

Fundamentals of Ship Management

2-24 February 2021

Online Course
Tutor

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Tutorials will consist of 8 sessions of 75 minutes and take place on each Tuesday and Wednesday beginning on 2nd February and continue for a further three weeks. Students have the option of choosing either the morning session which begins at 09:30 GMT or the afternoon session at 16:30 GMT

Organised by



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Online Course Programme

Fundamentals of Ship Management

Session 1: Introduction & The Big Picture

Tuesday 2nd February

- **Definitions**
 - What is ship management
 - Key Performance Indicators (KPIs) and how they are used in ship management
- **3 Primary Aims of Ship Management**
 - Maximize utilisation
 - Protect asset value
 - Hit KPI targets
- **3 Elements of Ship Management**
 - People
 - Systems
 - Procedures
- **3 Components of Ship Management**
 - Commercial
 - Technical
 - Crewing
- **3 Operating Models of Ship Management**
 - Traditional ship owner centric
 - Outsourcing to third parties
 - Hybrids
- **2 Key Perspectives of Resource Management**
 - Red – no go
 - Green – go
- **6 Core Competencies: Brief Introduction**
 - Money
 - Relationships
 - Information
 - Technology
 - People
 - Risk & Reputation
 - 6 Core Competencies: Brief Introduction
 - Money
- **Impact of COVID-19 on Ship Management**
 - The ongoing disruption caused by COVID-19 impacts on each of the core competencies in different ways. The impact so far as well as the longer-term implications on each of the six core competencies will be addressed during each of the relevant sessions. In addition, a number of specific issues will be separately considered. These include:
 - Crew changes viz
 - restrictions imposed by charterers
 - the enforcement of the MLC and
 - the impact on vessel operating costs
 - The accelerated use of digitisation and remote working including remote surveying and training
 - The impact of COVID-19 on seafarer well-being especially mental health
 - The impact of COVID-19 on risk management

Session 2: Managing Money

Wednesday 3rd February

- **Basic Principles**
 - Budgeting
 - Cost control
 - Financial reporting
 - “Smart” procurement
- **Focus on Ship Operating Expenses (OPEX)**
 - Manning
 - Insurance
 - Repairs & maintenance
 - Stores, spares & supplies
 - Administration & management
- **Scale Economies**
 - Aggregating purchasing
 - Creating a buying “Club”
 - Performance-based contracting

Session 3: Managing Relationships

Tuesday 9th February

- **Shipping’s Stakeholder Map**
 - Who are the stakeholders
 - What are their respective roles
- **4 Key Relationships amongst the stakeholders**
 - Ship Owner (“The Principal”) and the Ship Manager (“The Agent”)
 - Shipowner/Ship Manager at the centre of the other three
 - Cargo
 - Authorities
 - Classification Societies
 - Key Legal Considerations
- **Importance of Vetting**
 - SIRE
 - TMSA
 - ExxonMobil MESQAC
 - Tanker Officer Matrix
 - Port State Control

Session 4: Managing Information

Wednesday 10th February

- **Basic Principles**
 - IT Then & Now
 - Noon Reporting
 - GNDSS
 - ECDIS
- **Which IT Strategy**
 - Off-the-shelf
 - Bespoke
 - Cost / Benefit
- **Satellites as “Game Changers”**
 - Automatic Identification Systems (AIS)
 - Integration with on-board systems
- **Monitoring Performance**
 - Vessel Management Systems (VMS)
 - Company operations
 - Fleet operations
 - Ship operations
 - Safety & environment
 - Crew instructions
 - Marine Data Platform
- **The Future**
 - Big Data
 - Smart Shipping
 - Autonomous vessels
 - Cyber security

Session 5: Managing Technology

Tuesday 16th February

- **The Ship Life Cycle**
 - Energy Efficiency Design Index and its impact going forward
 - Pre-life: New building supervision
 - Different approaches to maintaining the vessel while in-service
 - End-of life: Recycling
 - Hong Kong Convention
 - EU Ship Recycling Regulation
- **Classification Societies**
 - Through the Life Cycle
 - Types of Class survey
 - Challenges of surveying modern vessels
 - "Condition of Class"
- **Technical Function**
 - Fleet / Ship Superintendent the key role
 - Relationship with on-board personnel and importance of the chief Engineer's role
 - Technical operating procedures
 - Vessel inspection
 - Chronology of a dry-dock
- **The Future**
 - Eight technologies of modern shipping
 - Green House Gas (GHG) and CO₂ targets
 - Implications regarding future fuels and propulsion technology

Session 6: Managing People

Wednesday 17th February

- **Some basic principles**
 - Composition of the "Crew Complement"
 - STCW Convention
 - Crew competency
 - Hierarchical practices on board vessels
- **The Ship's Crew**
 - Who determines the minimum required
 - Recruitment, Deployment, Training and Retention
 - Career pathways
- **Sourcing Crew**
 - Traditional sources
 - New sources
 - Supply/demand balance
 - Officers
 - Ratings
- **Life at Sea**
 - Special challenges
 - Morale
 - Crew fatigue
 - International Labour Organization (ILO)
 - Maritime Labour Convention 2006
- **Ship Management**
 - Shore office organisation
 - Shipboard organisation
- **What Drives Crew Performance**
 - Systematic approach
 - Performance is "on the CEO's agenda"
 - A culture of continuous improvement
 - Use of KPIs
 - Recognition & incentives

Session 7: Managing...Risk & Reputation

Tuesday 23rd February

- **Risk**
 - Benefits of a proactive approach
 - Risk identification and assessment
 - Risk management
 - Proactivity
 - Discipline
 - Continuous improvement
 - Attention to detail
 - Risk measurement & monitoring
 - Risk assessment practice
 - Risk matrix
 - Near-miss hierarchy
 - A near-miss in practice
 - Emergency Contingency Planning (ECP)
- **Reputation**
 - Fundamentals
 - Dependent upon successful risk management
 - Slow to grow - fast to blow
 - Requires a media savvy approach
 - Building blocks of a good reputation
 - Demonstrate environmental awareness
 - Positive vetting performance
 - Professional and Competent “Designated Person” (ISM Code requirement)
 - Stamp of approval from many voluntary codes
 - ISO 9000 series quality practice
 - Total Quality Management (TQM)
 - ISO 14000 series environmental practice
 - ISO 50001 series energy management

Session 8: Into the Future

Wednesday 24th February

- **Future ship operation will be much more complicated**
- **The Ship Manager should understand advanced technology**
 - Ship design
 - Propulsion systems
 - Data hungry “Smart Ships”
 - Material science for advanced materials
 - Analysis of Big Data
 - Robotics
 - Machinery sensors
 - Communications on and from the high seas
- **Future Ship Managers must:**
 - Anticipate change
 - Respond to unprecedented challenges
 - Realise opportunities as they arise
- **Ship Managers MUST Manage CHANGE successfully**

Programme subject to change