Dillard College of Business Administration

Syllabus: Energy Management
MGMT 5313
Fall Semester 2024, DB 175

Contact Information

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Course Materials

1. A PC/laptop/tablet with webcam capability (Chromebooks won't work due to insufficient computing power).

Additional readings are posted to D2L

Course Description

Focuses on terminology, concepts, and business issues that are particularly important to the energy industry. Topics include drilling and production terminology and concepts, an introduction to the importance of geology and geographic information systems to the oil and gas industry, negotiations, and land management. An emphasis is placed on the importance of the ownership of mineral interests and the process for determining such ownership. The process for obtaining mineral lease rights is examined.

Course Prerequisite(s)

BUAD 5006 or equivalent and consent of Graduate Coordinator.

Learning Goals

I. General Learning Goals:

- Our students will integrate knowledge across business disciplines. The course highlights the various levels of integration and strategic partnerships used by energy firms.
- Our students will produce creative responses to business situations. The energy industry operates at the intersection of geology, technology, capital, geopolitics, and the world economy. Appreciating the dynamism within the energy industry requires synthesis from these diverse areas.
- Our students will communicate at a professional level. Students practice their oral presentation skills through in-class presentations. The Situation Analysis paper shall also be assessed for writing ability.

These general learning goals are among those the Dillard College of Business Administration established. General learning goals represent the skills graduates will carry into their careers. While assessing student performance in obtaining these general learning goals, the Dillard College is assessing its programs. The assessments assist us as we improve our curriculum and curriculum delivery.

II. Course Specific Learning Goals: After completing this course, students should be able to:
- Understand the global trends that drive demand and the need for sustainability
- Understand the essential global economic and geopolitical forces that drive energy prices.
- Understand the agreements involved between land/mineral owners and energy companies to develop and produce energy
- Know the language, processes, and basic cost structure for oil and gas exploration and production (E&P) as well as wind and solar
- Know the basics of how energy operations are funded.
- Understand the various energy distribution processes
- Understand the environmental tradeoffs associated with all forms of energy production
- Understand the technical issues and potential of energy advances.

Course Policies

One hybrid course, two ways to attend: You can attend face-to-face in Wichita Falls on Tuesday evenings (7:00 to 8:20 pm). If location or schedule needs dictate that you can't attend face-to-face, you can participate via videoconference using the Zoom system. We can offer students such flexibility because the course is hybrid: many of the lectures are online, with the class sessions reserved for discussions, guest speakers, and presentations.

Attendance Policy: Regular attendance is expected, either by sitting in the classroom in Wichita Falls or by teleconferencing via Zoom. Participation in class discussion is graded, so reading the assigned material and completing assignments prior to coming to class is also expected. See the university catalog for the University Class Attendance Policy.

Missed Examination Policy: Only students with authorized absences (see University Class Attendance Policy) may make up missed examinations. All examinations are accessed via D2L and remotely proctored. If the time windows scheduled for the examinations don't work well for you, please contact me well before the window opens to arrange an alternate time.

Grading and Evaluation:

Exams (3): Exams are composed of true/false, multiple choice, fill-in-the-blank, and short answer questions. Learning the energy industry's language is a central goal for this course. There are three vocabulary lists, with approximately 20 terms per list. I test the terms from VQ1 on Exam 1, VQ2 on Exam 2, and VQ3 on Exam 3. There will be a 6-hour window for students to take the exam online. Students access the exam through D2L and use a remote proctoring service called Respondus Monitor. If I learn of students sharing the exam contents in any way, that's a breach of academic integrity on all parties' part. Please don't do that, as I don't want to give everyone involved a 0 for the exam (and potentially an F for the course).

Energy Talks: These are short oral presentation where the students apply something from current events to the energy industry business concepts we are studying. One talk is delivered in class; one is recorded and submitted online. More detail is available on D2L for these talks.

Participation: Class time is mainly discussion versus lecture; thus, your participation is essential. Also, we'll have the privilege of having many industry experts speak with the class. Again, it's essential you engage with our guests.

Energy Situation Analysis Paper and Presentation: This paper and the oral presentation represent an opportunity for you to investigate a question of interest to you involving the energy industry. Your overall task is to take an interesting (and perhaps controversial) question and answer it in a way that would cause experienced energy professionals to say, "I learned a lot." That means you'll need credible information

communicated in a cogent manner such that your conclusions are compelling, even to a skeptical audience. More detail is available on D2L for this assignment.

Table 1: Points allocated to each assignment

Element	Points
Exams (3 @ 160 pts each)	480
Participation	50
Energy Talks (2 @ 50 pts each)	100
Paper	150
Presentation	75
Total Points	855

Table 2: Grading System

Grade	Points
A	769 or greater
B	684 to 768
C	598 to 683
D	513 to 597
F	Less than 512

Semester grades will be reported through normal University channels with no exceptions.

Grading Policies:

My intent is to motivate and educate you toward excellence. Therefore, for each assignment, you will see a clear explanation of what constitutes excellent work. My written comments to you usually focus on what was excellent about your work rather than what was wrong. However, I will be quite clear on why a piece was unsatisfactory if you submit less than satisfactory (C or less) work.

Course Content and Outline:

1. Introduction and Geology
   A. Introduction to the energy industry
   B. Geology of petroleum and critical minerals
   C. Acquiring land and mineral rights in the U.S.
2. Drilling and producing oil & gas
   A. Drilling, completing, and producing a well
   B. Constructing and operating a wind/solar farm
   C. Financial requirements for energy projects
3. Getting energy to market, with a focus on future needs
   A. Energy distribution
   B. New technologies for storage, carbon capture, and transportation
   C. Regulatory and environmental challenges

The North Texas Opportunity:

Wichita Falls and the Metroplex have long been the home to numerous oil and gas businesses. Plus, Texas has been a leader in wind and solar energy production. We intend to capitalize on this opportunity by having guest speakers visit the class and by taking field trips.

> Guest Speakers: I expect you to arrive prepared to ask good questions and excited to use the time available to learn from our guests.

Field Trips: Access permitting, and if there is sufficient interest, I hope to arrange one or more field trips to a drilling rig, an operating lease, and/or a wind farm. These field trips are all voluntary (but highly instructive!) and occur outside the scheduled class periods. Shortly after the semester begins, I'll ask the class what times and dates would work for most class members. I'll attempt to schedule these field trips soonest, so you have the maximum lead time possible to adjust your personal schedule.

Academic Integrity:

Concerning academic honesty, please refer to the "Student Honor Creed," excerpts of which are shown below.

"As an MSU Student, I pledge not to lie, cheat, steal, or help anyone else do so."

Thus, We, the Students of Midwestern State University, resolve to uphold the honor of the University by affirming our commitment to complete academic honesty. We resolve not only to be honest but also to hold our peers accountable for complete honesty in all university matters.

We consider it dishonest to ask for, give, or receive help in examinations or quizzes, to use any unauthorized material in examinations, or to present, as one's own, work or ideas which are not entirely one's own. We recognize that any instructor has the right to expect that all student work is honest, original work. We accept and acknowledge that responsibility for lying, cheating, stealing, plagiarism, and other forms of academic dishonesty fundamentally rests within each individual student.

I take academic dishonesty (cheating, collusion, and plagiarism) seriously and investigate when I have concerns. **Please understand that integrity is very important to me.** Cutting and pasting text from the internet without citing the source and setting off the "pasted text" in a form that identifies it appropriately constitutes plagiarism**.** My rule of thumb is that if you are using three or more words in a row from a source, it needs to be identified as a direct quote and cited. Sharing information about the weekly discussions with me constitutes cheating. Expect significant sanctions for incidents of academic dishonesty.

Use of Artificial Intelligence (AI) Tools:

You are allowed to use Generative AI (GAI) tools on select assignments in the course. Of course, no AI tools are allowed for the exams. Use of Grammarly (or similar MSFT Word tools) is allowed (and expected!) on all written assignments. GAI tools such as ChatGPT are allowed for the Energy Situation Analysis Paper. More details on the allowable usage are in the specific assignment description in D2L. **Document any use of GAI.** Using AI tools outside of these guidelines constitutes a violation of academic integrity and will be handled accordingly.

Americans with Disabilities Act:

If a student has an established disability as defined by the Americans with Disabilities Act and would like to request an accommodation, that student should contact me as soon as possible. Any student requesting accommodations should also contact Disability Support Services at 940-397-4140 in room 168 Clark Student Center to document and coordinate reasonable accommodations if you have not already done so.

Syllabus Change Policy:

This syllabus is a guide for the course—not a "contract"—and is subject to change. Syllabus changes will be communicated via D2L and/or in class. I'll provide at least 48 hours' notice before the relevant change takes place if possible.

Additional Information:

Written Assignments: All written assignments are to be **single-spaced**, have one-inch margins, use an 11 or 12-point font (specific font must present a business appearance and be similar in "size" to Times New Roman or Arial), and be uploaded to D2L in a **MS Word or PDF file format** (not Pages!).

Assignments: Assignments are due at the specified due date/time. By definition, professionals are not late with their work.

Words of Wisdom / General Policies: Perhaps the most important thing you can understand about me is that I am deeply interested in your success, both in the course and beyond. I am convinced this course can set the stage for your future success. Therefore, I invest significant time and effort into this course and hope you'll do the same. Just as in the "real world," I try to run my course in a supportive yet professional and business-like manner. Here are some key points for this course:

- I am committed to fostering a learning environment where all students feel respected, supported, and empowered to achieve their fullest potential. I expect all students to treat their classmates similarly.
- The assignments you hand in should reflect your professionalism
- Class time is like a business meeting:
    - Be on time!
    - Laptops and smartphones are for course use during class—not surfing, emailing, texting, or networking. Incidentally, lots of studies show note-taking by computer is not as effective as note-taking by hand.
- I can be very flexible and cooperative about course events and due dates when you raise an issue with me before a class or due date. Notifications after the fact are almost always indicative of unprofessionalism
- Integrity is the bedrock for successful business relationships. True in the course, too!

Professionalism:

The faculty, staff, and students of the Dillard College of Business Administration are committed to being a "professional" in our words, conduct, and actions. The qualities of a professional include:

- A commitment to the development of specialized knowledge
- Competency in analytical, oral, and written communication skills
- Self-discipline
- Reliability
- Honesty and integrity
- Trustworthiness
- Timeliness
- Accountability for words and actions
- Respect for others and other cultures
- Politeness and good manners
- A professional image (professionals look professional)
- An awareness of their environment and adaptability to different settings
- Confidence without arrogance
- A commitment to giving back to your community

Course Flow

Please keep this syllabus as a reference. Students are responsible for all information in the syllabus and any changes to the syllabus, which are announced in class or on D2L. I typically adhere closely to the original syllabus in my classes. However, the guest speakers and special events put some schedule uncertainty into the mix. Thus, I expect some schedule changes as the course progresses.

Course Schedule

Table 3: The below table has the class meeting date(s), topics, and associated readings, as well as the quizzes and exams for each module

Date	Major Topic or Activity	Reading	Due
8/27	Course Intro and the basics of energy		
9/3	CO_2 and Global Energy	W	
9/10	Energy Industry—Current Status	W	
9/17	Geology of petroleum and critical materials	W	
9/24	Mineral Rights Leasing	W	
9/26	**Exam 1**		**Exam 1** Window 9/26 5 pm – 11 pm
10/1	Drilling and Completing a Well + Costs	W	
10/8	O&G Financial Assessment (Drilling Info)	W	
10/15	Wind and Solar Economics	W	
10/22	Financing options for energy projects	W	
10/29	Guest Speaker (Tentative—Mr. Danny Wesson, COO Diamondback)		
11/5	Operating energy projects over the long term	W	
11/7	**Exam 2**		**Exam 2** Window 11/7 5 pm –11 pm
11/12	Energy Distribution Systems	W	.
11/19	Regulatory and Environmental Issues	W	
11/26	Hydrogen, Carbon Capture & Storage Potential	W	Recorded ET due 11 pm
12/3	Energy Papers and Presentation		Submit paper via D2L by 11 pm
12/12	**Exam 3** (8-10 pm)		Window: 12/12 5 pm – 11 pm

W = Readings are posted to D2L