سازمان بنادر و دریانوردی

دستورالعمل اجرایی برگزاری دوره آموزشی و آزمونهای شایستگی دریانوردی سمت

افسر دوم برروی کشتیهای چوبی با ظرفیت ناخالص کمتر از ۵۰۰- سفرهای نزدیک به ساحل

The Code of Practice for Conducting Second Officer on wooden ships of Gross Tonnage (GT<500) engaged on Near Coastal Voyages Training Course and Competency Assessments

کد مدرک: P6-W93

شماره بازنگری	تاریخ بازنگری	شرح تغییرات (علت و محل)	تهیه کننده	تأیید کننده	تصویب کننده
۰۳	۱۳۹۳/۰۵/۱۳	براساس بازنگری کلی کنوانسیون STCW 78, As Amended	رئیس اداره استانداردهای دریانوردان نصرت اله علی پور	مدیر کل امور دریانوردان حسین میرزایی	معاون امور دریایی سید علی استیری

فهرست مندرجات

هیات عامل سازمان بنادر و دریانوردی

مقـــدمـــه

سازمان بنادر و دریانوردی در راستای اجرای وظایف و اختیارات قانونی ناشی از ماده ۱۹۲ قانون دریایی جمهوری اسلامی ایران مصوب شهریور ماه ۱۳۴۳ و بند ۱۰ ماده ۳ آئین نامه تشکیل سازمان بنادر و دریانوردی مصوب بهمن ماه ۱۳۴۸ کمیسیون های خاص دو مجلس که صدور هر گونه سند یا گواهینامه و پروانه مربوط به کشتی، فرماندهان، افسران و کارکنان کشتیها را در صلاحیت این سازمان قرار داده و در راستای رعایت مفاد کنوانسیون بین المللی استانداردهای آموزش، صدور گواهینامه و نگهبانی دریانوردان (STCW- as amended) مصوب مرداد ماه ۱۳۷۵ مجلس شورای اسلامی ایران و با عنایت به مقرره II/3 کنوانسیون و با در نظر گرفتن بند ۷ از مقرره II/3 کنوانسیون مذکور " دستورالعمل اجرایی برگزاری دوره آموزشی و آزمونهای شایستگی دریانوردی سمت افسر دوم بر روی کشتیهای چوبی با ظرفیت نا خالص کمتر از ۵۰۰ (GT<500) - سفرهای نزدیک به ساحل " را تدوین نموده و پس از تصویب هیأت عامل قابل اجرا می باشد.

یادداشت: قانون تغییر نام سازمان بنادر و کشتیرانی به سازمان بنادر و دریانوردی در تاریخ ۱۳۸۷/۰۲/۱۰به تصویب مجلس شورای اسلامی رسید.

۱–هدف از تدوین

هدف از تدوین این دستورالعمل ارائه حداقل نیازمندیهای برگزاری دوره آموزشی و آزمونهای شایستگی دریانوردی سمت افسر دوم بر روی کشتیهای چوبی با ظرفیت نا خالص کمتر از ۵۰۰ (GT<500) - سفرهای نزدیک به ساحل می باشد.

۲–دامنه کاربرد

این دستورالعمل برای کلیه مراکز آموزشی مورد تایید سازمان و مجری برگزاری دوره آموزش سمت افسر دوم بر روی کشتیهای چوبی با ظرفیت نا خالص کمتر از ۵۰۰ (GT<500) - سفرهای نزدیک به ساحل ، کاربرد دارد.

۳–تعاریف

اصطلاحات استفاده شده در راستای اهداف این دستورالعمل دارای معانی ذیل می باشند.

۳–۱ گواهی خدمت دریایی مورد تایید (Approved Seagoing Service/ Documentary Evidence)

به معنای تأییدیه خدمت دریایی دریانوردان جهت شرکت در دوره های آموزشی/آزمونهای دریانوردی و صدور گواهینامه های دریانوردی می باشد که می بایست علاوه بر ثبت در شناسنامه دریانوردی ، تاییدیه شرکت کشتیرانی/ مالک کشتی و یا اتحادیه مالکان کشتیها به صورت فرم کامپیوتری (computer sheet)، نامه اداری شماره شده و یا فرم تعریف شده (به ضمیمه این دستورالعمل) قابل ارائه است.

۳–۲ گواهینامه شایستگی (Certificate of Competency)

به معنای گواهینامه صادره و یا شناسایی شده ای است که مطابق الزامات فصل‌های ۲، ۳، ٤ و یا ۷ کنوانسیون برای فرماندهان، افسران و افسران مهندس الکترونیک صادر و یا تایید می‌شود و دارنده‌ی قانونی آن محق به خدمت در مقام و عمل به وظایف مربوطه در سطح مسئولیت مشخص شده در آن است.

۳–۳ گواهینامه مهارت (Certificate of Proficiency)

به معنای گواهینامه‌ای به غیر از گواهینامه شایستگی صادر شده برای دریانورد است که الزامات فصل‌های مرتبط با کنوانسیون را نشان می‌دهد و الزامات آموزشی، شایستگی‌ها یا خدمت دریایی مندرج در کنوانسیون را برآورده می نماید.

۳–۴ دستگاه نظارت مرکز (Central Monitoring Office)

به معنای اداره یا بخشی که وظیفه صدور مجوز فعالیت آموزش دریانوردی و نظارت بر مراکز آموزشی را بر عهده دارد. دستگاه نظارت در ستاد سازمان ، اداره استانداردها ی دریانوردان می باشد.مدیر کل امور

دریانوردان نیز جزء دستگاه نظارت مرکز بوده و می تواند صدور مجوز فعالیت آموزش دریانوردی و نظارت بر مراکز آموزش دریانوردان را تایید نماید.

۳-۵ کشتی حمل مواد شیمیایی (Chemical Tanker)

به معنای کشتی است که برای حمل فله‌ی هر گونه فرآورده مایع فهرست شده در فصل ۱۷ آیین‌نامه بین‌المللی مواد شیمیایی فله ساخته یا سازگار می‌شود، و یا مورد استفاده قرار می‌گیرد.

۳-۶ افسر اول (Chief Mate)

به معنای افسری است که جانشین فرمانده کشتی می باشد و بر اساس مقرره II/2 و مفاد مربوطه این دستورالعمل واجد شرایط بوده و در مواقع عدم توانایی فرمانده، مسئولیت فرماندهی کشتی را نیز برعهده می گیرد.

۳-۷ دستورالعمل (Code of Practice)

به معنای مجموعه قوانین، مقررات ملی و الزامات مندرج در این دستورالعمل است که توسط اداره کل امور دریانوردان تدوین و به تصویب هیات عامل سازمان رسیده است.

۳-۸ شرکت کشتیرانی (Company)

به معنای مالک کشتی، هر شخصی مانند مدیر، یا اجاره کننده دربست کشتی است، که مسئولیت عملیات کشتی از طرف مالک کشتی بر وی فرض شده است، و با قبول چنین مسئولیتی، کلیه وظایف و مسئولیت‌های محول شده بر شرکت توسط این دستورالعملها را بر عهده گرفته است.

۳-۹ گواهی طی دوره (Course Completion Certificate or Documentary Evidence)

به معنای گواهی است که مرکز آموزشی مورد تایید سازمان به فراگیر پس از گذراندن موفقیت آمیز دوره مربوطه ارائه می دهد.

۳-۱۰ افسر عرشه (Deck Officer)

به معنای افسری است که مطابق مفاد فصل دوم کنوانسیون صلاحیت دارد.

۳-۱۱ کارکرد (Function)

به معنای مجموعه ای از امور ، وظایف و مسئولیت ها جهت انجام عملیات در کشتی، ایمنی جان اشخاص در دریا و حفاظت از محیط زیست که در آیین نامه STCW درج شده است می باشد.

۳-۱۲ گواهینامه عمومی اپراتور سیستم جهانی اضطرار و ایمنی دریانوردی

GMDSS General Operator Certificate (GMDSS GOC)

به معنای شخصی است که مطابق با الزامات مقرره ٤/٢ (IV/2) کنوانسیون STCW و بخش ب – ٤/٢ (B-IV/2) بندهای ٢٩ الی ٣٦ آئین نامه STCW دارای صلاحیت است.

۳–۱۳ کاربر مخابرات (GMDSS Radio Operator)

به معنای فردی است که بر اساس فصل IV کنوانسیون و مفاد دستورالعمل نحوه صدور، تمدید و تجدید گواهینامه های شایستگی و مهارت دریانوردان واجد شرایط باشد.

۳–۱۴ گواهینامه محدود اپراتور سیستم جهانی اضطرار و ایمنی دریانوردی

GMDSS Restricted Operator Certificate (GMDSS ROC)

به معنای شخصی است که مطابق با الزامات مقرره ٤/٢ (IV/2) کنوانسیون STCW و بخش ب – ٤/٢ (B-IV/2) بندهای ٣٧ الی ٤٤ آئین نامه STCW دارای صلاحیت است.

۳–۱۵ ظرفیت ناخالص کشتی (Gross Tonnage)

به معنای ظرفیت ناخالص حجمی محاسبه شده شناور بر اساس مقررات مربوطه می باشد.

۳–۱۶ آئین نامه ی امنیت کشتی ها (ISPS Code)

به معنای آئین نامه بین المللی امنیت کشتی ها و تسهیلات بندری (کد ISPS) که از ۱۲ دسامبر ۲۰۰۲ طی قطعنامه شماره ۲ کنفرانس دولهای متعاهد به کنوانسیون بین المللی جان اشخاص در دریا ۱۹۷٤ (SOLAS) به تصویب رسیده و ممکن است توسط سازمان بین المللی دریانوردی براساس اصلاحیه های بعدی تغییر یابد.

۳–۱۷ کشتی حمل گاز مایع (Liquefied Gas Tanker)

به معنای کشتی است که برای حمل فله‌ی هرگونه گاز مایع یا سایر فرآورده‌های فهرست شده در فصل ۱۹ آیین‌نامه بین‌المللی کشتی‌های حمل گاز ساخته یا سازگار می‌شود، و یا مورد استفاده قرار می‌گیرد.

۳–۱۸ فرمانده (Master)

به معنای شخصی است که عهده‌دار فرماندهی کشتی می باشد.

۳–۱۹ گواهینامه سلامت پزشکی (Medical Fitness Certificate)

به معنای گواهینامه ای است که توسط پزشک معتمد سازمان جهت متقاضیانی که از نظر پزشکی از سلامت برخوردار باشند، صادر می گردد.

۳–۲۰ کشتی تجاری (Merchant Ship)

به معنای هر نوع شناوری است (به استثنای شناورهای خدماتی، سکوهای متحرک فراساحلی، صیادی و یا نظامی) که در امرجابجایی کالاهای تجاری، مسافر و بارتسهیلات مربوط به کالاهای تجاری بکار گرفته می شود.

۳-۲۱ سفرهای نزدیک به ساحل (Near Coastal Voyages / NCV)

به معنای سفر هایی است که در نزدیکی سواحل هر کشور متعاهد، مطابق با مقرره ی I/3 کنوانسیون STCW و تعریف ارائه شده آن متعاهد انجام می شود. در ایران سفرهای نزدیک به ساحل آبهای خلیج فارس، دریای خزر و محدوده تعریف شده در دریای عمان (آبهای واقع در غرب خطی که نقطه جغرافیایی با مشخصات ۲۲ درجه و ۳۲ دقیقه شمال و ۵۹ درجه و ٤٨ دقیقه شرق « راس الحد- عمان» را به نقطه جغرافیایی دارای مشخصات ۲۵ درجه و ٤ دقیقه شمال و ٦١ درجه و ۲۲ دقیقه شرق «گواتر- ایران» وصل می نماید) می باشد.

۳-۲۲ افسر (Officer)

به معنای عضوی از خدمه‌ی شناور به غیر از فرمانده است که بر اساس قوانین و مقررات ملی و یا بین المللی انتخاب شده باشد.

۳-۲۳ کشتی حمل مواد نفتی (Oil Tanker)

به معنای کشتی است که برای حمل فله‌ی نفت و فرآورده‌های نفتی ساخته می‌شود و مورد استفاده قرار می‌گیرد.

۳-۲۴ دفترچه کارورزی در کشتی (On Board Training Record Book)

به معنای دفترچه کارورزی مورد تایید سازمان می باشد که آموزشهای عملی و تئوری دریانورد می بایست بر اساس مفاد مندرج در آن تکمیل گردد.

۳-۲۵ سطح عملیاتی (Operational Level)

به معنای سطحی از مسئولیت اطلاق می گردد که بعنوان افسر دوم (افسر ناوبر مسئول نگهبانی)، افسر مهندس سوم (افسر مهندس مسئول نگهبانی) و افسر مهندس الکترونیک یا به عنوان افسر مهندسی که وظیفه معینی در موتورخانه بدون خدمه به او محول گشته، یا بعنوان اپراتور رادیو و GMDSS، درکشتی ها خدمت می کند و همچنین در حیطه وظایف محوله و تحت نظر سطح مدیریت مربوطه، مراقبت، انجام و کنترل مستقیم تمام کارها را با روش مطلوب دارا می باشد.

۳-۲۶ کشتی مسافربری (Passenger Ship)

به معنای کشتی است که بر اساس مقرره ۲ کنوانسیون اصلاح شده سولاس بیش از ۱۲ مسافر حمل کند.

۳-۲۷ سازمان (Ports & Maritime Organization of Ian(Islamic Republic)

به معنای سازمان بنادر و دریانوردی جمهوری اسلامی ایران می باشد.

۳-۲۸ مقررات (Regulations)

به معنای مجموعه مقررات مندرج در کنوانسیون و آئین نامه می باشد.

۳-۲۹ منطقه دریایی A1 (Sea Area A1)

به معنای محدوده ای از دریا است که تحت پوشش حداقل یک ایستگاه ساحلی VHF با قابلیت هشدار دائم DSC باشد.

۳-۳۰ منطقه دریایی A2 (Sea Area A2)

به معنای محدوده ای خارج از منطقه A1 است که تحت پوشش حداقل یک ایستگاه ساحلی رادیو تلفنی MF بوده و همچنین قابلیت هشدار دائمی DSC در باند مربوطه را نیز دارا باشد.

۳-۳۱ منطقه دریایی A3 (Sea Area A3)

به معنای محدوده ای خارج از مناطق A1 و A2 می باشد و همچنین منطقه تحت پوشش ماهورهای اینمارست قرار داشته و قابلیت هشدار دائم در آن وجود داشته باشد.

۳-۳۲ منطقه دریایی A4 (Sea Area A4)

به معنای محدوده ای است که خارج از مناطق دریایی A1 ، A2 و A3 باشد.

۳-۳۳ خدمت دریایی (Seagoing Service)

به معنای مدت زمان دریانوردی بر روی کشتی است که می بایست مرتبط با صدور و یا تجدید گواهینامه های شایستگی و یا مهارت در یانوردان می باشد.

۳-۳۴ افسر دوم GT>500 سفرهای نامحدود

به معنای افسر عرشه ای است که مسئولیت ناوبری و نگهبانی (O.O.W) بر عملکرد ایمن کشتی را در زمان معینی بر عهده دارد و بر اساس مقرره II/1 کنوانسیون و مفاد مربوطه در دستورالعمل نحوه صدور، تمدید و تجدید گواهینامه های شایستگی و مهارت دریانوردان واجد شرایط باشد.

۳-۳۵ وظایف امنیتی (Security Duties)

به معنای تمامی مسئولیتها و وظایف امنیتی روی کشتی ها مطابق با تعریف مندرج در کنوانسیون بین المللی جان اشخاص در دریا ، ۱۹۷٤ (اصلاح شده) و آیین نامه بین المللی امنیت کشتی و تسهیلات بندری (ISPS) می باشد.

۳-۳۶ افسر امنیتی کشتی (Ship Security Officer)

به معنای افسری است بر روی کشتی که در برابر فرمانده پاسخگو می باشد و توسط شرکت کشتیرانی به عنوان مسئول امنیتی کشتی انتخاب می گردد و وظایف وی شامل اجرا ، حفظ و نگهداری طرح امنیتی کشتی جهت ارتباط با افسر امنیتی شرکت کشتیرانی و افسر امنیتی تسهیلات بندری تعیین شده است

۳-۳۷ کنوانسیون (STCW Convention)

به معنای کنوانسیون اصلاح شده بین المللی استانداردهای آموزشی، صدور گواهینامه و نگهبانی دریانوردان (STCW-78 as amended) می باشد.

۳-۳۸ آئین نامه ی کنوانسیون (STCW Code)

به معنای آئین نامه ی آموزش، صدور گواهینامه ها و نگهبانی دریانوردان (STCW) که طی قطعنامه ی شماره ۲ کنفرانس 1995 تصویب که ممکن است توسط سازمان بین المللی دریانوردی بر اساس اصلاحیه های بعدی تغییر یابد.

۳-۳۹ مرکز آموزشی(Training Center)

به معنای دانشگاه، شرکت، موسسه یا هر ارگانی که بر اساس مجوز اخذ شده از سازمان در زمینه آموزشهای دریانوردی فعالیت می کند

۳-۴۰ سفرهای نامحدود (Unlimited Voyages)

به معنای سفرهای بین المللی که محدود به سفرهای نزدیک به ساحل نباشد.

۴- مسئولیت‌ها

۴-۱ مسئولیت بازنگری این دستورالعمل بر عهده دستگاه نظارت مرکز می‌باشد.

۴-۲ مسئولیت تایید اصلاحیه ها به این دستورالعمل بر عهده اداره کل امور دریانوردان می‌باشد.

۴-۳ مسئولیت تصویب اصلاحیه ها به این دستورالعمل برعهده معاون امور دریایی به نیابت از هیات عامل سازمان می باشد.

۴-۴ مسئولیت اجرای کامل دوره آموزشی بر اساس عناوین اعلام شده بر عهده مرکز آموزشی می باشد.

۴-۵ مسئولیت نظارت بر حسن اجرای این دستورالعمل در مراکز آموزشی دریانوردی بر عهده دستگاه نظارت مرکز می باشد.

۵- روش اجرا :

۵-۱ هدف از برگزاری دوره آموزشی

هدف از برگزاری این دوره آموزشی ، آماده نمودن فراگیران برای کسب توانمندی های مندرج در ستون ۱ از جدول بخش II/3 – الف آیین نامه کنوانسیون STCW می باشد.

(با در نظر گرفتن بند ۷ مقرره II/3 کنوانسیون STCW)

۵-۲ طول دوره

۵-۲-۱ طول دوره حداقل ۲۲۳ ساعت و بر اساس ۱۷۷ ساعت نظری (تئوری)، ۱۶ ساعت عملی و ۳۰ ساعت تمرین (بدون احتساب مدت زمان آموزش کارورزی) می باشد.

۵-۲-۲ حداکثر مدت زمان آموزش روزانه برای هر فراگیر ۸ ساعت می باشد.

۵-۳ تعداد شرکت کنندگان در دوره

۵-۳-۱ حداکثر فراگیران شرکت کننده در هر دوره ۲۰ نفر می باشد.

۵-۳-۲ در صورت افزایش حداقل فضا، تجهیزات و امکانات کمک آموزشی مرتبط بر اساس دستورالعمل صدور مجوز و نظارت بر اجرای دوره ها در مراکز آموزشی دریانوردی و پس از اخذ تاییدیه از دستگاه نظارت ذیربط، تعداد شرکت کنندگان در دوره می تواند حداکثر تا ۳۰ نفر افزایش یابد.

۵-۴ شرایط ورود به دوره

۵-٤-۱ داشتن حداقل ۱۸ سال سن

۵-٤-۲ دارا بودن گواهینامه سلامت پزشکی معتبر بر اساس دستورالعمل مصوب سازمان

۵-٤-۳ دارا بودن مدرک تحصیلی حداقل دیپلم کامل متوسطه (کلیه رشته ها) مورد تایید آموزش و پرورش

۵-۵ دانش، درک و مهارت مورد انتظار

۵-۵-۱ توانایی برنامه ریزی و هدایت و راهبری کشتی و تعیین موقعیت

۵-۵-۲ توانایی برقراری و انجام نگهبانی و دریانوردی ایمن

۵-۵-۳ توانایی برقراری ناوبری ایمن با بکارگیری از تجهیزات کمک ناوبری

۵-۵-٤ توانایی عکس العمل و پاسخ در مواقع اضطراری

۵-۵-۵ توانایی پاسخ و عکس العمل به علائم اضطراری در دریا

۵-۵-٦ آشنایی و بکارگیری از زبان تخصصی دریایی(SMCP)

۵-۵-۷ توانایی ارسال و دریافت اطلاعات به وسیله علائم دیداری

۵-۵-۸ آشنایی با عملیات مانور کشتی

۹-۵-۵ توانایی نظارت بر بارگیری ، بارچینی ، مهار و تخلیه کالا و همچنین اقدامات ایمنی در نگهداری کالا در سفرهای دریایی

۱۰-۵-۵ توانایی بررسی و گزارش نقایص و صدمات وارده به انبار کالا ، درب انبارها و مخازن آب شور

۱۱-۵-۵ توانایی نظارت و جلوگیری از آلودگی محیط زیست دریایی

۱۲-۵-۵ توانایی حفظ و نگهداری قابلیت دریانوردی شناور

۱۳-۵-۵ آشنایی با قوانین دریایی

۱٤-۵-۵ توانایی مشارکت در حفظ ایمنی کارکنان و شناور

۶-۵ عناوین دروس ، ریز مواد درسی و آزمون

عناوین دروس و جدول نمایانگر تعداد سؤالات، مدت، نوع، حدنصاب قبولی و مواد امتحانی آزمونهای شایستگی دریانوردی برای داوطلبین سمت " افسر دوم بر روی کشتیهای چوبی با ظرفیت نا خالص کمتر از ۵۰۰ (GT<500) - سفرهای نزدیک به ساحل "به شرح ذیل می باشد.

۱-۶-۵ جدول نمایانگر تعداد سؤالات، مدت، نوع، حد نصاب قبولی و مواد امتحانی آزمونهای شایستگی سمت افسر دوم بر روی کشتیهای چوبی با ظرفیت نا خالص کمتر از ۵۰۰ (GT<500) - سفرهای نزدیک به ساحل

ردیف	نام آزمون	تعداد سؤالات	مدت (ساعت)	نوع آزمون	حدنصاب قبولی (درصد)	مواد درسی (ماده ۲-۶-۵)	ملاحضات
۱	ناوبری ساحلی ، سطحی	۵	۲/۵	کتبی	٪۶۰	1.1.1	
۲	تعادل و ساختمان کشتی	٦	۲/۵	کتبی	٪۵۰	3.2.1-3.2.2	تعادل ۳ سئوال ۵۰ نمره ساختمان ۳ سئوال ۵۰ نمره
۳	شفاهی/ عملی/ شبیه ساز	–	–	شفاهی/ عملی/ شبیه ساز	–	1.1.1.10-1.1.1.11-1.1.1.12-1.1.5-1.2.1-1.3.1-1.7.1-2.1.1-2.2-3.1.1-3.3.1	در زمان آزمون شفاهی به همراه داشتن شناسنامه دریانوردی و دفترچه کارآموزی الزامی می باشد.

در آزمون شفاهی / عملی / شبیه ساز علاوه بر مواد درسی مربوطه، ممکن است برحسب مورد سؤالاتی از سایر مواد درسی پرسیده شود.

۵-۶-۲ حداقل مواد درسی دوره آموزش سمت افسر دوم بر روی کشتیهای چوبی با ظرفیت نا خالص کمتر از ۵۰۰ (GT<500) - سفرهای نزدیک به ساحل در بخش انگلیسی این دستورالعمل می باشد.

۵-۷ امکانات مورد نیاز جهت برگزاری دوره

جهت برگزاری دوره های آموزشی علاوه بر فضای آموزشی قید شده در "دستورالعمل نحوه صدور مجوز و نظارت بر مراکز آموزشی دریانوردی "مصوب سازمان، تجهیزات کمک آموزشی مشروحه زیر نیز مورد نیاز می باشد:

۵-۷-۱ سالن /کلاسها می بایست مجهز به سیستم تهویه و نورکافی و وسایل سمعی و بصری و امکانات مورد نیاز برای تدریس باشد (وسائل کمک آموزشی شامل: میز نقشه ،وایت بورد/ تخته سفید، کامپیوتر و دستگاه ویدئو پروژکتور چند رسانه ای، پرده ویدئو پرژکتور)

۵-۷-۲ کتابخانه مجهز به کتب تخصصی مورد نیاز تدریس و اطلاعات جامع دیگر در خصوص دوره (تعداد مناسب کتب مرجع مانند : آلمانک، نوریس، جداول جزر و مد و غیره).

۵-۷-۳ سالن سمعی و بصری و امکانات مورد نیاز برای تدریس زبان انگلیسی تخصصی و عمومی.

۵-۷-٤ سالن /کلاس نقشه (Chart Room) مجهز به امکانات و تجهیزات مورد نیاز برای تدریس مواد درسی کار بر روی نقشه و ناوبری ساحلی(Chart Work Facilities) برابر با تعداد فراگیران دوره.

۵-۷-۵ فیلم های آموزشی مرتبط در خصوص دوره.

۵-۷-٦ مدل کره زمین، مدلهای مختلف بویه های دریایی ، ماکت و مدلهای مختلف شناورها با علائم شناسایی شناورها در روز و شب، ماکت و مدلهای اسکله و حوضچه برای تمرین قوانین راه و پهلو گیری و جدا سازی از اسکله ، ماکت کشتیها که شماتیک جرثقالها و دیگر تجهیزات عرشه را نشان دهد.

- Photographs, drawings and plans illustrating various types of ship in view of constructional details.
- Photographs, drawings and plans to illustrate different types of ship.
- Examples of cargo plans for various types of ship.

۵-۷-۷ سالن آشنایی با وسایل مختلف مورد استفاده در کشتیها (Instrument Room) شامل:

Thermometers, Barometer, Marine Hydrometer , Magnetic Compass, Binnacle With Magnetic Compass/ Accessories and Sighting Devices, Azimuth Mirror, International Code of Signal and Flags and a set of Visual Signaling Equipment and Accessories(or a computer based system), SART, Line Throwing Apparatus and Pyrotechnics.

۵-۷-۸ دستگاه عمق یاب (Echo Sounder)، دستگاه GPS, دستگاه VHF, دستگاه NAVTEX (جایگزین نمودن نرم افزار مناسب برای شبیه سازی دستگاههای مندرج در این بند و یا استفاده از کشتی های مستقر در

بندر با تجهزات مربوطه جهت تشریح بصورت بازدید، و با اخذ تائیدیه از دستگاه نظارت صادر کننده مجوز مورد قبول می باشد).

۹-۷-۵ کارگاه ملوانی شامل تجهیزات: کارگاه با نیمکتها و میز کار مناسب برای اجرای آموزشهای عملی، یک عدد عمق یاب دستی دارای درجات مناسب، نردبان راهنما(Pilot Ladder) و وسایل ساخت آن، نمونه هایی از طنابهای الیافی، نمونه های از طنابهای سیمی (together with stoppers and various types of shackles)، پنج سری ابزار و متعلقات لازم برای گره زنی،خفت زنی و پلاس زنی، صندلی ملوانی(Bosun Chair)، داربست(Stage)، انواع قرقره ها، طنابهای پهلوگیری و مهار(سیمی و الیافی)، دوارها و نگهدارنده های لازم برای اجرای آموزش عملی (Winch/ Windlasses and mooring Arrangements)، پنج عدد کاردک ملوانی، نمونه هایی از رنگهای مختلف دریایی، انواع گوناگون برس و غلتک رنگ زنی.

۸-۵ شرایط مدرسین و مربیان دوره

۱-۸-۵ مدرسین و مربیان دوره های آموزشی مندرج در این دستورالعمل می بایست علاوه بر گذراندن دوره مدرسی مورد تأیید سازمان دارای حداقل مدارک و تجارب مشروحه زیر باشند:

۱-۱-۸-۵ مدرسین

۱-۱-۱-۸-۵ دارای حداقل گواهینامه شایستگی معتبر افسر دوم بر روی کشتیهای با ظرفیت ناخالص GT≥500 سفرهای نامحدود با ۱۲ ماه خدمت دریایی درآن سمت و یا؛

۲-۱-۱-۸-۵ دارای مدرک تحصیلی لیسانس علوم دریایی با ۱۲ ماه سابقه تدریس مرتبط (در مراکز آموزش دریانوردی)و یا ؛

۳-۱-۱-۸-۵ دارای حداقل گواهینامه شایستگی معتبر افسر دومی بر روی کشتیهای با ظرفیت ناخالص GT<500 سفرهای نزدیک به ساحل با ۱۲ ماه خدمت دریایی در سمت افسر ناوبر مسئول نگهبانی و دارا بودن مدرک تحصیلی فوق دیپلم دریایی (ناوبری) و همچنین دارای یک سال سابقه تدریس مرتبط (در مراکز آموزش دریانوردی) باشند.

۲-۱-۸-۵ مربیان

۱-۲-۱-۸-۵ دارای حداقل مدرک تحصیلی دیپلم دریایی (ناوبری) با حداقل ۲ سال خدمت دریایی و یا دارای گواهینامه معتبر ملوان عرشه با حداقل ۲ سال خدمت دریایی در آن سمت و بر روی کشتیهای تجاری باشند.

۹-۵ ارزیابی و صدور گواهینامه

۱-۹-۵ در صورت موفقیت فراگیران در ارزیابی های حین و یا پایان دوره ، گواهی طی موفقیت آمیز دوره مربوطه توسط مرکز آموزشی مورد تایید و مجری برگزاری دوره صادر می گردد.

۲-۹-۵ سپس فراگیران می توانند درخواست حضور در آزمون های شایستگی و مهارت دریانوردی سازمان را بر اساس مفاد بند ۱-٦-۵ این دستورالعمل به عمل آورند ؛ و

۳-۹-۵ نهایتا اداره امتحانات و اسناد دریانوردان سازمان برای آن دسته از شرکت کنندگان که آزمون های مربوطه را با موفقیت طی نموده باشند و حائز دیگر شرایط لازم باشند ، گواهینامه مرتبط بر اساس دستورالعمل صدور ، تمدید و تجدید گواهینامه های دریانوردان صادر می نماید.

۱۰-۵ شرایط تمدید / تجدید گواهینامه

گواهینامه های شایستگی و مهارت دریانوردی براساس مفاد دستورالعمل صدور، تمدید و تجدید گواهینامه های دریانوردان تمدید و یا تجدید می گردد.

۱۱-۵ روش تأیید دوره

تأیید دوره بر اساس مفاد مندرج در دستورالعمل صدور مجوز و نظارت بر اجرای دوره‌ها در مراکز آموزش دریانوردی صورت می پذیرد.

۶-سوابق

کلیه سوابقی که نشان دهنده رعایت موارد مندرج در این دستورالعمل باشد.

۷-مراجع

۱-۷ کنوانسیون اصلاح شده STCW و آیین نامه مربوطه

۲-۷ مدل کورس سازمان بین المللی دریانوردی (IMO) شماره ۷/۰۳

۳-۷ دستورالعمل صدور ، تمدید و تجدید گواهینامه های دریانوردان

٤-۷ دستورالعمل صدور مجوز و نظارت بر اجرای دوره ها در مراکز آموزشی دریانوردی

۸- ضمائم

ندارد.

PMO

The Code of Practice for Conducting Second Officer on wooden ships of Gross Tonnage (GT<500) engaged on Near Coastal Voyages Training Course and Competency Assessments

P6-W93

Revision No.	Date of revision	Comment on revision	provider	approving amendments authority	endorsing amendments authority
03	04/AUG/2014	STCW Convention, as amended	N. Alipour, Head of Seafarers' Standards' Directorate	H. Mirzaei, Director General of Seafarers' Affairs	S.A.Estiri, PMO's Deputy for Maritime Affairs

Introduction

Ports and Maritime organization (P.M.O) of the Islamic republic of Iran in performing its duty and in exercising its prerogative resulting from article 192 of the Islamic republic of Iran maritime code, 1964 and paragraph 10 of article 3 of P.M.O manifesto, 1970 enabling it to issue any document, certificate or license for ships, masters, officers and other ship personnel and also in accordance with the provisions of the international convention on standards of training, certification and watch keeping for seafarers (STCW), 1978, as amended adopted by the Islamic consultative assembly in 1996 and taking into account regulations II/3 of the mentioned Convention and taking into account paragraph 7 of regulation II/3 of the mentioned convention develops this " The Code of Practice for Conducting Second Officer on wooden ships of Gross Tonnage (GT<500) engaged on Near Coastal Voyages Training Course and Competency Assessments" which is applicable after endorsement by the board of executives of Ports & Maritime Organization.

NOTE: The title of Ports and Shipping Organization changed to Ports and Maritime Organization dated 29.04.2008 through parliamentary act and approved by Islamic council assembly.

1-Objective

The objective of this code of practice is to specify the minimum requirements for conducting Second Officer on wooden ships of Gross Tonnage (GT<500) engaged on Near Coastal Voyages Training Course and Competency Assessments.

2-Scope of application

This code of practice is applicable to all approved training centers that conduct Second Officer on wooden ships of Gross Tonnage (GT<500) engaged on Near Coastal Voyages Training Course.

3-Definition

3-1 Approved Seagoing Service / Documentary Evidence

Means approved sea going service required to be presented for participating in a training course, maritime examination and issuance of certificate. These documentary evidence should be inserted in CDC and authenticated by company or ship owner or ship owner's associations and in addition be presentable in a form of computer sheet, official letter or other forms as defined in the annex to this code of practice.

3-2 Certificate of Competency (COC)

Means a certificate issued and endorsed for masters, officers and GMDSS radio operators in accordance with the provisions of chapters II, III, IV or VII of the STCW Convention and entitling the lawful holder thereof to serve in the capacity and perform the functions involved at the level of responsibility specified therein.

3-3 Certificate of Proficiency (COP)

Means a certificate, other than a certificate of competency issued to a seafarer, stating that the relevant requirements of training, competencies or seagoing service in the STCW Convention have been met.

3-4 Central Monitoring Office

Central monitoring office which is responsible for approving and monitoring training courses is the Seafarer's standard directorate of the PMO.

3-5 Chemical Tanker

Means a ship constructed or adapted and used for the carriage in bulk of any liquid product listed in chapter 17 of the International Bulk Chemical Code.

3-6 Chief Mate

Means the officer next in rank to the master and upon whom the command of the ship will fall in the event of the incapacity of the master.

3-7 Code of Practice

Means all national rules, regulations and requirements specified in this document which have been drafted by the PMO's General Directorate of Maritime affairs and endorsed by the PMO's board of executive

3-8 Company

Means the owner of the ship or any other organization or person such as the manager, or the bareboat charterer, who has assumed the responsibility for operation of the ship from the ship owner and who, on assuming such responsibility, has agreed to take over all the duties and responsibilities imposed on the company by these Codes of practices.

3-9 Course Completion Certificate or Documentary Evidence

Means a certificate issued through the training center, after successfully completion of training program by the applicants

3-10 Deck Officer

Means an officer qualified in accordance with the provisions of chapter II of the STCW Convention.

3-11 Function

Means a group of tasks, duties and responsibilities, as specified in the STCW Code, necessary for ship operation, safety of life at sea or protection of the marine environment.

3-12 GMDSS General Operator Certificate (GMDSS GOC)

Means a person who is qualified in accordance with the provisions of regulation IV/2 of the STCW Convention and section B-IV/2, paragraphs 29 to 36 of the STCW Code

3-13 GMDSS Radio Operator

Means a person who is qualified in accordance with the provisions of chapter IV of the STCW Convention.

***3-14* GMDSS Restricted Operator *Certificate* (GMDSS ROC)**

Means a person who is qualified in accordance with the provisions of regulation IV/2 of the STCW Convention and section B-IV/2, paragraphs 37 to 44 of the STCW Code

3-15 Gross Tonnage

Means the volume of all enclosed spaces of a vessel calculated in accordance with relevant regulations.

3-16 ISPS Code

Means the International Ship and Port Facility Security (ISPS) Code adopted on 12 December 2002, by resolution 2 of the Conference of Contracting Governments to the International Convention for the Safety of Life at Sea (SOLAS), 1974, as may be amended by the Organization.

3-17 Liquefied Gas Tanker

Means a ship constructed or adapted and used for the carriage in bulk of any liquefied gas or other product listed in chapter 19 of the International Gas Carrier Code.

3-18 Master

Means the person having command of a ship

3-19 Medical Fitness Certificate

Means a certificate issued by the PMO's recognized medical practitioner to the candidates who found to be medically fit.

3-20 Merchant Ship

Means any ship (other than servicing vessel, mobile offshore platform, fishing and naval ships) used for carriage of cargoes, passenger and/or provisions

3-21 Near-Coastal Voyages (NCV)

Means voyages between ports situated in the Persian Gulf and Gulf of Oman (positions from LAT 22 0 32' N 0590 48' E to 25 0 04' N 061 0 22' E) or between Caspian Sea ports.

3-22 Officer

Means a member of the crew, other than the master, designated as such by national law or regulations or, in the absence of such designation, by collective agreement or custom.

3-23 Oil Tanker

Means a ship constructed and used for the carriage of petroleum and petroleum products in bulk.

3-24 On Board Training Record Book

Means on board training record book approved by Port and Maritime Organization in which practical and theoretical training of seafarer shall be fulfilled according to its content.

3-25 Operational Level

Means the level of responsibility associated with serving as second officer (officer in charge of navigational watch), third engineer officer (officer in charge of engineering watch) and electro technical officer or as designated duty engineer for periodically unmanned machinery spaces or radio operator and GMDSS, on board a seagoing ship, and also maintaining direct control over the performance of all functions within the designated area of responsibility in accordance with proper procedures and under the direction of an individual serving in the management level for that area of responsibility.

3-26 Passenger Ship

Means a ship as defined in the International Convention for the Safety of Life at Sea, 1974, as amended.

3-27 PMO

Means Ports & Maritime Organization (PMO) of the Islamic Republic of Iran

3-28 Regulations

Means regulations contained in the annex to the STCW Convention

3-29 Sea Area A1

Means an area within the radiotelephone coverage of at least one VHF coast station in which continuous DSC alerting is available, as may be defined by a Contracting Government;

3-30 Sea Area A2

Means an area, excluding sea area A1, within the radiotelephone coverage of at least one MF coast station in which continuous DSC alerting is available, as may be defined by a contracting government;

3-31 Sea Area A3

Means an area, excluding sea areas A1 and A2, within the coverage of an INMARSAT geostationary satellite in which continuous alerting is available;

3-32 Sea Area A4

Means an area outside sea areas A1, A2 and A3;

3-33 Seagoing service

Means service on board a ship relevant to the issue or revalidation of a certificate or other qualification.

3-34 Second Officer

Means officer in charge of a navigational watch qualified in accordance with the relevant provisions of the Code of practice for issuing, revalidation, renewal certificates of competency and proficiency for seafarers.

3-35 Security duties

Include all security tasks and duties on board ships as defined by chapter XI-2 of the International Convention for the Safety of Life at Sea (SOLAS 1974, as amended) and the International Ship and Port Facility Security (ISPS) Code

3-36 Ship Security Officer

Means the person on board the ship, accountable to the master, designated by the Company as responsible for the security of the ship, including implementation and maintenance of the ship security plan and for liaison with the company security officer and port facility security officers.

3-37 STCW Convention

Means international convention on standards of training, certification and watch keeping for Seafarers, 1978, as amended.

3-38 STCW Code

Means the seafarers' training, certification and watch keeping (STCW) code as adopted by the 1995 conference resolution 2,as it may be amended by the international maritime organization.

3-39 Training center

Means maritime university/center/ directorate/ department/company and/or any organization conducting maritime training course approved by PMO

3-40 Unlimited Voyages

Means voyages not limited to the near coastal voyages.

4- Responsibilities:

4-1 Central monitoring office is responsible for revising this code of practice.

4-2 General Director of Seafarers' Affairs is responsible for approving amendments to this code of practice.

4-3 Deputy of maritime affairs is responsible to endorse amendments to this code of practice on behalf of PMO's board of executive.

4-4 Training centers are to conduct training course in accordance with this Code of practice.

4-5 Central monitoring office is responsible for supervising the implementation of this code of practice in training centers.

5-Procedure:

5-1 course objective:

The objective of this Training Course is to prepare trainees to achieve competencies set out in the column 1 of table A-II/3 of the STCW Code.

Taking into account paragraph 7 of regulation II/3 of the mentioned convention

5-2 course duration:

5-2-1 A minimum of 177 hours theoretical, 16 hours practical and 30 Hours exercises for each trainee (total of 223 hours).

5-2-2 Maximum daily contact hours for each trainee are 8 hours.

5-3 number of trainees:

5-3-1 the maximum number of trainees in each course is 20.

5-3-2 the number of trainees may be increased to 30 when the relevant facilities, teaching aids and class-room space are increased as per criteria set out in the code of practice for approving and monitoring training courses and is approved by the central monitoring office.

5-4Course entry requirement:

The course trainees should, at least;

5-4-1be 18 years old

5-4-2 hold valid medical fitness certificate issued by a medical practitioner recognized by the PMO; and;

5-4-3 hold general education diploma.

5-5 Expected Knowledge, Understanding and Proficiency:

5-5-1 Knowledge of planning and conducting of a passage and for determining position;

5-5-2 Proficiency in maintaining a safe navigational watch;

5-5-3 Ability to use of AIS to maintain safety of navigation;

5-5-4 Knowledge of responding to emergencies;

5-5-5 Knowledge of responding to a distress signal at sea;

5-5-6 Ability to use IMO standard marine communication phrases;

5-5-7 Ability to transmission and receipt of information by visual signaling;

5-5-8 Ability to maneuvering the ship;

5-5-9 Knowledge of monitoring the loading, stowage, securing and unloading of cargoes and their care during the voyage;

5-5-10 Knowledge of inspecting and reporting defects and damage to cargo spaces, hatch covers and ballast tanks;

5-5-11 Knowledge of compliance with pollution-prevention requirements;

5-5-12 Ability to maintaining the sea-worthiness of the ship;

5-5-13 Ability to monitoring compliance with legislative requirements;

5-5-14 Ability to contribution to safety of personnel and ship;

5-6 Course syllabi and competency assessment:

5-6-1Competency assessment details;

No.	Title	Number of Question	Time (hours)	Type	Pass mark	Subjects	Remarks (if any)
1	**Coastal Navigation**	5	Maximum 2.5 hours	written	60%	**1.1.1**	
2	**Ship Stability & Construction**	6	Maximum 2.5 hours	written	50%	**3.2.1-3.2.2**	Ship Stability and Construction each part 3 question and 50 marks
3	**Oral**	-	-	Oral/practical/simulator	To the discretion of assessor	**1.1.1.10-1.1.1.11-1.1.1.12-1.1.5-1.2.1-1.3.1-1.7.1-2.1.1-2.2-3.1.1-3.3.1-**	At the time of oral examination seaman book and record book must be presented

In Oral/practical/simulator assessment questions from written assessments may also be asked.

5-6-2 Course minimum syllabi

Function: 1. Navigation at the operational level

Competence: 1.1 Plan and conduct a passage and determine position

1.1.1. Terrestrial and coastal navigation

- **Determine the ship's position by use of:**
  - **.1 landmarks**
  - **.2 aids to navigation, including lighthouses, beacons and buoys**
  - **.3 dead reckoning, taking into account winds, tides, currents and estimated speed**
- **Use nautical charts, and publications, such as sailing directions, tide tables, notices to mariners, radio navigational warnings.**

1. Definitions – Earth **4hrs (T) + 0hrs (P) + 0hrs (E).**

Familiarity with;

- Earth's poles, 'equator' and 'meridians'.
- 'Latitude' and 'parallels of latitude', 'prime meridian' and 'longitude'.
- Position on the earth in terms of latitude and longitude.
- 'Difference of latitude' and 'difference of longitude'.
- Variation in the length of the sea mile, nautical mile, cable and knot.

2. Charts **4hrs (T) + 0hrs (P) + 2hrs (E).**

Familiarity with;

Chart projections, Mercator chart, properties of marine navigational chart, natural scale of chart.

- Production of nautical charts, information on nautical charts, chart numbering system, chart correction system.
- Main information shown on a navigational chart.
- Different types of charts and their use.
- 'Scale' on a Mercator chart: scale of longitude, scale of latitude and natural scale.

Ability to;

- Obtain the magnetic variation for the observer's position, using information on the chart.
- Apply variation to the error of the magnetic compass to find the deviation for the direction of the ship's head.
- Calculate compass error from transit bearings and bearings to distant fixed objects.

3. Datum 2hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- Rotation of the earth about its axis.
- Directions on the earth's surface.
- Direction of the ship's head on a magnetic compass (compass course).
- Difference between bearing and course.
- various notations of indicating direction :
  - 'Three-figure', 'relative', and the conversion from one to another.

4. Distance 2hrs (T) + 0hrs (P) + 0hrs (E).

Understanding of;

- That the latitude scale along the nearest latitude/mean latitude is used as the scale of distance on a Mercator chart.

Ability to;

- Measure the distance between two positions on chart.

5. Position Lines and Position On Charts 4hrs (T) + 0hrs (P) + 4hrs (E).

Understanding of;

- The methods used to obtain simultaneous cross bearings with least error.
- Different methods of obtaining position lines.
- Fix, 'dead reckoning position (DR)' and 'estimated position' (E.P) and fixed position.
- Different methods of obtaining a fix.
- set, rate, drift, track, track made good, heading (ship's head), course to steer, water track, ground track, speed made good, distance made good, steaming speed.

Ability to;

- Plot 'fixes' using position lines obtained by different methods – visual bearing, radar range of a charted object, transits.
- Plot a DR position on the chart given the start position, course and distance.
- Define positions on charts using latitude and longitude, and bearing and distance from a charted object.
- Measure courses and distances between positions on a chart.
- Measure bearings on charts.

- Lay off true bearings and courses on charts.
- Illustrate and describes the standard symbols and terminology to be used on charts for chart work.

6. Chart work Exercises

8hrs (T) + 0hrs (P) + 12hrs (E).

Understanding of;

- How to find the actual set, drift and rate of current from two fixes.
- How to find the estimated position when a current is experienced.
- How to find the course and distance made good in the above objective.
- 'True north', magnetic north', 'compass north'.

Ability to;

- Converting true course to compass course and vice versa, compass error by transit bearing.
- Applying compass error to the ship's head and compass bearings to convert to true.
- Laying true bearings of charted objects in chart.
- Measuring distance between two positions.
- Plot Position by cross bearings, position by bearing and distance off.
- Plotting "DR" and "EP" on charts, position by bearing.
- Course, speed, and distance made good with tidal stream or current, course to steer allowing for tidal stream or current, set, rate and drift, set and rate of tidal stream or current from charts, set and rate of tidal stream or current from DR and fixed positions.
- Find variation from the charts.

7. Information from Charts, List Of Lights and Other Publications

2hrs (T) + 0hrs (P) + 2hrs (E).

Understanding of;

- Chart symbols and abbreviations, identifications, characteristics and range of lights, computing visibility of lights, depth soundings, depth contours, nature of bottom, coast line contours, bottom topography and tidal information on charts.
- How navigational warnings are transmitted: NAVTEX, VHF.
- How charts and navigational publications are kept up to date on board, with particular reference to the use of notices to mariners, navigational warnings and the chart correction log.
- Detail of the contents of notices to mariners in Persian Gulf, Oman Sea and Caspian Sea.

Ability to;

- Use information from charts, tide tables, notices to mariners, navigational warnings.
- Recognize; suitable passages, approaches and anchorages in good and restricted visibility, traffic lanes and separation zones, danger of relying on floating navigational aids.
- Identify the different characteristics of navigational lights.
- Recognize and demonstrates the use of the symbols and abbreviations on a chart, especially lighthouses, buoys, beacons, radio beacons and other navigational marks, and navigational dangers.
- Identify the characteristics and range of lights.
- Recognize traffic lanes and separation zones.

8. Tides

4hrs (T) + 0hrs (P) + 6hrs (E).

Understanding of;

- The basic theory of tides and the various tide raising forces.
- The relationship between tides and the phases of the moon.

- The meaning of : 'high water', 'low water', 'height of tide', 'range', 'duration', 'chart datum', 'spring tide', neap tide', 'mean high water springs', 'mean low water springs', 'mean low water neaps'.
- Tidal levels, charted heights and drying heights.
- That tides are the vertical oscillation of the surface of the sea due to tide raising forces.
- That daily predictions are given in the tide tables.
- The coverage, layout and contents of the admiralty tide tables.
- 'Standard' and 'secondary ports' in Persian Gulf and Oman Sea.
- That soundings and charted heights to be corrected for the height of tide.

Ability to;

- Use the tide tables to obtain daily predictions at standard ports in Persian Gulf and Oman Sea.
- Find the time at which the tide reaches a specified height or the height of tide at a given time.
- Find the predicted time and height of high and low water at standard and secondary ports in ATT (Admiralty Tide Table) in Persian Gulf and Oman Sea.
- Find the time at which the tide reaches a specified height or the height of tide at a given time at standard and secondary ports in ATT (Admiralty Tide Table) in Persian Gulf and Oman Sea.

9. Passage Planning 2hrs (T) + 0hrs (P) + 2hrs (E).

Familiarity with;

- The danger of placing implicit reliance on floating navigational marks.
- The danger of approaching navigational marks too closely.
- The use of clearing and leading marks in passage planning.
- Use of various charts in planning a passage through the important traffic areas especially Persian Gulf area.
- Passage techniques to be used in;
  - Restricted waters by day and night using terrestrial observations in conjunction with appropriate charts.
- How to plan and conduct navigation;
  - In traffic separation schemes and in areas near them
  - In areas of extensive tidal effect
  - In areas of strong winds and heavy weather

10. Vessel Traffic Services (VTS) 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- The purpose of vessel traffic services (VTS);
  - The normal procedure of joining, navigating and leaving a VTS.
  - Reporting points established within a VTS where all ships have to report when passing through.

11. Keeping A Log 1hrs (T) + 0hrs (P) + 0hrs (E).

Understanding of;

- Rules, regulations, and common practice of keeping a navigational and voyage records during passage, coastal and in port.

12. Buoyage System 4hrs (T) + 4hrs (P) + 0hrs (E).

Understanding of;

- The principles and rules of the international association of lighthouse authorities (IALA) maritime buoyage system, system 'A'.

1.1.2. Electronic systems of position fixing and navigation

- **Ability to determine the ship's position by use of electronic navigational aids**

1. Global Navigational Satellite Systems (GNSS) and GPS system. 2hrs (T) + 2hrs (P) + 0hrs (E).

Understanding of;

- The basic principles of the global positioning system.
- The system configuration.
- The various errors of the GPS.
- The setting up procedure and operates a GPS receiver.
- The advantages and limitations of GPS.

Ability to;

- Operate a ship borne satellite fixing position receiver.

1.1.3. Compass – magnetic

- **principles of magnetic**
- **Ability to determine errors of the magnetic, using terrestrial means, and to allow for such errors**

1. The Magnetism of the Earth and the Ship's Deviation 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- The theory of magnetism as applied to ferromagnetic materials.
- The magnetic field of the earth.
- 'Magnetic poles', 'magnetic equator' and 'magnetic latitude'.
- That deviation changes with the heading of the ship.
- 'Magnetic variation' and why it is slowly changing quantity.
- Simple magnet, its poles and the laws of attraction and repulsion.
- The magnetic field around a magnet.

2. The Magnetic Compass 4hrs (T) + 4hrs (P) + 0hrs (E).

Familiarity with;

- The basic principle and operation of Magnetic Compass.
- Method of calculating error of compass by means of terrestrial bearing and applying error.
- How to remove an air bubble from the compass bowl.
- Compass and its repeaters.
- Azimuth mirror/circle and method of taking bearing.
- 'Variation' and how it is named.
- 'Deviation' and how it is named.

1.1.4. Steering control system

- **steering control systems**

The Steering control system 2hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- The use and principle of the Steering control systems.
- Wheel orders and reporting.
- Types of steering control systems, emergency controls.

1.1.5. Meteorology

- **use and interpret information obtained from shipborne meteorological Instruments.**
- **characteristics of the various weather systems, reporting procedures and recording systems.**
- **apply the meteorological information available.**

1. Ship Borne Meteorological Instruments **1hrs (T) + 0hrs (P) + 0hrs (E).**

Familiarity with;

- The different instruments on board for the measurement of air temperature, sea temperature, dew point and wind speed.

2. The Atmosphere, Its Composition and Physical Properties **2hrs (T) + 0hrs (P) + 0hrs (E).**

Familiarity with;

- 'Dew point' and 'relative humidity', 'absolute humidity'.
- 'Water vapour' and the properties of water vapour in the atmosphere.
- 'Evaporation', 'condensation', 'latent heat of vaporisation'.

3. Atmospheric Pressure and wind **2hrs (T) + 0hrs (P) + 0hrs (E).**

Familiarity with;

- The surface wind circulation around high and low pressure centers.
- That atmospheric pressure acts in all directions.
- That atmospheric pressure decreases with height above sea level.
- The method of estimating the strength of the wind from the appearance of the sea surface, using the beau fort wind scale.
- The difference between true wind and apparent wind.

4. Cloud And Precipitation **1hrs (T) + 0hrs (P) + 0hrs (E).**

Familiarity with;

- Formation of cloud, cloud classification, cloud movement and changes.
- 'Cloud and precipitation'.
- Formation of precipitation, 'rain'.

5. Visibility **2hrs (T) + 0hrs (P) + 0hrs (E).**

Familiarity with;

The formation of fog, seasons and reasons for its dispersal.
The methods of estimating the visibility at sea, by day and night and the difficulties involved.

- That visibility is reduced by the presence of particles in the atmosphere near the earth's surface.
- 'Fog', 'mist' and 'haze' and their effect on visibility at sea.

6. The Wind and local wind 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- Local winds and monsoon in the Persian Gulf, Oman Sea and Caspian Sea.
- The concept of horizontal temperature differences to formation of land and sea breezes.

7. Anticyclones, Depression and Other Pressure Systems 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- The 'anticyclone' and 'Depression' and weather associated with it.

8. Weather Services For Shipping 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- The sources and type of weather information available to shipping including NAVTEX, VHF, internet and email in the Persian Gulf, Oman Sea and Caspian Sea.
- The services provided for storm warnings.

Competence: 1.2 maintain a safe navigational watch

1.2.1. Watchkeeping

- **The content, application and intent of the international regulations for preventing collisions at sea, 1972, as amended.**
- **The principles to be observed in keeping a navigational watch.**
- **The use of information from navigational equipment for maintaining a safe navigational Watch.**
- **Blind pilotage techniques.**
- **The use of reporting in accordance with the general principles for ship reporting systems and with VTS procedures.**

1. The Content, Application and Intent of COLREG 72 (As Amended) Including Annexes. 10 Hrs (T) + 6hrs (P) + 0hrs (E).

Familiarity with;

- The Content, Application and Intent of COLREG 72 (As Amended) Including Annexes.

2. Principles in Keeping A safe Navigational Watch (Watchkeeping). 2hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- The principles of navigational watchkeeping at sea, and watchkeeping at anchor and port.
- Method of position fixing at appropriate intervals.
- Maintaining course as appropriate.
- Monitoring traffic in the vicinity by plotting or other methods.
- The bridge equipment and their use.
- Steering control systems.
- The action in the event of failure of bridge control, telegraph or steering.

- Emergency steering arrangements.
- The proper helm orders to be given when conning the ship.
- The organizational procedures for emergency parties and drills.
- The duties of emergency teams, command team, back up team, engine room emergency team, first aid team, and team to assemble passengers and team to prepare survival craft.
- The actions to be taken in case of fires on board.
- The shut down and isolation of power plant and equipment.
- Fire and safety plans.
- The correct use of distress signals and the penalties for misuse.
- The precautions to be taken in port and use of anti-pollution equipment to prevent the pollution of the marine environment.
- The purpose of flag state and port state control.

3. General Duties of the OOW 2hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- The duties prior to proceeding to sea, making harbour, entering a dock, berthing alongside quays, jetties, or other ships, and securing to buoys.
- The preparations to be taken before the onset of heavy weather.
- Duties in connection with protection of the marine environment in port.
- The importance of the bridge note book and the entries to be made in it.

4. Watch keeping at sea 2hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- That the officer of the watch is responsible for navigating safely, with particular regard to avoid collision and stranding.
- The principles to be observed in keeping a navigational watch regarding:
  - Navigation.
  - Navigational equipment.
  - Navigational duties and responsibilities.
  - Handing over and taking over the watch.
  - Look-out.
  - Protection of the marine environment.
  - Blind pilotage technique.
  - General principles for ship reporting system and with VTS procedures.
- The duties of the officer of the watch with regard to:
  - Maintenance of an efficient look-out.
  - The use of engines and sound signaling apparatus.
  - Watch arrangements.
  - Taking over the navigational watch.
  - Performing the navigational watch.
  - Watch keeping under different condition and in different areas;
    - Clear visibility.
    - Restricted visibility.
    - In hours of darkness.
    - Coastal and congested waters.
    - Ship at anchor.

Periodic checks of navigational equipment.
Electronic navigational aids.

- Navigation in coastal waters.
- Conduct of the watch in clear weather.
- Actions to take in restricted visibility.
- The circumstances in which the officer of the watch should call the master.
- Briefing of watch keeping personnel.
- Safety of navigation in areas of heavy traffic.
- Maintaining the designated course.
- Monitoring other traffic in the vicinity.
- Keeping a careful watch over the ship's movements.
- Ensuring that the lights and shapes conform to requirements contained in the international regulations for preventing collisions at sea.

- The entries which should be made in the log-book.

5. Watch keeping in Port, keeping an Effective Deck Watch in Port under Normal Circumstances 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- Watch arrangements.
- Keeping an effective deck watch in port to ensure; safety of life, environments, ship, cargo, port.
- Observe international, national and local rules such as ISPS Code requirements.
- Maintain order and the normal routine of the ship.
- Action to take on receiving storm warning or an emergency threatening the safety of the ship.
- Precaution to prevent pollution, port regulations.
- Handing over and taking over, how the watch should be kept and points to which attention should be paid, entries of log-book.

6. Watch keeping in Port Keeping a Watch in Port When Carrying Hazardous Cargo 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- Those sufficient personnel should be readily available on board when carrying hazardous cargo in bulk.
- That special requirements may be necessary for special types of ships or cargo:
  - Number of crew on board.
  - Readiness of FFA and other safety equipment.
  - Special port regulations.
  - Communications with shore in emergency.
  - Special Precautions to prevent pollution of environment.
- That the officer of the watch should be aware of the nature of the hazards and any special precautions necessary for the safe handling of cargo.
- That the duty officer should be aware of the appropriate action in the event of spillage or fire.

Competence: 1.3 responds to emergencies

1.3.1. Emergency procedures

- **Precautions for the protection and safety of passengers in emergency situations**
- **Initial action to be taken following a collision or grounding; initial damage assessment and control**
- **Appreciation of the procedures to be followed for rescuing persons from the sea, assisting a ship in distress, responding to emergencies which arise in port**
- **Contingency Plans For Response to Emergencies** 2hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- Contingency plans in responding to emergency situations.
- The division of the crew into a command team, an emergency team, a back – up emergency team and an engine-room emergency team.
- The actions to take to deal with :
  - Fire in specific areas such as galley, accommodation, engine-room or cargo space, including co-ordination with shore facilities in port, taking account of the ship's fire-control plan.
  - Rescue of victims of a gassing accident in an enclosed space.
  - Heavy weather damage, with particular reference to hatches, ventilators and the security of deck cargo.
  - Rescue of survivors from another ship or the sea.
  - Leakages and spills of dangerous cargo.
  - Stranding.
  - Abandoning ship.
- The importance of drills and practices.
- The contents of a muster list, Contingency Plans and emergency instructions.
- That duties are assigned for the operation of remote controls such as :
  - Main engine stop.
  - Ventilation stops.
  - Lubricating and fuel oil transfer pump stops.
  - Watertight doors.
- And operation of essential services such as:
  - Emergency generator and switchboard.
  - Emergency fire and bilge pumps.
- That crew members not assigned to emergency teams would prepare survival craft, render first side, assemble passengers and generally assist the emergency parties as directed.
- That the engine-room emergency team would take control of ER emergencies and keep the command team informed.
- That good communications between the command team and the emergency teams are essential.

2. Protection and Safety of Passengers

2hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- That some crew members will be assigned specific duties for the mustering and control of passengers.
- The duties as :
  - Warning the passengers.
  - Ensuring that all passengers' spaces are evacuated.
  - Guiding passengers to muster stations.
  - Maintaining discipline in passageways, stairs and doorways.
  - Checking that passengers are suitably clothed and those life jackets are correctly donned.
  - Taking a roll-call of passengers.
  - Instructing passengers on the procedure for boarding survival craft of jumping into the sea.
  - Directing them to embarkation stations.
  - Instructing passengers during drills.
  - Ensuring that a supply of blankets is taken to the survival craft.

3. Precautions To Be Taken When Beaching A Vessel

1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- The circumstances in which a vessel may be beached.
- Reasons why beaching should be at slow speed.
- Measures which can be taken to prevent the ship driving further ashore and to assist with subsequent refloating.
- Suitable sea bed, adjusting speed and direction of approach.
- That a gently shelving beach of mud, gravel should be chosen if possible.
- That wind of tide along will quickly swing the ship broadside on to the beach.
- That all tanks and compartments should be sounded and an assessment made of damage to the ship.
- Those soundings should be taken to establish the depth of water round the ship and the nature of the bottom.

4. Actions To Be Taken On Stranding 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- Measures which can be taken to prevent further damage to the ship and to assist with subsequent refloating.
- How ballast of other weighs may be moved, taken on or discharged to assist refloating.
- The use of ground tackles for hauling off.
- Ways in which tugs may be used to assist in refloating.
- The use of the main engine in attempting to refloat and the danger of building up silt from its use.
- That, on stranding, the engines should be stopped, watertight doors closed, the general alarm sounded and, if on a falling tide, the engines should be put full astern to see if the ship will immediately refloat.
- That a distress or urgency signal should be transmitted and survival craft prepared if necessary.
- That all tanks and compartments should be sounded and the ship inspected for damage.
- Those soundings should be taken to establish the depth of water round the ship and the nature of the bottom.
- Entries in the log book.

5. Actions To Be Taken Following A Collision 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- Measures to attempt to limit damage to salve own ship.
- That after impact the engines should be stopped, all watertight doors closed the general alarm sounded and the crew informed of the situation.
- That in calm weather the colliding ship should generally remain embedded to allow the other ship time to assess the damage to abandon ship.
- That survival craft should be made ready for abandoning ship or assisting the crew of the other ship.
- That damage to own ship should be determined.
- That a distress or an urgency signal should be made, as appropriate.
- That, if not in danger, own ship should stand by to render assistance to the other for as long as necessary.
- That all details of the collision and subsequent actions should be entered in the log-book.

6. Means of Limiting Damage and Salving the Ship Following a Fire or Explosion 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

Methods of fighting fires.

- Why it is important to drain spaces and pump out water resulting from fire fighting as quickly as possible.
- The inspection for fire damage.
- Measures which may be taken to plug holes, shore up damaged or stressed structure, blank broken piping, make safe damaged electrical cables and limit ingress of water through a damaged deck or superstructure.
- That cooling of compartment boundaries where fire has occurred should be continued until ambient temperature is approached.
- That a watch for re-ignition should be maintained until fire area is cold.
- That one person should enter a compartment where a fire has been extinguished without breathing apparatus until it has been thoroughly ventilated.
- That continuous watch should be kept on the damaged area and temporary repairs.

7. Procedures for Abandoning Ship 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- Distress signals which may be used to attract attention.
- The launching of boats including life rafts in heavy weather.
- That a ship should only be abandoned when imminent danger of sinking, breaking up, fire or explosion exists or other circumstances make remaining on board impossible.
- That a distress call should be transmitted by all available means until acknowledged.
- The information to include in the distress message.
- That extra food and blankets should be placed in boats when time allows.
- That the emergency radio should be placed in a survival craft.
- That warm clothing and life jackets should be worn.
- That survival craft should remain together in the vicinity of the sinking ship to aid detection and rescue.

8 .Uses of Auxiliary Steering Gear and the Rigging and Use of Jury Steering Arrangements 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- Typical arrangement of auxiliary steering gear.
- How the auxiliary steering gear is brought into action.
- Methods of securing the rudder, jury steering arrangement, construction of a jury rudder.

9. Rescuing a Person from a Vessel in Distress or From a Wreck 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- The preparations for taking survivors on board from the boats.
- How boats should approach the wreck and pick up survivors.
- Methods of rescue which may be used when sea conditions are too dangerous to use boats.
- That it is preferable to wait for daylight when no immediate danger exists.
- That unnecessary equipment should be removed from the boats and be replaced by life jackets, lifebuoys, blankets and a portable VHF radio.

10. Measures For Assisting A Vessel In Distress 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- How to approach a disable vessel and pass the first connection.

- How to pay out the towing rope under control.
- methods of securing the towing rope at the towing ship
- That both vessels should have everything prepared and have agreed on communications before the arrival of the ship.
- That rope and cables should be inspected frequently and the nip freshened if any sign of wear or chafe is found.
- That both ships should remain alert for signals from other vessel.

11. Actions That Can Be Taken When Emergencies Arise In Port 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- Actions to take in the event of fire on own ship, with particular reference to co-operation with shore facilities.
- Actions to be taken when fire occurs on a nearby ship or adjacent port facility.
- The actions which can be taken to avoid a ship dragging anchor towards own ship in an anchorage.
- Situations in which a ship should put to sea for reasons of safety such as leakages, spills of dangerous cargo leakage of oil.

Competence: 1.4 responds to a distress signal at sea

1.4.1. Search and rescue

- **contents of the International Aeronautical and Maritime Search and Rescue (IAMSAR) manual**

1. Searches and Rescue 4hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- The content and application of the IAMSAR manual volume III and National Search and Rescue plan.
- The maritime search and rescue organization existing to render assistance to ships at sea as laid down the IAMSAR manual volume III;
  - Basic structure of the SAR organization
  - The responsibility
  - Need for an SAR organization
  - The responsibility of the coastal state
  - Co-operation between coastal states
  - Planning of a search and rescue
  - Determination of search area (possibility area, probability area, assignment of search area to individual search units, designation and description of search areas)
  - Search techniques (search area coverage, search patterns, co-ordinate air / surface search patterns)
  - Conduct of search (briefing of search personnel, search by surface units, continuation of search, termination of search)
  - Rescue of survivors (immediate care of survivors, briefing of survivors, evaluation of SAR operations, report of SAR operations)
  - Abbreviations and definitions connected with SAR
- The contingency plan for assisting a ship in distress which includes :
  - Calling master,
  - Establishing type of distress,
  - Signal received by assisting vessel,
  - Use of merchant ship position reporting systems,
  - Action to be taken whilst proceeding to scene of distress (lookout, preparation of survival

crafts, preparation of gangway and or cargo nets)

Competence: 1.5 uses the IMO standard marine communication phrases and use English in written and oral form

1.5.1. English language

- **Adequate knowledge of the English language to enable the officer to use charts and other nautical publications, to understand meteorological information and messages concerning ship's safety and operation, to communicate with other ships, coast stations and VTS centers and to perform the officer's duties also with a multilingual crew, including the ability to use and understand the IMO standard marine communication phrases (IMO SMCP)**

1. Maritime English in Written and Oral Form 16hrs (T) + 0hrs (P) + 0hrs (E).

Knowledge of;

- The English language to be able to use; chart and nautical publications.
- To communicate with other ships and coast stations.
- To perform officer's duties.
- To communicate with multi-lingual crew.
- To use standard marine navigational vocabulary as replaced by IMO standard marine communication phrases.
- To understand meteorological information and messages concerning ship's safety/security and operation.
- Understand different part of the ship and cargo gears.
- Understand manufacturer's technical manuals and specifications and to converse with technical shore staff concerning ship and machinery repairs.

Competence: 1.6 transmits and receives information by visual signalling

1.6.1. Visual signalling

- **Ability to use the international code of signals**
- **Ability to transmit and receive, by morse light, distress signal SOS as specified in annex iv of the international regulations for preventing collisions at sea, 1972, as amended, and appendix 1 of the international code of signals, and visual signalling of single-letter signals as also specified in the international code of signals**

1. Signalling by Morse code (Transmission & Reception) 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- Send and receive the distress signal SOS by flashing light.
- The recommendations on sound signalling.
- The single-letter signals which may be sounded only in compliance with the requirements of the International Regulations for Preventing Collisions at Sea.

Competence: 1.7 maneuver the ship

1.7.1. Ship maneuvering and handling

.i the effects of deadweight, draught, trim, speed and under-keel clearance on turning circles and stopping distances

.ii the effects of wind and current on ship handling

.iii maneuvers and procedures for the rescue of person overboard
.iv squat, shallow-water and similar effects
.v proper procedures for anchoring and mooring

1. The Effects of Various Displacement, Draughts, Trim, Speed and Under Keel Clearance on Turning Circles and Stopping Distances

2hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- How speed reduces during a turn.
- Why a loaded ship carries her way longer than when in ballast.
- The steering behavior of directionally stable and directionally unstable ships.
- The terms: advance, transfer, drift angle, tactical diameter, track reach, head reach and side reach.
- The size of the turning circle increases as the under keel clearance decreases.
- The stopping distance of a loaded ship may be up to three times the stopping distance when in ballast.
- That in shallow water a ship will carry her way longer than in deep water.

2. The Effect Of Wind And Current On Ship Handling

2hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- The behavior of a ship moving ahead with a wind from various directions.
- The effect of wind when :
  - Making large turns
  - Making headway and sternway
  - Ship is disabled
- The effect of current on the motion of a ship.
- The importance of creating lee when requiring smaller vessels to come alongside.
- That in rivers or narrow channels the current is usually stronger in the center of a straight channel or at the outside of bends.
- Use of current when turning in a channel.
- Use of current to control lateral movement toward or away from a river berth.
- Use of anchor to dredge down with a current.
- That, as a ship is slowed, a speed is reached at which the wind prevents maintaining course.
- How the effect of wind on given ship depends on:
  - Wind strength
  - Relative wind direction
  - Above water area and profile
  - Draft and trim
  - Ship's fore and movement

3. Manoeuvres and Procedures for the Rescue of Person Over Board

2hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- The single turn, Williamsons turn and scharnow turn and maoeuvres.
- The situation when each turn is appropriate.
- Difference between 'immediate action', 'delayed action' and 'person missing' situations.
- The standard manoeuvres are not guaranteed to return ship into its wake because of the effects of particular ship characteristics and environment conditions on the ship and the person in the water.
- The sequence of actions when a person is seen to fall overboard.

- The action to take when a man-overboard report is received on the bridge.

4. Proper Procedures for Anchoring and Mooring 2hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- How the approach to an anchorage is made with regard to current and wind.
- The safety measures to be taken by the anchor party.
- The method of letting go and the amount of cable to veer initially.
- The procedures for anchoring in water too deep to let the anchor, go on the brake.
- The securing of anchors on the completion of anchoring.
- The preparation for and procedure during heaving up.
- How to secure anchors and seal spurling pipes for a sea passage.
- The use of head ropes, stern ropes, breast ropes and springs.
- The safety measures to be taken when handling mooring ropes and wires.
- How to join two mooring ropes together.
- Perform different type of knots and hitches.
- Typical mooring arrangements.
- How to make fast tugs on towing hawsers or lashed up alongside.
- The use of fenders during berthing and when secured in position.
- Methods of mooring to a buoy.
- How to use a messenger to pass a wire or chain to a buoy.
- The procedures for singling up and letting go from berths and buoys.
- That the lights or shape for a vessel at anchor should be displayed as soon as the ship is brought up.
- The preparations to be made for berthing alongside.
- The importance of keeping mooring lines clear of the propeller and notifying the bridge when the propeller is not clear.

Function: 2 cargo handling and stowage at the operational level

Competence: 2.1 monitor the loading, stowage, securing, and care during the voyage and the unloading of cargoes.

2.1.1. Cargo handling, stowage and securing

- **the effect of cargo, including heavy lifts, on the seaworthiness and stability of the ship**
- **safe handling, stowage and securing of cargoes, including dangerous, hazardous and harmful cargoes, and their effect on the safety of life and of the ship**
- **Ability to establish and maintain effective communications during loading and unloading**

1. Draught, Trim And Stability 2hrs (T) + 0hrs (P) + 2hrs (E).

Familiarity with;

- Concept of seaworthiness.
- Deadweight and displacement tonnage, draft, trim, mean draft, draft marks, freeboard, centre of gravity (COG), centre of floatation (CF).
- Ability of vessel to return to an upright position when heeled by external force, position of center of gravity (COG) due to distribution of cargo, tender and stiff ship.

Ability to;

Sketch a ship's load line indicating marks for various seasonal zones, areas and periods.
Given the present draughts and the density of dock water, calculates the draughts in seawater.

- Given the draught amidships and dock-water density, calculates the amount to load to bring the ship to the appropriate load line in seawater.

2. Securing Cargoes

1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- The need for solid stow and securing of all cargoes.
- Method of :
  - Blocking, shoring, lashing, chocking cargo.
  - Securing cargo faces resulting from part discharge before making a sea passage
  - Stowing and securing vehicles and trailers
- Passenger operations including passenger cargo, passenger comfort and safety.
- That cargo liable to slide during rolling, such as steel rails should be stowed fore and aft.

3. Deck Cargo

2hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- Why efficient securing is essential for the safety of the ship and cargo.
- How the effects of a concentrated load can be spread over a wider area by the use of dunnage and deck shoring taking into consideration the positioning of girders, transverses and longitudinals under the tank top.
- The effect of deck cargo on stability with reference to:
  - Vertical moment about the keel
  - Water absorption
  - Clearing of water from deck in heavy weather
  - Increased reserve buoyancy of a timber deck cargo
- That cargoes, other than in containers, commonly carried on deck are:
  - Dangerous goods not permitted below decks
  - Large units difficult to stow below, which can be safely be expose to the elements
  - Cargoes which can be exposed to the weather and which would occupy a very large space below decks
  - Livestock in limited numbers
- That stowage and securing should be adequate for the worst conditions which could be experienced.
- That hatches should be securely closed and cleated before loading over them.
- That stowage must leave safe access to essential equipment and spaces such as:
  - Mooring arrangements.
  - FFA and LSA.
  - Crew accommodation and working spaces.
  - Protection for the crew.
- That deck cargo should not obstruct view from bridge or over side at the bow.
- That the weight of the deck cargo should not exceed the maximum permissible load on the deck or hatch covers.

4. Bulk Cargo (Other Than Grain)

1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- that the main hazards associated with the shipment of bulk solids are :
  - Structural damage due to improper distribution of the cargo.
  - Loss or reduction of stability during a voyage

- Chemical reactions

- The preparation of cargo holds prior to loading bulk cargoes.
- That separation between certain bulk cargoes and other than bulk cargoes or package of dangerous goods is required.
- That some bulk cargoes may deplete the oxygen content of holds or produce toxic gases and describes the precautions to take before entry of holds.
- The hazards associated with coal cargoes.
- The importance of monitoring the temperature of the holds associated with carriage of coal cargoes.
- The precautions to be taken before, during and after loading of coal and bulk cargo.

5. Bulk Grain Cargo 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- The cleaning and preparation of holds and decks for the carriage of grain.
- How to separate two different bulk grain cargoes loaded into the same compartment.
- Preparation of holds for carrying bulk grain, trimming, check for insects and rodent, shifting boards, separation.

6. Inspections and Preparation of Holds 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- The importance of cleaning holds before loading.
- How to clean holds after discharge of a general cargo and bulk cargo.
- The reasons for using dunnage.
- The types and size of material used for dunnage.
- The methods of dunnaging a hold for various cargoes and how to dispose of old dunnage.
- The reasons for a general inspection of the holds before loading.
- Items to be inspected in the hold.

7. Segregation And Separation of Cargoes 1hrs (T) + 0hrs (P) + 0hrs (E).

Knowledge of;

- The need for the segregation of different cargoes.
- The different methods of segregation.
- Method of separating adjacent parcels of cargo.
- The use of port marking to separate parcels for discharge at different ports.

8. Ventilation And Control 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- The causes of sweat and the need for ventilation.
- The ventilation system.
- Difference between ship's sweat and cargo sweat and the conditions in which each is experienced.
- The system of natural ventilation and how it should be controlled to minimize the formation of sweat.
- That ventilation is also required for the removal of heat, gases and odours.
- Cargoes requiring special ventilation.

9. General Cargo 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- Preparation of hold and care for during loading, discharging and carriage of cargoes such as rice, steel cargo, palletised cargo, vehicles.

10. Dangerous, Hazardous and Harmful Cargoes 2hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- The classification of dangerous goods in the International Maritime Dangerous Goods (IMDG) Code.
- Where to look for damage and defects most commonly encountered due to:
  - loading and unloading operation
  - corrosion
  - severe weather conditions
- The meaning of the following stowage and segregation requirements for the different types of ships, with the aid of diagrams:
  - on deck only
  - on deck or under deck
  - away from
  - separated from
  - separated by a complete compartment or hold from
  - separated longitudinally by an intervening complete compartment or hold
- The precautions which should be taken while loading or discharging Dangerous Goods.
- The fire precautions which should be taken when carrying dangerous goods.

11. Cargo Handling Equipment and Safety 1hrs (T) + 0hrs (P) + 0hrs (E).

1. Cargo Handling Equipment

Familiarity with;

- The various cargo handling equipment on board.
- The use of slings, canvas slings, trays, pallets, nets, chain slings, cant hooks, bale hooks and vehicle slings.
- The care and maintenance of cargo gear.
- How hatch covers are secured for sea.
- The provisions for adequate lighting for working spaces, portable lights and precautions with dangerous cargoes.
- Means of securing lifting appliances for sea.
- That all cargo gear should be visually inspected before the start of cargo operations each day.
- That ropes, wire, blocks and loose gear should be subject to frequent inspections while in use.
- That no person should stand or pass under a suspended load.
- That each item of cargo gear has its safe working load which should never be exceeded.

2. Cargo Handling Safety

Familiarity with;

- The importance of having a Safe Working Load (SWL) for the cargo gear.
- The importance of maintaining close communication with the shore during the loading and unloading stage.

- The information that should be agreed between ship and shore before any loading or unloading operation.

12. Oil Tanker Piping And Pumping Arrangements 1hrs (T) + 0hrs (P) + 0hrs (E).

1. Tanker arrangements

Familiarity with;

- The general arrangement of tanker;

2. Cargo piping system

Familiarity with;

- Pipeline arrangement in tanker.

3. Cargo pumps

Familiarity with;

- The main operating features of pumps.

13. Precautions Before Entering Enclosed Or Contaminated Spaces 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- Why periodical tests of the atmosphere should be made by persons working in an enclosed space.
- The permit-to-enter system using safety checklists to be followed by the responsible person and the persons entering the enclosed space.
- The dangers associated with enclosed or contaminated spaces, they may be lacking in oxygen or contain flammable or toxic gases.
- That the oxygen content should be 21% by volume before entry is permitted.
- The protective clothing and equipment which should be used by or be available to those entering the space.
- That mechanical ventilation should be maintained throughout the time persons are in an enclosed space.

14. Cargo Calculations and Cargo Plans 1hrs (T) + 0hrs (P) + 2hrs (E).

Familiarity with;

- Difference between bale capacity and grain capacity.
- 'Stowage factor'.
- 'Broken stowage' and how an allowance is made for it.
- 'Ullage'.

15. Communications 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- The importance of maintaining effective communications between all concerned during loading and discharging.
- The various persons/stations involved during cargo operations and the methods of communication available between them.

Competence: 2.2 inspect and report defects and damage to cargo spaces, hatch covers and ballast tanks

2.2.1. Where to look for damage and defects most commonly encountered due to:

1. loading and unloading operations

2. corrosion
3. severe weather conditions

2.2.2. Which parts of the ship shall be inspected each time in order to cover all parts within a given period of time.

2.2.3. Those elements of the ship structure which are critical to the safety of the ship

2.2.4. Causes of corrosion in cargo spaces and ballast tanks and how corrosion can be identified and prevented

2.2.5. Procedures on how the inspections shall be carried out

2.2.6. How to ensure reliable detection of defects and damages

.1 Cargo Space Inspections 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- The possible causes of damage to the cargo space during cargo operation.
- The defects that could arise due to the nature of cargo carried.
- The corrosion effect that could arise due to structural stress, uneven distribution of cargo, chemical reactions on the ship structure.
- The damage to cargo space due to severe weather condition.
- The safety procedures before entry into the cargo tank for inspection.
- Structural or parts to be inspected each time in order to cover all parts within a given period of time.

2. Hatch covers inspection 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- The working principles of a hatch cover.
- The testing methods for a hatch cover.
- The difference between watertight and weather tight.

3. Ballast tanks inspection 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- The purpose of ballast tanks.
- The corrosion prevention methods for ballast tanks.
- The period of interval for the inspection of ballast tanks.

Function: 3 controlling the operation of the ship and care for persons on board at the operational level

Competence: 3.1 ensure compliance with pollution- prevention requirements

3.1.1. Prevention of pollution of the marine environment and anti-pollution procedures

- **Precautions to be taken to prevent pollution of the marine environment**
- **Anti-pollution procedures and all associated equipment**
- **Importance of proactive measures to protect the marine environment**

1. International Convention for Prevention of Pollution from Ships, 1973, And Protocol of 1978 Relating there To (MARPOL 73/78) for ships below 500 GT 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- Familiarity with the International Convention for Prevention of Pollution from Ships, 1973, And Protocol of 1978 Relating there To (MARPOL 73/78).
- Method of preventing pollution, especially during bunkering, loading/discharging of oil cargo, bilges operations and handling garbage.
- The inspections which may be made by port State authorities and actions which they may take.
- The provisions for the detection of violations and enforcement of the Convention.
- That reports on incidents involving harmful substances must be made without delay.

2. Anti-Pollution Procedures and All Associated Equipment 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- Anti-Pollution Equipment contained in shipboard oil pollution emergency plan (SOPEP Plan).
- Anti-pollution equipment required by national legislation, for example, Oil Pollution Act of Islamic Republic of Iran 1389(Latest Edition).

Competence: 3.2 maintain seaworthiness of the ship

3.2.1. Ship stability

- **application of stability, trim and stress tables, diagrams**
- **fundamental actions to be taken in the event of partial loss of intact buoyancy**
- **fundamentals of watertight integrity**

1. Displacement 2hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- Archimedes principle and the law of flotation.
- The relationship between the displacement and the mean draft of a ship.
- 'Light displacement' and 'load displacement'.
- 'Deadweight' and 'displacement tonnage'.
- The displacement of a vessel as its mass and that it is measured in tonnes.

Ability to;

- Sketch a load line and indicates marks for various seasonal zones, areas and periods.

2. Buoyancy 2hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- What is meant by buoyancy.
- 'Reserve buoyancy'.
- How freeboard is related to reserve buoyancy.
- The purpose of load lines.
- Requirement for maintaining water-tight integrity.
- The force of buoyancy as an upward force on a floating Object created by the pressure of liquid on the object.
- That the buoyancy force is equal to the displacement of a floating object.

3. Fresh Water Allowance (F W A) 2hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- Why the draft of ship decreases when it passes from fresh water to sea water and vice versa.
- What it meant by the Fresh Water Allowance (FWA)
- That when loading in fresh water before proceeding into sea water, a ship is allowed a deeper maximum draft.

4. Statical Stability 2hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- That the total force of buoyancy can be considered as a single force acting through B.
- Stability of a ship as the ability to return to an upright position after being heeled by an external force.
- The centre of buoyancy (B) as being the centre of the underwater volume of the ship.
- That weight is the force of gravity on a mass and always acts vertically downwards.
- That the total weight of a ship and all its contents can be considered to act at a point called the centre of gravity (G).
- That the force of buoyancy always acts vertically upwards.
- That when the shape of the underwater volume of a ship changes the position of B also changes.
- That the buoyancy force is equal to the weight of the ship.

5. List And Its Correction 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- List and Heel.
- How the list may be removed.
- That in a listed condition the range of stability is reduced.

6. Trim 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- 'Trim' as the difference between the draft aft and draft forward.
- That trim may be changed by moving masses already on board forward or aft, or by adding or removing masses at a position forward of or abaft the centre of flotation.

7. Action to Be Taken In The Event Of Partial Loss of Intact Buoyancy. 2hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- The fundamental action to be taken in the event of partial loss of intact buoyancy.
- That flooding should be countered by prompt closing of watertight doors, valves and any other openings which could lead to flooding of other compartments.
- That any action which could stop or reduce the inflow of water should be taken.

3.2.2. Ship construction

- **principal structural members of a ship and the proper names for the various parts**

1. Ship Dimension and Form 2hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- Type of ships.
- Followings:

- forward perpendicular (FP),
- after perpendicular (AP),
- length between perpendicular (LBP),
- length on the water line (LWL),
- length overall (LOA),
- base line,
- moulded depth and
- extreme depth, beam and draft

Ability to;

- Reproduce an elevation of a general cargo ship, showing holds, engine room, double bottom tanks, hatchways, tween deck and position of bulkheads.

2. Ship Stresses **2hrs (T) + 0hrs (P) + 0hrs (E).**

Familiarity with;

- 'Hogging' and 'sagging' and differentiates between them.
- The loading conditions that give rise to hogging and sagging.
- 'Panting', 'pounding', and 'slamming' and part of the ship is affected.
- Stresses caused by localized loading.
- The causes of corrosion on board.
- The various methods being used to minimise the effect of corrosion.

3. Hull Structure **1hrs (T) + 0hrs (P) + 0hrs (E).**

Familiarity with;

- The types of materials that are used in the construction of a ship.
- The importance of load lines and how they are marked.

4. Rudder and Propellers **2hrs (T) + 0hrs (P) + 0hrs (E).**

Familiarity with;

- The type and purpose of rudder and action of the rudder in steering a ship.
- The arrangement of water tightness around the rudder stock.
- The principle of screw propulsion.

5. Load Lines and Draught Marks **2hrs (T) + 0hrs (P) + 0hrs (E).**

Familiarity with;

- Where the deck line is marked.
- That the freeboard, measured from the upper edge of the deck line to the water on each side, is used to check that the ship is within its permitted limits of loading.
- 'Freeboard'.
- How to read draft.

Competence: 3.3 monitor compliance with legislative requirements

3.3.1. Relevant IMO conventions concerning safety of life at sea, security and protection of the marine environment

1. Introduction to Maritime Law 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- Followings:
  - flag State jurisdiction
  - coastal State jurisdiction
  - port State jurisdiction
- Main elements of relevant IMO Conventions, e.g. SOLAS, MARPOL and STCW.
- That public maritime law is enforced through:
  - surveys, inspection and certification
  - penal sanctions (fines, imprisonment)
  - administrative procedures (inspection of certificates and records, detention)
- The main originators of international conventions concerned with maritime law as are:
  - International Maritime Organization (IMO)
  - International Labour Organization (ILO)
  - Committee Maritime International (CMI)
  - United Nations

2. Safety

.2.1 International Convention on Load Lines, 1966 (LL 1966), as amended for ships below 500 GT 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- For the purposes of the Regulations:
  - freeboard
  - freeboard deck
  - superstructure
- The position, dimensions and marking of:
  - the deck line
  - the load Line Mark
  - lines to be used with the load Line Mark
- The provisions for the protection of the crew.
- That deck cargo should be so stowed as to allow for the closing of openings giving access to crew's quarters, machinery space and other parts used in the necessary work of the ship.

2.2. International Convention for the Safety of Life at Sea, 1974 as amended (SOLAS) – General Provisions 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- followings:
  - passenger
  - passenger ship
  - cargo ship
  - tanker
  - age of a ship
- Who may carry out surveys for the enforcement of the provisions of SOLAS.
- The period of validity of the certificates issued.
- The circumstances in which certificates cease to be valid.

2.3. SOLAS - Subdivision and Stability, Machinery and Electrical Installation 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- The Subdivision and Stability, Machinery and Electrical Installation appliances and arrangements required by SOLAS for ships below 500 GT which must be approved by the Administration.

2.4. SOLAS - Fire Protection, Fire Detection and Fire Extinction 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- The basic principles of the regulations on fire protection.
- The Fire Protection, Fire Detection and Fire Extinction appliances and arrangements required by SOLAS for ships below 500 GT which must be approved by the Administration.

2.5. SOLAS - Life-Saving Appliances and Arrangements 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- That life-saving appliances and arrangements required by chapter III of SOLAS for ships below 500 GT which must be approved by the Administration.

2.6. SOLAS-Radio communications (amended chapter IV) 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- Followings, for the purpose of the amended Chapter IV:
  - bridge to bridge communications
  - continuous watch
  - general radio communications
  - international NAVTEX service
  - maritime safety information
  - sea area A1
  - sea area A2
- That every ship, while at sea, must be capable of:
  - transmitting ship-to-shore distress alerts by at least two separate and independent means
  - receiving shore-to-ship distress alerts
  - transmitting and receiving ship-to-ship distress alerts
  - transmitting and receiving search and rescue co-ordinating communications
  - transmitting and receiving on-scene communications
  - transmitting and receiving signals for locating
  - transmitting and receiving maritime safety information
  - transmitting and receiving general radio-communications
  - transmitting and receiving bridge-to-bridge communications
- The radio equipment to be carried by all ships below 500 GT.
- The additional equipment required by ships engaged on voyages exclusively within sea area A1.
- The additional equipment required by ships engaged on voyages within sea areas A1 and A2.

2.7. SOLAS - Carriage of Grain 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- The intact stability requirements for a ship below 500 GT carrying bulk.

2.8. SOLAS - Carriage of Dangerous Goods 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- That the regulations concerning the carriage of dangerous goods in packaged form or in solid bulk form apply to all ships to which the SOLAS regulations apply and to cargo ships of less than 500 gross tons.
- That the provisions do not apply to ships' stores and equipment.
- That the carriage of dangerous goods is prohibited except in accordance with the provisions of the regulations.
- Classification of dangerous goods according to the IMDG code.
- The stowage requirements for dangerous goods.

2.9. The International Safety Management (ISM) Code and ISPS Code. 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- Safety Management System in compliance with the ISM Code and ISPS Code.

2.10. International Convention on Standards of Training, Certification and Watch keeping for Seafarers, 1995 (STCW) 1hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- The general obligations under the Convention.
- Followings, for the purpose of the Convention:
  - Certificate of Competency
  - Certificate of Proficiency
  - certificated
  - seagoing ship
- The application of the Convention.

2.11. Smuggling, piracy and territorial waters. 4hrs (T) + 0hrs (P) + 0hrs (E).

Familiarity with;

- Smuggling and its origin.
- Varieties of smuggling.
- Effects of smuggling on national security and investments.
- National rules and regulations on smuggling.
- Methods of communications with coast guard and reporting.
- Marine piracy.
- Preventive measures to reduce effect of piracy.
- Rules and regulation on territorial waters, other states water, territory of oil rigs, and penalties due to non-observance.

5-7 facilities and equipment required for conducting the course:

Apart from those facilities, equipments and or requirements mentioned in Code of practice for approval and monitoring of maritime training courses followings have to be provided:

5-7-1 Classroom with air conditioning facilities, sufficient lighting and other facilities, suitable for delivering theoretical subjects(such as: chart table, white board, computer, multimedia projector and its curtain)

5-7-2 library with related technical books and references (such as suitable number of Almanac, Nories, Tide table and etc,)

5-7-3 English lab with audio and visual facilities.

5-7-4 Chart room with sufficient number of chart work facilities in relation to the number of trainees.

5-7-5 relevant educational and training films

5-7-6 Earth structure model, different buoys, ships model in day and night and relevant facilities for exercising rule of the road and Col.Reg in channels / rivers and lake or sea and berthing/unberthing exercises, ships model fitted with crane and other deck fittings. In addition followings to be provided:

- Photographs, drawings and plans illustrating various types of ship in view of constructional details.
- Photographs, drawings and plans to illustrate different types of ship.
- Examples of cargo plans for various types of ship.

5-7-7 Instrument Room equipped with following items:

- Thermometers, Barometer, Marine Hydrometer , Magnetic Compass, Binnacle With Magnetic Compass/ Accessories, Azimuth Mirror, International Code of Signal and Flags and a set of Visual Signalling Equipment and Accessories(or a computer based system), SART, Line Throwing Apparatus and Pyrotechnics.

5-7-8 navigational aids such as : Echo Sounder, GPS, VHF, NAVTEX, Weather facsimile receiver and speed log(replacing such equipments with approved simulation system or carry out ship visit to carry out relevant training may be accepted upon consultation and seeking approval of central monitoring office).

5-7-9 seamanship workshop equipped with following items:

- Tables and sittings suitable for practical exercises, hand lad line with markings, pilot ladder and its spares, different types of fiber/ synthetic/wire ropes together with stoppers and various types of shackles, five set of relevant tools for hitching/splicing ropes, Bosun Chair, Stage, different blocks, mooring ropes fiber/synthetic/wire, Winch/ Windlasses and mooring

Arrangements, five sets of scrappers flat/triangle, different types of marine paints, different types of paint roller and brush.

5-8 Lecturers and instructors minimum qualifications:

5-8-1 Lecturers and instructors shall have completed a course in instructional techniques (TFT) in one of the training centers approved by the PMO, and:

5-8-1-1 for lecturing in theoretical subjects should;

5-8-1-1-1 Possess valid Second Officer certificate of competency on ships of GT≥500 engaged on Unlimited voyages as well as having 12 months of seagoing service in that rank; or

5-8-1-1-2 Possess of B.Sc degree in maritime science and 12 months of teaching experience in maritime institutes; or

5-8-1-1-3 Possess valid Second Officer certificate of competency on ships of GT<500 engaged on Near Coastal voyages as well as having 12 months of seagoing service in that rank, and higher diploma in nautical science and one year teaching experience in maritime institutes.

5-8-1-2 for delivering practical training should;

5-8-1-2-1 Possess minimum nautical higher diploma as well as having two years of seagoing service, or possess valid deck rating certificate of proficiency and 2 years of experience on that rank on merchant ships.

5-9 Assessment and Certification:

5-9-1 upon successful completion of the examination which is carried out during and at the end of the course, the trainee will be awarded relevant course completion certificate issued by the approved training center;

5-9-2 then after trainee applies for the PMO competency assessments specified in above paragraph 5-6-1; and

5-9-3 finally, Seafarers' Examination and Documents Directorate of the PMO will issue a CoC for those candidates who have passed above mentioned PMO competency assessments and fulfill other relevant certification requirements set out in the "Codes of practices for issuing, revalidating and renewing certificates of competency for seafarers".

5-10 revalidation/renewal of certificates:

5-10-1 CoPs and CoCs will be revalidated and renewed in accordance with provisions of the "Codes of practices for issuing, revalidating and renewing certificates of competency for seafarers".

5-11 course approval:

5-11-1 It will be carried out as per code of practice for approval and monitoring of maritime training courses.

6-Records

6-1 All records which present the implementation of the content of this code of practice.

7- References

7-1 STCW Convention and STCW Code;

7-2 IMO Model course number7.03

7-3 Code of practice for approval and monitoring of maritime training courses; and

7-4 Codes of practices for issuing, revalidating and renewing certificates for seafarers.

8- Appendixes

Nil