

OSU SPEARS SCHOOL OF BUSINESS

Department of Finance

GRADUATE SECTION: FIN 5003 Introduction to Energy Business Course Syllabus, ONLINE Class, Fall 2017

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Office Hours (Carter): Monday/Wednesday from 1:00-3:00pm or by appointment Monday/Wednesday from 4:00-5:00pm or by appointment david.carter@okstate.edu and betty.simkins@okstate.edu

Course Site: Brightspace by D2L: http://online.okstate.edu or http://online.okstate.edu or http://online.okstate.edu

(choose Online Classroom after logging in)

Online Learning Support: <u>spearsonline@okstate.edu</u>, Phone: 405-744-4048

Facebook: Follow Spears School Online Learning on

Facebook! https://www.facebook.com/SpearsOnline/

Twitter: Spears Distance

Overview of the Course

This course will provide students with an introduction to the business side of the energy industry. Basic financial analysis in various aspects of energy business will be covered throughout the course. The focus will be on the oil and gas industry to prepare students for jobs in this sector. The course will also cover other forms of energy including renewables, with a special focus on wind energy and solar energy. Students will learn about the history and dynamics of the energy industry, the energy value chain, geopolitics, supply and demand, marketing, and energy business best practices. This course will consist of both lectures by the faculty and invited lecturers by experts in the energy industry, with a particular focus on companies in Oklahoma.

Course Prerequisites

Sophomore standing

Course Objectives and Goals

Lourse Objectives and Goals			
Course Objective	Program Learning Goal		
1. To acquaint students with basic knowledge, key concepts,	Business Knowledge & Competency		
terminology, industry structure, supply and demand issues and	Technological Competence		
related concepts about the "energy value chain".			
2. To learn about myths and realities related to sustainable	Business Knowledge & Competency		
energy and various energy sources.	Written Communication		
	Critical Thinking		
3. To gain knowledge about the oil and gas energy value chain	Business Knowledge & Competency		
including the operations in upstream, midstream, and	Critical Thinking		
downstream.	Technological Competence		
4. To explore value creation and decision making in the	Business Knowledge & Competency		
energy industry.	Technological Competence		
5. To learn about alternative energy sources with a special	Business Knowledge & Competency		
focus on wind energy and solar energy.	Critical Thinking		
	Technological Competence		
6. To gain a firm understanding of the importance of the	• Ethical Decision Making		



energy industry and the role alternative energy sources can	Business Knowledge & Competency
provide (and not provide) in meeting our energy needs.	• Innovation

Texts and Supplementary Materials

Required Materials:

- Energy Myths and Realities: Bringing Science to the Energy Policy Debate, by Vaclav Smil, 2010, Distributed by Rowman & Littlefield Publishing Group. Available through Amazon at: https://www.amazon.com/Energy-Myths-Realities-Bringing-Science/dp/0844743283
- *The Frackers*, by Gregory Zuckerman, 2013, Published by the Penguin Group. Available through Amazon at: https://www.amazon.com/Frackers-Outrageous-Inside-Billionaire-Wildcatters/dp/1591846455

Other Required Materials: Other materials will be available from Brightspace. Also, we encourage you to read the online Wall Street Journal. As a student in the Spears School of Business, you have access to a free online subscription. The link to access your free subscription is posted to Brightspace.

Grading Policy

Final grades will be based on a 1,000 point total as follows:

Exams (3 exams @ 250 pts each)	750
Assignments (25 points each; 9 assignments and lowest score is dropped)	200
Student Information on Discussions (Post by Sunday, Sept. 3)	15
Discussion Board (for posting seven comments during the semester)	35
Research Report (Due by Friday of Dead Week; Topic proposal due 9/24)	100
Total Points	1100

Grading Scale (1000 points possible)		
Letters grades will be determined based on a standard grading scale (i.e.,	A =	990 points and above
90% minimum for A, 80% for B, 70% for C, 60% for D, and below 60%	$\mathbf{B} =$	880 – 989 points
failing).	$\mathbf{C} =$	770 – 879 points
	D =	660 – 769 points
	$\mathbf{F} =$	659 points and below

Grading

• Exams: Exams are proctored and must be taken through a certified testing center. Within the first week of class, go to the Spears School of Business Online Learning website to choose a proctor at: https://spearsonline.okstate.edu/ and click on "Select Testing Center" at the top right of the page. Follow the instructions to identify your testing center. Up to one week before each exam start date, make your appointment directly with your testing center to take each exam while being monitored by a proctor for test security reasons. The exam and/or exam instructions will be sent to your testing center 3 days prior to the exam start date. Contact the Spears School Online Learning office at spearsonline@okstate.edu, or call (405) 744-4048 if you have any questions regarding the testing center sign up process. You may also visit http://spears.okstate.edu/online/guide.

There are three exams worth 250 points each. Exams must be taken during the period indicated on the schedule located at the end of this syllabus. The exams will be available through Brightspace using the Quiz software on Brightspace. Exam 1 will be immediately graded by the software and



students will be able to see their grade after completing the exam. The actual graded questions and answers will be visible after all students have taken the exam. Exams 2 and 3 will take longer to be graded and we strive to complete this within one week.

Exam Make-up Policy

Students are expected to take each exam on the date given and submit each assignment in a timely manner. If for any reason a student cannot attend an exam or submit an assignment, he or she must notify the instructor prior to the examination.

• Assignments: Most assignments are done through the Quiz software on Brightspace. Submit assignments on the due date to Brightspace. Do not submit homework by email. Late assignments are not accepted; however, there are nine graded homework assignments worth 25 points each, with the lowest score being dropped. So if you miss one assignment, it is still possible to get full credit on the assignments component of your grade. For most assignments, grades will be available immediately after the assignment is completed when automatically graded by Brightspace. Students will be able to see the graded questions and answers within a day after the assignment is due. A few assignments may take more time to grade and we strive to have these assignments graded within one week after the due date. [Here is how you view past assignments or exams: 1. Go to Content on the class website for the Quizzes tab. 2. Click on the item that you wish to view. 3. Use the dropdown arrow and select "Submissions". Then select Attempt 1. You will then be able to view your assignment/exam. You should be able to view all of the questions and answers from that assignment/exam.]

Important note: Brightspace will not allow an assignment to be visible later if a student does not attempt it. So it is very important that you attempt all assignments, not just to get the points but also to view them later. Otherwise, you will not be able to view them when studying for exams.

- **Student Information on Discussions:** You are required to introduce yourself in the Discussions folder call "Student Introductions". In the Discussion folder, it tells you what to post. This is due by the date indicated on the detailed course schedule below. Very briefly, we ask you to post:
 - 1. Name and major
 - 2. Why are you taking the class?
 - 3. Where are you from?
 - 4. What do you hope to learn in the class?
 - 5. Area of career interests and if you are already working full-time, please share this.
 - 6. Hobbies?
 - 7. Please tell us something about yourself that most people do not know. [You may wonder what is meant by this. For example, we had a student that was one of the semi-finalists a number of years ago, to be one of the people on a survivor show. He did not make the final cut. We had another student that was talented in singing the alphabet backwards. Another student shared that they had been to over 10 countries around the world.]



Discussion Board: Post at least 7 comments during the semester to the course Discussion Board on the class website. Each posting is worth 5 points for a total of 35 points of your grade (see the Discussion Rubric on the right). These comments need to be thought provoking statements related to energy finance and/or replies to someone else's posting. ALWAYS provide your source and provide the link if you are citing an article or pasting comments from another source. At least 5 of the comments must be posted to the "Current Events and Topics in Energy Finance" folders to receive credit.

	Discussion Rubric			
Rubric Components	5	3	0	Total
1st comment or reply in the Current Events and Topics in Energy Finance folder	Both more than 8 words and not more than 2 in one week	One of these: more than 8 words and not more than 2 in one week	None of these: more than 8 words and not more than 2 in one week	
2nd comment or reply in the Current Events and Topics in Energy Finance folder	Both more than 8 words and not more than 2 in one week	One of these; more than 8 words and not more than 2 in one week	None of these; more than 8 words and not more than 2 in one week	
3 rd comment or reply in the Current Events and Topics in Energy Finance folder	Both more than 8 words and not more than 2 in one week	One of these: more than 8 words and not more than 2 in one week	None of these; more than 8 words and not more than 2 in one week	
4th comment or reply in the Current Events and Topics in Energy Finance folder	Both more than 8 words and not more than 2 in one week	One of these: more than 8 words and not more than 2 in one week	None of these: more than 8 words and not more than 2 in one week	
5th comment or reply in the Current Events and Topics in Energy Finance folder	Both more than 8 words and not more than 2 in one week	One of these: more than 8 words and not more than 2 in one week	None of these: more than 8 words and not more than 2 in one week	
1 st comment or reply in Exams or Assignments folders	Both more than 8 words and not more than 2 in one week	One of these: more than 8 words and not more than 2 in one week	None of these: more than 8 words and not more than 2 in one week	
2 nd comment or reply in Exams or Assignments folders	Both more than 8 words and not more than 2 in one week	One of these: more than 8 words and not more than 2 in one week	None of these: more than 8 words and not more than 2 in one week	

All 7 comments can be posted here too. Replies to someone else's posting will count if they have content too. Short comments of eight words or less do not count. Please note: The postings are not to be questions directed to me (but we will be glad to comment if needed). What we want is a discussion among students and we will add my insights where needed. Also, be sure to read other posts in Discussions.

All discussion board postings need to be posted by Monday, Nov. 27th. No more than two postings per week will count so start posting at the beginning of the semester. In other words, these cannot be posted all at once towards the end of the semester and only two postings a week will count. At most, two questions/comments about exams or assignments will count and all questions about exams and assignments must be posted to the exam and assignments folders, respectively.

Research Report: Requirements for the research report are posted to Brightspace in the "Course Information" folder, which is the first folder. This is due by Friday of Dead Week.

Extra Credit: Requirements for the extra credit book report are posted to Brightspace in the "Course Information" folder, which is the first folder. You can read one of the books mentioned on page 1 of this syllabus for extra credit. This will add 15 points to your overall course average. This means that if you have an overall course average of 88.5% (a grade of B) before the extra credit, then you will have a 90% average if you do the extra credit assignment – and as a result, you will earn an A in the course instead of a B. The extra credit assignment is due the <u>last day of classes before the final exam week</u>. No extra credit work will be accepted after that date.



Course Policies and Communication: There is a lot of reading material in this class so please keep up! will be sending emails during the semester to remind you to keep up since this is a Distance Learning class. The assignments also help you keep up with the material. Sometimes, we will post new short (just a few minutes) videos to remind you where you should be in working on the course materials – and/or about current events.

During the week, we will do my best to respond to emails within 24 hours. On weekends, I always try to respond within 48 hours. Please note that we often receive around 150 work emails per day so before asking questions, make sure they are not already answered in the FAQ. It is important that course related questions are to be posted to Brightspace Discussions so that all students can benefit from the Q & A. Of course, if the email is personal in nature, you should email me directly. Again, before making posts with questions, make sure they are not already answered in the Frequently Asked Questions or the Discussion Board in prior Q&A.

- Professionalism in Email: Please be professional when corresponding with me and other OSU
 employees via email. Use a proper opening (i.e., Dear Dr. XYZ or Dear Professor XYZ), grammar,
 punctuation, and closing. Also, this policy will help you establish professionalism in digital
 communications when looking for a job and working in a professional position.
- Frequently Asked Questions (FAQ): There is a list of frequently asked questions about the course posted to the main class webpage on Brightspace. Please read these at the very beginning of the semester and make sure you have read these before posting course questions to Brightspace because they may already be answered here.
- **Netiquette:** A melding of the words "network" and "etiquette", **netiquette** refers to the manner in which communication is conveyed in an electronic environment. Here are some guidelines for communication within this course:
 - REFRAIN FROM USING ALL CAPS. It is considered SHOUTING when communicating online.
 - o Always add in the subject line a concise statement describing the email or discussion post.
 - o Do not post or forward offensive or racially insensitive jokes or comments.
 - Be careful with humor and sarcasm.
 - o Don't respond to personal attacks: Contact the instructor for action and referral.
 - o Respect others' opinions. If you disagree with what another has said, post your thoughts in an objective, respectful manner. Do not make remarks that can be taken personally.
 - o Reflect upon the text you have entered before posting.
 - o Keep the discussion within the scope of the course material.
 - o Communication should be grammatically correct. Adhere to correct sentence structure, grammar, and spelling conventions. Proofread for errors before posting a message.
 - O Before you respond to a threaded message, read all the messages related to that message that have been previously posted.

Computer Requirements:

- o A broadband internet connection
- o Windows 7 or Mac OS Mavericks or newer operating system are preferred
- o Google Chrome or Mozilla Firefox web browser
- Note: lecture videos are not compatible with Internet Explorer or Edge · VLC Viewer video player (click on link to download)

University Drop Policy: Information about university drop policy and dates is at this website:



http://registrar.okstate.edu/. Click on "class schedules," and "short, internet, and outreach courses". To drop this course, contact the Registrar's office, (405) 744-6876, or drop through Banner Self Service, http://my.okstate.edu

Academic Integrity Policy: Oklahoma State University is committed to the maintenance of the highest standards of integrity and ethical conduct of its members. This level of ethical behavior and integrity will be maintained in this course. Participating in a behavior that violates academic integrity (e.g., unauthorized collaboration, plagiarism, multiple submissions, cheating on examinations, fabricating information, helping another person cheat, unauthorized advance access to examinations, altering or destroying the work of others, and fraudulently altering academic records) will result in your being sanctioned. Violations may subject you to disciplinary action including the following: receiving a failing grade on an assignment, examination or course, receiving a notation of a violation of academic integrity on your transcript (F!), and being suspended from the University. You have the right to appeal the charge. Contact the Office of Academic Affairs, 101 Whitehurst, 405-744-5627, http://academicintegrity.okstate.edu/.

Accessibility: Any student in this course who has a disability that may prevent him or her from fully demonstrating his or her abilities should contact the instructor as soon as possible, so we can discuss accommodations necessary to ensure full participation and facilitate your educational opportunity. For more information about OSU Student Disability Services, please go to: http://sds.okstate.edu.

OSU Syllabus Attachment: Other important academic information and university policy can be found on the syllabus attachments that can be downloaded from the OSU websites at official syllabus attachment and the Registrar's Enrollment Guide: http://academicaffairs.okstate.edu/

Useful Websites to Monitor: A couple of our favorites are:

- <u>www.wtrg.com</u> (Energy Economist website, written and owned by James Williams, who is my coauthor on "Chapter 3: Energy Economics" of the textbook.)
- http://www.api.org/; If you want to stay on top of news in the petroleum industry, we encourage you to sign up for API's free newsletter, API SmartBrief. To sign up, go to: https://www.smartbrief.com/api/index.jsp.
- http://eia.doe.gov
- See my website for even more ideas on energy resources available on the web: http://spears.okstate.edu/home/simkins/FIN5550/Energy_web_resources.htm



CLASS SCHEDULE FOR FALL 2017

Note to Students: You are expected to read the assigned materials (see below) the week it is covered in class. It is your responsibility to keep up with the material. TBA stands for "to be announced".

W	Week		READINGS AND ASSIGNMENTS
E	of:	TOPIC	(All reading material available in the textbook or on Brightspace.)
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11			BE SURE TO WATCH ALL OF THE VIDEOS OVER THESE
			TOPICS!
1	Aug. 21	Course Overview,	Course syllabus
		Introduction and the Energy Value Chain (Upstream)	Course Introduction: PowerPoint slides and lecture Reading: API Report "Energizing America: Facts for Addressing Energy Policy"
		value Cham (Opsiteam)	Reading/video lecture: PowerPoint slides and lecture on the Energy Value Chain
			(Upstream)
2	Aug. 28	Energy Economics	Chapter 3 of Energy Finance and Economics
			Reading/video lecture to be posted to Brightspace content
			Assignment #1: Available on Brightspace (Due Sunday, Sept. 3 rd by 11:45pm)
3	Sept. 4	Advances in Drilling	Student information post to Discussions is due by Sunday, Sept. 3 rd at 11:45pm. Reading/video lecture to be posted to Brightspace content
,	эсрі. 4	Technology and Recent	The Frackers: Front material through Chapter 1, Pages 1-46
		Developments in Oil Prices	Energy Myths and Realities: Chapter 4, Pages 60-78
		· · · · · ·	Assignment #2: Available on Brightspace (Due Sunday, Sept. 10 by 11:45pm)
4	Sept. 11	The Energy Value Chain	The Frackers: Chapter 2, Pages 47-90
		(Midstream and	Chapter 5 of Energy Finance and Economics
		Downstream: Refining &	Reading/video lecture: PowerPoint slides on the Midstream
		Marketing)	Reading/video lecture: PowerPoint slides on Downstream-R&M
5	Sept. 18	Energy Value Chain:	Reading/video lecture: PowerPoint slides on Petrochemicals
	1	Petrochemicals	Digital guest speaker video: Leslie Koch with ConocoPhillips
			The Frackers: Chapters 4 and 5, Pages 91-144
		Electric Cars	Energy Myths and Realities: Chapter 1, Pages 18-30
			Assignment #3: Available on Brightspace (Due Sunday, Sept. 24 by 11:45pm) Research Report Proposal due by Sunday, Sept. 24 by 11:45pm. Post to Dropbox.
6	Sept. 25	Exam 1 review and exam	Exam 1 – Monday through Wednesday, Sept. 25-27
	Берг. 23	Exam 1 review and exam	Danii 1 Wonday an oaga Wednesday, Sept. 25 27
7	Oct. 2	Solar Power	The Frackers: Chapter 7, Pages 145-171
			Other readings/video are TBA
			Assignment #4: Available on Brightspace (Due Sunday, Oct. 8 by 11:45pm)
8	Oct. 9	Wind Power	The Frackers: Chapters 7 and 8, Pages 172-214
			Energy Myths and Realities: Chapter 7, Pages 116-132 Other readings/video are TBA
9	Oct. 16	Hydropower and Nuclear	The Frackers: Chapter 9, Pages 215-240
	Oct. 10	Power	Energy Myths and Realities: Chapter 2, Pages 31-43
			Other readings/video are TBA
			Assignment #5: Available on Brightspace (Due Sunday, Oct. 22 by 11:45pm)
10	Oct. 23	Biomass Fuels	The Frackers: Chapters 10 and 11, Pages 241-282
			Energy Myths and Realities: Chapter 6, Pages 98-115
			Other readings/video are TBA Assignment #6 Available on Prightspace (Due by Sunday, Oct. 20 by 11:45 pm)
11	Oct. 30	Exam 2 review and exam	Assignment #6 Available on Brightspace (Due by Sunday, Oct. 29 by 11:45pm) Exam 2 – Wednesday through Friday, Nov. 1-3
11	OCI. 50	Danii 2 icview and caam	Daam 2 - Wednesday tiir bugii Ffiday, 1907. 1-3
12	Nov. 6	Oil Services Industry	The Frackers: Chapters 12 and 13, Pages 283-317
			Other readings/video are TBA



13	Nov. 13	Energy Marketing and	The Frackers: Chapter 14, Pages 318-360
		Trading	Other readings/video are TBA
			Assignment #7: Available on Brightspace (Due Sunday, Nov. 19 by 11:45pm)
14	Nov. 20	The Pace of Energy	The Frackers: Epilogue and Afterword, Pages 361-393
		Transitions	Energy Myths and Realities: Chapter 8, Pages 133-149
			November 23 rd is Thanksgiving
			All Discussion Board Posts need to be completed by Monday, Nov. 27.
15	Nov. 27	Energy Lessons and Policy	Energy Myths and Realities: "Conclusion: Lessons and Policy Implications, Pages 150-
		Implications	163
			Assignment #8: Available on Brightspace (Due Sunday, Dec. 3 by 11:45pm)
16	Dec. 4	Conclusion and Review	Assignment #9: Available on Brightspace (Due Sunday, Dec. 10 by 11:45pm)
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	Dec. 11	Final Exam Week	Final Exam: Wednesday through Friday, Dec. 13-15

Other important dates of optional activities:

- NGEAO Luncheons: See http://www.ngeao.org for more details. NGEAO stands for Natural Gas and Energy Association of Oklahoma. They also hold monthly luncheon meetings that you can attend, at no cost to you if we sign you up. Let me know if you are interested. These luncheon meetings are usually held on the second Thursdays of each month in either Tulsa or Oklahoma City. This is an excellent networking opportunity! All luncheon times are from 11:30am-1:30pm. Also, check out the NGEAO website about other luncheons during the year and for jobs in the energy industry. If you are interested, please let me know.
- Young Energy Professionals Chapters: See http://www.ypenergy.org/. There are chapters in Tulsa and Oklahoma City (among many other cities) and these groups also have monthly meetings.
- Oklahoma Young Professionals Energy Forum has a single event each year. This event is sponsored by several professional groups in the energy sector so it is multi-disciplined. See http://www.okypenergyforum.org
- **Financial Management Association (FMA)**: Join the FMA OSU student chapter. See the information on Facebook at: http://www.facebook.com/#!/groups/FMA.OKSTATE/
- **FIN 4550/BADM 5200: Cowboys on Wall Street:** Enroll in the 3-credit hour FIN 4550/BADM 5550 NYC course & travel in May 2018. Sign up early because this popular travel course fills up quickly!
- **Business Career Fair:** Check OSU's schedule
- All students should have a business card. To order OSU business cards, go
 to: http://www.hireosugrads.com/StudentsAlumni/Supplies-BusinessCard.aspx



ADDITIONAL USEFUL INFORMATION: These are additional tips to help you be successful in courses.

Subscribe to the Brightspace calendar so that you are reminded of important due dates

Students can subscribe to the Brightspace calendar so that it will show up on their computer, tablet, or mobile phone calendar.

To subscribe to your Brightspace calendar (to add it to your own calendar, such as an Outlook or Google calendar): From the calendar widget on the Brightspace main page of a course, choose the black drop down arrow and select Calendar (which should look like the image at the top of this blog), then settings. Check the box next to "Enable Calendar Feeds" and save your choice. Then select "Subscribe". Copy the link provided and add the calendar via the link to your own calendar.

