

Global Maritime Professional

BODY OF KNOWLEDGE

**TABLES**

2019

**This Body of Knowledge is the result of a Joint Project (The Global Maritime Professional Initiative) between the Nippon Foundation and the International Association of Maritime Universities (IAMU).**

Table Extracts from:

**Global Maritime Professional Body of Knowledge**

ISBN

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**Recommended citation:**

**International Association of Maritime Universities (IAMU). (2019). *Global Maritime Professional Body of Knowledge*. Tokyo: International Association of Maritime Universities (IAMU).**

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The International Association of Maritime University enjoys the financial and in-kind support of the Nippon Foundation. This publication is one of the outcomes of the Global Maritime Professional Initiative, a project jointly being undertaken by the International Association of Maritime Universities and the Nippon Foundation.

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## Skills related to Bloom’s taxonomy

### KSAs related to cognitive domain and levels of achievement

Table 1 shows the achievement required for the different GMP tiers in respect of the 6 levels of the revised Bloom’s taxonomy in the cognitive domain and as they relate to the KSAs in the 4 categories – foundational, academic, professional (technical) and professional (soft).

The indicated GMP tier is the minimum required for the respective level of achievement of the cognitive domain. For example, D (GMP tier D) in the level 6 column will indicate that a tier D GMP should have at least that competence. GMP tiers A-C, in this example, can still attain level 6.

Table 1: Levels of achievement in the cognitive domain for focus areas[[1]](#footnote-1)

| *… Principles and practices related to …* | ***Levels of achievement in the Cognitive Domain*** | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| 1  Remembering | 2  Understanding | 3  Applying | 4  Analysing | 5  Evaluating | 6  Creating |
| ***Foundational elements*** |  |  |  |  |  |  |
| 1. Mathematics | A | A | A |  |  |  |
| 1. Natural (physical) sciences | A | A | A |  |  |  |
| 1. General humanities and social sciences | A | A | A |  |  |  |
| 1. English language and maritime communication | A | A | A |  |  |  |
| 1. Computing and informatics | A | A | A |  |  |  |
| 1. Physical and mental fitness | A | A | A |  |  |  |
| ***Academic elements*** |  |  |  |  |  |  |
| 1. Problem recognition/solving | B | B | B | B | C | D |
| 1. Critical thinking | A | A | B | B | C | D |
| 1. Academic research | A | A | A | B | C | D |
| 1. Contemporary global issues | A | A | B | B | C | D |
| ***Professional – Technical elements*** |  |  |  |  |  |  |
| 1. Technical competencies as per international requirements (STCW) | A | A | A | B | C | D |
| 1. Risk assessment and management | A | A | A | B | C | D |
| 1. Situational awareness, preparedness and response | A | A | A | B | C | D |
| 1. Technological awareness (job-specific) | A | A | A | B | C | D |
| 1. Maritime law, policy and governance | A | A | B | C | C | D |
| 1. Logistics and supply chain | A | A | B | C | C | D |
| 1. Maritime business | A | A | B | C | C | D |
| ***Professional – Soft elements*** |  |  |  |  |  |  |
| 1. Technological awareness (global) | A | A | A | B | C | D |
| 1. Leadership, teamwork and discipline | A | A | A | B | C | D |
| 1. Effective (interpersonal) communication | A | A | A | B | C | D |
| 1. Sustainable development | A | A | B | C | C | D |
| 1. Human resource management | A | A | B | B | C | D |
| 1. Cultural/diversity awareness and sensitivity | A | A | A |  |  |  |
| 1. Progressive mindset and lifelong learning | A | A |  |  |  |  |
| 1. Environmental awareness, sustainability and stewardship | A | A | A |  |  |  |
| 1. Decision-making and proactivity | A | A | B | B | C | D |
| 1. Mentorship | A | A | B | B | C | D |
| 1. Professionalism and ethical responsibility | A | A | A | B | C | D |

### KSAs related to affective domain and levels of achievement

Table 2 shows the achievement required for the different GMP tiers in respect of the 5 levels of Bloom’s taxonomy in the affective domain and as they relate to the KSAs in the 4 categories – foundational, academic, professional (technical) and professional (soft).

The indicated GMP tier is the minimum required for the respective level of achievement of the affective domain. For example, C (GMP tier C) in the level 5 column will indicate that a tier C GMP should have at least that competence. GMP tiers A and B, in this example, can still attain level 5.

Table 2: Levels of achievement in the affective domain for focus areas

| *… Principles and practices related to …* | ***Levels of achievement in the Affective Domain*** | | | | |
| --- | --- | --- | --- | --- | --- |
| 1  Receive  (Awareness) | 2  Respond  (React) | 3  Value  (Understand and act) | 4  Organize personal value system | 5  Internalize value system  (Adopt behaviour) |
| ***Foundational elements*** |  |  |  |  |  |
| 1. Mathematics |  |  |  |  |  |
| 1. Natural (physical) sciences |  |  |  |  |  |
| 1. General humanities and social sciences | A | A | A | B | B |
| 1. English language and maritime communication |  |  |  |  |  |
| 1. Computing and informatics |  |  |  |  |  |
| 1. Physical and mental fitness | A | A | A | A | A |
| ***Academic elements*** |  |  |  |  |  |
| 1. Problem recognition/solving | A | A | A | B | B |
| 1. Critical thinking | A | A | A | B | B |
| 1. Academic research | A | A | A | B | B |
| 1. Contemporary global issues | A | A | A |  |  |
| ***Professional – Technical elements*** |  |  |  |  |  |
| 1. Technical competencies as per international requirements (STCW) | A | A | A | B | B |
| 1. Risk assessment and management | A | A | A | B | B |
| 1. Situational awareness, preparedness and response | A | A | A | B | B |
| 1. Technological awareness (job-specific) | A | A | A | B | B |
| 1. Maritime law, policy and governance |  |  |  |  |  |
| 1. Logistics and supply chain |  |  |  |  |  |
| 1. Maritime business |  |  |  |  |  |
| ***Professional – Soft elements*** |  |  |  |  |  |
| 1. Technological awareness (global) | A | A | A | B | B |
| 1. Leadership, teamwork and discipline | A | A | A | B | B |
| 1. Effective (interpersonal) communication | A | A | A | B | B |
| 1. Sustainable development | A | A | B | B | B |
| 1. Human resource management | A | A | A | B | B |
| 1. Cultural/diversity awareness and sensitivity | A | A | A | B | B |
| 1. Progressive mindset and lifelong learning | A | A | A | B | B |
| 1. Environmental awareness, sustainability and stewardship | A | A | A | A | B |
| 1. Decision-making and proactivity | A | B | B | B | C |
| 1. Mentorship | A | A | B | B | B |
| 1. Professionalism and ethical responsibility | A | A | A | B | B |

### KSAs related to psychomotor domain and levels of achievement

Table 3 shows the achievement required for the different GMP tiers in respect of the 7 levels of Simpson’s taxonomy in the psychomotor domain and as they relate to the KSAs in the 4 categories – foundational, academic, professional (technical) and professional (soft).

The indicated GMP tier is the minimum required for the respective level of achievement of the psychomotor domain. For example, B (GMP tier B) in the level 6 column will indicate that a tier B GMP should have at least that competence. GMP tier A, in this example, can still attain level 6.

Table 3: Levels of achievement in the psychomotor domain for focus areas

| *… Principles and practices related to …* | ***Levels of achievement in the Psychomotor Domain*** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1  Perception  (Awareness) | 2  Set | 3  Guided response | 4  Mechanism  (Basic proficiency) | 5  Complex overt response  (Expert) | 6  Adaptation | 7  Origination |
| ***Foundational elements*** |  |  |  |  |  |  |  |
| 1. Mathematics | ***No levels of achievement in the psychomotor domain for these elements*** | | | | | | |
| 1. Natural (physical) sciences |
| 1. General humanities and social sciences |
| 1. English language and maritime communication |
| 1. Computing and informatics |
| 1. Physical and mental fitness |
| ***Academic elements*** |
| 1. Problem recognition/solving |
| 1. Critical thinking |
| 1. Academic research |
| 1. Contemporary global issues |
| ***Professional – Technical elements*** |  |  |  |  |  |  |  |
| 1. Technical competencies as per international requirements (STCW) | A | A | A | B | B | B |  |
| 1. Risk assessment and management |  |  |  |  |  |  |  |
| 1. Situational awareness, preparedness and response | A | A | A | B | B | B |  |
| 1. Technological awareness (job-specific) |  |  |  |  |  |  |  |
| 1. Maritime law, policy and governance |  |  |  |  |  |  |  |
| 1. Logistics and supply chain |  |  |  |  |  |  |  |
| 1. Maritime business |  |  |  |  |  |  |  |
| ***Professional – Soft elements*** |  |  |  |  |  |  |  |
| 1. Technological awareness (global) | ***No levels of achievement in the psychomotor domain for these elements*** | | | | | | |
| 1. Leadership, teamwork and discipline |
| 1. Effective (interpersonal) communication |
| 1. Sustainable development |
| 1. Human resource management |
| 1. Cultural/diversity awareness and sensitivity |
| 1. Progressive mindset and lifelong learning |
| 1. Environmental awareness, sustainability and stewardship |
| 1. Decision-making and proactivity |
| 1. Mentorship |
| 1. Professionalism and ethical responsibility |

### Tables showing ILOs for Cognitive Domain

In this sub-section, Table 4 sets out the intended learning outcomes for the different levels of the revised Bloom’s taxonomy in the cognitive domain with details of the descriptions for each level and for each focus area.

Table 4: Intended learning outcomes in the cognitive domain

| **Focus Area** | ***The Cognitive Domain level of achievement*** | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| **1**  Remembering | **2**  Understanding | **3**  Applying | **4**  Analyzing | **5**  Evaluating | **6**  Creating |
| ***Foundational elements*** | | | | | | |
| 1. **Mathematics** | **Identify** key mathematics information and **recall** equations related to academic and professional skills. | **Explain** relevantmathematical principles. | **Demonstrate** the application of mathematical principles to the solution of relevant problems | ***Analyze*** *complex problems to determine relevant mathematical principles and* ***examine*** *solutions in light of this analysis.* | ***Evaluate*** *the merits of using different mathematical approaches to solve problems.* | ***Create*** *new knowledge/approaches in mathematics.* |
| 1. **Natural (physical) sciences** | **Recall** key factual information relating to physics and chemistry for academic and professional skills. | **Explain** relevantconcepts in physics and chemistry. | **Demonstrate** the application of principles of the physical sciences for solving problems and performing relevant tasks. | ***Analyze*** *complex problems to determine relevant concepts and principles related to the physical sciences and* ***examine*** *solutions in light of this analysis.* | ***Evaluate*** *the merits of using different physical science approaches to solve problems.* | ***Create*** *new knowledge/approaches in the physical sciences.* |
| 1. **General humanities & social sciences** | **Identify** key factual information from different areas of the humanities/social sciences and **recognize** how they relate to maritime professional practice. | **Explain** relevantconcepts from the humanities/social sciences. | **Employ** humanities/social science concepts in maritime professional practice. | **Compare and contrast** different humanities/social science concepts and **examine** how they relate to maritime professional practice | **Evaluate** the merits of applying humanities/social science concepts and approaches to maritime professional situations. | **Create** new knowledge/approaches in the humanities/social sciences. |
| 1. **English language & maritime communication** | **Recognize** features of the English language and **recall** maritime phrases relevant to professional maritime communication. | **Explain** key concepts and structuring of the English language and the use of suitable maritime communication phrases. | **Make use of** relevant and appropriate language and communication in professional maritime practice. **Communicate** effectively in written and spoken English in a cross-cultural context both for social and professional purposes. | **Analyze** different texts & reports in various academic & maritime contexts related to academic & professional maritime skills. | **Evaluate** the merits of using different communication phrases and the suitability of various language forms in different maritime contexts. | **Create** new knowledge in language use and communication related to the maritime industry. |
| 1. **Computing & informatics** | **Identify** key computing & informatics knowledge related to maritime academic and professional skills. | **Explain** key concepts of computing & informatics and their relevance to the maritime industry. | **Employ** relevant computing & informatics concepts and techniques to maritime academic and professional tasks. | **Categorize** different computing & informatics solutions in the maritime industry and **compare / contrast** their suitability in different maritime contexts. | **Evaluate** the merits of different computing and informatics solutions in accomplishing different maritime tasks. | **Create** new computing & informatics solutions with applications in the maritime industry. |
| 1. **Physical & mental fitness** | **Recall** key factual knowledge about physical & mental fitness as it relates to maritime professional practice. | **Explain** key facts and concepts about sustaining physical and mental health/fitness and the specific international requirements for the maritime industry. | **Develop and maintain** physical and mental fitness and health. | **Examine** different methods for developing and maintaining physical and mental fitness. | **Evaluate** the effects and merits of different strategies and approaches for developing and maintaining physical and mental fitness and health. | **Improve** existing strategies and **create** new approaches for physical and mental fitness development. |
| ***Academic elements*** | | | | | | |
| 1. **Problem recognition/solving** | **Identify** constituent parts of a situation that evidence a problem and **describe** problem-solving techniques. | **Explain** the requirements for diagnostic thinking. | **Demonstrate** problem recognition and solving skills in the context of specific maritime tasks. | **Analyze** different problem recognition and solving approaches. | **Assess** the comprehensiveness of particular approaches to problem identification and recognition and **evaluate** the merits of alternative solutions. | **Develop** new approaches to problem identification, recognition and solving. |
| 1. **Critical thinking** | **Define** critical thinking and **describe** its component concepts. | **Explain** the scope & content of critical thinking and **outline** areas of maritime professional practice that require critical thinking | **Demonstrate** the use of critical thinking techniques in specific maritime professional contexts | **Analyze** the outcomes of critical thinking processes and techniques as they relate in particular to maritime professional tasks. | **Appraise** the effectiveness and value of different critical thinking techniques and **assess** their impact. | **Develop** new insights into critical thinking techniques and processes in the maritime industry. |
| 1. **Academic research** | **Identify** different methodologies and methods and **describe** the processes required for the conduct of academic research. | **Explain** the rationale, procedures and practical applications of academic research. | **Prepare** clear and feasible research hypotheses. **Conduct** a coherent and relevant literature review and **use** and **cite** sources appropriately and correctly. **Employ** appropriate research methods and tools (both qualitative and quantitative) to c**onduct** academic research related to various technical areas of maritime affairs & report the results. | **Analyze** the outcomes of academic research. **Synthesize** and **present** research outcomes in a suitable format. | **Assess** different research approaches and their feasibility / suitability for specific research questions and **evaluate** the outcomes of the application of various research approaches to these questions. | **Develop** new approaches for the conduct and analysis of academic research. |
| 1. **Contemporary global issues** | **Identify** topical global issues | **Explain** how current global issues impact the maritime industry and professional practice. | **Build** links between contemporary issues and actions required in maritime practice. | **Discover and examine global** developments in diverse sectors and **analyze** their impacts on the maritime industry and professional practice. | **Assess** the consequences of different responses to global issues and **evaluate** the merits of specific courses of action in respect to these issues. | **Generate** new insights that contribute to the global discourse on contemporary issues. |
| ***Professional – Technical elements*** | | | | | | |
| 1. **Technical competencies as per international requirements (STCW)** | **Identify** theprinciples of and requirements for maritime competencies as per international requirements. | **Explain** the principles & concepts underpinning the international requirements for maritime competencies. | **Apply** relevantknowledge and skills to specific maritime tasks and fulfil all the requirements of the international standards. | **Analyze** specific maritime tasks and the competencies required to carry them out by international standards and maritime industry practice. | **Appraise** the effectiveness of maritime operational and management actions and assess systems and procedures in the maritime industry. | **Develop** new approaches, systems and procedures for effective performance in the maritime industry. |
| 1. **Risk assessment and management** | **Define** risk and **identify** the principles of risk assessment and management. | **Illustrate** principles and concepts of risk assessment and management using specific maritime examples | **Apply** different risk assessment and management techniques / approaches to various maritime scenarios. | **Compare** and **contrast** the underlying assumptions and world views that both inform and address risk perception and analysis. | **Appraise** maritime actions, techniques or procedures in risk assessment and management | **Develop** new approaches, techniques and procedures for effective risk assessment and management |
| 1. **Situational awareness, preparedness and response.** | **Recall** elements / components of situational awareness and identify factors that impact situational awareness, preparedness and response. | **Explain** the components of situational awareness and the inter-relations between them and how these affect preparedness and response. | **Demonstrate** situational awareness and preparedness and **implement** suitable response procedures. | **Critique** the assumptions, approaches and analysis of situational awareness / preparedness techniques with a view to enhancing response procedures. | **Evaluate** maritime actions/techniques for enhancing situational awareness and response effectiveness. | **Improve** existingmaritime scenarios relating to situational awareness and a state of preparedness and **model** appropriate states of preparedness and response for new scenarios. |
| 1. **Technological awareness (job-specific)** | **Show** the importance of job-specific technological awareness for maritime professional practice and **identify** optimum technologies in relevant areas. | **Illustrate** how existing and prospective technologies relate to specific maritime tasks and **explain** how they influence such tasks. | **Select** optimum technologies to be applied in specific maritime operations based on an awareness of state-of-the-art technology. | **Analyze** the operational readiness and suitability of technological applications in maritime practice. | **Evaluate** the performance standards of different technological application and **appraise** their suitability for maritime tasks. | **Develop** optimum technological awareness techniques and technological solutions for the maritime industry. |
| 1. **Maritime law, policy and governance** | **Identify** the legal, policy and governance frameworks that influence and regulate the maritime industry at national, regional and international levels. | **Explain** the different structures, principles and mechanisms for the development and implementation of law, policy and governance of the maritime industry. | **Apply** legal, policy and governance principles in maritime professional practice. | **Analyze** the effect of law, policy and governance implementation mechanisms on the maritime industry and on professional practice. | **Evaluate** maritime stakeholders’ response and contribution to law, policy and governance at the national, regional and international levels | **Integrate** principles of law, policy and governance in the development of new approaches to regulating the maritime industry. |
| 1. **Logistics and supply chain** | **Describe** the global supply chain and **identify** the underpinning principles of logistics. | **Explain** the principles and concepts of logistics and supply chain and **outline** their importance and role in the maritime industry. | **Apply** logistics and supply chain concepts in maritime professional practice. | **Compare** and **contrast** different logistics and supply chain theoretical approaches and **analyze** their effect on practical maritime operations. | **Evaluate** contemporary and potential logistics and supply chain optimization tools and processes. | **Develop** new maritime supply chain optimization tools and processes. |
| 1. **Maritime business** | **Describe** the constituent parts of and issues relating to maritime business including maritime economics and economic geography. | **Explain** the principles and concepts relating to maritime business and **outline** the factors that influence it. | **Apply** management and business concepts, and project management in maritime professional practice. **Apply** legal, regulatory and financial knowledge related to business processes. | **Compare** and **contrast** different maritime business and economics approaches and **analyze** their effect on practical maritime operations. **Perform** cost analysis. | **Evaluate** business decisions utilizing a validated set of methods and the economic parameters that lead to informed business decisions. **Evaluate** contemporary maritime business issues and assess their impact – both present and in the future - on the maritime industry and professional practice. | **Improve** current maritime business approaches and c**reate** new maritime business models. |
| ***Professional – Soft elements*** | | | | | | |
| 1. **Technological awareness (global)** | **Show** an awareness of global technologies and their evolution and **identify** optimum technologies in relevant areas. | **Illustrate** how existing and prospective technologies relate to various maritime tasks and **explain** how they influence such tasks **exhibiting** an appreciation of the dynamics of socio-technical systems. | **Use** relevant global technologies in various maritime operations based on an awareness of state-of-the-art technology. **Apply** a system approach to understanding complex socio-technical system behaviour | **Analyze** the impact of modern global technologies on various technological applications in maritime practice. | **Evaluate** the performance standards of different technological application and **appraise** their suitability for maritime tasks. | **Develop** optimum global technological awareness techniques and technological solutions for the maritime industry. |
| 1. **Leadership, teamwork and discipline** | **Define** leadership, teamwork and discipline and **describe** the effect of each on the general performance of the GMP. | **Compare and contrast** different leadership theories/principles **Explain** the place of leadership and teamwork in maritime professional practice. | **Apply** leadership, teamwork & discipline principles to direct the efforts of a small, homogenous group on board ships | **Analyze** the effect of the application of different leadership and teamwork theories and **infer** possible consequences from the application of such theories in maritime professional practice | **Evaluate** own and other’s discipline, style of leadership and contribution to teamwork and related outcomes | **Create/develop** leadership, teamwork & discipline in a maritime entity to accomplish complex tasks. |
| 1. **Effective (interpersonal) communication** | **Name** the components of a successful interpersonal communication cycle with particular reference to maritime operations | **Explain** the principles and factors that influence optimum interpersonal communication in a maritime professional context | **Demonstrate** the use of good interpersonal communications for productive maritime operational outcomes | **Distinguish** between different communication styles/approaches and **analyze** their applicability to different scenarios in maritime operational contexts | **Evaluate** and **recommend** appropriate processes/approaches for communication between different organizational levels and individuals / teams characterized by significant diversity | **Devise** mechanisms for improving interpersonal communications in maritime professional practice |
| 1. **Sustainable development** | **Define** sustainable development as a concept and **describe** its underpinning values and areas of relevance in the maritime domain | **Explain** the evolution of the concept of sustainable development including any areas of contention and **discuss** the importance of the concept | **Execute** sustainable development plans in a controlled/closed maritime environment | **Identify** areas in the maritime industry for which sustainable development is critical and **analyze** contemporary mechanisms to integrate sustainable development in the maritime industry | **Assess** the current status of sustainable development in own operational and organizational context, **highlight** areas that need development and **recommend** optimization mechanisms | **Develop** long-term plans for the application of the concept of sustainable development in the maritime domain |
| 1. **Human resource management** | **Define** “human resource management” and **describe** the development of the concept from the earlier concept of “personnel management” | **Explain** the principles underpinning human resource management and **distinguish** between different techniques, activities and approaches and their relevance to a multicultural environment | **Apply** relevant human resource management theories and techniques to **achieve** goals related to own maritime professional practice | **Diagnose** the causes of ineffective human resource management and **prioritize** the actions to be taken to address problems that may arise due to poor human resource management practices | **Judge** the effectiveness of different human resource management approaches and techniques in different contexts of maritime professional practice and highlight areas that need further attention | **Develop** new human resource management techniques when conventional techniques are not suitable or not applicable. |
| 1. **Cultural/diversity awareness and sensitivity** | **Describe** cultural/diversity awareness & sensitivity. **State** the relevance of such awareness and sensitivity for GMP performance. | **Distinguish** between different factors that influence diversity awareness and sensitivity and **explain** how they may affect maritime operations using specific cases. | **Demonstrate** the ability to work in a multicultural environment and show optimum awareness and sensitivity to diversity in specific contexts. | **Diagnose** the causes of a lack of awareness and insensitivity to diversity and **prioritize** the actions to be taken to address this positively. | **Judge** the effectiveness of current cultural/diversity awareness & sensitivity techniques & highlight the areas that need further attention. **Appraise** different cultural variables, preferences, norms, biases and expectations to achieve a common understanding. | **Facilitate** increased insights into human interaction and how such interaction may be optimised beyond conventional techniques and approaches |
| 1. **Progressive mindset and lifelong learning** | **Describe** what is meant by a progressive mindset and lifelong learning principle. **Outline** their importance for the continuous development of both individuals and maritime organizations. **Describe** change management approaches and the role of “change agents” in maritime organizational settings | **Compare** and **contrast** different mechanisms and theories on the development and maintaining of a progressive mindset and lifelong learning.  **Explain** the impact diversity may have on change leadership and management and the concepts, frameworks and theories that guide organizational change. | **Apply** progressive mindset & lifelong learning principles techniques and **investigate/predict** the barriers that may face the GMP in this regard in specific maritime contexts (e.g. on-board ship) | **Analyze** own performance and that of others (in particular subordinates) regarding the development of a progressive mindset, change-capability & lifelong learning skills. **Analyze** the dynamics of a learning organization. | **Evaluate** own performance and that of subordinates regarding the development of a progressive mindset & lifelong learning skills. **Appraise** organizational learning and change-capability in own organization. | **Construct** tailored programs to encourage the application of progressive mindset & lifelong learning principles among a group of GMPs. **Model** the overcoming of difficulties and barriers in specific maritime contexts (e.g. on-board ship) and improvements in organizational learning. |
| 1. **Environmental awareness, sustainability and stewardship** | **Describe** the notion of environmental awareness, sustainability and stewardship | **Clarify** the responsibility of the GMP in respect of environment sustainability and stewardship and **explain** global efforts/activities for environmental stewardship in particular in the maritime industry | **Demonstrate** environmental awareness and stewardship in simulated or real scenarios and **use** relevant equipment for environment preservation in compliance with all relevant legal instruments | **Analyze** the effectiveness of own and others’ actions in preserving the environment | **Assess** own performance and that of the organization regarding environment preservation and **evaluate** the merits of different actions/approaches to environmental preservation | **Develop/amend** environmental awareness, sustainability & stewardship policies in maritime entities in keeping with new insights into human behaviour, environmental science and technology |
| 1. **Decision making and proactivity** | **Outline** the importance of proper and proactive decision-making in maritime operations and **describe** how this is linked to the success of a GMP | **Explain** the bases and principles of good decision-making and proactivity as they apply to maritime professional practice | **Demonstrate** optimum decision-making skills in diverse operational contexts and take proactive steps to address developing situations and challenges | Critically **examine** different decision-making processes and options | **Appraise** the outcomes of various decisions and **evaluate** the merits of the processes that informed them and of different proactive actions in diverse situations | **Construct** training scenarios for the development of individual decision-making skills and **generate** models for increasing proactivity-based resilience in maritime organizations |
| 1. **Mentorship** | **Define** mentorship and **describe** its relevance for the GMP and the maritime industry as a whole | **Distinguish** between training and mentoring and **explain** the necessity for and effect of each one on maritime professional practice. **Discuss** the characteristics required in both a mentor and mentee for optimum mentorship results | **Demonstrate** skills as both mentee and mentor. | **Explore** possible outcomes of different approaches to mentoring and their outcome in different situations. **Analyze** the factors that may negatively influence mentoring outcomes | **Evaluate** mentoring techniques and actions for their relevance, effectiveness and sustainability. | **Develop** fit-for-purpose mentoring strategies and programmes for mentees |
| 1. **Professionalism and ethical responsibility** | **List** the professional & ethical responsibilities of a GMP | **Explain** the basis for professional & ethical standards especially as they relate to maritime professional practices | **Apply** standards of professional & ethical responsibility to determine an appropriate course of action in diverse operational contexts | **Analyze** a situation involving multiple conflicting professional & ethical interests to determine an appropriate course of action. | **Justify** a solution to a job-related problem based on professional ethical standards and **assess** own personal professional & ethical development | **Generate** items related to ethical codes of conduct and **create** research-based opportunities and experiences to foster professional and ethical conduct in maritime professional practice |

### Tables showing ILOs for Affective Domain

In this sub-section, table 5 sets out the intended learning outcomes for the different levels of Bloom’s taxonomy in the affective domain with details of the descriptions for each level and for each focus area. A blank field indicates an area where the level of the domain is deemed not to have relevance to the focus area.

Table 5: Intended learning outcomes in the affective domain

| **Focus Area** | ***The Affective Domain level of achievement*** | | | | |
| --- | --- | --- | --- | --- | --- |
| **1**  Receive  (awareness) | **2**  Respond  (react) | **3**  Value  (understand and act) | **4**  Organize personal value system | **5**  Internalize value system  (adopt behaviour) |
| ***Foundational elements*** | | | | | |
| 1. **Mathematics** |  |  |  |  |  |
| 1. **Natural (physical) sciences** |  |  |  |  |  |
| 1. **General humanities & social sciences** | **Choose** key relevant information from the general humanities and social sciences and **relate** such information to maritime professional practice | **Discuss** theories and principles from the humanities and social sciences as they relate to specific scenarios in maritime professional practice | **Demonstrate** commitment to appropriate values derived from an understanding of key factual information from the humanities and social sciences in a maritime context | **Formulate** a value system based on a comparison of principles inherent in the humanities and social sciences.  **Defend** the application of specific value sets in different scenarios | **Display** optimum values related to critiqued principles inherent in the humanities and social sciences in new and challenging situations |
| 1. **English language & maritime communication** |  |  |  |  |  |
| 1. **Computing & informatics** |  |  |  |  |  |
| 1. **Physical & mental fitness** | **Listen** toorders in respect of the development and maintaining of physical and mental fitness. | **Comply** with orders to develop physical and mental fitness and **select** suitable actions for such development. | **Initiate** own actions to develop/maintain physical and mental fitness and **justify** the choice of these actions. | **Integrate** optimum methods/approaches for developing / maintaining physical and mental fitness into own routine and **organize** relevant activities accordingly. | **Revise** methods/approaches used for developing / maintaining physical and mental fitness to suit different circumstances and contexts. |
| ***Academic elements*** | | | | | |
| 1. **Problem recognition/solving** | **Acknowledge** the importance of problem recognition/solving in maritime professional practice. | **Select** and **discuss** situational elements that facilitate or hinder problem recognition/solving. | **Prioritize** problem recognition/solving in challenging and complex maritime operational scenarios. | **Integrate** a commitment to use advanced problem-solving techniques to achieve a holistic approach to maritime-related practices. | **Act** independently or in a team to identify and solve problems and **display** a professional commitment to a diagnostic and solution-oriented mindset. |
| 1. **Critical thinking** | **Acknowledge** the importance of critical thinking in maritime transport-related problems. | **Question** ideas, methods, and approaches following optimum critical thinking techniques. | **Value** critical thinking and **adhere to** critical thinking techniques when faced with complex situations in maritime professional practice | **Integrate** a commitment to use advanced critical thinking techniques to achieve a solutions-oriented approach to maritime-related problems. | **Advocate** for effective critical thinking techniques from a holistic perspective in the maritime domain. |
| 1. **Academic research** | **Acknowledge** the importance of ethical academic research for the long-term sustainability of the maritime industry. | **Comply** with the research methodological principles in own research. | **Value** the use of correct research practices, in particular those related to research ethics. | **Adhere** to appropriate behaviour in accordance with research methods and codes of ethics as well as statutory requirements. | **Support** and **urge** the use of proper research methods and **ethical** behaviour in to advance knowledge in the maritime industry |
| 1. **Contemporary global issues** | **Follow** relevant contemporary global issues and their effect on the maritime industry | **Participate in** and **contribute** tothe global discourse on relevant contemporary global issues and their effect on maritime professional practice | **Demonstrate** belief in the need to have all stakeholders aware of and contributing to the discourse of global issues of relevance to the maritime industry | **Form judgments** about different perspectives oncontemporary global issues and their impacts on the maritime industry | **Propose** and **substantiate** own viewpoints related to contemporary global issues and their effect on maritime professional practice |
| ***Professional - Technical elements*** | | | | | |
| 1. **Technical competencies as per international requirements (STCW)** | **Acknowledge** the importance of supporting the basic value system that leads to the establishment of technical standards in international law and the need for a commitment by all to upholding them | **Comply** with the main principles and values informing technical competencies as required by international law | **Demonstrate** a value system in support of own technical competency and **differentiate** between positive and negative application of technical competencies. | **Integrate** proper values, levels of commitment and accountability in application of own technical competency | **Act** consistently in manifesting technical competency and **influence** others to be technically competent with an optimum value-base. |
| 1. **Risk assessment and management** | **Identify** the proper behaviour in case of risk, and **describe** values underpinning risk assessment and management in maritime professional practice. | **Comply** with relevant directives/orders for risk assessment and management. | **Demonstrate** an appreciation of the need for risk assessment and management | **Synthesize** and **integrate safety** values and **display** a risk awareness, assessment and management outlook in daily routines | Consistently **display** risk consciousness and a value-system that supports continuing risk assessment and management in operational routines |
| 1. **Situational awareness, preparedness and response.** | **Identify** the proper dispositions to maintain in order to have situational awareness and maintain a state of preparedness in diverse maritime operational contexts. | **Select** appropriate actions to take to maintain a state of situational awareness and preparedness. | **Propose** individual and team actions that promote situational awareness, a common team operating picture and an optimum state of preparedness. | **Balance** competing work/task demands for self, considering work/task load on others and **organize/plan** tasks to maintain a situational awareness and preparedness | **Display and Perform** ethical commitments, values and principles of situational awareness, preparedness and response. |
| 1. **Technological awareness (job-specific)** |  |  |  |  |  |
| 1. **Maritime law, policy and governance** |  |  |  |  |  |
| 1. **Logistics and supply chain** |  |  |  |  |  |
| 1. **Maritime business** |  |  |  |  |  |
| ***Professional - Soft elements*** | | | | | |
| 1. **Technological awareness (global)** | **Follow** global technological trends and their impact on the maritime industry. | **Present** different technologies, their evolution and impact on the maritime industry. | **Differentiate** between beneficial uses of technology and the negative impacts they may have on humans and society and **share** own insights in this regard | **Synthesize** a rational basis for the introduction and use of evolving global technologies in own work context and **balance** their effectiveness against their limitations. | **Display** an objective and discriminatory approach to the selection and use of new technologies and **maintain** ethical usage of such technologies. |
| 1. **Leadership, teamwork and discipline** | **Follow** concepts of leadership, teamwork and discipline and **acknowledge** their importance in a maritime context. | **Practice** leadership and teamwork skills in a disciplined manner to achieve the organization goals. | **Demonstrate** the importance of teamwork and commitment to leadership as indispensable for maritime professional practice. | **Formulate** own leadership strategies contingent on the specific scenario and **organize** task group for efficient and effective teamwork. | **Influence** workgroup in a disciplined manner and **cooperate** in group activities to strengthen teamwork values. |
| 1. **Effective (interpersonal) communication** | **Identify** various interpersonal communication principles. | **Discuss** advanced communication techniques and **practice** them in a professional manner. | **Demonstrate** belief in multi-directional communication and the importance of listening and **assist** in eliminating interference and barriers in communications. | **Initiate** effective communication strategies and **invite** optimum and reciprocal strategies from others. | **Propose** plans to optimize interpersonal communication in a maritime context and **act** toembed professional communication techniques in own and others’ everyday routines and in all situations. |
| 1. **Sustainable development** | **Name** the UN’s Sustainable Development Goals (SDGs) and **point to** the maritime sector’s responsibility to participate in achieving them. | **Conform** own actions to the achievement of the sustainable development goals and **volunteer** for initiatives for their achievement in the maritime context. | **Justify** the adoption of sustainable practices in the maritime field. | **Identify** unsustainable practices and values in self and others and **modify** own behaviour for more sustainable outcomes. | **Discriminate** between different motives for sustainable development and **influence** a professional commitment to sustainable development values in others. |
| 1. **Human resource management** | **Identify** the value system inherent in a “human resource management” approach as opposed to a “personnel management” approach. **Accept** the uniqueness and value of human beings. | **Discuss** the importance of human resources and their effective management for the development of the maritime industry. | **Demonstrate** good people management skills for the efficient operation of maritime organizations. | **Formulate** strategies for administering the human element underpinned by the valuing of issues such as respect, motivation, development, goal compatibility of individuals and the organization. | Professionally **manage** onboard human resources by practicing HRM methods and **influence** others positively. |
| 1. **Cultural/diversity awareness and sensitivity** | **Recognise** the existence of diversity in the maritime industry. | **Discuss the** importance of cultural awareness and diversity in the maritime field. | **Demonstrate** cultural awareness and **show** sensitivity and respect towards individual and cultural differences while **valuing** diversity. | **Identify** the challenges associated with a multicultural atmosphere and the advantages of workspace diversity. | **Balance** respect of societal culture with the professional culture required in the maritime industry and **influence** the continuing development of this professional culture while maintaining respect for diversity. |
| 1. **Progressive mindset and lifelong learning** | **Acknowledge** the importance of a progressive mindset and lifelong learning in the maritime field. | **Discuss** methods for continuous learning and for achieving a progressive mindset in the maritime field. | **Initiate** own learning and **complete** long-term developmental plan. | **Adhere to** a continuous learning plan and **modify** plan appropriately based on new and emergent information. | **Display** a professional commitment to workspace development and continuous learning and **advocate** for such learning. |
| 1. **Environmental awareness, sustainability and stewardship** | **Recognise** the importance of environmental awareness, sustainability and stewardship as related to the maritime industry. | **Conform** to established environmental and sustainability standards/procedures in the maritime industry. | **Demonstrate** a genuine appreciation for the environment and sustainable development with relation to the maritime industry. | **Prioritize** environmental management and sustainable development. | **Display** a professional commitment to environmental management and sustainable development and influence others. |
| 1. **Decision making and proactivity** | **Acknowledge** the importance of prompt well informed decision-making and proactivity within the maritime workspace. | **Practice** simple decision-making within the maritime workspace. | **Initiate** actions that demonstrate a proactive attitude in maritime professional practice. | **Adhere to** optimum decision-making approaches and techniques in order to achieve best possible results. | I**nfluence** others to become proactive in maritime professional practice. |
| 1. **Mentorship** | **Recognise** the role and importance of mentorship in the development of human resources and sustainable operations in the maritime industry. | **Respond** positively as a mentee to mentoring by superiorsand **help** in the mentoring of others. | **Initiate** mentoring relationships in personal workspace. | **Formulate** optimum mentoring strategies for a diverse group of mentees incorporating essential knowledge and attitudinal elements. | **Influence** others to become active mentors. |
| 1. **Professionalism and ethical responsibility** | **Acknowledge** the need for professionalism and the importance of ethics in the maritime industry. | **Comply** with existing codes of ethics and professionalism. | **Demonstrate** responsibility and professional and ethical behaviour even in the absence of explicit written codes of professional and ethical conduct. | **Organize, prioritise** and **defend** high professional and ethical standards in ambiguous ethical contexts. | Positively **influence** others to **create and maintain** high professional and ethical standards in maritime professional practice. |

### Tables showing ILOs for Psychomotor Domain

In this sub-section, Table 6 sets out the intended learning outcomes for the different levels of Simpson’s taxonomy in the psychomotor domain with details of the descriptions for each level and for each focus area. Blank fields indicate areas where the level of the domain is deemed not to have relevance to the focus area

Table 6: Intended learning outcomes in the psychomotor domain

| **Focus Area** | ***The Psychomotor Domain level of achievement*** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **1**  Perception (awareness) | **2**  Set | **3**  Guided response | **4**  Mechanism (basic proficiency) | **5**  Complex Overt Response  (Expert) | **6**  Adaptation | **7**  Origination |
| ***Foundational elements*** | | | | | | | |
| 1. **Mathematics** | ***No levels of achievement in the psychomotor domain for these focus areas*** | | | | | | |
| 1. **Natural (physical) sciences** |
| 1. **General humanities & social sciences** |
| 1. **English language & maritime communication** |
| 1. **Computing & informatics** |
| 1. **Physical & mental fitness** |  |  |  |  |  |  |  |
| ***Academic elements*** | | | | | | | |
| 1. **Problem recognition /solving** | ***No levels of achievement in the psychomotor domain for these focus areas*** | | | | | | |
| 1. **Critical thinking** |
| 1. **Academic research** |
| 1. **Contemporary global issues** |
| ***Professional - Technical elements*** | | | | | | | |
| 1. **Technical competencies per international requirements (e.g. STCW)** | **Identify** maritime actions that involve complex movement patterns and **choose** correct action(s) among various options to meet operational requirements of efficiency and safety as per international requirements. | **Explain** the most professional, efficient and safe way of performing practical motor tasks. **Prepare** optimally for commencing such tasks. | **Respond to** and **follow** instructions regarding specific technical operations that require practical motor-skills. | Under supervision, **perform** relevant physical maritime tasks, **proceeding** in quick, accurate, safe and coordinated sequences of steps. | **Display** dexterity, competency and proficiency in handling relevant maritime tasks without hesitation and in an accurate, safe and efficient manner. | **Respond** effectively to unexpected situations with automatized responses and efficiently **adapt** tasksteps and instructionsto meet the required performance as per international standards | **Create** new relevant practical and safe motor-skills for routine task completion and **formulate** psycho-motor techniques to allow others to develop such new skills. |
| 1. **Risk assessment and management** |  |  |  |  |  |  |  |
| 1. **Situational awareness, preparedness and response.** | **Identify** and **describe** motor activities that underpin required performance in respect of maintaining a state of preparedness and for emergency response e.g. for fire prevention and fighting. | **Explain** specific steps required in carrying out practical maritime tasks with motor skills and **prepare** to take those steps. | **Follow** practical instructions to perform motor-skill-based task to maintain a state of preparedness for and response to emergency maritime situations. | **Fix** **and integrate** relevant physical maritime situations in high level of preparedness and performance and quick response. | **Display** dexterity, competency and proficiency in handling and carrying out tasks requiring motor-skills in relevant maritime emergency situations. | **Respond** effectively to unexpected experiencesin diverse maritime emergency situations and **adapt** tasksteps and instructionsto maintain an optimum state of preparedness and response. | **Create** new relevant practical and safe motor-skills for desired response to emergency situations and **formulate** psycho-motor techniques to allow others to develop such new skills. |
| 1. **Technological awareness (job-specific)** | ***No levels of achievement in the psychomotor domain for these focus areas*** | | | | | | |
| 1. **Maritime law, policy and governance** |
| 1. **Logistics and supply chain** |
| 1. **Maritime business** |
| ***Professional - Soft elements*** | | | | | | | |
| 1. **Technological awareness (global)** | ***No levels of achievement in the psychomotor domain for these focus areas*** | | | | | | |
| 1. **Leadership, teamwork and discipline** |
| 1. **Effective (interpersonal) communication** |
| 1. **Sustainable development** |
| 1. **Human resource management** |
| 1. **Cultural/diversity awareness and sensitivity** |
| 1. **Progressive mindset and lifelong learning** | ***No levels of achievement in the psychomotor domain for these focus areas*** | | | | | | |
| 1. **Environmental awareness, sustainability and stewardship** |
| 1. **Decision making and proactivity** |
| 1. **Mentorship** |
| 1. **Professionalism and ethical responsibility** |

# Appendix I - Specific tier tables

## GMP TIER A

GMP Tier A addresses the requirements of operational level competency in the maritime industry together with a first academic degree. For example, in the context of the STCW Convention 1978, as amended, this translates to an operational level certificate of competency together with a Bachelor of Science Degree.

Table 7: Tier A – Cognitive Domain

Tier A – Cognitive Domain

| ***Tier A–Cognitive Domain*** | |  | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Focus area** | | ***Level of achievement*** | | | | | |
| **Remembering** | **Understanding** | **Applying** | **Analyzing** | **Evaluating** | **Creating** |
| ***Foundational Elements*** | 1. **Mathematics** | **Identify** key mathematics information and **recall** equations related to academic and professional skills. | **Explain** relevantmathematical principles. | **Demonstrate** the application of mathematical principles to the solution of relevant problems |  |  |  |
| 1. **Natural (Physical) sciences** | **Recall** key factual information relating to physics and chemistry for academic and professional skills. | **Explain** relevantconcepts in physics and chemistry. | **Demonstrate** the application of principles of the physical sciences for solving problems and performing relevant tasks. |  |  |  |
| 1. **General humanities & Social sciences** | **Identify** key factual information from different areas of the humanities / social sciences and **recognize** how they relate to maritime professional practice. | **Explain** relevantconcepts from the humanities/social sciences. | **Employ** humanities/social science concepts in maritime professional practice. |  |  |  |
| ***Foundational Elements*** | 1. **English language and maritime communication** | **Recognize** the features of the English language and **recall** maritime phrases relevant to professional maritime communication. | **Explain** key concepts and structuring of the English language and the use of suitable maritime communication phrases. | **Make use of** relevant and appropriate language and communication in professional maritime practice. **Communicate** effectively in written and spoken English in a cross-cultural context both for social and professional purposes. |  |  |  |
| 1. **Computing and informatics** | **Identify** key computing & informatics knowledge related to maritime academic and professional skills. | **Explain** key concepts of computing & informatics and their relevance to the maritime industry. | **Employ** relevant computing & informatics concepts and techniques to maritime academic and professional tasks. |  |  |  |
| 1. **Physical and mental fitness** | **Recall** key factual knowledge about physical & mental fitness as it relates to maritime professional practice. | **Explain** key facts and concepts about sustaining physical and mental health/fitness and the specific international requirements for the maritime industry. | **Develop and maintain** physical and mental fitness and health. |  |  |  |
| ***Academic Elements*** | 1. **Problem recognition/solving** |  |  |  |  |  |  |
| 1. **Critical thinking** | **Define** critical thinking and **describe** its component concepts. | **Explain** the scope & content of critical thinking and **outline** areas of maritime professional practice that require critical thinking |  |  |  |  |
| ***Academic Elements*** | 1. **Academic research** | **Identify** different methodologies and methods and **describe** the processes required for the conduct of academic research. | **Explain** the rationale, procedures and practical applications of academic research. | **Prepare** clear and feasible research hypotheses. **Conduct** a coherent and relevant literature review and **use** and **cite** sources appropriately and correctly. **Employ** appropriate research methods and tools (both qualitative and quantitative) to c**onduct** academic research related to various technical areas of maritime affairs & report the results. |  |  |  |
| 1. **Contemporary global issues** | **Identify** topical global issues | **Explain** how current global issues impact the maritime industry and professional practice. |  |  |  |  |
| ***Professional (Technical)*** | 1. **Technical competencies as per international requirements (STCW)** | **Identify** theprinciples of and requirements for maritime competencies as per international requirements. | **Explain** the principles & concepts underpinning the international requirements for maritime competencies. | **Apply** relevantknowledge and skills to specific maritime tasks and fulfill all the requirements of the international standards. |  |  |  |
| 1. **Risk assessment and management** | **Define** risk and **identify** the principles of risk assessment and management. | **Illustrate** principles and concepts of risk assessment and management using specific maritime examples | **Apply** different risk assessment and management techniques/approaches to various maritime scenarios. |  |  |  |
| ***Professional (Technical) Elements*** | 1. **Situational awareness, preparedness and response** | **Recall** elements/components of situational awareness and identify factors that impact situational awareness, preparedness and response. | **Explain** the components of situational awareness and the inter-relations between them and how these affect preparedness and response. | **Demonstrate** situational awareness and preparedness and **implement** suitable response procedures. |  |  |  |
| 1. **Technological awareness (job-specific)** | **Show** the importance of job-specific technological awareness for maritime professional practice and **identify** optimum technologies in relevant areas. | **Illustrate** how existing and prospective technologies relate to specific maritime tasks and **explain** how they influence such tasks. | **Select** optimum technologies to be applied in specific maritime operations based on an awareness of state-of-the-art technology. |  |  |  |
| 1. **Maritime law, policy and governance** | **Identify** the legal, policy and governance frameworks that influence and regulate the maritime industry at the national, regional and international levels. | **Explain** the different structures, principles, and mechanisms for the development and implementation of law, policy, and governance of the maritime industry. |  |  |  |  |
| 1. **Logistics and supply chain** | **Describe** the global supply chain and **identify** the underpinning principles of logistics. | **Explain** the principles and concepts of logistics and supply chain and **outline** their importance and role in the maritime industry. |  |  |  |  |
| ***Professional (Technical) Elements*** | 1. **Maritime business** | **Describe** the constituent parts of and issues relating to maritime business including maritime economics and economic geography. | **Explain** the principles and concepts relating to maritime business and **outline** the factors that influence it. |  |  |  |  |
| ***Professional (Soft) Elements*** | 1. **Technological awareness (global)** | **Show** an awareness of global technologies and their evolution and **identify** optimum technologies in relevant areas. | **Illustrate** how existing and prospective technologies relate to various maritime tasks and **explain** how they influence such tasks **exhibiting** an appreciation of the dynamics of socio-technical systems. | **Use** relevant global technologies in various maritime operations based on an awareness of state-of-the-art technology. **Apply** a systematic approach to understanding complex socio-technical system behaviour |  |  |  |
| 1. **Leadership, teamwork and discipline** | **Define** leadership, teamwork and discipline and **describe** the effect of each on the general performance of the GMP. | **Compare and contrast** different leadership theories/principles **Explain** the place of leadership and teamwork in maritime professional practice. | **Apply** leadership, teamwork & discipline principles to direct the efforts of a small, homogenous group on board ships |  |  |  |
| ***Professional (Soft) Elements*** | 1. **Effective (interpersonal) communication** | **Name** the components of a successful interpersonal communication cycle with particular reference to maritime operations | **Explain** the principles and factors that influence optimum interpersonal communication in a maritime professional context | **Demonstrate** the use of good interpersonal communications for productive maritime operational outcomes |  |  |  |
| 1. **Sustainable development** | **Define** sustainable development as a concept and **describe** its underpinning values and areas of relevance in the maritime domain | **Explain** the evolution of the concept of sustainable development including any areas of contention and **discuss** the importance of the concept |  |  |  |  |
| 1. **Human resource management** | **Define** “human resource management” and **describe** the development of the concept from the earlier concept of “personnel management  ” | **Explain** the principles underpinning human resource management and **distinguish** between different techniques, activities and approaches and their relevance to a multicultural environment |  |  |  |  |
| 1. **Cultural/diversity awareness and sensitivity** | **Describe** cultural/diversity awareness & sensitivity. **State** the relevance of such awareness and sensitivity for GMP performance. | **Distinguish** between different factors that influence diversity awareness and sensitivity and **explain** how they may affect maritime operations using specific cases. | **Demonstrate** the ability to work in a multicultural environment and show optimum awareness and sensitivity to diversity in specific contexts. |  |  |  |
| ***Professional (Soft) Elements*** | 1. **Progressive mindset and lifelong learning** | **Describe** what is meant by a progressive mindset and lifelong learning principle. **Outline** their importance for the continuous development of both individuals and maritime organizations. **Describe** change management approaches and the role of “change agents” in maritime organizational settings | **Compare** and **contrast** different mechanisms and theories on the development and maintaining of a progressive mindset and lifelong learning.  **Explain** the impact diversity may have on change leadership and management and the concepts, frameworks, and theories that guide organizational change. |  |  |  |  |
| 1. **Environmental awareness, sustainability and stewardship** | **Describe** the notion of environmental awareness, sustainability, and stewardship | **Clarify** the responsibility of the GMP with respect to environmental sustainability and stewardship and **explain** global efforts/activities for environmental stewardship in particular in the maritime industry | **Demonstrate** environmental awareness and stewardship in simulated or real scenarios and **use** relevant equipment for environment preservation in compliance with all relevant legal instruments |  |  |  |
| 1. **Decision-making and proactivity** | **Outline** the importance of proper and proactive decision-making in maritime operations and **describe** how this is linked to the success of a GMP | **Explain** the bases and principles of good decision-making and proactivity as they apply to maritime professional practice |  |  |  |  |
| ***Professional (Soft) Elements*** | 1. **Mentorship** | **Define** mentorship and **describe** its relevance for the GMP and the maritime industry as a whole | **Distinguish** between training and mentoring and **explain** the necessity for the effect of each one on maritime professional practice. **Discuss** the characteristics required in both a mentor and mentee for optimum mentorship results |  |  |  |  |
| 1. **Professionalism and ethical responsibility** | **List** the professional & ethical responsibilities of a GMP | **Explain** the basis for professional & ethical standards especially as they relate to maritime professional practices | **Apply** standards of professional & ethical responsibility to determine an appropriate course of action in diverse operational contexts |  |  |  |

Table 8: Tier A – Affective Domain

| ***Tier A–Affective Domain*** | |  | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| **Focus area** | | ***Level of achievement*** | | | | |
| **Receiving**  (awareness) | **Responding**  (reacting) | **Valuing**  (understanding & acting) | **Organizing personal value system** | **Internalizing value system**  (adopting behaviour) |
| ***Foundational Elements*** | 1. **Mathematics** |  |  |  |  |  |
| 1. **Natural (Physical sciences** |  |  |  |  |  |
| 1. **General humanities & Social sciences** | **Choose** key relevant information from the general humanities and social sciences and **relate** such information to maritime professional practice | **Discuss** theories and principles from the humanities and social sciences as they relate to specific scenarios in maritime professional practice | **Demonstrate** commitment to appropriate values derived from an understanding of key factual information from the humanities and social sciences in a maritime context |  |  |
| 1. **English language and maritime communication** |  |  |  |  |  |
| 1. **Computing and informatics** |  |  |  |  |  |
| 1. **Physical and mental fitness** | **Listen** toorders in respect of the development and maintaining of physical and mental fitness. | **Comply** with orders to develop physical and mental fitness and **select** suitable actions for such development. | **Initiate** own actions to develop/maintain physical and mental fitness and **justify** the choice of these actions. | **Integrate** optimum methods/approaches for developing/ maintaining physical and mental fitness into own routine and **organize** relevant activities accordingly. | **Revise** methods/approaches used for developing/maintaining physical and mental fitness to suit different circumstances and contexts. |
| ***Academic Elements*** | 1. **Problem recognition/solving** | **Acknowledge** the importance of problem recognition/solving in maritime professional practice  . | **Select** and **discuss** situational elements that facilitate or hinder problem recognition/solving. | **Prioritize** problem recognition/solving in challenging and complex maritime operational scenarios. |  |  |
| 1. **Critical thinking** | **Acknowledge** the importance of critical thinking in maritime transport-related problems. | **Question** ideas, methods, and approaches following optimum critical thinking techniques. | **Value** critical thinking and **adhere to** critical thinking techniques when faced with complex situations in maritime professional practice |  |  |
| 1. **Academic research** | **Acknowledge** the importance of ethical academic research for the long-term sustainability of the maritime industry. | **Comply** with the research methodological principles in own research. | **Value** the use of correct research practices, in particular, those related to research ethics. |  |  |
| 1. **Contemporary global issues** | **Follow** relevant contemporary global issues and their effect on the maritime industry | **Participate in** and **contribute** tothe global discourse on relevant contemporary global issues and their effect on the maritime professional practice | **Demonstrate** belief in the need to have all stakeholders aware of and contributing to the discourse of global issues of relevance to the maritime industry |  |  |
| ***Professional (Technical) Elements*** | 1. **Technical competencies as per international requirements (STCW)** | **Acknowledge** the importance of supporting the basic value system that leads to the establishment of technical standards in international law and the need for a commitment by all to upholding them | **Comply** with the main principles and values informing technical competencies as required by international law | **Demonstrate** a value system in support of own technical competency and **differentiate** between positive and negative application of technical competencies. |  |  |
| 1. **Risk assessment and management** | **Identify** the proper behaviour in case of risk, and **describe** values underpinning risk assessment and management in maritime professional practice. | **Comply** with relevant directives/orders for risk assessment and management. | **Demonstrate** an appreciation of the need for risk assessment and management |  |  |
| 1. **Situational awareness, preparedness and response** | **Identify** the proper dispositions to maintain in order to have situational awareness and maintain a state of preparedness in diverse maritime operational contexts. | **Select** appropriate actions to take to maintain a state of situational awareness and preparedness. | **Propose** individual and team actions that promote situational awareness, a common team operating picture and an optimum state of preparedness. |  |  |
| ***Professional (Technical)*** | 1. **Technological awareness (job-specific)** | **Follow** **job-specific** technological advancements and their potential impact on mission achievement. | **Present** available technologies, their evolution and impact on mission achievement. | **Differentiate** between beneficial uses of technology and the possible associated externalities and **share** own insights in this regard. |  |  |
| 1. **Maritime law, policy and governance** |  |  |  |  |  |
| 1. **Logistics and supply chain** |  |  |  |  |  |
| 1. **Maritime business** |  |  |  |  |  |
| ***Professional (Soft) Elements*** | 1. **Technological awareness (global)** | **Follow** global technological trends and their impact on the maritime industry. | **Present** different technologies, their evolution, and impact on the maritime industry. | **Differentiate** between beneficial uses of technology and the negative impacts they may have on humans and society and **share** own insights in this regard |  |  |
| 1. **Leadership, teamwork and discipline** | **Follow** concepts of leadership, teamwork, and discipline and **acknowledge** their importance in a maritime context. | **Practice** leadership and teamwork skills in a disciplined manner to achieve the organization goals. | **Demonstrate** the importance of teamwork and commitment to leadership as indispensable for maritime professional practice. |  |  |
| ***Professional (Soft) Elements*** | 1. **Effective (interpersonal) communication** | **Identify** various interpersonal communication principles. | **Discuss** advanced communication techniques and **practice** them in a professional manner. | **Demonstrate** belief in multi-directional communication and the importance of listening and **assist** in eliminating interference and barriers in communications. |  |  |
| 1. **Sustainable development** | **Name** the UN’s Sustainable Development Goals (SDGs) and **point to** the maritime sector’s responsibility to participate in achieving them. | **Conform** own actions to the achievement of the sustainable development goals and **volunteer** for initiatives for their achievement in the maritime context. |  |  |  |
| 1. **Human resource management** | **Identify** the value system inherent in a “human resource management” approach as opposed to a “personnel management” approach. **Accept** the uniqueness and value of human beings. | **Discuss** the importance of human resources and their effective management for the development of the maritime industry. | **Demonstrate** good people management skills for the efficient operation of maritime organizations. |  |  |
| 1. **Cultural/diversity awareness and sensitivity** | **Recognize** the existence of diversity in the maritime industry. | **Discuss the** importance of cultural awareness and diversity in the maritime field. | **Demonstrate** cultural awareness and **show** sensitivity and respect towards individual and cultural differences while **valuing** diversity. |  |  |
| ***Professional (Soft) Elements*** | 1. **Progressive mindset and lifelong learning** | **Acknowledge** the importance of a progressive mindset and lifelong learning in the maritime field. | **Discuss** methods for continuous learning and for achieving a progressive mindset in the maritime field. | **Initiate** own learning and **complete** long-term developmental plan. |  |  |
| 1. **Environmental awareness, sustainability and stewardship** | **Recognize** the importance of environmental awareness, sustainability, and stewardship as related to the maritime industry. | **Conform** to established environmental and sustainability standards/procedures in the maritime industry. | **Demonstrate** a genuine appreciation for the environment and sustainable development in relation to the maritime industry. | **Prioritize** environmental management and sustainable development. |  |
| 1. **Decision-making and proactivity** | **Acknowledge** the importance of prompt well-informed decision-making and proactivity within the maritime workspace. |  |  |  |  |
| 1. **Mentorship** | **Recognize** the role and importance of mentorship in the development of human resources and sustainable operations in the maritime industry. | **Respond** positively as a mentee to mentoring by superiorsand **help** in the mentoring of others. |  |  |  |
| ***Professional (Soft) Elements*** | 1. **Professionalism and ethical responsibility** | **Acknowledge** the need for professionalism and the importance of ethics in the maritime industry. | **Comply** with existing codes of ethics and professionalism. | **Demonstrate** responsibility and professional and ethical behaviour even in the absence of explicitly written codes of professional and ethical conduct. |  |  |

Table 9: Tier A – Psychomotor

| ***Tier A–Psychomotor Domain*** | |  | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Focus area** | | ***Level of achievement*** | | | | | | |
| **Perception**  (awareness) | **Setting** | **Guided response** | **Mechanism**  (basic proficiency) | **Complex overt response**  (expert) | **Adaptation** | **Origination** |
| ***Foundational Elements*** | 1. **Mathematics** |  |  |  |  |  |  |  |
| 1. **Natural (Physical sciences** |  |  |  |  |  |  |  |
| 1. **General humanities & Social sciences** |  |  |  |  |  |  |  |
| 1. **English language and maritime communication** |  |  |  |  |  |  |  |
| 1. **Computing and informatics** |  |  |  |  |  |  |  |
| 1. **Physical and mental fitness** |  |  |  |  |  |  |  |
| ***Academic Elements*** | 1. **Problem recognition/solving** |  |  |  |  |  |  |  |
| 1. **Critical thinking** |  |  |  |  |  |  |  |
| 1. **Academic research** |  |  |  |  |  |  |  |
| 1. **Contemporary global issues** |  |  |  |  |  |  |  |
| ***Professional (Technical) Elements*** | 1. **Technical competencies as per international requirements (STCW)** | **Identify** maritime actions that involve complex movement patterns and **choose** correct action(s) among various options to meet the operational requirements of efficiency and safety as per international requirements. | **Explain** the most professional, efficient and safe way of performing practical motor tasks. **Prepare** optimally for commencing such tasks. | **Respond to** and **follow** instructions regarding specific technical operations that require practical motor-skills. |  |  |  |  |
| 1. **Risk assessment and management** |  |  |  |  |  |  |  |
| 1. **Situational awareness, preparedness and response** | **Identify** and **describe** motor activities that underpin required performance in respect to maintaining a state of preparedness and for emergency response e.g. for fire prevention and fighting. | **Explain** specific steps required in carrying out **practical** maritime tasks with motor skills and **prepare** to take those steps. | **Follow** practical instructions to perform a motor-skill-based task to maintain a state of preparedness for and response to emergency maritime situations. |  |  |  |  |
| ***Professional (Technical)*** | 1. **Technological awareness (job-specific)** |  |  |  |  |  |  |  |
| 1. **Maritime law, policy and governance** |  |  |  |  |  |  |  |
| 1. **Logistics and supply chain** |  |  |  |  |  |  |  |
| 1. **Maritime business** |  |  |  |  |  |  |  |
| ***Professional (Soft) Elements*** | 1. **Technological awareness (global)** |  |  |  |  |  |  |  |
| 1. **Leadership, teamwork and discipline** |  |  |  |  |  |  |  |
| 1. **Effective (interpersonal) communication** |  |  |  |  |  |  |  |
| 1. **Sustainable development** |  |  |  |  |  |  |  |
| 1. **Human resource management** |  |  |  |  |  |  |  |
| 1. **Cultural/diversity awareness and sensitivity** |  |  |  |  |  |  |  |
| ***Professional (Soft) Elements*** | 1. **Progressive mindset and lifelong learning** |  |  |  |  |  |  |  |
| 1. **Environmental awareness, sustainability and stewardship** |  |  |  |  |  |  |  |
| 1. **Decision-making and proactivity** |  |  |  |  |  |  |  |
| 1. **Mentorship** |  |  |  |  |  |  |  |
| 1. **Professionalism and ethical responsibility** |  |  |  |  |  |  |  |

## GMP TIER B:

GMP Tier B addresses the requirements of management level competency in the maritime industry together with the academic degree requirements of Tier A. For example, in the context of the STCW Convention 1978, as amended, this translates to a management level certificate of competency together with a Bachelor of Science Degree. Achievement at tier B presupposes completion of tier A components.

Table 10: Tier B – Cognitive Domain

| ***Tier B–Cognitive Domain*** | |  | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Focus area** | | ***Level of achievement*** | | | | | |
| **Remembering** | **Understanding** | **Applying** | **Analyzing** | **Evaluating** | **Creating** |
| ***Foundational Elements*** | 1. **Mathematics** |  |  |  |  |  |  |
| 1. **Natural (Physical sciences** |  |  |  |  |  |  |
| 1. **General humanities & Social sciences** |  |  |  |  |  |  |
| 1. **English language and maritime communication** |  |  |  |  |  |  |
| 1. **Computing and informatics** |  |  |  |  |  |  |
| 1. **Physical and mental fitness** |  |  |  |  |  |  |
| ***Academic Elements*** | 1. **Problem recognition/solving** | **Identify** constituent parts of a situation that evidence a problem and **describe** problem-solving techniques. | **Explain** the requirements for diagnostic thinking. | **Demonstrate** problem recognition and solving skills in the context of specific maritime tasks. | **Analyze** different problem recognition and solving approaches. |  |  |
| 1. **Critical thinking** |  |  | **Demonstrate** the use of critical thinking techniques in specific maritime professional contexts | **Analyze** the outcomes of critical thinking processes and techniques as they relate in particular to maritime professional tasks. |  |  |
| ***Academic Elements*** | 1. **Academic research** |  |  |  | **Analyze** the outcomes of academic research. **Synthesize** and **present** research outcomes in a suitable format. |  |  |
| 1. **Contemporary global issues** |  |  | **Build** links between contemporary issues and actions required in maritime practice. | **Discover and examine global** developments in diverse sectors and **analyze** their impacts on the maritime industry and professional practice. |  |  |
| ***Professional (Technical) Elements*** | 1. **Technical competencies as per international requirements (STCW)** |  |  |  | **Analyze** specific maritime tasks and the competencies required to carry them out by international standards and maritime industry practice. |  |  |
| 1. **Risk assessment and management** |  |  |  | **Compare** and **contrast** the underlying assumptions and worldviews that both inform and address risk perception and analysis. |  |  |
| 1. **Situational awareness, preparedness and response** |  |  |  | **Critique** the assumptions, approaches, and analysis of situational awareness/preparedness techniques with a view to enhancing response procedures. |  |  |
| ***Professional (Technical) Elements*** | 1. **Technological awareness (job-specific)** |  |  |  | **Analyze** the operational readiness and suitability of technological applications in maritime practice. |  |  |
| 1. **Maritime law, policy and governance** |  |  | **Apply** legal, policy and governance principles in maritime professional practice. |  |  |  |
| 1. **Logistics and supply chain** |  |  | **Apply** logistics and supply chain concepts in maritime professional practice. |  |  |  |
| 1. **Maritime business** |  |  | **Apply** management and business concepts, and project management in maritime professional practice. **Apply** legal, regulatory and financial knowledge related to business processes. |  |  |  |
| ***Professional (Soft) Elements*** | 1. **Technological awareness (global)** |  |  |  | **Analyze** the impact of modern global technologies on various technological applications in maritime practice. |  |  |
| 1. **Leadership, teamwork and discipline** |  |  |  | **Analyze** the effect of the application of different leadership and teamwork theories and **infer** possible consequences from the application of such theories in maritime professional practice. |  |  |
| 1. **Effective (interpersonal) communication** |  |  |  | **Distinguish** between different communication styles/approaches and **analyze** their applicability to different scenarios in maritime operational contexts. |  |  |
| 1. **Sustainable development** |  |  | **Execute** sustainable development plans in a controlled/closed maritime environment |  |  |  |
| ***Professional (Soft) Elements*** | 1. **Human resource management** |  |  | **Apply** relevant human resource management theories and techniques to **achieve** goals related to own maritime professional practice | **Diagnose** the causes of ineffective human resource management and **prioritize** the actions to be taken to address problems that may arise due to poor human resource management practices |  |  |
| 1. **Cultural/diversity awareness and sensitivity** |  |  |  |  |  |  |
| 1. **Progressive mindset and lifelong learning** |  |  |  |  |  |  |
| 1. **Environmental awareness, sustainability and stewardship** |  |  |  |  |  |  |
| 1. **Decision-making and proactivity** |  |  | **Demonstrate** optimum decision-making skills in diverse operational contexts and take proactive steps to address developing situations and challenges | Critically **examine** different decision-making processes and options |  |  |
| 1. **Mentorship** |  |  | **Demonstrate** skills as both mentee and mentor. | **Explore** possible outcomes of different approaches to mentoring and their outcome in different situations. **Analyze** the factors that may negatively influence mentoring outcomes |  |  |
| ***Professional (Soft)*** | 1. **Professionalism and ethical responsibility** |  |  |  | **Analyze** a situation involving multiple conflicting professional & ethical interests to determine an appropriate course of action. |  |  |

Table 11: Tier B – Affective Domain

| ***Tier B–Affective Domain*** | |  | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| **Focus area** | | ***Level of achievement*** | | | | |
| **Receiving**  (awareness) | **Responding**  (reacting) | **Valuing**  (understanding & acting) | **Organizing personal value system** | **Internalizing value system**  (adopting behaviour) |
| ***Foundational Elements*** | 1. **Mathematics** |  |  |  |  |  |
| 1. **Natural (Physical sciences** |  |  |  |  |  |
| 1. **General humanities & Social sciences** |  |  |  | **Formulate** a value system based on a comparison of principles inherent in the humanities and social sciences.  **Defend** the application of specific value sets in different scenarios | **Display** optimum values related to critiqued principles inherent in the humanities and social sciences in new and challenging situations |
| 1. **English language and maritime communication** |  |  |  |  |  |
| 1. **Computing and informatics** |  |  |  |  |  |
| 1. **Physical and mental fitness** |  |  |  |  |  |
| ***Academic Elements*** | 1. **Problem recognition/solving** |  |  |  | **Integrate** a commitment to use advanced problem-solving techniques to achieve a holistic approach to maritime-related practices. | **Act** independently or in a team to identify and solve problems and **display** a professional commitment to a diagnostic and solution-oriented mindset. |
| 1. **Critical thinking** |  |  |  | **Integrate** a commitment to use advanced critical thinking techniques to achieve a solutions-oriented approach to maritime-related problems. | **Advocate** for effective critical thinking techniques from a holistic perspective in the maritime domain. |
| 1. **Academic research** |  |  |  | **Adhere** to appropriate behaviour in accordance with research methods and codes of ethics as well as statutory requirements. | **Support** and **urge** the use of proper research methods and **ethical** behaviour to advance knowledge in the maritime industry |
| 1. **Contemporary global issues** |  |  |  |  |  |
| ***Professional (Technical) Elements*** | 1. **Technical competencies as per international requirements (STCW)** |  |  |  | **Integrate** proper values, levels of commitment and accountability in the application of own technical competency | **Act** consistently in manifesting technical competency and **influence** others to be technically competent with an optimum value-base. |
| 1. **Risk assessment and management** |  |  |  | **Synthesize** and **integrate safety** values and **display** a risk awareness, assessment, and management outlook in daily routines | Consistently **display** risk consciousness and a value-system that supports continuing risk assessment and management in operational routines |
| 1. **Situational awareness, preparedness and response** |  |  |  | **Balance** competing work/task demands for self, considering work/task load on others and **organize/plan** tasks to maintain situational awareness and preparedness | **Display and Perform** ethical commitments, values, and principles of situational awareness, preparedness and response. |
| 1. **Technological awareness (job-specific)** |  |  |  | **Synthesize** a rational basis for the introduction and use of evolving global technologies in own work context and **balance** their effectiveness against their limitations. | **Display** an objective and discriminatory approach to the selection and use of new technologies and **maintain** ethical usage of such technologies. |
| ***Professional (Technical)*** | 1. **Maritime law, policy and governance** |  |  |  |  |  |
| 1. **Logistics and supply chain** |  |  |  |  |  |
| 1. **Maritime business** |  |  |  |  |  |
| ***Professional (Soft) Elements*** | 1. **Technological awareness (global)** |  |  |  | **Synthesize** a rational basis for the introduction and use of evolving global technologies in own work context and **balance** their effectiveness against their limitations. | **Display** an objective and discriminatory approach to the selection and use of new technologies and **maintain** ethical usage of such technologies. |
| 1. **Leadership, teamwork and discipline** |  |  |  | **Formulate** own leadership strategies contingent on the specific scenario and **organize** task group for efficient and effective teamwork. | **Influence** workgroup in a disciplined manner and **cooperate** in group activities to strengthen teamwork values. |
| ***Professional (Soft) Elements*** | 1. **Effective (interpersonal) communication** |  |  |  | **Initiate** effective communication strategies and **invite** optimum and reciprocal strategies from others. | **Propose** plans to optimize interpersonal communication in a maritime context and **act** toembed professional communication techniques in own and others’ everyday routines and in all situations. |
| 1. **Sustainable development** |  |  | **Justify** the adoption of sustainable practices in the maritime field. | **Identify** unsustainable practices and values in self and others and **modify** own behaviour for more sustainable outcomes. | **Discriminate** between different motives for sustainable development and **influence** a professional commitment to sustainable development values in others. |
| 1. **Human resource management** |  |  |  | **Formulate** strategies for administering the human element underpinned by the valuing of issues such as respect, motivation, development, goal compatibility of individuals and the organization. | Professionally **manage** onboard human resources by practicing HRM methods and **influence** others positively. |
| ***Professional (Soft) Elements*** | 1. **Cultural/diversity awareness and sensitivity** |  |  |  | **Identify** the challenges associated with a multicultural atmosphere and the advantages of workspace diversity. | **Balance** respect of societal culture with the professional culture required in the maritime industry and **influence** the continuing development of this professional culture while maintaining respect for diversity. |
| 1. **Progressive mindset and lifelong learning** |  |  |  | **Adhere to** a continuous learning plan and **modify** plan appropriately based on new and emergent information. | **Display** a professional commitment to workspace development and continuous learning and **advocate** for such learning. |
| 1. **Environmental awareness, sustainability and stewardship** |  |  |  |  | **Display** a professional commitment to environmental management and sustainable development and influence others. |
| 1. **Decision-making and proactivity** |  | **Practice** simple decision-making within the maritime workspace. | **Initiate** actions that demonstrate a proactive attitude in maritime professional practice. | **Adhere to** optimum decision-making approaches and techniques in order to achieve the best possible results. |  |
| ***Professional (Soft) Elements*** | 1. **Mentorship** |  |  | **Initiate** mentoring relationships in the personal workspace. | **Formulate** optimum mentoring strategies for a diverse group of mentees incorporating essential knowledge and attitudinal elements. | **Influence** others to become active mentors. |
| 1. **Professionalism and ethical responsibility** |  |  |  | **Organize, prioritise** and **defend** high professional and ethical standards in ambiguous ethical contexts. | Positively **influence** others to **create and maintain** high professional and ethical standards in maritime professional practice. |

Table 12: Tier B – Psychomotor Domain

| ***Tier B–Psychomotor Domain*** | |  | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Focus area** | | ***Level of achievement*** | | | | | | |
| **Perception**  (awareness) | **Setting** | **Guided response** | **Mechanism**  (basic proficiency) | **Complex overt response**  (expert) | **Adaptation** | **Origination** |
| ***Foundational Elements*** | 1. **Mathematics** |  |  |  |  |  |  |  |
| 1. **Natural (Physical sciences** |  |  |  |  |  |  |  |
| 1. **General humanities & Social sciences** |  |  |  |  |  |  |  |
| 1. **English language and maritime communication** |  |  |  |  |  |  |  |
| 1. **Computing and informatics** |  |  |  |  |  |  |  |
| 1. **Physical and mental fitness** |  |  |  |  |  |  |  |
| ***Academic Elements*** | 1. **Problem recognition/solving** |  |  |  |  |  |  |  |
| 1. **Critical thinking** |  |  |  |  |  |  |  |
| 1. **Academic research** |  |  |  |  |  |  |  |
| 1. **Contemporary global issues** |  |  |  |  |  |  |  |
| ***Professional (Technical) Elements*** | 1. **Technical competencies as per international requirements (STCW)** |  |  |  | Under supervision, **perform** relevant physical maritime tasks, **proceeding** in quick, accurate, safe and coordinated sequences of steps. | **Display** dexterity, competency, and proficiency in handling relevant maritime tasks without hesitation and in an accurate, safe and efficient manner. | **Respond** effectively to unexpected situations with automatized responses and efficiently **adapt** tasksteps and instructionsto meet the required performance as per international standards |  |
| 1. **Risk assessment and management** |  |  |  |  |  |  |  |
| 1. **Situational awareness, preparedness and response** |  |  |  | **Fix** **and integrate** relevant physical maritime situations at a high level of preparedness and performance and quick response. | **Display** dexterity, competency and proficiency in handling and carrying out tasks requiring motor-skills in relevant maritime emergency situations. | **Respond** effectively to unexpected experiencesin diverse maritime emergency situations and **adapt** tasksteps and instructionsto maintain an optimum state of preparedness and response. |  |
| ***Professional (Technical)*** | 1. **Technological awareness (job-specific)** |  |  |  |  |  |  |  |
| 1. **Maritime law, policy and governance** |  |  |  |  |  |  |  |
| 1. **Logistics and supply chain** |  |  |  |  |  |  |  |
| 1. **Maritime business** |  |  |  |  |  |  |  |
| ***Professional (Soft) Elements*** | 1. **Technological awareness (global)** |  |  |  |  |  |  |  |
| 1. **Leadership, teamwork and discipline** |  |  |  |  |  |  |  |
| 1. **Effective (interpersonal) communication** |  |  |  |  |  |  |  |
| 1. **Sustainable development** |  |  |  |  |  |  |  |
| 1. **Human resource management** |  |  |  |  |  |  |  |
| 1. **Cultural/diversity awareness and sensitivity** |  |  |  |  |  |  |  |
| ***Professional (Soft) Elements*** | 1. **Progressive mindset and lifelong learning** |  |  |  |  |  |  |  |
| 1. **Environmental awareness, sustainability and stewardship** |  |  |  |  |  |  |  |
| 1. **Decision-making and proactivity** |  |  |  |  |  |  |  |
| 1. **Mentorship** |  |  |  |  |  |  |  |
| 1. **Professionalism and ethical responsibility** |  |  |  |  |  |  |  |

## GMP TIER C

The GMP Tier C addresses the requirements of management level competency together with a postgraduate academic degree. For example, in the context of the STCW Convention 1978, as amended, this translates to a management level certificate of competency together with a Master of Science Degree. Achievement at tier C presupposes completion of tier B components.

Table 13: Tier C – Cognitive Domain

| ***Tier C–Cognitive Domain*** | |  | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Focus area** | | ***Level of achievement*** | | | | | |
| **Remembering** | **Understanding** | **Applying** | **Analyzing** | **Evaluating** | **Creating** |
| ***Foundational Elements*** | 1. **Mathematics** |  |  |  |  |  |  |
| 1. **Natural (Physical sciences** |  |  |  |  |  |  |
| 1. **General humanities & Social sciences** |  |  |  |  |  |  |
| 1. **English language and maritime communication** |  |  |  |  |  |  |
| 1. **Computing and informatics** |  |  |  |  |  |  |
| 1. **Physical and mental fitness** |  |  |  |  |  |  |
| ***Academic Elements*** | 1. **Problem recognition/solving** |  |  |  |  | **Assess** the comprehensiveness of particular approaches to problem identification and recognition and **evaluate** the merits of alternative solutions. |  |
| 1. **Critical thinking** |  |  |  |  | **Appraise** the effectiveness and value of different critical thinking techniques and **assess** their impact. |  |
| 1. **Academic research** |  |  |  |  | **Assess** different research approaches and their feasibility/suitability for specific research questions and **evaluate** the outcomes of the application of various research approaches to these questions. |  |
| ***Academic Elements*** | 1. **Contemporary global issues** |  |  |  |  | **Assess** the consequences of different responses to global issues and **evaluate** the merits of specific courses of action in respect to these issues. |  |
| ***Professional (Technical) Elements*** | 1. **Technical competencies as per international requirements (STCW)** |  |  |  |  | **Appraise** the effectiveness of maritime operational and management actions and assess systems and procedures in the maritime industry. |  |
| 1. **Risk assessment and management** |  |  |  |  | **Appraise** maritime actions, techniques or procedures in risk assessment and management |  |
| 1. **Situational awareness, preparedness and response** |  |  |  |  | **Evaluate** maritime actions/techniques for enhancing situational awareness and response effectiveness. |  |
| ***Professional (Technical) Elements*** | 1. **Technological awareness (job-specific)** |  |  |  |  | **Evaluate** the performance standards of different technological application and **appraise** their suitability for maritime tasks. |  |
| 1. **Maritime law, policy and governance** |  |  |  | **Analyze** the effect of law, policy and governance implementation mechanisms on the maritime industry and on professional practice. | **Evaluate** maritime stakeholders’ response and contribution to law, policy, and governance at the national, regional and international levels |  |
| 1. **Logistics and supply chain** |  |  |  | **Compare** and **contrast** different logistics and supply chain theoretical approaches and **analyze** their effect on practical maritime operations. | **Evaluate** contemporary and potential logistics and supply chain optimization tools and processes. |  |
| ***Professional (Technical) Elements*** | 1. **Maritime business** |  |  |  | **Compare** and **contrast** different maritime business and economics approaches and **analyze** their effect on practical maritime operations. **Perform** cost analysis. | **Evaluate** business decisions utilizing a validated set of methods and the economic parameters that lead to informed business decisions. **Evaluate** contemporary maritime business issues and assess their impact – both present and in the future - on the maritime industry and professional practice. |  |
| ***Professional (Soft) Elements*** | 1. **Technological awareness (global)** |  |  |  |  | **Evaluate** the performance standards of different technological application and **appraise** their suitability for maritime tasks. |  |
| 1. **Leadership, teamwork and discipline** |  |  |  |  | **Evaluate** own and other’s discipline, style of leadership and contribution to teamwork and related outcomes |  |
| ***Professional (Soft) Elements*** | 1. **Effective (interpersonal) communication** |  |  |  |  | **Evaluate** and **recommend** appropriate processes/approaches for communication between different organizational levels and individuals/teams characterized by significant diversity |  |
| 1. **Sustainable development** |  |  |  | **Identify** areas in the maritime industry for which sustainable development is critical and **analyze** contemporary mechanisms to integrate sustainable development in the maritime industry | **Assess** the current status of sustainable development in own operational and organizational context, **highlight** areas that need development and **recommend** optimization mechanisms |  |
| 1. **Human resource management** |  |  |  |  | **Judge** the effectiveness of different human resource management approaches and techniques in different contexts of maritime professional practice and highlight areas that need further attention |  |
| 1. **Cultural/diversity awareness and sensitivity** |  |  |  |  |  |  |
| 1. **Progressive mindset and lifelong learning** |  |  |  |  |  |  |
| ***Professional (Soft) Elements*** | 1. **Environmental awareness, sustainability and stewardship** |  |  |  |  |  |  |
| 1. **Decision-making and proactivity** |  |  |  |  | **Appraise** the outcomes of various decisions and **evaluate** the merits of the processes that informed them and of different proactive actions in diverse situations |  |
| 1. **Mentorship** |  |  |  |  | **Evaluate** mentoring techniques and actions for their relevance, effectiveness, and sustainability. |  |
| 1. **Professionalism and ethical responsibility** |  |  |  |  | **Justify** a solution to a job-related problem based on professional ethical standards and **assess** own personal professional & ethical development |  |

Table 14: Tier C – Affective Domain

| ***Tier C–Affective Domain*** | |  | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| **Focus area** | | ***Level of achievement*** | | | | |
| **Receiving**  (awareness) | **Responding**  (reacting) | **Valuing**  (understanding & acting) | **Organizing personal value system** | **Internalizing value system**  (adopting behaviour) |
| ***Foundational Elements*** | 1. **Mathematics** |  |  |  |  |  |
| 1. **Natural (Physical sciences** |  |  |  |  |  |
| 1. **General humanities & Social sciences** |  |  |  |  |  |
| 1. **English language and maritime communication** |  |  |  |  |  |
| 1. **Computing and informatics** |  |  |  |  |  |
| 1. **Physical and mental fitness** |  |  |  |  |  |
| ***Academic Elements*** | 1. **Problem recognition/solving** |  |  |  |  |  |
| 1. **Critical thinking** |  |  |  |  |  |
| 1. **Academic research** |  |  |  |  |  |
| 1. **Contemporary global issues** |  |  |  |  |  |
| ***Professional (Technical) Elements*** | 1. **Technical competencies as per international requirements (STCW)** |  |  |  |  |  |
| 1. **Risk assessment and management** |  |  |  |  |  |
| 1. **Situational awareness, preparedness and response** |  |  |  |  |  |
| 1. **Technological awareness (job-specific)** |  |  |  |  |  |
| 1. **Maritime law, policy and governance** |  |  |  |  |  |
| 1. **Logistics and supply chain** |  |  |  |  |  |
| 1. **Maritime business** |  |  |  |  |  |
| ***Professional (Soft) Elements*** | 1. **Technological awareness (global)** |  |  |  |  |  |
| 1. **Leadership, teamwork and discipline** |  |  |  |  |  |
| 1. **Effective (interpersonal) communication** |  |  |  |  |  |
| 1. **Sustainable development** |  |  |  |  |  |
| 1. **Human resource management** |  |  |  |  |  |
| ***Professional (Soft) Elements*** | 1. **Cultural/diversity awareness and sensitivity** |  |  |  |  |  |
| 1. **Progressive mindset and lifelong learning** |  |  |  |  |  |
| 1. **Environmental awareness, sustainability and stewardship** |  |  |  |  |  |
| 1. **Decision-making and proactivity** |  |  |  |  | I**nfluence** others to become proactive in maritime professional practice. |
| 1. **Mentorship** |  |  |  |  |  |
| 1. **Professionalism and ethical responsibility** |  |  |  |  |  |

Table 15: Tier C – Psychomotor

| ***Tier C–Psychomotor Domain*** | |  | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Focus area** | | ***Level of achievement*** | | | | | | |
| **Perception**  (awareness) | **Setting** | **Guided response** | **Mechanism**  (basic proficiency) | **Complex overt response**  (expert) | **Adaptation** | **Origination** |
| ***Foundational Elements*** | 1. **Mathematics** |  |  |  |  |  |  |  |
| 1. **Natural (Physical sciences** |  |  |  |  |  |  |  |
| 1. **General humanities & Social sciences** |  |  |  |  |  |  |  |
| 1. **English language and maritime communication** |  |  |  |  |  |  |  |
| 1. **Computing and informatics** |  |  |  |  |  |  |  |
| 1. **Physical and mental fitness** |  |  |  |  |  |  |  |
| ***Academic Elements*** | 1. **Problem recognition/solving** |  |  |  |  |  |  |  |
| 1. **Critical thinking** |  |  |  |  |  |  |  |
| 1. **Academic research** |  |  |  |  |  |  |  |
| 1. **Contemporary global issues** |  |  |  |  |  |  |  |
| ***Professional (Technical) Elements*** | 1. **Technical competencies as per international requirements (STCW)** |  |  |  |  |  |  |  |
| 1. **Risk assessment and management** |  |  |  |  |  |  |  |
| 1. **Situational awareness, preparedness and response** |  |  |  |  |  |  |  |
| 1. **Technological awareness (job-specific)** |  |  |  |  |  |  |  |
| 1. **Maritime law, policy and governance** |  |  |  |  |  |  |  |
| 1. **Logistics and supply chain** |  |  |  |  |  |  |  |
| 1. **Maritime business** |  |  |  |  |  |  |  |
| ***Professional (Soft) Elements*** | 1. **Technological awareness (global)** |  |  |  |  |  |  |  |
| 1. **Leadership, teamwork and discipline** |  |  |  |  |  |  |  |
| 1. **Effective (interpersonal) communication** |  |  |  |  |  |  |  |
| 1. **Sustainable development** |  |  |  |  |  |  |  |
| 1. **Human resource management** |  |  |  |  |  |  |  |
| 1. **Cultural/diversity awareness and sensitivity** |  |  |  |  |  |  |  |
| ***Professional (Soft) Elements*** | 1. **Progressive mindset and lifelong learning** |  |  |  |  |  |  |  |
| 1. **Environmental awareness, sustainability and stewardship** |  |  |  |  |  |  |  |
| 1. **Decision-making and proactivity** |  |  |  |  |  |  |  |
| 1. **Mentorship** |  |  |  |  |  |  |  |
| 1. **Professionalism and ethical responsibility** |  |  |  |  |  |  |  |

## GMP TIER D

The GMP Tier D addresses the requirements of management level competency together with an advanced postgraduate academic degree. For example, in the context of the STCW Convention 1978, as amended, this translates to a management level certificate of competency together with a Doctoral Degree. Achievement at tier D presupposes completion of tier C components.

Table 16: Tier D – Cognitive Domain

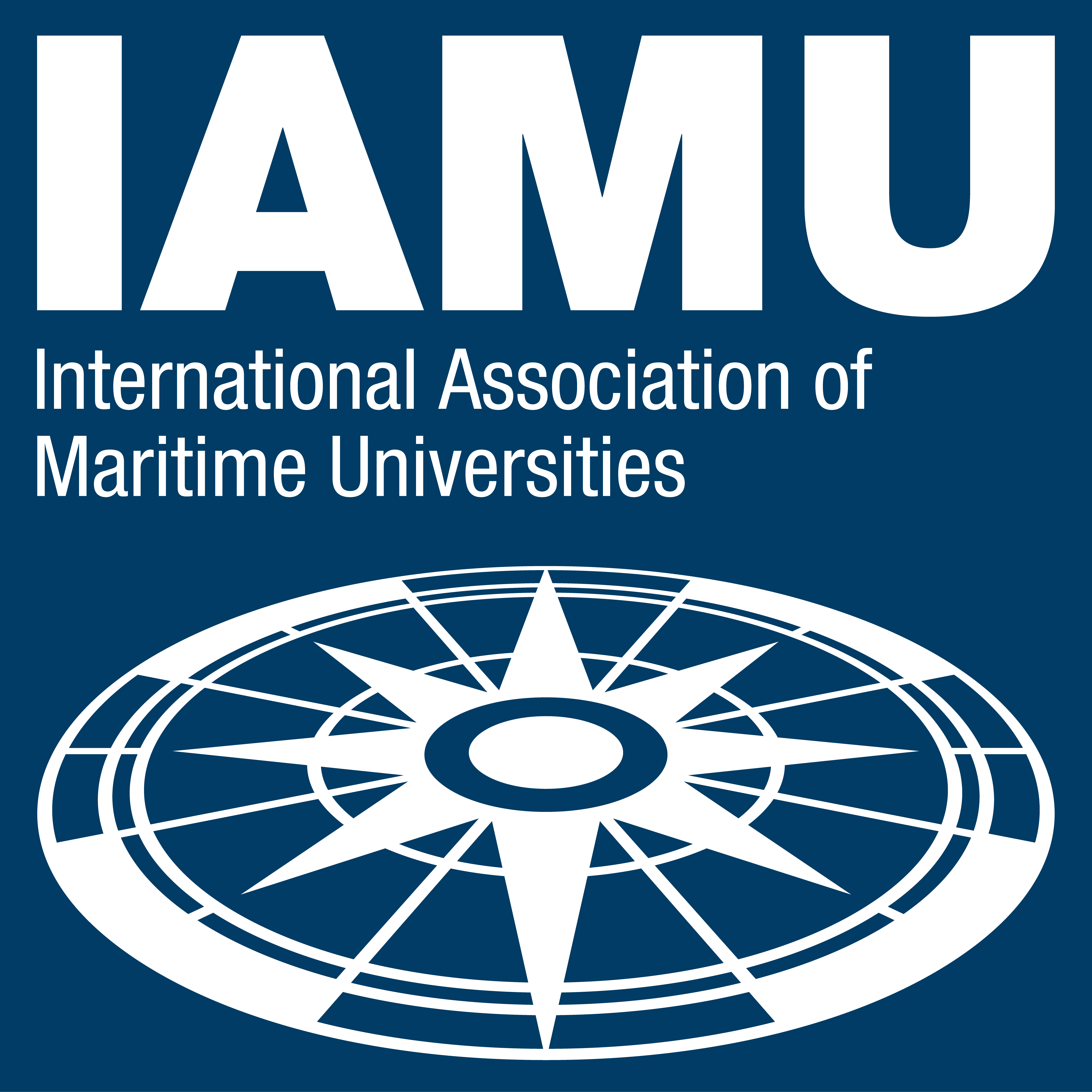
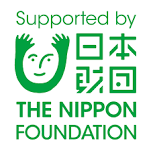
| ***Tier D–Cognitive Domain*** | |  | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Focus area** | | ***Level of achievement*** | | | | | |
| **Remembering** | **Understanding** | **Applying** | **Analyzing** | **Evaluating** | **Creating** |
| ***Foundational Elements*** | 1. **Mathematics** |  |  |  |  |  |  |
| 1. **Natural (Physical sciences** |  |  |  |  |  |  |
| 1. **General humanities & Social sciences** |  |  |  |  |  |  |
| 1. **English language and maritime communication** |  |  |  |  |  |  |
| 1. **Computing and informatics** |  |  |  |  |  |  |
| 1. **Physical and mental fitness** |  |  |  |  |  |  |
| ***Academic Elements*** | 1. **Problem recognition/solving** |  |  |  |  |  | **Develop** new approaches to problem identification, recognition and solving. |
| 1. **Critical thinking** |  |  |  |  |  | **Develop** new insights into critical thinking techniques and processes in the maritime industry. |
| 1. **Academic research** |  |  |  |  |  | **Develop** new approaches for the conduct and analysis of academic research. |
| 1. **Contemporary global issues** |  |  |  |  |  | **Generate** new insights that contribute to the global discourse on contemporary issues. |
| ***Professional (Technical) Elements*** | 1. **Technical competencies as per international requirements (STCW)** |  |  |  |  |  | **Develop** new approaches, systems, and procedures for effective performance in the maritime industry. |
| 1. **Risk assessment and management** |  |  |  |  |  | **Develop** new approaches, techniques and procedures for effective risk assessment and management. |
| 1. **Situational awareness, preparedness and response** |  |  |  |  |  | **Improve** existingmaritime scenarios relating to situational awareness and a state of preparedness and **model** appropriate states of preparedness and response for new scenarios. |
| 1. **Technological awareness (job-specific)** |  |  |  |  |  | **Develop** optimum technological awareness techniques and technological solutions for the maritime industry. |
| ***Professional (Technical)*** | 1. **Maritime law, policy and governance** |  |  |  |  |  | **Integrate** principles of law, policy, and governance in the development of new approaches to regulating the maritime industry. |
| 1. **Logistics and supply chain** |  |  |  |  |  | **Develop** new maritime supply chain optimization tools and processes. |
| 1. **Maritime business** |  |  |  |  |  | **Improve** current maritime business approaches and c**reate** new maritime business models. |
| ***Professional (Soft) Elements*** | 1. **Technological awareness (global)** |  |  |  |  |  | **Develop** optimum global technological awareness techniques and technological solutions for the maritime industry. |
| 1. **Leadership, teamwork and discipline** |  |  |  |  |  | **Create/develop** leadership, teamwork & discipline in a maritime entity to accomplish complex tasks. |
| 1. **Effective (interpersonal) communication** |  |  |  |  |  | **Devise** mechanisms for improving interpersonal communications in maritime professional practice. |
| 1. **Sustainable development** |  |  |  |  |  | **Develop** long-term plans for the application of the concept of sustainable development in the maritime domain. |
| 1. **Human resource management** |  |  |  |  |  | **Develop** new human resource management techniques when conventional techniques are not suitable or not applicable. |
| ***Professional (Soft) Elements*** | 1. **Cultural/diversity awareness and sensitivity** |  |  |  |  |  |  |
| 1. **Progressive mindset and lifelong learning** |  |  |  |  |  |  |
| 1. **Environmental awareness, sustainability and stewardship** |  |  |  |  |  |  |
| 1. **Decision-making and proactivity** |  |  |  |  |  | **Construct** training scenarios for the development of individual decision-making skills and **generate** models for increasing proactivity-based resilience in maritime organizations. |
| 1. **Mentorship** |  |  |  |  |  | **Develop** fit-for-purpose mentoring strategies and programmes for mentees. |
| 1. **Professionalism and ethical responsibility** |  |  |  |  |  | **Generate** items related to ethical codes of conduct and **create** research-based opportunities and experiences to foster professional and ethical conduct in the maritime professional practice. |

Table 17: Tier D – Affective Domain

| ***Tier D–Affective Domain*** | |  | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| **Focus area** | | ***Level of achievement*** | | | | |
| **Receiving**  (awareness) | **Responding**  (reacting) | **Valuing**  (understanding & acting) | **Organizing personal value system** | **Internalizing value system**  (adopting behaviour) |
| ***Foundational Elements*** | 1. **Mathematics** |  |  |  |  |  |
| 1. **Natural (Physical sciences** |  |  |  |  |  |
| 1. **General humanities & Social sciences** |  |  |  |  |  |
| 1. **English language and maritime communication** |  |  |  |  |  |
| 1. **Computing and informatics** |  |  |  |  |  |
| 1. **Physical and mental fitness** |  |  |  |  |  |
| ***Academic Elements*** | 1. **Problem recognition/solving** |  |  |  |  |  |
| 1. **Critical thinking** |  |  |  |  |  |
| 1. **Academic research** |  |  |  |  |  |
| 1. **Contemporary global issues** |  |  |  |  |  |
| ***Professional (Technical) Elements*** | 1. **Technical competencies as per international requirements (STCW)** |  |  |  |  |  |
| 1. **Risk assessment and management** |  |  |  |  |  |
| 1. **Situational awareness, preparedness and response** |  |  |  |  |  |
| 1. **Technological awareness (job-specific)** |  |  |  |  |  |
| 1. **Maritime law, policy and governance** |  |  |  |  |  |
| 1. **Logistics and supply chain** |  |  |  |  |  |
| 1. **Maritime business** |  |  |  |  |  |
| ***Professional (Soft) Elements*** | 1. **Technological awareness (global)** |  |  |  |  |  |
| 1. **Leadership, teamwork and discipline** |  |  |  |  |  |
| 1. **Effective (interpersonal) communication** |  |  |  |  |  |
| 1. **Sustainable development** |  |  |  |  |  |
| 1. **Human resource management** |  |  |  |  |  |
| 1. **Cultural/diversity awareness and sensitivity** |  |  |  |  |  |
| 1. **Progressive mindset and lifelong learning** |  |  |  |  |  |
| ***Professional (Soft) Elements*** | 1. **Environmental awareness, sustainability and stewardship** |  |  |  |  |  |
| 1. **Decision-making and proactivity** |  |  |  |  |  |
| 1. **Mentorship** |  |  |  |  |  |
| 1. **Professionalism and ethical responsibility** |  |  |  |  |  |

Table 18: Tier D – Psychomotor

| ***Tier D–Psychomotor Domain*** | |  | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Focus area** | | ***Level of achievement*** | | | | | | |
| **Perception**  (awareness) | **Setting** | **Guided response** | **Mechanism**  (basic proficiency) | **Complex overt response**  (expert) | **Adaptation** | **Origination** |
| ***Foundational Elements*** | 1. **Mathematics** |  |  |  |  |  |  |  |
| 1. **Natural (Physical sciences** |  |  |  |  |  |  |  |
| 1. **General humanities & Social sciences** |  |  |  |  |  |  |  |
| 1. **English language and maritime communication** |  |  |  |  |  |  |  |
| 1. **Computing and informatics** |  |  |  |  |  |  |  |
| 1. **Physical and mental fitness** |  |  |  |  |  |  |  |
| ***Academic Elements*** | 1. **Problem recognition/solving** |  |  |  |  |  |  |  |
| 1. **Critical thinking** |  |  |  |  |  |  |  |
| 1. **Academic research** |  |  |  |  |  |  |  |
| 1. **Contemporary global issues** |  |  |  |  |  |  |  |
| ***Professional (Technical) Elements*** | 1. **Technical competencies as per international requirements (STCW)** |  |  |  |  |  |  |  |
| 1. **Risk assessment and management** |  |  |  |  |  |  |  |
| 1. **Situational awareness, preparedness and response** |  |  |  |  |  |  |  |
| 1. **Technological awareness (job-specific)** |  |  |  |  |  |  |  |
| 1. **Maritime law, policy and governance** |  |  |  |  |  |  |  |
| 1. **Logistics and supply chain** |  |  |  |  |  |  |  |
| 1. **Maritime business** |  |  |  |  |  |  |  |
| ***Professional (Soft)*** | 1. **Technological awareness (global)** |  |  |  |  |  |  |  |
| 1. **Leadership, teamwork and discipline** |  |  |  |  |  |  |  |
| 1. **Effective (interpersonal) communication** |  |  |  |  |  |  |  |
| 1. **Sustainable development** |  |  |  |  |  |  |  |
| ***Professional (Soft) Elements*** | 1. **Human resource management** |  |  |  |  |  |  |  |
| 1. **Cultural/diversity awareness and sensitivity** |  |  |  |  |  |  |  |
| 1. **Progressive mindset and lifelong learning** |  |  |  |  |  |  |  |
| 1. **Environmental awareness, sustainability and stewardship** |  |  |  |  |  |  |  |
| 1. **Decision-making and proactivity** |  |  |  |  |  |  |  |
| 1. **Mentorship** |  |  |  |  |  |  |  |
| 1. **Professionalism and ethical responsibility** |  |  |  |  |  |  |  |

Global Maritime Professional

BODY OF KNOWLEDGE

2019

This Body of Knowledge is the result of a Joint Project (The Global Maritime Professional Initiative) between the Nippon Foundation and the International Association of Maritime Universities (IAMU).

1. For each focus area and level, the table may be read as follows: “[*Bloom’s verb associated with level*] principles and practices related to [*focus area*]”, for example, “*Remembering* principles and practices related to *mathematics*”. [↑](#footnote-ref-1)