

INDE209: ANALYSIS OF PUBLIC COMPANIES IN THE LIFE SCIENCES

Fall 2020, Monday 5:00pm – 5:50pm, Virtual

Note: Due to a recent Faculty Senate mandate on course numbering, this course has been re-catalogued as INDE209. It is the same course as INDE239SI.

Biotechnology companies, and companies which generally engage with the life sciences, are often valued using a different methodology than companies in other industries. This course will teach students how to analyze a publicly traded life science company using widely available online materials including 10-K, 13-F, conference calls, and financial & technical analysis. Additionally, students will learn how to access and utilize Stanford's resources (analyst reports, Bloomberg, etc).

Instructors:

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Teaching Assistants:

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All Instructors / TAs are available for office hours by appointment. Please contact the TAs for questions on course logistics.

Student Activities:

This course meets Monday evenings for approximately one hour. Given the current restrictions related to in-person gatherings, for Fall 2020, this course will be held entirely online via Zoom. In addition to their attendance at all lectures (please let a TA know if a scheduling conflict arises), students will be expected to complete several small homework assignments. These assignments, several of which are group-assignments, are intended to encourage students to make incremental progress on their final project. The final consists of a group presentation of an investment pitch to a panel of professional public and private biotech investors.

Grading:

This course is 2 units and is graded pass/fail. It is our hope that students leave the course having both learned interesting information and practiced their hand at applying that knowledge. A word of advice, we have found that the adage, "You get out what you put in" applies to this course.

I. Attendance and Participation: 25% of the grade

Virtual attendance at each lecture is required. A TA will take note of your name at a random time during the lecture. If there is a chance you may miss a lecture, please let the TAs know ahead of time. Similarly, if you find you need to leave a lecture early, please let the TA know. That all being said, we understand that unexpected things happen and will try to be as accommodating as possible!

If you miss a lecture, please review the lecture slides (posted online) and let the Instructors know if you have questions.

II. 7 Weekly Homework Assignments: 35% of the grade

Weekly Assignments will be given during class and are due on the follow Sunday night by 11:59pm.

Students will work individually and in teams to complete small assignments in preparation for the final investment pitch. All submissions will be handled through the course's Google Drive.

III. Final Investment Pitch: 40% of the grade

All students will work in teams (3-5 students) to present a pitch of one public biotech stock at the final class session to a panel of professional investors.

Each team member is expected to present a portion of the pitch. Depending on the number of teams, each pitch should range in time from 10min to 15min. Requirements include discussing each of the six major risk factors and including a Recommendation (Buy, Hold, or Sell), an Investment Strategy, and a Price Target.

Auditing:

We welcome Stanford Post-Docs and Staff to audit the course. If you are a Stanford Undergraduate or Graduate student, you may also audit, although we would encourage formally enrolling. If you are not affiliated with Stanford University, you may also audit the course, however we would appreciate an email describing why you are interested in the course as well as your current position (the RSVP form also has space for that information).

If they can commit to assisting with the homework assignments and final presentation, auditors are encouraged to join the enrolled students on teams. Only students on teams will have the opportunity to present their investment pitch to our panel of professional investors.

Virtual Classroom:

The Fall 2020 course will be entirely virtual. While we will not require that you turn your video cameras on during the lectures, doing so will help make the class feel more like a community, so, if you are able, please consider it!

Please be patient with any technical difficulties we or our guest speakers have throughout the quarter. This is our first virtual class, and there may be a few hiccups along the way!

We are always looking to improve the course, so as the quarter progresses, please send us any feedback you may have on the lectures, the course format, the homework, ect...

Google Drive:

We utilize Google Drive for this course. All lectures, homework, and additional resources will be uploaded to shared folder(s). Students are expected to submit their homework to the Drive by uploading their files to the 'Homework Submission' folder.

The link for the Fall 2020 Drive can be found [here](#).

Additional Resources:

The following are resources which will facilitate investigations into public companies. We will discuss most of these in class as well.

www.finance.yahoo.com - General financial data

<https://endpts.com/> - News on the biotech / pharma industry

<https://www.statnews.com/> - Research and editorials on the biotech / pharma industry

<https://www.fiercebiotech.com/> - Research and editorials on the biotech / pharma industry

www.biopharmacatalyst.com - List of upcoming catalysts

www.sec.gov/edgar/searchedgar/companysearch.html - SEC filings

www.insidertrading.org - Database recording insider trading, not always up to date

<https://www.gsb.stanford.edu/library/research-sources/databases> - SUNET ID provides access to all Stanford GSB subscriptions. Thomson ONE (IE only) allows access to Wall Street biotech equity research analyst reports.

Affiliation with the Stanford Biotechnology Group (SBG):

This course is taught by members of the Stanford Biotechnology Group. As a student organization, SBG also hosts seminars and fireside chats with invited speakers in the biotechnology space, organizes site visits, and leads networking events within the community.

For more information about SBG, please refer to our [website](#).

Course Calendar:

Week 1 (09/14): Introduction to Investing in Biopharma Companies

Syllabus overview and course logistics

Introduction to Valuation

Assignment: (Optional) Common tools in Biotech.

Week 2 (9/21): Guest Lecture - [Cristina Ghenoiu](#), SVP of R&D Ops. & New Product Planning at Epirium Bio

Previously Christina was VP at Longitude Capital and a Biotech Equity Research Associate at Cowen

Assignment due 9/27: (Individual) Submit individual valuation preferences form.

Week 3 (9/28): Commercial Risk

Forecasting market size and drug revenues

Hurdles to commercialization

Pricing and reimbursements

Comparing competitors

Assignment due 10/04: Work with your team to narrow down to 1-3 companies of interest for your pitch.

Identify major commercial risk factors.

**Please note for those considering for-credit vs. auditing that the formal drop date is 10/02. If you can commit fully to your team, both auditors and enrollees can participate in the final pitch.*

Week 4 (10/05): Scientific and Clinical Risk

How to interpret clinical data (focus on endpoints)

Trial endpoints and what they mean

Adverse effects and safety

Assignment due 10/11: Identify major scientific and clinical risks/opportunities.

Week 5 (10/12) Financial Risk, Management Risk, and Resources

Basics of Financial Statements: Balance Sheet, Cash Flow, Income Statement

Calculating cash and burn rate

Overview of SEC filings and financial resources

What to look for in good (and bad) management

Conference calls and biotech equity research analysts/reports

Assignment due 10/18: Identify major financial risk factors.

Week 6 (10/19): Guest Lecture on Regulatory Risk – [Carol Karp](#), Chief Regulatory Officer at Prothena

Carol is also currently a Regulatory Advisor to the SPARK Translational Program at Stanford

Assignment due 10/25: Identify major regulatory risk factors.

Week 7 (10/26): Valuation

Developing a Thesis

How to weigh the various types of risk

Various valuation methods: DCF, comparables, etc...

Assignment due 11/01: Valuation exercise.

Week 8 (11/02): Guest Lecture – [Alicia Yin](#), Vice President at 6 Dimensions Capital

Previously Alicia was an Equity Research Associate at H.C. Wainwright & Co., LLC

Assignment due 11/08: Identify management risk factors.

Week 9 (11/9): Presentation Feedback

Schedule 30 min time to meet for instructor feedback

Week 10 (11/16): Final Presentations