## **Energy Finance and Risk Management**

This course is designed to provide mini-MBA students with a thorough understanding of key finance concepts applied to the Oil and Gas (O&G) industry.

The class starts by analyzing the drivers of value creation in the O&G industry. We emphasize how these drivers have been changing in recent times and how they are likely to change in the future.

We then study the application of Discounted Cash Flow and other valuation techniques to the O&G industry. We provide illustrations of cash flow modeling of oil and gas projects. We also analyze the valuation of flexibility, expansion and contraction options.

Next, we highlight how mergers and acquisitions in the O&G industry differ from other industries. We discuss strategy and tactics, valuation methods and deal design.

Finally, we provide an overview of Risk Management methods in the O&G industry. We discuss real diversification, structured contracts, energy derivatives and swaps.