug Testing Program meeting the criteria of 46 CFR 16.230.

Sincerely,

Name
 Manager
 Vessel Personnel

(Insert Company Letter Head)

EXAMPLE OF DISCHARGE LETTER

Month, Date, Year

Dear Sir or Madam:

This letter is to certify that (Cadet), S.S. # (###-##-####), was currently employed with (Company Name). From XX/XX/XXXX to XX/XX/XXXX on the vessel(s) and served in the position(s) listed below, on a schedule of 4 on – 4 off watch for a total 8 hour day: Cadet (NAME) sailed for a total of 60 days with (Company Name).

VESSEL/OFFICIAL NO.	TYPE	TONS	POSITION	FROM	TO	DAYS
M/V Vicksburg Official # 636306	Towing Vessel	710	DH-L2	04/30/05	05/27/05	27
M/V Chicago Official # 650617	Towing Vessel	646	DH-L2	05/27/05	06/18/05	18.5
M/V Jimmy Sauls Official # 573473	Towing Vessel	445	DH-L2	06/19/05	06/24/05	6
				*TOTAL DAYS		51.5

* Number of days listed are actual days worked.

The vessels listed above have been operating in the Inland Waters of the United States between Panama City, Florida and Brownsville, Texas and in the Western Rivers above Morgan City, Louisiana on the Atchafalaya River and the Mississippi River above the Huey P. Long Bridge, transporting various types of products in the tank barges.

During his employment with (Company Name), (Cadet Name) was subject to (Company Name) Drug Testing Program meeting the criteria of 46 CFR 16.230.

Sincerely,

Name, Manager
Vessel Personnel
Canal Division

