



SHIPPING DERIVATIVES & RISK MANAGEMENT

Maritime Professionals Course

Course Guide

The Course is certified by ABS for compliance with the ABS G-CMET criteria

Orion Training Center for Maritime Professionals
is a Certified Training Institute in accordance with
ABS G-CMET and STCW Regulation I/8



Orion Training Center for Maritime Professionals
is Certified as compliant with the **Quality**
Management System ISO 9001 by Bureau Veritas



Orion Training Center for Maritime Professionals

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PREAMBLE

Orion Training Center for Maritime Professionals is a unique Vocational Training Provider, on a wide spectrum of fields in the Maritime Industry, for people who seek Certified Training. Orion Training aims at strengthening the human capital in the Maritime Industry, by increasing its employability and developing its competitiveness in one of the most challenging and capital intensive industries globally.

Drawing from the vast experience of Greek and International Professionals in the shipping sector, Orion Training aims at covering the need for Certified Professional Training in a unique and technologically advanced way.

By delivering on-line, state of the art Courses from Experienced Professionals, in a user-friendly format, we bring knowledge where really needed, when needed.

Visit our website www.oriontraining.eu to see all courses and training options for individuals and Organisations.

SCOPE OF THE COURSE - LEARNING OUTCOMES

The Course aims at introducing attendees to the world of Financial Derivatives and Risk Management, with a special focus on Shipping Derivatives.

It covers the increasing need for in-house technical and theoretical knowledge of financial Risk Management, with the use of financial instruments and derivatives products, especially those available to the Shipping Industry.

It is a highly technical subject, as the need for thorough and in-depth understanding of fundamental concepts is of essence for business practitioners, both at operational and managerial level.

Attendees of the Course will be able to:

- Understand the fundamental pillars of financial Risk Management as is performed today internationally.
- Adopt a Risk Manager thinking perspective when addressing market and operational risks in Enterprise ongoing operations.
- Understand, structure and price specific derivatives instruments that help the enterprise to modify its cash flows and risk profile, according to its strategic yield/risk framework.
- Familiarize with all available Shipping Derivatives instruments, and practically use them for hedging or risk-taking activities, on an enterprise wide basis.

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CERTIFICATION

The Course is Certified by the American Bureau of Shipping (ABS), providing the highest professional education standards in the Shipping Sector.

Upon successful Course completion, the Certificate is issued and sent automatically to attendees.

BENEFICIARIES

- Shipping Industry professionals working in the financial and/or risk management department of enterprises, seeking to understand and practically implement hedging/risk taking or cash flow management strategies, of parts or the total portfolio of the enterprise.
- Professionals seeking to increase their employability within the Shipping Industry.
- New entrants in the Shipping Industry, specialized in financial risk management and derivatives (i.e. BSc & MSc graduates).
- Banking professionals specialized in the Shipping sector, seeking to acquire a solid and practical understanding of Risk Management in the Shipping Industry and Shipping Derivatives.

COURSE STRUCTURE (4 modules)

Module 1:

INTRODUCTION TO RISK MANAGEMENT & INTRODUCTION TO DERIVATIVES

Fundamental Concepts in Risk Management
Risk/Return Relationship
Basic Properties of the normal distribution
Sharpe Ratio & Efficient Frontier
Efficient frontier & Risks in Shipping markets
Risk Management process
Creating a Risk management framework
Risks Faced by Shipping Companies
Introduction to Derivatives Instruments
Financial markets & Products
Financial markets History
Basic Types of Investment Products
Basic types of Derivatives
Time Value of Money
Forward contracts, Futures contracts, Swap Contracts

Module 2:

DERIVATIVES ADVANCED CONCEPTS & SHIPPING INDICES

Options Contracts
Options Price Properties
Put Call Parity
The Black and Scholes model
Option Greeks & Options Strategies
Problems and malpractices in derivatives markets
The Shipping industry
Types of Shipping Freight Contracts
The four Shipping Markets
Spot Freight Rate formation
Time Charter Equivalent (TCE) spot Freight Rates
Shipping Indices
The Baltic Exchange at a Glance
Shipping Indices with Derivatives Traded on

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Module 3: SHIPPING DERIVATIVES IN THEORY AND PRACTICE

Introduction to Shipping Derivatives
Forward Freight Agreements
Baltic Forward Assessments (BFA) & FFAs mark to market
Months, Quarters & Calendars FFA Compositions
Factors Affecting the FFA forward curve
Regulation of FFA market
Pros and Cons of using FFAs
Trading FFAs: Hedging & Risk Taking
Freight Options Introduction
Freight Options Liquidity Implications
Asian Options Payoffs at Maturity
Asian Options Pricing formulas
Freight Options Strategies
Freight Options
A few technical notes

Module 4: CASE STUDIES & SPECIAL TOPICS

Reading the FFA forward Curves
Choice of Hedging Instrument
Hedge Ratios Calculation
Time Varying Hedge Ratio
Minimum Variance Hedge Ratio
Baltic Indices prices & returns
Descriptive Statistics of Freight Rate Returns
Correlation Hedging Example
Settlement risk
Setting up a Clearing Account
Clearing process & GCMs
A Mark to Market Example
General Risk Management Framework
Best Practices in Risk Management

COURSE MATERIAL

On-line videos for every module of the course, with accompanying PDF slides and notes (Videos can be seen as many times as needed on-line).
(Accompanying PDFs available for download by attendees).
XLS format files and code samples where applicable for pricing and structuring of derivatives and Risk Management strategies.
The course must be successfully completed (by passing the relevant final on-line Exam) within 9 months from registration/purchase, during which time, the instructor is always available within 48 hours through email for questions and queries relevant to the Course.
A 6-month Consultation period (after course successful completion) with the Course Instructor for any relevant questions and queries.

SHIPPING DERIVATIVES & RISK MANAGEMENT

INSTRUCTOR

Konstantinos Theodoropoulos PhD. is a Financial Risk manager – Proprietary Trader, with ongoing professional financial derivatives experience of +13 years. He is a banking industry practitioner, working as a portfolio risk manager in a Large Greek bank for the last 12 years. He has traded and executed various types of derivatives transactions over the years, as well as managed different types of financial instruments portfolios. He holds a Ph.D. in Shipping Derivatives and Risk Management from the University of Piraeus, and is a holder of Professional Risk Management certification by PRMIA.org.

PREREQUISITES

- Basic knowledge of algebra and statistics is recommended but not required.
- Familiarization with the Shipping Industry business and risks is also a merit.
- No need for previous knowledge of derivatives instruments is required.

DELIVERY METHODS

Fully on-line and self-paced videos with on-line exams and automated Certificate generation.
Option for registration in webinar or classroom delivery for groups or corporate clients if requested.

CONTACT

For more information on the Courses offered, you may contact:

contact@oriontraining.eu

For custom made Courses/Seminars and Professional Training you may contact:

sales@oriontraining.eu

Watch our introductory course videos at our Orion Training Center for Maritime Professionals
You Tube Channel and Vimeo Channel.

