Business Finance for Scientists

Welcome to the course page for Business Finance for Life Scientists

This content is designed provide an overview of financial statements, and basic finance principles used in financial planning and decision making. The goal of this workshop is to help prepare scientists who want to start their own labs, and inform scientists who want to go into industry. This page includes the lecture videos, case study information and other resources to help you prepare for the Business Finance workshop.

This course is part of the series titled Business Concepts for Life Scientists. View the introductions to Strategy [1] and Business Development [2].

Finance lecture videos

This workshop is delivered as a flipped classroom - watch the videos before the class and prepare to discuss the activity in class.

It is mandatory to watch the online lecture before attending the workshop. Total video time for Parts I & II is around 25 minutes.

Part II: Basic Financial Principles

Part III: Parallels to Academia

For your convenience, we have included the lecture slides.

New to finance? Refer to this terms sheet during the lecture.

Business finance learning objectives

By the end of the workshop, you will be able to:

- Identify the 3 different financial statements and how scientific enterprises use them
- Read and identify parts of the P&L statement
- Calculate burn rate
- Explain concepts such as opportunity cost, cost of capital and net present value
- Discuss how these concepts are used in financial planning

Activity information

During the in-class case study discussion, the class will break into small groups and look at the financial statements for a company and determine their financial health. Your group may choose any company they wish to discuss. Companies we use as examples in the course, and other companies we suggest: Gilead, Portola, Allergan, Pfizer, Eli Lilly

In class you will choose one company to discuss. Browse the websites before class, and see how much of the company's financial health you can identify from their website, and websites like Yahoo Finance, Google Finance, or the SEC webpage.

Questions to answer:
- What statement do you use to find information on revenue and costs? operating loss?
- How many months of cash do they have?
- What is their cash flow?
- What is their gross margin?
- What can you tell about their operating activities?

Want help locating a company's filings? Watch this brief video on finding a company's 10-K on Edgar, or this video on pulling up financial statements on Yahoo Finance. Yahoo Finance and Google Finance are good places to start for financial companies. They provide financial information in dashboards. However, if a company is private, search for their financial filings on the individual company webpages or the SEC webpage.
Financing and Budgeting for an Academic Lab

Looking for resources and sample budgets for starting an academic lab? View this brief list of resources [11] to get you started. Tutorials mentioned are UCSF-specific. If you are not a UCSF graduate student or postdoc, check the Office of Sponsored Research or Education and Learning Center at your university for resources specific to your institution.

**Review a Q&A facilitated by a tenure-track faculty member about making financial decisions regarding opportunity cost, personnel, and budgeting in the lab.

Speakers and course developers

Course facilitator Carlos Solorzano with course speakers Christine Siu, JeShaune Jackson and Aimee Kao.

JeShaune Jackson [13] managed the operation activities of the Entrepreneurship Center at UCSF and assistant instructor for the life science pre-accelerator program, which has helped a portfolio of companies raise nearly $20M and be placed in some of the top accelerators. He previously worked with Cleveland Clinic’s venture capital arm helping to manage 60+ spinoff companies and approximately $250M in assets. JeShaune received a Masters of Science in Biotechnology commercialization, as well as an MBA concentrated in entrepreneurship from Case Western Reserve University.

Christine Siu [14] has 12 years of experience in private equity and venture capital. She has worked with Third Rock Ventures, Warburg Pincus and Thomas McNerney, specializing in life sciences and biotechnology. Most recently, she started a company, Global Blood Therapeutics (GBT), with Third Rock Ventures. Christine currently consults with venture funds and start-up biotech companies in the field of corporate development, strategic planning,
finance and operations. She holds a MBA from Harvard Business School and a BS in cellular molecular biology and economics from the University of Michigan.

Aimee Kao [15] is an Assistant Professor in the Department of Neurology at UCSF. She received her MD, PhD degrees from the University of Iowa and then performed her Neurology residency at UCSF followed by a post-doctoral fellowship with Cynthia Kenyon. Her lab is interested in the basic pathophysiological mechanisms underlying neurodegenerative diseases. She is a Paul G. Allen Foundation Distinguished Investigator in Alzheimer's Disease.

Carlos Solorzano, PhD [16] is an Equity Research Associate at Oppenheimer and Company and completed his postdoctoral training at UCSF.

Course contributors

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Course producer

Thi Nguyen, PhD [23] - PI of Burroughs Wellcome Fund grant and developed this content at UCSF. She is now the associate dean for graduate career and professional development at Washington University in St. Louis.

Interested in learning more about the course or delivering this course at your university? Facilitator packets, train the trainer materials, and resources for marketing and evaluating the workshop are available. Contact Thi at thi.nguyen@wustl.edu [24].

Video production

The educational videos were produced in collaboration with iBlology [25]. Videos found in the
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