

The Energy Transition - FINA 4397/7397 – Fall 2024

Class Information

- Thursdays 6:00pm-9:00pm
- Location: In Person (TBD)
- Office Hours: By appointment (832-256-2229)

Instructor

Greg Bean is the Executive Director of the Gutierrez Energy Management Institute in the Bauer College of Business at the University of Houston. In this position, he is responsible for energy education, research, events and industry outreach at Bauer. He is also the Faculty Director of the MS in Global Energy Management Program and an adjunct faculty member. Greg has forty years of experience in the oil and gas industry, management consulting, and higher education. Prior to joining Bauer, Greg was most recently Managing Director – Oil and Gas Strategy and Organization Consulting at Deloitte Consulting. He started his career at ExxonMobil. Greg has a degree in chemical engineering from Texas A&M University.

Summary

The course is designed to introduce students to the significant changes to the global energy and related industries resulting from the transition to a low carbon energy world. The course will emphasize the drivers of the transition, uncertainty of the nature and pace of the transition and different points of view and potential scenarios. Students will assess the business opportunities and threats created by the transition.

Course Learning Objectives

- Understand the current global energy system
- Identify the drivers and challenges for the global energy transition
- Assess the potential impacts of the energy transition on different segments of the energy industry, related-industries, and society more broadly
- Understand the uncertainties on the nature and pace of the transition and build potential scenarios for the transition
- Identify key business opportunities and threats resulting from the transition
- Assess potential changes in energy industry structure and players

Course Approach

The course will include a variety of learning activities including lectures, classroom discussion, reading assignments, guest lecturers, and individual and team projects.

Grading

Grades will be based on a mix of biweekly quizzes, an individual student paper, and a team project.

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Class Detail

Class	Topic
1	Course Introduction and The Current Global Energy System
2	Historical Energy Transitions
3	Drivers and Challenges of the Current Energy Transition
4	Evolution of Traditional Energy Sources
5	Evolution of Energy Use
6	The Future of Electricity (1) and Introduction to Team Projects
7	The Future of Electricity (2) and Introduction to Individual Papers
8	International Energy Companies and the Energy Transition / Impact of Transition on Industries
9	New Fuels, Energy Carriers and Other Enablers
10	No Class – Project Team Meeting to Work on Presentations
11	ESG and CSR Essentials for the Energy Industry/New Business Models for the Energy Transition
12	Private Equity Investing in the Energy Transition
13	No Class – Project Team Meeting to Work on Presentations
14	New Environmental Products and Markets for the Energy Transition / Presentation of Team Projects
15	No Final Exam

Guest Speakers

TBD

Project Assignments

Projects	Topic	Description	Deliverable
Individual	Most Interesting Scenario for the Energy Transition	Students will define their most interesting scenario for how the energy transition will evolve in the next thirty years	10-15 page white paper
Team	Best Business Opportunity from the Energy Transition	Student teams will identify and build a case for the best business opportunity they see as a result of the energy transition	15 minute presentation

UNIVERSITY OF HOUSTON SYLLABUS LANGUAGE: FALL 2023

Required Language for All Courses

Mental Health and Wellness Resources

The University of Houston has a number of resources to support students' mental health and overall wellness, including [CoogsCARE](#) and the [UH Go App](#). UH [Counseling and Psychological Services \(CAPS\)](#) offers 24/7 mental health support for all students, addressing various concerns like stress, college adjustment and sadness. CAPS provides individual and couples counseling, group therapy, workshops and connections to other support services on and off-campus. For assistance visit uh.edu/caps, call 713-743-5454, or visit a [Let's Talk](#) location in-person or virtually. [Let's Talk](#) are daily, informal confidential consultations with CAPS therapists where no appointment or paperwork is needed.

The [Student Health Center](#) offers a Psychiatry Clinic for enrolled UH students. Call 713-743-5149 during clinic hours, Monday through Friday 8 a.m. - 4:30 p.m. to schedule an appointment.

The [A.D. Bruce Religion Center](#) offers spiritual support and a variety of programs centered on well-being.

Need Support Now?

If you or someone you know is struggling or in crisis, help is available. Call CAPS crisis support 24/7 at 713-743-5454, or the National Suicide and Crisis Lifeline: call or text [988](#), or chat 988lifeline.org.

Academic Honesty Policy

High ethical standards are critical to the integrity of any institution, and bear directly on the ultimate value of conferred degrees. All UH community members are expected to contribute to an atmosphere of the highest possible ethical standards. Maintaining such an atmosphere requires that any instances of academic dishonesty be recognized and addressed.

The [UH Academic Honesty Policy](#) is designed to handle those instances with fairness to all parties involved: the students, the instructors, and the University itself. All students and faculty of the University of Houston are responsible for being familiar with this policy.

Title IX/Sexual Misconduct

Per the UHS Sexual Misconduct Policy, your instructor is a “responsible employee” for reporting purposes under Title IX regulations and state law and must report incidents of sexual misconduct (sexual harassment, non-consensual sexual contact, sexual assault, sexual exploitation, sexual intimidation, intimate partner violence, or stalking) about which they become aware to the Title IX office. Please know there are places on campus where you can make a report in confidence. You can find more information about resources on the Title IX website at <https://uh.edu/equal-opportunity/title-ix-sexual-misconduct/resources/>.

Reasonable Academic Adjustments/Auxiliary Aids

The University of Houston is committed to providing an academic environment and educational programs that are

accessible for its students. Any student with a disability who is experiencing barriers to learning, assessment or participation is encouraged to contact the Justin Dart, Jr. Student Accessibility Center (Dart Center) to learn more about academic accommodations and support that may be available to them. Students seeking academic accommodations will need to register with the Dart Center as soon as possible to ensure timely implementation of approved accommodations. Please contact the Dart Center by visiting the website: <https://uh.edu/accessibility/>, calling (713) 743-5400, or emailing jdcenter@Central.UH.EDU.

Excused Absence Policy

Regular class attendance, participation, and engagement in coursework are important contributors to student success. Absences may be excused as provided in the University of Houston [Undergraduate Excused Absence Policy](#) and [Graduate Excused Absence Policy](#) for reasons including: medical illness of student or close relative, death of a close family member, legal or government proceeding that a student is obligated to attend, recognized professional and educational activities where the student is presenting, and University-sponsored activity or athletic competition. Under these policies, students with excused absences will be provided with an opportunity to make up any quiz, exam or other work that contributes to the course grade or a satisfactory alternative. Please read the full policy for details regarding reasons for excused absences, the approval process, and extended absences. Additional policies address absences related to [military service](#), [religious holy days](#), [pregnancy and related conditions](#), and [disability](#).

Recording of Class

Students may not record all or part of class, livestream all or part of class, or make/distribute screen captures, without advanced written consent of the instructor. If you have or think you may have a disability such that you need to record class-related activities, please contact the [Justin Dart, Jr. Student Accessibility Center](#). If you have an accommodation to record class-related activities, those recordings may not be shared with any other student, whether in this course or not, or with any other person or on any other platform. Classes may be recorded by the instructor. Students may use instructor's recordings for their own studying and notetaking. Instructor's recordings are not authorized to be shared with anyone without the prior written approval of the instructor. Failure to comply with requirements regarding recordings will result in a disciplinary referral to the Dean of Students Office and may result in disciplinary action.

Recommended Language and Guidance

Resources for Online Learning

The University of Houston is committed to student success, and provides information to optimize the online learning experience through our [Power-On](#) website. Please visit this website for a comprehensive set of resources, tools, and tips including: obtaining access to the internet, AccessUH, Blackboard, and Canvas; using your smartphone as a webcam; and downloading Microsoft Office 365 at no cost. For questions or assistance contact UHOnline@uh.edu.

UH Email

Please check and use your CougarNet email for communications related to this course. Faculty use the CougarNet email to respond to course-related inquiries such as grade queries or progress reports for reasons of FERPA. To access your CougarNet email, [login](#) to your Microsoft 365 account with your CougarNet credentials. Visit [University Information Technology \(UIT\)](#) for instructions on how to connect your CougarNet e-mail on a mobile device.

Webcams

Access to a webcam is required for students participating remotely in this course. Webcams must be turned on (*state when webcams are required to be on and the academic basis for*

requiring them to be on). (Example: Webcams must be turned on during exams to ensure the academic integrity of exam administration.)

Security Escorts and Cougar Ride

UHPD continually works with the University community to make the campus a safe place to learn, work, and live. The security escort service is designed for the community members who have safety concerns and would like to have a Security Officer walk with them, for their safety, as they make their way across campus. Based on availability either a UHPD Security Officer or Police Officer will escort students, faculty, and staff to locations beginning and ending on campus. If you feel that you need a Security Officer to walk with you for your safety, please call [713-743-3333](tel:713-743-3333). Arrangements may be made for special needs.

Parking and Transportation Services also offers a late-night, on-demand shuttle service called “Cougar Ride” that provides rides to and from all on-campus shuttle stops, as well as the MD Anderson Library, Cougar Village/Moody Towers and the UH Technology Bridge. Rides can be requested through the UH Go app. Days and hours of operation can be found at <https://uh.edu/af-university-services/parking/cougar-ride/>.

Syllabus Changes

Please note that the instructor may need to make modifications to the course syllabus. Notice of such changes will be announced as quickly as possible through *(specify how students will be notified of changes)*.

Additional Recommended Issues to Address in the Syllabus

Artificial Intelligence

Instructors are recommended to develop language that will guide students in their use or prohibition of use of AI related tools. If an instructor allows the use of AI tools, they should clearly indicate in what ways they can be used, how they should be cited/reported, and for which assignments they are allowed. Note that Turnitin currently has a filter for ChatGPT, although there is approximately 2% rate of false positives. The following is a collection of classroom policies from a variety of universities for AI generative tools: [Classroom Policies for AI Generative Tools \(google.com\)](#).

Online Exams

The Office of the General Counsel has recommended to make sure students are aware that: (1) students are permitted to take their online tests or quizzes in a computer lab or other open space; and (2) there is no requirement that a student use their own personal computer or that they complete exams and quizzes in any specific location (e.g., their home). The Office of the General Counsel has advised that students be made aware in advance that an environmental scan may be conducted as a part of an online exam.