



**BUSINESS SCHOOL**  
J.P. MORGAN CENTER  
FOR COMMODITIES



**BUSINESS SCHOOL**  
GLOBAL ENERGY  
MANAGEMENT

## **NCBE 907 Syllabus** **Masterclass in Commodity Trading & Hedging**

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### **COURSE OVERVIEW:**

The Masterclass in Commodity Trading & Hedging explores, on a basic, practical level, what it is to be an institutional commodity trader participating the global market at a producer or industrial end-user, bank, merchant or hedge fund. The class progresses step by step through the process traders employ to distill information into a perspective on the future of price, select the optimal means of implementation, then develop a trading plan and manage a position. The course will include a self-directed case study where the students will develop hedging strategies for the primary risk(s) of an industrial entity with commodity market exposure.

### **LEARNING OBJECTIVES:**

At the conclusion of the course, the student should be able to:

1. Understand how different entities transactionally interact within a market.
2. Develop a view of the future of commodity prices by analyzing fundamental information and incorporating the volatility & risk characteristics of these markets.
3. Evaluate a set of strategic alternatives for expressing their view on the future of price.
4. Develop a trading plan for executing and managing a position.

### **COURSE FORMAT:**

The course will consist of a series of eight classes, each approximately 90 minutes in length. The classes will be presented live at 2PM ET on the following dates:

Class 1	Tuesday	6/20
Class 2	Friday	6/23
Class 3	Tuesday	6/27
Class 4	Thursday	6/29
Class 5	Thursday	7/6
Class 6	Friday	7/7
Class 7	Tuesday	7/11
Class 8	Friday	7/14

Each lecture will be recorded and be available to students on Canvas.

## REQUIRED TEXTBOOK:

Rubano, Joel, 2020, *Trader Construction Kit: Fundamental & Technical Analysis, Risk Management, Directional Trading, Spreads, Options, Quantitative Strategies, Execution, Position Management, Data Science & Programming*, Second Edition, ISBN 978-0-9976295-1-4

Available from Amazon: <https://www.amazon.com/dp/0997629517>

## CASE STUDY:

Each student will produce an independent case study on a company of their choosing with material exposure to commodity-specific risks and no existing, publicly-documented hedging program. Students may form groups and work together on the project. Students will choose their corporation after the first lecture and work through the process of developing a hedging strategy using the material from each incremental lecture. Students will complete their cases prior to the 8<sup>th</sup> class, during which they (or the instructor) will present their view of the market and hedging plan.

## GRADING POLICY:

The Masterclass in Commodity Trading & Hedging will be graded on a pass/fail basis. To achieve a passing grade a student will be required to attend or watch the eight lectures and complete the case study project. The faculty understand that the majority of the students are employed across the commodity and finance industries, and that inflexible work deadlines and important life commitments can take priority. A student needing to re-assess their participation in the class should contact Michele Cooper at: [michele.cooper@ucdenver.edu](mailto:michele.cooper@ucdenver.edu) or 303-315-8066.

## COURSE OUTLINE:

### CLASS 1: INTRODUCTION & UNDERSTANDING MARKETS

Reading: Introduction, CH1-2 Trader Construction Kit

Topics: How to identify and categorize the various types of firms present in a market, understand their motivations and the types of business activities they undertake. Describes the transactional ecology, where some entities are seeking to acquire risk for a profit while others seek to shed risk for a fee.

Assignment: Choose a company with material exposure to commodity-specific risks and no existing, hedging program. This company will be the subject of your case study project, so try to select one with a reasonably large volume of publicly-available information.

### CLASS 2: FUNDAMENTAL ANALYSIS

Reading: CH3 Trader Construction Kit  
Appendix B, pages 558-561 & 571-574 on cleaning data (softcover edition)

Topics: Explore how analysts collect data, process it, and turn it into actionable information. How traders work with subject matter experts to develop a consensus of market opinion which, when contrasted with internal projections, leads to a perception that prices are relatively too high or too low.

Assignment: Identify the primary commodity-centric risk(s) faced by your firm and develop a fundamental perspective on the underlying market(s).

- CLASS 3: UNDERSTANDING VOLATILITY & RISK**  
 Reading: CH5-6 Trader Construction Kit  
 Topics: Traders must learn to observe and categorize the real-time fluctuations in prices and develop an understanding of how the characteristics affect liquidity and participation by different types of entities present in the market. Traders must learn how the market volatility combines with the firm's positions to translate into risk. Traders must understand how to measure risk both mathematically and experientially to accurately assess the potential P&L impacts of both normal and extreme market fluctuations.  
 Assignment: Assess the volatility of the commodities that act as the primary risk elements and the hedging instruments that could be used to mitigate them. How much risk is the company exposed to in dollar terms, and how meaningful is that in the context of their business?
- CLASS 4: DEVELOPING A VIEW OF THE MARKET**  
 Reading: CH7 Trader Construction Kit  
 Topics: How to combine fundamental information, an assessment of market volatility, and risk implications into a view of the market. Developing a view of the market is the primary task of any trader.  
 Assignment: Develop a comprehensive view of the market(s) that form the primary risk vectors for the company incorporating the fundamental and risk perspectives from Class 2 & 3.
- CLASS 5: CHOOSING AN IMPLEMENTATION STRATEGY**  
 Reading: Pages 253-259, 295-299, 333-337, 399-405 of Trader Construction Kit (softcover edition)  
 CH12 Trader Construction Kit  
 Topics: How to take candidate directional, spread, option, and quantitative trading strategies and evaluate the best means of implementing the trader's market view of the market. Once the trader has decided on their preferred strategy, they will create a trading plan that describes its implementation.  
 Assignment: Develop a set of candidate trading strategies to mitigate the firm's exposure(s), then evaluate them to determine which offers the best risk/reward ratio and performance characteristics.
- CLASS 6: EXECUTION & POSITION MANAGEMENT**  
 Reading: CH13-14 Trader Construction Kit  
 Topics: After arriving at the optimal strategy for the current conditions and drafting a trading plan, the trader must accumulate the desired position. To efficiently operate in the market the trader must develop and maintain solid trading mechanics. Once the position is secured, the trader must continue to monitor the market and re-assess the viability of their view on the future of prices in light of a continue stream of new information, standing ready to take action to optimize the profitability of the portfolio.  
 Assignment: Develop a plan for how the firm should accumulate the positions necessary to hedge their exposures.
- CLASS 7: PRICING & HEDGING STRUCTURED TRANSACTIONS**  
 Reading: CH15 Trader Construction Kit  
 Topics: For institutional traders, evaluating and responding to requests to price or hedge complex structured transactions is an integral part of their job. The class will explore how to recognize and quantify the inherent risks and factor them into the pricing that will be shown to the client.  
 Assignment: Complete the case study and hand in via Canvas prior to 11:59PM Wednesday 3/22.

**CLASS 8: PRICING & HEDGING STRUCTURED TRANSACTIONS**

Reading: No assigned reading.

Topics: In the final class each student's view of the market and proposed hedging plan for their corporation will be discussed and evaluated. In the event that a student is unable to attend the lecture, the instructor may present on their behalf.