

FIN 394 15 – Energy Finance Practicum

Two Sections : ***O&G and CleanTech*** check the course details!

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Office Hours: Tuesday 5:00 – 6:30 pm, Wednesday 3:30 – 4:00pm and by appointment

Description:

A practicum course is designed to provide real-world, hands-on experience with industry projects. Small groups (typically 4-5 students) will be formed to address a problem identified by an energy company. Past projects have ranged from a capital allocation project evaluating deepwater Gulf of Mexico versus an onshore oil and gas play, to assessment of financial risk in power purchase agreements, to modeling the impact of white tag energy efficiency credits on California's power market. You will work with a company to scope and complete a current energy topic of interest under my supervision.

Companies supporting projects for spring 2014:

Drilling Info

University of Texas - Facilities

Oil and Gas Section

Texas Solar Power Association

University of Texas - Facilities

CleanTech Section

You cannot be guaranteed a particular client upfront

Objectives:

1. Apply the theory you have acquired in your formal courses to a practical issue faced by an energy company.
2. Improve your team-work and leadership skills while solving a real problem with a real client.
3. Utilize project planning and presentation skills while interfacing with a client.

Methodology:

I will assign the teams based on your preferences and initiate contact with the project sponsors. While I am available for help and will actively engage with the teams and oversee the projects, the completion of the work is largely left to the student teams, including but not limited to, negotiating project scope, setting milestones and conducting research necessary to gather data and find industry standard analyses approaches.

Materials: No specific books are required.

Performance Evaluation:

Client evaluation of deliverable	35%
Faculty evaluation of project	25%
Organization, project management and teamwork	20%
Project status reports, mid-term deliverables and meetings	20%

What you can expect in terms of grades:

Many students assume that in a practicum class the standards of performance will be lower than a “traditional” course. While there is no formal curve for this class and every student could conceivably make an “A”, you should expect a *rigorous* evaluation of your contribution to the project by the professor, your team mates and the project sponsor.

Approximate Schedule:

Make first contact with client – by end of January

Project scope finalized – second week of February

Mid-term deliverables – end of February, end of March, weekly reports in April

Draft presentation – at least a week prior to final presentation. You will present to me and possibly one or two other McCombs faculty members. I also recommend presenting to the McCombs communications coaches.

Final presentation – end of April/early May. The team will travel to the sponsoring company to present in person – YOUR PARTICIPATION IS REQUIRED. I will attend the presentations. Occasionally there are follow-up requests made by the companies that student teams must address and I also strongly encourage the team members to write thank you notes to the sponsors after the visits.

Submission of report, models, decision support tools, etc. due to me on last day of semester.

Expectations of Professionalism:

Beyond the normal expectations in a classroom setting, remember that you are representing yourself and McCombs to outside entities. Professional standards of dress, communication and attitude are required and failure to meet these standards will affect your final grade. In particular, client requests for confidentiality and nondisclosure must be adhered to.

Students with Disabilities:

Upon request, the University of Texas at Austin provides appropriate academic accommodations for qualified students with disabilities. Information on how to register, downloadable forms, including guidelines for documentation, accommodation request letters, and releases of information are available online at <http://deanofstudents.utexas.edu/ssd/index.php>. Please do not hesitate to contact SSD at (512) 471-6259, VP: (512) 232-2937 or via e-mail if you have any questions.

Texas Solar Power Association

The Texas Solar Power Association is a statewide industry trade association that promotes the development of solar electric generation in Texas. Our member companies invest in the development of solar photovoltaic products and projects in Texas, cost-competitively serving customers in both wholesale and retail markets. Our membership includes manufacturers, large-scale power plant developers, residential and commercial rooftop integrators, and other Texas companies participating across the full solar photovoltaic supply chain.

The practicum team will work closely with Association leadership and select member companies on a relevant issue facing the industry in 2016. Possible topics include market barrier analysis, the impact of new federal environmental regulations, economic development analysis, and 2017 legislative agenda development.

Drilling Info

Students will use Drilling Info (DI) data to valuing assets in the Eagle Ford and/or Bakken with the anticipation of potential M&A activities. Scope TBD but likely to include macro- and micro-economic analysis. May include investor presentation to potential buyers/sellers.

University of Texas - Facilities

Utilities, Energy & Facilities Management (UEFM) is part of the Planning, Energy and Facilities (PEF) unit within the University Operations vice-presidential portfolio. UEFM uses innovation and technology to manage what is often described as the largest and most integrated microgrid in the U.S. The University of Texas at Austin (UT Austin) microgrid includes a combined heat and power plant (CHP) that provides 100% of the electricity, cooling & heating requirements for 17 million square foot in 150+ buildings serving 70,000 faculty, students and staff.

The Campus Master Plan developed in 2012 calls for accommodating potential space growth. Per the Master Plan, UT Austin will likely need ~6.5 million square feet of space over the course of the next 20 to 30 years. Such growth is essential and inevitable for a world-class research university. The foresight is to preserve and enhance the university's utility supply assets in the context of this growth. UEFM has determined that continued investment in campus building energy conservation projects will reduce utility demand and assist in managing peak electrical and cooling needs without large capital investments on the power plant side.

UEFM will be creating a new program "Efficiency & Optimization", this new program will develop and implement in existing campus buildings, Energy Conservation Measures (ECMs) to minimize or offset

related energy plant load growth envisioned in the Campus Master Plan. UEFM is currently in process of developing a strategic plan to define the mission, goals, objectives and strategies for this program.

Challenge

The challenge is to identify and prioritize the ECMs that will align with the organization objectives and strategies, and thus resources and funds can be assigned to the critical ECMs. This challenge is somewhat described in the Pareto principle that specifies an unequal relationship between inputs and outputs. The Pareto principle (also known as the 80-20 rule) states that for many events, roughly 80% of the effects come from 20% of the causes. In that context, roughly 80% of the value available from doing all ECMs may be achieved by prioritizing 20% of those key strategic ECMs (assuming, of course, that the best ECMs are prioritized).

Project Portfolio Management (PPM) is a methodology that will allow UEFM to look holistically across various ECM technologies and prioritize the ones that align with business strategy and achieve the greatest potential return. When implemented effectively, PPM will choose the highest-priority ECMs (those 20% causes referenced in the Pareto principle) and allow them the needed oversight and resources.