



FINA 7374 | Midstream Energy Finance

Section: 11960 | Synchronous Online

TuTh 06:00 PM-10:00 PM | University of Houston

Prerequisite(s): Graduate standing and FINA 6A35 or FINA 6335. Provides an insight into the midstream sector of the oil and gas industry by studying real projects and strategies executed in this sector. Explores the financial risks, structures and investment strategies and the drivers to investment in the midstream industry. Includes an overview of how this sector has developed and the entities that have come to the forefront of this sector.

General Course Information

Name: Dan Ownby

Department: Finance

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Office Hours

After work hours MWF - set up via txt

Course Objectives and Student Learning Outcomes

Course Description

This course aims to provide students with an insight into the Midstream sector of the energy industry by studying real projects and strategies. The content of the course will include an overview of the midstream business in the natural gas, crude oil, petroleum products and natural gas liquids sectors as they have developed over the past several decades, their unique aspects, and how they are interlinked. The course will also include an overview of the entities that have come to the forefront of this sector, including Publicly Traded (C Corp) entities, Master Limited

Partnerships (MLPs), Private Equity funded independent companies and regulated Pipelines and Utilities.

At the core of this course will be the emphasis on commercial and strategic thought as it relates to the development of new infrastructure across the energy spectrum, and to the development and control of assets from natural gas and crude oil gathering, processing, transmission, treating, refining, fractionation and marketing of the products produced in these processes. The course will also include the exploration of the financial risks, structures and investment strategies and the drivers to investment in the midstream industry, along with discussion of the regulatory and environmental issues faced by these companies related to market power and the environment. Discussions will be in the context of the oil and natural gas businesses of class participants and guest speakers, themselves executives in the industry.

Required Instructional Materials

None

Course Schedule, Assignments, and Assessments

Course Schedule

Course will be held via zoom every Tuesday and Thursday evening between 6-10pm from Tuesday July 8th – Tuesday August 5th. Course will include lecture via PowerPoint, guest speakers and if time permits time for students to work on the group project.

Discussion and Lecture Topics

Class Session Topics:

1. Introductory Overview of the Midstream Industry
 1. Crude and petroleum products
 2. Natural Gas
 3. Natural Gas Liquids
 4. Economics of the industry
 5. How do these companies make money?

6. What are the differences between regulated and non-regulated returns?
7. Why the differences?
2. Detailed Review of Crude Infrastructure (Gathering, transportation and Products)
 1. Regulation and the development of the crude oil market
 2. Users of Crude Oil
 3. How the infrastructure was developed?
 4. Getting the product to market: Transportation alternatives and competition
 1. Gathering
 1. Types and modes of gathering
 2. Practicalities of each mode
 2. Taking product to market
 1. Pipelines
 2. Rail
 3. Trucks
 4. Ships
 5. Refining
 6. Products
3. Detailed Review of Natural Gas Infrastructure
 1. Regulatory evolution in the natural gas industry
 2. Uses
 3. Gathering
 4. Processing
 5. Pipelines (Intrastate/Interstate)
 6. LNG/Compressed Natural Gas
4. Natural Gas Liquids (NGL) Infrastructure Overview
 1. Global and North American structure of the NGL markets
 1. Imports
 2. Exports

2. Uses of NGLs
 3. Pipelines
 4. Barges
 5. Trucks
 6. Ships
 7. Product pipelines
5. Who are the investors in Midstream projects?
1. Regulated Utilities/Pipelines
 2. Publicly Traded Companies
 3. Private Equity funded firms
 4. Master Limited Partnerships (MLP)
6. Value Proposition
1. Where is value created?
 2. How is value extracted?
 3. How do different investors view value?
 4. Assessing Value of a Midstream Project (How is a midstream project developed?)
 5. Targeting areas for strategic value
 6. What is the value proposition?
 7. How to test the potential value of a project
 8. Probability of success?
 9. What are the factors that make a project successful?

Grading Rubrics and Weights

Grading

Final Exam: 45%

Group Project: 45%

Class Participation: 10%

Extra Credit: +5%

Final Exam – 45%:

Exam will cover key questions from midstream topics discussed in class.

Several questions will be provided.

Students also have option to choose one of their own questions. Student submitted topics must be approved PRIOR to Thursday, July 31st

Exam will be provided to students on Friday August 1st. Due Date: COB - Wednesday, August 6th

Group Project - 45%:

Comprehensive Midstream Development Case Study (Group Project)

The purpose of this case study is to provide students with an opportunity to consider all the factors a company faces when acquiring, developing, or selling an asset. Teams should think of themselves as management looking to sell, buy, or build a fictitious midstream asset, such as a pipeline, storage facility, or processing plant. Groups will develop strategies and an investment thesis for this asset, with the intended audience being the Board. Relevant factors to consider include location, available markets, competitive landscape, cost and rate structure, risk, add-on opportunities, and financing options.

Format:

- Presentation Date: Thursday, August 5th
- Group Size: 3 to 5 members, with each team member required to present
- Presentation Duration: 20 minutes, including Q&A, using PowerPoint
- Pre-read Submission: Post on Canvas and send to dgownby@cougarnet.uh.edu - by Saturday, August 2nd

- Financial Model: Create a financial model using the provided template or a similar model

Grading Criteria:

- Group participation
- Quality of pre-read material
- Ability to clearly "tell a story" to the stakeholders
- SWOT analysis
- Team's ability to "think on their feet" during the Q&A session
- Use of a model to demonstrate the economics
- Clear and compelling recommendation ("Ask")

Participation - 10%:

- Attend class or let me know what's going on that you need to miss – I will be paying attention to participation.
- Ask questions – especially for guest speakers
- Answer in-class questions

Extra Credit – 5%:

A summary of a midstream company. Abbreviated history, current structure, operations, financials and a short description of a current project they are working on. (1-limit 2 pages)

Due Monday, July 28

Course Policies and Procedures

Attend & Participate in Class - let instructor know if you will not be able to attend

Ask Questions

Have cameras on

Give feedback

University Policies and Student Support Resources

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.

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.

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 (known at UH as the Equal Opportunity Services office or "EOS"). Please know there are places on campus where you can make a report in confidence. You can find more information about resources on the UH [Title IX/Sexual Misconduct Resources page](#). Please note that you may also report concerns of discrimination based on your protected class identity to EOS.

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.

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.

The [Center for Student Advocacy and Community \(CSAC\)](#) is where you can go if you need help but don't know where to start. CSAC is a "home away from home" and serves as a [resource hub](#) to help you get the resources needed to support academic and personal success. Through our [Cougar Cupboard](#), all students can get up to 30 lbs of FREE groceries a week. Additionally, we provide 1:1 appointments to get you connected to on- and off-campus resources related to essential needs, safety and advocacy, and more. The [Cougar Closet](#) is a registered student organization advised by our office and offers free clothes to students so that all Coogs can feel good in their fit. We also host a series of cultural and community-based events that fosters social connection and helps the cougar community come closer together. Visit the CSAC homepage or follow us on Instagram: @uh_CSAC and @uhcupbrd. YOU belong here.

Women and Gender Resource Center

The mission of the [WGRC](#) is to advance the University of Houston and promote the success of all students, faculty, and staff through educating, empowering, and supporting the UH community. The WGRC suite is open to you. Stop by the office for a study space, to take a break, grab a snack, or check out one of the WGRC programs or resources. Stop by Student Center South room B12 (Basement floor near Starbucks and down the hall from Creation Station) from 9 am to 5 pm Monday through Friday.

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.

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.