KOMPETENSI INTI DAN KOMPETENSI DASAR

SEKOLAH MENENGAH KEJURUAN/MADRASAH ALIYAH KEJURUAN

Bidang Keahlian : Kemaritiman

Program Keahlian : Pelayaran Kapal Niaga

Kompetensi Keahlian : Nautika Kapal Niaga ( NKN )

Tujuan kurikulum mencakup empat aspek kompetensi, yaitu (1) aspek kompetensi sikap spiritual, (2) sikap sosial, (3) pengetahuan, dan (4) keterampilan. Aspek-aspek kompetensi tersebut dicapai melalui proses pembelajaran intrakurikuler, kokurikuler, dan ekstrakurikuler.

Rumusan kompetensi sikap spiritual yaitu, “Menghayati dan mengamalkan ajaran agama yang dianutnya”. Sedangkan rumusan kompetensi sikap sosial yaitu, “Menghayati dan mengamalkan perilaku jujur, disiplin, santun, peduli (gotong royong, kerja sama, toleran, damai), bertanggung-jawab, responsif, dan proaktif melalui keteladanan, pemberian nasihat, penguatan, pembiasaan, dan pengkondisian secara berkesinambungan serta menunjukkan sikap sebagai bagian dari solusi atas berbagai permasalahan dalam berinteraksi secara efektif dengan lingkungan sosial dan alam serta dalam menempatkan diri sebagai cerminan bangsa dalam pergaulan dunia”. Kedua kompetensi tersebut dicapai melalui pembelajaran tidak langsung (*indirect teaching*) yaitu keteladanan, pembiasaan, dan budaya sekolah, dengan memperhatikan karakteristik mata pelajaran serta kebutuhan dan kondisi peserta didik.

Penumbuhan dan pengembangan kompetensi sikap dilakukan sepanjang proses pembelajaran berlangsung, dan dapat digunakan sebagai pertimbangan guru dalam mengembangkan karakter peserta didik lebih lanjut.

| KOMPETENSI INTI 3(PENGETAHUAN) | KOMPETENSI INTI 4(KETERAMPILAN) |
| --- | --- |
| 1. Memahami, menerapkan, menganalisis, dan mengevaluasi tentang pengetahuan faktual, konseptual, operasional dasar, dan metakognitif sesuai dengan bidang dan lingkup kerja Nautika Kapal Niaga ( NKN ) pada tingkat teknis, spesifik, detil, dan kompleks, berkenaan dengan ilmu pengetahuan, teknologi, seni, budaya, dan humaniora dalam konteks pengembangan potensi diri sebagai bagian dari keluarga, sekolah, dunia kerja, warga masyarakat nasional, regional, dan internasional.
 | 1. Melaksanakan tugas spesifik dengan menggunakan alat, informasi, dan prosedur kerja yang lazim dilakukan serta memecahkan masalah sesuai dengan bidang kerja Nautika Kapal Niaga ( NKN ). Menampilkan kinerja di bawah bimbingan dengan mutu dan kuantitas yang terukur sesuai dengan standar kompetensi kerja.

Menunjukkan keterampilan menalar, mengolah, dan menyaji secara efektif, kreatif, produktif, kritis, mandiri, kolaboratif, komunikatif, dan solutif dalam ranah abstrak terkait dengan pengembangan dari yang dipelajarinya di sekolah, serta mampu melaksanakan tugas spesifik di bawah pengawasan langsung.Menunjukkan keterampilan mempersepsi, kesiapan, meniru, membiasakan, gerak mahir, menjadikan gerak alami dalam ranah konkret terkait dengan pengembangan dari yang dipelajarinya di sekolah, serta mampu melaksanakan tugas spesifik di bawah pengawasan langsung. |

1. Mata Pelajaran: Ilmu pelayaran Datar *(Terrestrial Navigation)*

| KOMPETENSI DASAR | KOMPETENSI DASAR | WAKTU | UNIT KOMPETENSI | SKEMA SERTIFIKASI |
| --- | --- | --- | --- | --- |
| 1. Explain definitions – earth (menjelaskan definisi bumi )
 | 1. Analyze definitions – earth (menganalisis bumi)
 | 20 | 1.1.2.1Earth | Peserta didik menempuh seluruh kompetensi dan mengikuti ujian keahlian pelaut serta dinyatakan LULUS maka Peserta didik akan mendapatkan sertifikat kompetensi ANT IV (Ahli Nautika Tingkat IV) yang dikeluarkan oleh Direktorat Jenderal Perhubungan Laut.  |
| 1. Explain charts (menjelaskan peta-peta)
 | 1. Demonstrates a basic knowledge of chart projections (menunjukan dasar pengetahuan dari proyek peta )
 | 26 | 1.1.2.2Charts |
| 1. Explain electronic chart (menjelaskan peta elektronik)
 | 1. Demonstrates a basic knowledge of electronic chart projections (menunjukkan dasar pengetahuan peta elektronik)
 | 16 | 1.1.2.3Electronic chart |
| 1. Explain datums (menjelaskan datum)
 | 1. Analyze datums (menganalisis datum)
 | 13 | 1.1.2.4Datums |
| 1. Explain distances (menjelaskan jarak)
 | 1. Calculate distances (menghitung jarak)
 | 14 | 1.1.2.5Distances |
| 1. Explain position lines and positions (menjelaskan garis posisi dan posisi)
 | 1. Demonstrate position lines and positions (menunjukkan garis posisi dan posisi kapal dipeta)
 | 20 | 1.1.2.6Position lines and positions |
| 1. Explain sailings (menjelaskan pelayaran)
 | 1. Analyze sailings (menganalisi pelayaran)
 | 46 | 1.1.2.7Sailings |
| 1. Explain chartwork exercises (menjelaskan latihan cara kerja peta)
 | 1. Use chartwork exercises (menggunakan peta latihan)
 | 94 | 1.1.2.8Chartwork exercises |
| 1. Explain information from charts, lists of lights and other publications (menjelaskan informasi dari peta, daftar lampu dan buku publikas epanduan bahari)
 | 1. Use information from charts, lists of lights and other publications(menggunakan data informasi dari peta,daftar lampu-lampu,dan buku publikasi kepanduan bahari.
 | 59 | 1.1.2.9Information from charts, lists of lights and other publications |
| 1. Explain IALA buoyage system (menjelaskan sistem –sistem pelampung )
 | 1. Use IALA buoyage system(menggunakan system pelampung )
 | 13 | 1.1.2.10IALA Buoyage System |  |
| 1. Explain tides (menjelaskan daftar surut )
 | 1. Use tides (menggunakan daftar pasang surut )
 | 13 | 1.1.2.11Tides |
| 1. Explain keeping a log (menjelaskan alat kecepatan kapal )
 | 1. Use keeping a log(menggunakan alat kecepatan kapal )
 | 14 | 1.1.2.11Keeping a log |
| JUMLAH JAM | 348 |  |  |

1. Mata Pelajaran: Sistem Navigasi Elektronik *(Electronic Navigation System )*

| KOMPETENSI DASAR | KOMPETENSI DASAR | WAKTU | UNIT KOMPETENSI | SKEMA SERTIFIKASI |
| --- | --- | --- | --- | --- |
| 1. Apply basic principles of hyperbolic navigation systems (menerapkan dasar hyperbolis pada sistem navigasi)
 | 1. Demonstrate basic principles of hyperbolic navigation systems (menunjukan dasar prinsip sistem hiperbolis navigasi )
 | 9 | 1.1.3.1Basic principles of hyperbolic navigation systems | Peserta didik menempuh seluruh kompetensi dan mengikuti ujian keahlian pelaut serta dinyatakan LULUS maka Peserta didik akan mendapatkan sertifikat kompetensi ANT IV (Ahli Nautika Tingkat IV) yang dikeluarkan oleh Direktorat Jenderal Perhubungan Laut.  |
| 1. Apply Loran-C system (menerapkan sistem Loran C )
 | 1. Demonstrate Loran – C system (menunjukan cara penggunaan Loran C)
 | 12 | 1.1.3.2Loran – C system |
| 1. Apply E-Loran (menerapkan E loran )
 | 1. Demonstrate E-Loran (menunjukan E-Loran )
 | 9 | 1.1.3.3E-Loran |
| 1. Apply global navigation satellite system(menerapkan Sistem satelit navigasi )
 | 1. Demonstrate Global navigation satellite systems (menunjukan cara kerja Sistem satelit navigasi )
 | 24 | 1.1.3.4Global navigation satellite systems |
| 1. Explain GPS
 | 1. Use GPS
 | 18 | 1.1.3.5GPS |
| 1. Explain augmented satellite system
 | 1. Use augmented satellite system
 | 6 | 1.1.3.6Augmented satellite system |
| 1. Explain Glonas
 | 1. Use Glonas
 | 6 | 1.1.3.7Glonas |
| 1. Explain Galileo
 | 1. Use Galileo
 | 6 | 1.1.3.8Galileo |
| 1. Explain Echo-sounders
 | 1. Use Echo-sounders
 | 18 | 1.1.3.9Echo-sounders |
| JUMLAH JAM | 108 |  |  |

1. Mata Pelajaran : Sistem Kemudi Kompas *(Compasses and Steering System)*

| KOMPETENSI DASAR | KOMPETENSI DASAR | WAKTU | UNIT KOMPETENSI | SKEMA SERTIFIKASI |
| --- | --- | --- | --- | --- |
| 1. Apply the magnetism of the earth and the ship‟s deviation (menerapkan sistem magnit bumi dan deviasi pada kapal )
 | 1. Analyze the magnetism of the earth and the ship‟s deviation (menganalisis magnet bumi untuk mencari deviasi kapal )
 | 18 | 1.1.5.1The magnetism of the earth and the ship‟s deviation | Peserta didik menempuh seluruh kompetensi dan mengikuti ujian keahlian pelaut serta dinyatakan LULUS maka Peserta didik akan mendapatkan sertifikat kompetensi ANT IV (Ahli Nautika Tingkat IV) yang dikeluarkan oleh Direktorat Jenderal Perhubungan Laut.  |
| 1. Apply the magnetic compass (menerapkan compas magnit )
 | 1. Use the magnetic compass (menggunakan cara oprasi magnit kompas )
 | 18 | 1.1.5.2magnetic compass |
| 1. Apply the gyro-compass(menerapkan magnit gyro )
 | 1. Operate the gyro-compass (cara mengoprasikan magnit gyro)
 | 18 | 1.1.5.3gyro-compass |
| 1. Apply compass corrections (menerapkan koreksi kompas )
 | 1. Analyze compass corrections(menganalisa koreksi kompas )
 | 18 | 1.1.5.4Compass corrections |
| 1. Explain errors of the compass and azimuths (menjelaskan kesalahan pada kompas dan azimut )
 | 1. Calculate errors of the compass and azimuths(menghitung kesalahan kompas dan azimut )
 | 18 | 1.1.5.5Errors of the compass and azimuths |
| 1. Explain fluxgate compass
 | 1. Apply fluxgate compass
 | 2 | 1.1.5.6Fluxgate compass |
| 1. Apply automatic pilot (menerapkan Kemudi otomatis )
 | 1. Operate automatic pilot(mengoprasikan kemudi otomatis )
 | 16 | 1.1.6.1automatic pilot( |
| JUMLAH JAM | 108 |  |  |

1. Mata Pelajaran: Meteorologi *(Meteorology)*

| KOMPETENSI DASAR | KOMPETENSI DASAR | WAKTU | UNIT KOMPETENSI | SKEMA SERTIFIKASI |
| --- | --- | --- | --- | --- |
| 1. Explain shipborne meteorological instruments
 | 1. Identified shipborne meteorological instruments
 | 4 | 1.1.7.1Shipborne meteorological instruments | Peserta didik menempuh seluruh kompetensi dan mengikuti ujian keahlian pelaut serta dinyatakan LULUS maka Peserta didik akan mendapatkan sertifikat kompetensi ANT IV (Ahli Nautika Tingkat IV) yang dikeluarkan oleh Direktorat Jenderal Perhubungan Laut.  |
| 1. Explain the atmosphere, its composition and Physical properties
 | 1. Identified the atmosphere, its composition and Physical properties
 | 6 | 1.1.7.2The atmosphere, its composition and Physical properties |
| 1. Explain atmospheric pressure
 | 1. Identified atmospheric pressure
 | 6 | 1.1.7.3Atmospheric pressure |
| 1. Explain wind
 | 1. Identified wind
 | 6 | 1.1.7.4Wind |
| 1. Explain cloud and precipitation
 | 1. Identified cloud and precipitation
 | 6 | 1.1.7.5Cloud and precipitation |
| 1. Explain visibility
 | 1. Identified visibility
 | 4 | 1.1.7.6Visibility |
| 1. Explain the wind and pressure systems over the ocean
 | 1. Identified the wind and pressure systems over the ocean
 | 18 | 1.1.7.7The wind and pressure systems over the ocean |
| 1. Explain structure of depressions
 | 1. Identified structure of depressions
 | 24 | 1.1.7.8Structure of depressions |
| 1. Explain anticyclones and other pressure systems
 | 1. Identified anticyclones and other pressure systems
 | 6 | 1.1.7.9Anticyclones and other pressure systems |
| 1. Explain Weather services for shipping
 | 1. Make Weather services for shipping
 | 4 | 1.1.7.10Weather services for shipping |
| 1. Explain recording and reporting weather observations
 | 1. Make recording and reporting weather observations
 | 6 | IMC 7.03 1.1.7.11Recording and reporting weather observations |
| 1. Explain weather forecasting
 | 1. Identified weather forecasting
 | 18 | 1.1.7.12Weather forecasting |
| JUMLAH JAM | 108 |  |  |

1. Mata Pelajaran : P2TL & Dinas Jaga *(ColReg & Watchkeeping include Introduction to BRM & Security Awareness)*

| KOMPETENSI DASAR | KOMPETENSI DASAR | WAKTU | UNIT KOMPETENSI | SKEMA SERTIFIKASI |
| --- | --- | --- | --- | --- |
| * 1. Explain the content, application and Intent of International regulation for preventing collisions at sea, 1972 as amended
 | * 1. Apply the content, application and Intent of International regulation for preventing collisions at sea, 1972 as amended
 | 16 | IMC 7.031.2.1.1.1The Content, Application and Intent of International Regulation for Preventing Collisions at Sea, 1972 as amended | Peserta didik menempuh seluruh kompetensi dan mengikuti ujian keahlian pelaut serta dinyatakan LULUS maka Peserta didik akan mendapatkan sertifikat kompetensi ANT IV (Ahli Nautika Tingkat IV) yang dikeluarkan oleh Direktorat Jenderal Perhubungan Laut.  |
| * 1. Explain the content, application and Intent of International regulation for preventing collisions at sea, 1972 as amended part A. Rule 1-3
 | * 1. Apply the content, application and Intent of International regulation for preventing collisions at sea, 1972 as amended part A. Rule 1-3
 | 32 | IMC 7.031.2.1.1.2The Content, Application and Intent of International Regulation for Preventing Collisions at Sea, 1972 as amended part A. Rule 1-3 |
| * 1. Explain the content, application and Intent of International regulation for preventing collisions at sea, 1972 as amended part B section I. Rule 4-10
 | * 1. Apply the content, application and Intent of International regulation for preventing collisions at sea, 1972 as amended part B section I. Rule 4-10
 | 32 | IMC 7.031.2.1.1.3The Content, Application and Intent of International Regulation for Preventing Collisions at Sea, 1972 as amended part B section I. Rule 4-10 |
| * 1. Explain the content, application and Intent of International regulation for preventing collisions at sea, 1972 as amended part B section II. Rule 11-18
 | * 1. Apply the content, application and Intent of International regulation for preventing collisions at sea, 1972 as amended part B section II. Rule 11-18
 | 36 | IMC 7.031.2.1.1.4The Content, Application and Intent of International Regulation for Preventing Collisions at Sea, 1972 as amended part B section II. Rule 11-18 |
| * 1. Explain the content, application and Intent of International regulation for preventing collisions at sea, 1972 as amended part B section III. Rule 19
 | * 1. Apply the content, application and Intent of International regulation for preventing collisions at sea, 1972 as amended part B section III. Rule 19
 | 4 | IMC 7.031.2.1.1.5The Content, Application and Intent of International Regulation for Preventing Collisions at Sea, 1972 as amended part B section III. Rule 19 |
| * 1. Explain the content, application and Intent of International regulation for preventing collisions at sea, 1972 as amended part C. Rule 20 - 31
 | * 1. Apply the content, application and Intent of International regulation for preventing collisions at sea, 1972 as amended part part C. Rule 20 - 31
 | 36 | IMC 7.031.2.1.1.6The Content, Application and Intent of International Regulation for Preventing Collisions at Sea, 1972 as amended part part C. Rule 20 - 31 |
| * 1. Explain the content, application and Intent of International regulation for preventing collisions at sea, 1972 as amended part D. Rule 32 - 37
 | * 1. Apply the content, application and Intent of International regulation for preventing collisions at sea, 1972 as amended part D. Rule 32 - 37
 | 32 | IMC 7.031.2.1.1.7The Content, Application and Intent of International Regulation for Preventing Collisions at Sea, 1972 as amended part D. Rule 32 - 37 |
| * 1. Explain the content, application and Intent of International regulation for preventing collisions at sea, 1972 as amended part E. Rule 38
 | * 1. Apply the content, application and Intent of International regulation for preventing collisions at sea, 1972 as amended part E. Rule 38
 | 4 | IMC 7.031.2.1.1.8The Content, Application and Intent of International Regulation for Preventing Collisions at Sea, 1972 as amended part E. Rule 38 |
| * 1. Explain keeping a safe navigational watch
 | * 1. Implement keeping a safe navigational watch
 | 4 | IMC 7.031.2.2.1.Keeping a Safe Navigational Watch |
| * 1. Explain keeping an effective deck watch in port under normal circumstances
 | * 1. Implement keeping an effective deck watch in port under normal circumstances
 | 4 | IMC 7.031.2.2.1.Keeping an Effective Deck Watch in Port under Normal Circumstances |
| * 1. Explain implementation keeping a safe deck watch in port when carrying hazardous cargo
 | * 1. Implement keeping a safe deck watch in port when carrying hazardous cargo
 | 4 | IMC 7.031.2.2.1.2Keeping a Safe Deck Watch in Port When Carrying Hazardous Cargo |
| * 1. Explain of weather routeing
 | * 1. Demonstrate weather routeing
 | 4 | IMC 7.031.2.4. weather routeing |
| JUMLAH JAM | 208 |  |  |

1. Mata Pelajaran : Olah Gerak dan Pengendalian Kapal *(Ship Manoeuvering and Handling )*

| KOMPETENSI DASAR | KOMPETENSI DASAR | WAKTU | UNIT KOMPETENSI | SKEMA SERTIFIKASI |
| --- | --- | --- | --- | --- |
| * 1. Explain the effects of various deadweights, draughts, trim, speed and under-keel clearance on turning circles and stopping distances
 | * 1. Analyze the effects of various deadweights, draughts, trim, speed and under-keel clearance on turning circles and stopping distances
 | 31 | IMC 7.031.9.1.1.1The effects of various deadweights, draughts, trim, speed and under-keel clearance on turning circles and stopping distances | Peserta didik menempuh seluruh kompetensi dan mengikuti ujian keahlian pelaut serta dinyatakan LULUS maka Peserta didik akan mendapatkan sertifikat kompetensi ANT IV (Ahli Nautika Tingkat IV) yang dikeluarkan oleh Direktorat Jenderal Perhubungan Laut.  |
| * 1. Explain effect of wind and current on ship handling
 | * 1. Analyze effect of wind and current on ship handling
 | 30 | IMC 7.031.9.1.1.2Effect of wind and current on ship handling |
| * 1. Explain manoeuvres for the rescue of a man person overboard
 | * 1. Simulation manoeuvres for the rescue of a man person overboard
 | 30 | IMC 7.031.9.1.1.3Manoeuvres for the rescue of a man person overboard |
| * 1. Explain squat and shallow-water and similar effects
 | * 1. Analyze squat and shallow-water and similar effects
 | 30 | IMC 7.031.9.1.1.4Squat and shallow-water and similar effects |
| * 1. Describes proper procedures for anchoring and mooring
 | * 1. Analyze proper procedures for anchoring and mooring
 | 31 | IMC 7.031.9.1.1.3Proper procedures for anchoring and mooring |
| JUMLAH JAM | 152 |  |  |

1. Mata Pelajaran : Komunikasi dan Isyarat *( Isyarat and Communication )*

| KOMPETENSI DASAR | KOMPETENSI DASAR | WAKTU | UNIT KOMPETENSI | SKEMA SERTIFIKASI |
| --- | --- | --- | --- | --- |
| * 1. Explain morse symbols for the alphabet and numerals
 | * 1. Identifies morse symbols for the alphabet and numerals
 | 12 | IMC 7.031.8.1.1.1Morse symbols for the alphabet and numerals | Peserta didik menempuh seluruh kompetensi dan mengikuti ujian keahlian pelaut serta dinyatakan LULUS maka Peserta didik akan mendapatkan sertifikat kompetensi ANT IV (Ahli Nautika Tingkat IV) yang dikeluarkan oleh Direktorat Jenderal Perhubungan Laut.  |
| * 1. Explain sends and receives the distress signal SOS by flashing light
 | * 1. Demonstrate sends and receives the distress signal SOS by flashing light
 | 12 | IMC 7.031.8.1.1.1sends and receives the distress signal SOS by flashing light |
| * 1. states the recommendations on sound signalling
 | * 1. Demonstrate the recommendations on sound signalling
 | 12 | IMC 7.031.8.1.1.1the recommendations on sound signalling |
| * 1. Explain lists the single-letter signals which may be sounded only in compliance with the requirements of the International regulations for preventing collisions at sea
 | * 1. Demonstrate lists the single-letter signals which may be sounded only in compliance with the requirements of the International regulations for preventing collisions at sea
 | 12 | IMC 7.031.8.1.1.1lists the single-letter signals which may be sounded only in compliance with the requirements of the International Regulations for Preventing Collisions at Sea |
| * 1. Explains the purpose of the International code of signals
 | * 1. Demonstrate the purpose of the International code of signals
 | 18 | IMC 7.031.8.2.2.1the purpose of the International Code of Signals |
| * 1. Explains how to signal azimuth or bearing, course, date,latitude,longitude, distance, speed, time
 | * 1. Demonstrates how to signal azimuth or bearing, course, date, latitude, longitude, distance, speed, time
 | 24 | IMC 7.031.8.2.2.1signal azimuth or bearing, course, date,latitude,longitude, distance, speed, time |
| * 1. explains the arrangement of the code into :
* single-letter signals
* two-letter signals for the general section
* three-letter signals beginning with ‘M’ for the medical section
 | * 1. Demonstrates the arrangement of the code into :
* single-letter signals
* two-letter signals for the general section
* three-letter signals beginning with ‘M’ for the medical section
 | 18 | IMC 7.031.8.2.2.1Code into:* single-letter signals
* two-letter signals for the general section
* three-letter signals beginning with ‘M’ for the medical section
 |
| JUMLAH JAM | 108 |  |  |

1. Mata Pelajaran : Penanganan dan Pengaturan Muatan

 *(Cargo Handling and Stowage include Cargo Space Inspection (Inspection & Reporting)*

| KOMPETENSI DASAR | KOMPETENSI DASAR | WAKTU | UNIT KOMPETENSI | SKEMA SERTIFIKASI |
| --- | --- | --- | --- | --- |
| * 1. Explain cargo care, inspection and preparation of hold (menjelaskan perlindungan muatan dan pemeliharaan palkah)
 | * 1. Implement cargo care, inspection and preparation of hold (menganalisis persiapan, perlindungan dan pemeliharaan muatan dipalkah)
 | 18 | IMC 7.032.1.1.1Cargo care, inspection and preparation of hold | Peserta didik menempuh seluruh kompetensi dan mengikuti ujian keahlian pelaut serta dinyatakan LULUS maka Peserta didik akan mendapatkan sertifikat kompetensi ANT IV (Ahli Nautika Tingkat IV) yang dikeluarkan oleh Direktorat Jenderal Perhubungan Laut.  |
| * 1. Cargo care, segregation and separation of cargoes
 | * 1. Use cargo care, segregation and separation of cargoes
 | 12 | IMC 7.032.1.1.2Cargo care, segregation and separation of cargoes |
| * 1. Describe cargo care, ventilation and control
 | * 1. Use cargo care, ventilation and control
 | 12 | IMC 7.032.1.1.3Cargo care, ventilation and control |
| * 1. Describe cargo care, refrigerated cargo
 | * 1. Apply cargo care, refrigerated cargo
 | 18 | IMC 7.032.1.2.1cargo care, refrigerated cargo |
| * 1. Explain dangerous, hazardous and harmful cargoes
 | * 1. Apply dangerous, hazardous and harmful cargoes
 | 18 | IMC 7.032.1.2.2Dangerous, hazardous and harmful cargoes |
| * 1. Explain cargo handling equipment and safety
 | * 1. Apply cargo handling equipment and safety
 | 16 | IMC 7.032.1.2.3Cargo handling equipment and safety |
| * 1. Explain oil tanker piping and pumping arrangements
 | * 1. Apply oil tanker piping and pumping arrangements
 | 15 | IMC 7.032.1.2.4Oil tanker piping and pumping arrangements |
| * 1. Explain precautions before entering enclosed or contaminated spaces
 | * 1. Apply precautions before entering enclosed or contaminated spaces
 | 10 | IMC 7.032.1.2.5 |
| * 1. Apply cargo calculations and cargo plans
 | * 1. Make cargo calculations and cargo plans
 | 15 | IMC 7.032.1.2.6Cargo calculations and cargo plans |
| JUMLAH JAM | 134 |  |  |

1. Mata Pelajaran : Perlengkapan Kapal *( Deck and Machinery Equipment )*

| KOMPETENSI DASAR | KOMPETENSI DASAR | WAKTU | UNIT KOMPETENSI | SKEMA SERTIFIKASI |
| --- | --- | --- | --- | --- |
| * 1. Menjelaskan blok dan takal (jangkar, windlass, mooring, arrangement, bolder dan chqks)
 | * 1. Mengidentifikasi blok dan takal (jangkar, windlass, mooring, arrangement, bolder dan chqks)
 | 8 | SOLAS Chapter II/2Blok dan takal (jangkar, windlass, mooring, arrangement, bolder dan chqks) | Peserta didik menempuh seluruh kompetensi dan mengikuti ujian keahlian pelaut serta dinyatakan LULUS maka Peserta didik akan mendapatkan sertifikat kompetensi ANT IV (Ahli Nautika Tingkat IV) yang dikeluarkan oleh Direktorat Jenderal Perhubungan Laut.  |
| * 1. Menjelaskan crane sling, boat swain store dan carpenter store
 | * 1. Mengidentifikasi crane sling, boat swain store dan carpenter store
 | 8 | SOLAS Chapter II/2Crane sling, boat swain store dan carpenter store |
| * 1. Menjelaskan penataan kemudi
 | * 1. Mengidentifikasi penataan kemudi
 | 8 | SOLAS Chapter II/2Penataan kemudi |
| * 1. Menjelaskan alat –alat penolong (life saving appliances and arrangements)
 | * 1. Mengidentifikasi alat –alat penolong (life saving appliances and arrangements)
 | 16 | SOLAS Chapter II/2Alat –alat penolong (Life saving appliances and arrangements) |
| * 1. Menjelaskan alat – alat semboyan
 | Mengidentifikasi alat – alat semboyan | 8 | SOLAS Chapter II/2Alat – alat semboyan |
| * 1. Menjelaskan alat pencegah pencemaran dilaut
 | Mengidentifikasi alat pencegah pencemaran dilaut | 8 | SOLAS Chapter II/2Alat pencegah pencemaran dilaut |
| * 1. Menjelaskan crane sling, boat swain store dan carpenter store
 | Mengidentifikasi crane sling, boat swain store dan carpenter store | 8 | SOLAS Chapter II/2Crane sling, boat swain store dan carpenter store |
| * 1. Menjelaskan alat – alat penampungan limbah (reception facilities)
 | * 1. Mengidentifikasi alat – alat penampungan limbah (reception facilities)
 | 8 | SOLAS Chapter II/2Alat – alat penampungan limbah (reception facilities) |
| JUMLAH JAM | 72 |  |  |

1. Mata Pelajaran : Perawatan Kapal *( Ship Maintenance )*

| KOMPETENSI DASAR | KOMPETENSI DASAR | WAKTU | UNIT KOMPETENSI | SKEMA SERTIFIKASI |
| --- | --- | --- | --- | --- |
| * 1. Menjelaskan terjadinya karat
 | * 1. Mengidentifikasi terjadinya karat
 | 6 | STCW Table A- II/Ikarat | Peserta didik menempuh seluruh kompetensi dan mengikuti ujian keahlian pelaut serta dinyatakan LULUS maka Peserta didik akan mendapatkan sertifikat kompetensi ANT IV (Ahli Nautika Tingkat IV) yang dikeluarkan oleh Direktorat Jenderal Perhubungan Laut.  |
| * 1. Menjelaskan karat dan grade - gradenya
 | * 1. Mengidentifikasi karat dan grade - gradenya
 | 12 | STCW Table A- II/Ikarat dan grade - gradenya |
| * 1. Menjelaskan hammersllag
 | * 1. Mengoperasikan hammersllag
 | 9 | STCW Table A- II/Ihammersllag |
| * 1. Menjelaskan cara menghilangkan hammersllag
 | * 1. Melakukan cara menghilangkan hammersllag
 | 9 | STCW Table A- II/Imenghilangkan hammersllag |
| * 1. Menjelaskan cara menggunakan cat dan peralatan cat sesuai SOP
 | * 1. Menggunakan cat dan peralatan cat sesuai SOP
 | 12 | STCW Table A- II/Icat dan peralatan cat sesuai |
| * 1. Menjelaskan sistematika penggunaan cat
 | * 1. Melakukan sistematika penggunaan cat
 | 6 | STCW Table A- II/Isistematika penggunaan cat |
| JUMLAH JAM | 54 |  |  |

1. Mata Pelajaran : Kecakapan Bahari *( Seaman Ship )*

| KOMPETENSI DASAR | KOMPETENSI DASAR | WAKTU | UNIT KOMPETENSI | SKEMA SERTIFIKASI |
| --- | --- | --- | --- | --- |
| 1. Describes the use of head ropes, stern ropes, breast ropes and springs
 | 1. Use of head ropes, stern ropes, breast ropes and springs
 | 12 | IMC 7.031.9.1.5describes the use of head ropes, stern ropes, breast ropes and springs | Peserta didik menempuh seluruh kompetensi dan mengikuti ujian keahlian pelaut serta dinyatakan LULUS maka Peserta didik akan mendapatkan sertifikat kompetensi ANT IV (Ahli Nautika Tingkat IV) yang dikeluarkan oleh Direktorat Jenderal Perhubungan Laut.  |
| 1. Explain how to put a stopper on a rope or wire rope
 | * 1. Demonstrates how to put a stopper on a rope or wire rope
 | 12 | IMC 7.031.9.1.5how to put a stopper on a rope or wire rope |
| * 1. Describes the use of self-tensioning winches
 | * 1. Use of self-tensioning winches
 | 12  | IMC 7.031.9.1.5use of self-tensioning winches |
| * 1. Describes how to make fast tugs on towing hawsers or lashed up alongside
 | * 1. Make fast tugs on towing hawsers or lashed up alongside
 | 12 | IMC 7.031.9.1.5make fast tugs on towing hawsers or lashed up alongside |
| * 1. Describes methods of mooring to a buoy
 | * 1. Make methods of mooring to a buoy
 | 12 | IMC 7.031.9.1.5methods of mooring to a buoy |
| * 1. Describes how to stow mooring ropes and wires for a sea passage
 | 4.6 Make stow mooring ropes and wires for a sea passage | 12 | IMC 7.031.9.1.5stow mooring ropes and wires for a sea passage |
| JUMLAH JAM | 72 |  |  |

1. Mata Pelajaran : Pelayaran Astronomi *( Celestial Navigation )*

| KOMPETENSI DASAR | KOMPETENSI DASAR | WAKTU | UNIT KOMPETENSI | SKEMA SERTIFIKASI |
| --- | --- | --- | --- | --- |
| * 1. Explain solar system (menjelaskan tata surya)
 | 1. Implement solar system (menerapkan tata surya )
 | 14 | IMC 7.031.1.1.1Solar System | Peserta didik menempuh seluruh kompetensi dan mengikuti ujian keahlian pelaut serta dinyatakan LULUS maka Peserta didik akan mendapatkan sertifikat kompetensi ANT IV (Ahli Nautika Tingkat IV) yang dikeluarkan oleh Direktorat Jenderal Perhubungan Laut.  |
| * 1. Explain celestial sphere and equinoctial system of co-ordinates
 | * 1. Implement celestial sphere and equinoctial system of co-ordinates
 | 14 | IMC 7.031.1.1.2Celestial sphere and equinoctial system of coordinates |
| * 1. Explain hour angle
 | * 1. Calculate hour angle
 | 14 | IMC 7.031.1.1.3Hour angle |
| * 1. Explain daily motion and horizontal system of coordinates
 | 4.4 Implement daily motion and horizontal system of coordinates  | 18 | IMC 7.031.1.1.4Daily motion and horizontal system of coordinates |
| * 1. Explain sextant and altitude corrections
 | * 1. Use sextant and looking for altitude corrections
 | 18 | IMC 7.031.1.1.5Sextant and altitude corrections |
| * 1. Explain amplitude
 | * 1. Implement amplitude
 | 10 | IMC 7.031.1.1.6Amplitude |
| * 1. Explain time and equation of time
 | * 1. Implement time and equation of time
 | 10 | 1.1.1.7Time and equation of time |
| * 1. Explain nautical almanac
 | * 1. Use nautical almanac
 | 18 | IMC 7.031.1.1.8Nautical Almanac |
| * 1. Explain latitude by meridian altitude
 | * 1. Use latitude by meridian altitude
 | 12 | IMC 7.031.1.1.9Latitude by meridian altitude |
| * 1. Explain pole star observations
 | * 1. Doing pole star observations
 | 12 | IMC 7.031.1.1.10Pole Star observations |
| * 1. Explain position fixing
 | * 1. Doing position fixing
 | 30  | IMC 7.031.1.1.11Position fixing |
| JUMLAH JAM | 170 |  |  |

1. Mata Pelajaran : Permesinan Kapal *( Ship Machinery )*

| KOMPETENSI DASAR | KOMPETENSI DASAR | WAKTU | UNIT KOMPETENSI | SKEMA SERTIFIKASI |
| --- | --- | --- | --- | --- |
| 1. Memahami klasifikasi mesin
 | 4.1Mengidentifikasi klasifikasi mesin | 4 | SOLAS Chapter II-I Part C dan Eklasifikasi mesin | Peserta didik menempuh seluruh kompetensi dan mengikuti ujian keahlian pelaut serta dinyatakan LULUS maka Peserta didik akan mendapatkan sertifikat kompetensi ANT IV (Ahli Nautika Tingkat IV) yang dikeluarkan oleh Direktorat Jenderal Perhubungan Laut.  |
| 1. Memahami motor diesel 4 tak dan 2 tak
 | 4.2 Mengoperasikan motor diesel 4 tak dan 2 tak | 8 | SOLAS Chapter II-I Part C dan EMotor diesel 4 TAK dan 2 TAK |
| 1. Memahami pompa torak dan penataanya
 | 4.3 Mengoperasikan pompa torak dan penataanya  | 8 | SOLAS Chapter II-I Part C dan EPompa torak dan penataanya |
| 1. Memahami pesawat pengubah panas
 | 4.4 Mengoperasikan pesawat pengubah panas | 8  | SOLAS Chapter II-I Part C dan EPesawat pengubah panas |
| 1. Memahami kompressor udara dan purifier
 | 4.5 Mengoperasikan kompressor udara dan purifier | 8 | SOLAS Chapter II-I Part C dan EKompressor udara dan purifier |
| 1. Memahami mesin pendingin dan mesin kemudi
 | 4.6 Mengoperasikan mesin pendingin dan mesin kemudi | 8 | SOLAS Chapter II-I Part C dan EMesin pendingin dan mesin kemudi |
| 1. Memahami Fresh water generator
 | 4.7 Mengoperasikan Fresh water generator | 8 | SOLAS Chapter II-I Part C dan EFresh water generator |
| 1. Memahami oily water separation
 | 4.8 Mengidentifikasi oily water separation | 8 | SOLAS Chapter II-I Part C dan EOily water separation |
| 1. Memahami fungsi bagian baling-baling dan poros baling-baling
 | 4.9 Mengidentifikasi fungsi bagian baling-baling dan poros baling-baling | 8 | SOLAS Chapter II-I Part C dan Efungsi bagian baling-baling dan poros baling-baling |
| 1. Memahami fungsi ketel Uap
 | 4.10Mengoperasikan ketel uap | 4 | SOLAS Chapter II-I Part C dan EKetel uap |
| JUMLAH JAM | 72 |  |  |