

COURSE SYLLABUS

YEAR COURSE OFFERED: 2017

SEMESTER COURSE OFFERED: Spring

DEPARTMENT: Finance

COURSE NUMBER: 4397/7397

NAME OF COURSE: Energy Analysis

NAME OF INSTRUCTOR: Art Smith

The information contained in this class syllabus is subject to change without notice. Students are expected to be aware of any additional course policies presented by the instructor during the course.

Energy Analysis Syllabus

Finance 4397/7397

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The entry level position in energy industry is more often than not as an analyst. This can vary from market analysis (fundamental/technical) to structured products to risk, etc. The purpose of this course is to give the student hands on exposure to various tools used by analysts.

Petroleum markets will be the emphasis of this course.

1) Market Analysis.

Whether the student will work in this area of analysis is not critical, what is important is that the student learns how to look at all of the available information (fundamental & technical) and make informed statements about the present market and likely future developments.

COURSE SYLLABUS

- Students will learn how to use the Zema data aggregator for analysis of fundamental data. Data sources are Argus worldwide daily petroleum spot prices, EIA data, CFTC commitment of trader.
- Student will learn the use of R data analysis system for back testing models

2). Price/Quantitative Analysis

Price and quantitative analysis is a key component of an analyst's job. During the semester there will be various assignments that could cover:

- Crude Oil forward curves
- Crude Oil basis (seasonal & locational)
- Monthly pricing vs daily pricing

3). Futures Trading

- Develop trading models that incorporate both fundamental and technical analysis and indicators
- Understand how to backtest developed models

Text Books:

- **Oil 101**, Morgan Patrick Downey, Wooden Table Press LLC (2009), ISBN 0982039240
- **The Domino Effect**, E. Russell Brazier
- **Technical Analysis: The Complete Resource for Financial Market Technicians**, Dahlquist & Kirkpatrick

Resources:

COURSE SYLLABUS

Market Intelligence

Thomson Reuters Eikon
Argus daily Americas Crude
Argus Weekly NA Transportation
Kepler LNG & Crude Oil Ship Tracker

Data

Daily worldwide petroleum spot prices (Argus)

Futures Market Interfaces

CQG (data, charting, back testing, trading simulation)
FutureSource (data, charting)
OptionCity

Analytical Tools

Zema (data aggregator & interface with FutureSource)

Technical Analysis and Programming Tools

DataCamp (R, Python, etc)

Risk Management & Accounting System

Aspect