

**Business, Economy and Policy in the midst of COVID-19**  
INTA-GB 2324/ MULT-UB 24 Fall 2020 6:30 to 9:30 PM  
Professors Viral V Acharya and Richard Berner

## **Course overview**

The global pandemic has adversely affected individuals, businesses, consumers, markets, and governments, creating the most adverse recession and unemployment levels of our times, and bringing in response expansive fiscal and monetary policies.

In this course, we will explore the origins and spread of the pandemic and the ways in which it has affected economies and markets. While the pandemic is unique in its own right, we will examine lessons that can be learnt from the history of pandemics as well as of financial crises caused by other types of aggregate shocks. The policy challenges – both humanitarian and financial – faced by developing countries have been substantial given their limited capacity to provide relief and support to pandemic-affected economies compared to developed countries. We will also seek to understand these differences. Of equal interest is what were the initial conditions of the global economy and health care capacity when the pandemic hit, and how these conditions can be improved upon in future for greater resilience.

Understanding these complex problems will allow us to have an informed discussion around several critical issues for near future:

- What are the origins of pandemics, how can public health infrastructure help increase societies' resilience to them, and what are the benefits and costs of boosting resilience?
- What, if any, are the tradeoffs between limiting the spread of the pandemic and economic activity?
- Is targeted intervention in the form of testing-tracing-quarantining superior to lockdowns in dealing with pandemics? What are the costs and benefits?
- How long should central banks and governments backstop the credit risk of businesses? In other words, what are the limits to financial policies?
- Are there alternatives to backstopping small businesses and protecting employment?
- Should supply chains be more diversified? How will business models change
- Are the consequences of pandemic risk already upon us and what can be done about it?
- How can the modern society cope with working from home?
- What data gathering would enable a better response to the next pandemic and what are the attendant ethical and privacy issues?

We may not always have the final answers, but it seems imperative in business education to make a start at tackling these questions in the classroom.

### **Learning outcomes**

The goal of this course is to equip students with an understanding of the causes and consequences of infectious disease pandemics and what society must do to mitigate them so as to limit their adverse health and economic/financial impacts. The course is designed to draw on a variety of disciplines. Reflecting that approach, the course is designed to be accessible for undergraduates, full-time, part-time and executive MBAs, and to students in law, public policy and other schools at NYU.

### **Schedule.**

INTA-GB 2324/ MULT-UB 24 meets on Thursdays beginning September 24, 2020 from 6:30 PM to 9:30 PM online. Classes will not meet on designated holidays.

### **Materials.**

There is no textbook required for the course. Readings are largely online or supplied through NYU Classes.

You should have completed a basic course (or demonstrate some proficiency) in each of macroeconomics, finance and statistics. *In addition, prior to the course*, if you are unfamiliar with or want a review of financial Instruments, financial Markets, and financial Institutions, you should read or at least browse chapters 1-3 of Cecchetti and Schoenholtz, Money, Banking and Financial Markets.

Before the course starts, a glance through the presentation below which was prepared in March 2020 by Stern faculty as a primer on the outbreak of the pandemic would be extremely valuable to set the context for the course:

*COVID-19 Spring break class for PhD and Langone students, 19th March 2020.*

[Download PDF](#)

Required readings appear below. Required readings should be completed *before* class.

Recommended/optional readings are found below those required. These provide additional background for interested students.

Students are expected to keep abreast of major pandemic, financial and policy developments, using resources like various websites from *The Economist*, the *FT*, and the *WSJ*. Access to these publications is available to students at heavily discounted rates.

### **Course Requirements: Exams, Assignments and Grades.**

Attendance in class online is required. Both attendance and class participation will influence the course grade in the case of (good or bad) outliers and will serve as tie-breakers.

We will have a midterm exam and a final project. There will be no make-ups for either, which are required of all students. Any absence from a test without prior written approval from the professor constitutes a failure (a grade of zero) of the quiz or exam. If the professor excuses a student from the midterm exam, the weight on the final exam will be increased accordingly. The only valid reason for seeking to be excused is a serious (documented) illness or the equivalent.

Course grade weights for each component are:

Midterm exam: 35%

Final Project: 65%

Attendance & class participation: Influences tie-breaks and outliers (good and bad)

**Please note the following key dates in your calendars:**

**Midterm Exam: October 29 in class**

**Final Project due: December 17, before class**

### **NYU Classes**

Aside from the selections in the links below, everything you need for this course will be posted to NYU Classes: readings, assignments, slides, and links to information sources.

### **Teaching Fellow**

Raaga Akkineni is our TF. She will help grade and help you with any questions. Raaga is a second-year masters in economics and econometrics student in the Faculty of Arts and Sciences. She can be reached by email at [ssa542@nyu.edu](mailto:ssa542@nyu.edu).

### **Communication**

The key to any successful relationship is good communication. We plan to use the announcements section of NYU Classes extensively. In return, we expect you to share your comments and observations with us and/or Raaga. You may email us ([vacharya@stern.nyu.edu](mailto:vacharya@stern.nyu.edu) or [rberner@stern.nyu.edu](mailto:rberner@stern.nyu.edu)), or catch us before or after class. Your ideas and feedback can make a big contribution to the course.

Online office hours are on Thursdays before class, but appointments are preferred (and can be arranged by email).

### **Help**

If you need help, please contact us or Raaga. We usually reply to email quickly (if you don't hear from us within 24 hours, please try again).

## Professional behavior

In the interest of providing everyone with the best classroom – virtual or actual -- experience, we ask that you:

- Join at least five minutes before class
- Display your name in every class/Please use video in Zoom
- Put smartphones away before class (their use in class is not permitted)
- Be engaged

## Academic Integrity

Our undergraduate [Academics Pillar](#) states that ***we take pride in our well-rounded education and approach our academics with honesty and integrity.*** Indeed, integrity is critical to all that we do here at NYU Stern. As members of our community, all students agree to abide by the NYU Stern Student Code of Conduct, which includes a commitment to:

- Exercise integrity in all aspects of one's academic work including, but not limited to, the preparation and completion of exams, papers and all other course requirements by not engaging in any method or means that provides an unfair advantage.
- Clearly acknowledge the work and efforts of others when submitting written work as one's own. Ideas, data, direct quotations (which should be designated with quotation marks), paraphrasing, creative expression, or any other incorporation of the work of others should be fully referenced.
- Refrain from behaving in ways that knowingly support, assist, or in any way attempt to enable another person to engage in any violation of the Code of Conduct. Our support also includes reporting any observed violations of this Code of Conduct or other School and University policies that are deemed to adversely affect the NYU Stern community.

The entire Stern Student Code of Conduct applies to all students enrolled in Stern courses and can be found here: [www.stern.nyu.edu/uc/codeofconduct](http://www.stern.nyu.edu/uc/codeofconduct)

To help ensure the integrity of our learning community, prose assignments you submit to NYU Classes will be submitted to Turnitin. Turnitin will compare your submission to a database of prior submissions to Turnitin, current and archived Web pages, periodicals, journals, and publications. Additionally, your document will become part of the Turnitin database.

## General Conduct & Behavior

Students are also expected to maintain and abide by the highest standards of professional conduct and behavior. Please familiarize yourself with Stern's Policy in Regard to In-Class Behavior & Expectations (<http://www.stern.nyu.edu/portal-partners/current-students/undergraduate/resources-policies/academic-policies/index.htm>) and the NYU Student Conduct Policy (<https://www.nyu.edu/about/policies-guidelines-compliance/policies-and-guidelines/university-student-conduct-policy.html>).

**Note: Evidence of cheating on quizzes, exams or graded assignments will result in a course grade of F without appeal.**

## **Grading Guidelines**

### Grading Information for Stern Core Courses

At NYU Stern, we strive to create courses that challenge students intellectually and that meet the Stern standards of academic excellence. To ensure fairness and clarity of grading, the Stern faculty have adopted a grading guideline for core courses with enrollments of more than 25 students in which approximately 35% of students will receive an “A” or “A-“ grade. In core classes of less than 25 students, the instructor is at liberty to give whatever grades they think the students deserve, while maintaining rigorous academic standards.

### Grading Information for Stern Elective Courses

At NYU Stern, we strive to create courses that challenge students intellectually and that meet the Stern standards of academic excellence. To ensure fairness and clarity of grading, the Stern faculty have agreed that for elective courses the individual instructor or department is responsible for determining reasonable grading guidelines.

## **STUDENT ACCESSIBILITY**

If you will require academic accommodation of any kind during this course, you must notify me at the beginning of the course and provide a letter from the Moses Center for Student Accessibility (212-998-4980, [mosescsa@nyu.edu](mailto:mosescsa@nyu.edu)) verifying your registration and outlining the accommodations they recommend. If you will need to take an exam at the Moses Center for Student Accessibility, you must submit a completed Exam Accommodations Form to them at least one week prior to the scheduled exam time to be guaranteed accommodation. For more information, visit the CSA website: <https://www.nyu.edu/students/communities-and-groups/student-accessibility.html>

## Tentative Class Schedule

### 1. History: Evolution, Public Health and Resilience, Health Economics Sept 24 and Oct 1

- Human resilience, disease, issues arising with growing populations, food supply, interconnectedness, climate change
- Public health resilience: Science, medicine, data/information; collective action: vaccination, monitoring
- Economics of public health: Externalities, spillovers, collective action, mandates, incentives, regulation, tradeoffs, cost-benefit analysis, financing, access

Visitor: Sherry Glied (October 1 6:30-7:15 PM)

Required reading:

Glied, Sharon. "Public health and economics: externalities, rivalries, excludability, and politics." In *The Contested Boundaries of American Public Health*, pp. 15-31. Rutgers University Press, 2008. Sections II, III, and V only. (PDF provided in NYU Classes/Lessons)

Zhang, Jennifer, "[Coronavirus Response Shows the World Is Not Ready for Climate-Induced Pandemics](#)", Earth Institute, Columbia University

Recommended reading:

Goolsbee, Austan, and Chad Syverson. *Fear, lockdown, and diversion: Comparing drivers of pandemic economic decline 2020*. WP No. w27432. National Bureau of Economic Research, 2020. <https://www.nber.org/papers/w27432.pdf>

Dave, Dhaval M., Andrew I. Friedson, Kyutaro Matsuzawa, Joseph J. Sabia, and Samuel Safford. *Black lives matter protests, social distancing and covid-19*. WP No. w27408 National Bureau of Economic Research, 2020. <https://www.nber.org/papers/w27408.pdf>

Heaton, Cheryl and Christopher Dickey, [What Would It Really Take to Halt Ebola and Prevent Future Epidemics?](#) Huffington Post, 2014

### 2. Detecting, Testing and Tracing the Pandemic Oct 8 and 15

- Epidemiological basis/modeling, including Digital applications
- Demographic and geographic distribution and implications
- Tracking: technology vs herd immunity

Visitor: Anindya Ghose (Oct 8, 6:30-7:30pm)

Required Reading:

Ghose and Sokol, Unlocking Platform Technology to Combat Health Pandemics, <https://www.yalejreg.com/nc/unlocking-platform-technology-to-combat-health-pandemics-by-anindya-ghose-and-d-daniel-sokol/>

Recommended Reading:

Ghose, et al, Trading Privacy for the Greater Social Good: How Did America React During COVID-19?, [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3624069](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3624069)

*Visitor: Theresa Kuchler (Oct 8, 8:15-8:45pm – to be confirmed)*

Required Reading: To be confirmed

Recommended Reading: To be confirmed

### **Suppression / Containment Strategies for the Pandemic**

- Lockdown, Phasing out, Adaptive strategies
- Medical support and Strategies
- Cost-benefit analysis of alternative strategies (apart from economic impact)

*Visitor: Venky Venkateswaran (Oct 15, 6:30-7:30pm)*

Required Reading and viewing

Cato, [The Economics of Lockdowns](#), Video

Recommended Readings:

[Optimal Mitigation Policies in a Pandemic: Social Distancing and Working from Home](#), by Callum Jones, Thomas Philippon and Venky Venkateswaran

Scherbina, Anna, [Determining the Optimal Duration of the COVID-19 Suppression Policy: A Cost-Benefit Analysis](#)

### **3. Paradox of the Pandemic I - Macroeconomic Impact of Containment Oct 22 and 29**

- Supply and Demand Shocks
- Economic Vulnerabilities and Resilience
- Recession: Depth and duration; Depression; Deflation
- Jobs, Firm creation, Small businesses, Large businesses, Bankruptcies
- Tradeoffs

*Visitor: Torsten Slok (Oct 22, 6:30-7:30pm)*

Required Reading: To be confirmed

Recommended Reading: To be confirmed

*Visitor: Manasa Gopal (Oct 29, 6:30-7:30pm)*

Required Reading:

[US Small-Business Recovery After the COVID-19 Crisis, McKinsey & Company, July 2020](#)

**Targeting Paycheck Protection Program to those Most in Need** (Viral V Acharya with Manasa Gopal) [Download PDF](#) -Related [op-ed](#) published at [marketwatch.com](#)

Recommended Reading:

Correia, Sergio and Luck, Stephan and Verner, Emil, Pandemics Depress the Economy, Public Health Interventions Do Not: Evidence from the 1918 Flu (June 5, 2020). Available at SSRN: <https://ssrn.com/abstract=3561560> or <http://dx.doi.org/10.2139/ssrn.3561560>

Julian Kozlowski, Laura Veldkamp, Venky Venkateswaran, [Scarring Body and Mind: The Long-Term Belief-Scarring Effects of COVID-19](#), September 2020 presented at Jackson Hole, 2020; slides [here](#)

#### **4. Paradox of the Pandemic II - Financial Impact of Containment Nov 5**

- Amplifiers; e.g. procyclicality, liquidity spirals
- Equity, Bond, Wholesale funding, Foreign exchange: Returns, volatility and correlation
- Banks, Broker-dealers, Insurance companies

*Visitor: Ed Altman (Nov 5, 6:30-7:30pm)*

Required Reading:

[Covid-19 and the credit cycle](#), Edward Altman, Journal of Credit Risk, 16(2), 1–28

"[Stress Test](#)" for Banks as Liquidity Providers in a time of COVID (Viral V Acharya and Sascha Steffen), published on [voxeu.org](#)  
[Download PDF](#)

Recommended Reading:

[A fifty-year retrospective on credit risk models, the Altman Z-score family of models and their applications to financial markets and managerial strategies](#), Edward Altman, Journal of Credit Risk 14(4), 1–34

The risk of being a fallen angel and the corporate dash for cash in the midst of COVID (Viral V Acharya and Sascha Steffen), forthcoming in *Review of Corporate Financial Studies* (Long version) [Download PDF](#) (July 2020) (Short version) [Download PDF](#), in [COVID Economics: A Real Time Journal](#) (Video) [Short NBER presentation](#)

*Visitor: Marti Subrahmanyam (Nov 5, 745-845pm)*

Required Reading:



Marti Subrahmanyam, [How to rebuild after the crisis](#), Bloomberg; [Coronavirus is making clear there is no solidarity in the EU](#), Fortune.; [To fight the coronavirus budget crisis, act like Alexander Hamilton](#), Fortune.

Recommended Reading:

Agnès Bénassy-Quéré, Beatrice Weder di Mauro (eds.), [Europe in the Time of Covid-19, Chapter 5 and 6](#), VOX CEPR Policy Portal, May 2020.

[The COVID-19 Shock and Equity Shortfall: Firm-level Evidence from Italy](#), Review of Corporate Finance Studies.

[In Sickness and in Debt: The Covid-19 Impact on Sovereign Credit Risk](#), SSRN Working Paper

## **5. Policy Responses to the Macroeconomic and Financial Fallout Nov 12 and 19**

- Fiscal, Monetary and Quasi-Fiscal
- Long-run implications: Public debt, Central bank independence, Inflation
- Strengthening the safety net
- Moral and real hazard

*Visitor: Kermit Schoenholtz (Nov 12, 6:30-7:30pm)*

Required Reading:

["Fed's big stick lets it speak powerfully"](#)

Recommended Reading:

[Fitch's note revising the US Outlook to Negative while affirming the AAA rating:](#)

*Visitor: Larry White (Nov 19, 6:30-7:30pm)*

Required Reading: To be confirmed

Recommended Reading: To be confirmed

## **6. Global Issues Dec 3**

- Spillovers via Supply Chains, Multinationals, Markets, Central Banks
- Emerging markets vs Developed economy policy tradeoffs, Role of IMF and NGO sector

*Visitor: John Lipsky*

Required Reading:

IMF, [Policy Responses to COVID-19](#)

IMF, [COVID-19 Financial Assistance and Debt Service Relief](#)

Recommended Reading:

IMF, [How the IMF Can Help Countries Address the Economic Impact of Coronavirus](#)

World Bank, [August 21, 2020: An update on our work at the World Bank Group](#)

World Bank, [Foreign direct investment and global value chains in the wake of COVID-19](#)

## **7. Planning for Future – Improving Public Health, Vaccination, Pandemic and Climate Stress Tests Dec 10**

- Especially in Emerging Market Economies, including infrastructure and financing
- Investing in Resilience and Robustness against Low-Risk, High-Cost shocks
- Implications for Business models, Economy and Policy; Future of Work

*Visitor: Rob Engle (6:30pm-7:15pm) on Climate Stress Testing*

*Visitor: Batia Wiesenfeld (7:45-8:45pm)*

Required Reading: To be confirmed

Recommended Reading: To be confirmed

Does Working From Home Work? Evidence from A Chinese Experiment, Nicholas Bloom, James Liang, John Roberts and Zhichun Jenny Ying, The Quarterly Journal of Economics (2015), 165–218

Recommended Reading:

Collaborating During Coronavirus: The Impact of Covid-19 On the Nature of Work, Evan DeFilippis, Stephen Michael Impink, Madison Singell, Jeffrey T. Polzer and Raffaella Sadun, NBER Working Paper

## **8. Privacy-Surveillance Tradeoffs Dec 17**

- Privacy and identifiers
- Understanding the externalities; personal vs. social needs

*Visitor: Judi Germano, NYU Law School*

Required Reading: To be confirmed

Recommended Reading: To be confirmed

## **9. Final Project in lieu of final Due 6pm Dec 17**

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