



## Great Big Ideas

An Entire Undergraduate Education While Standing on One Foot

### Syllabus

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#### Overview

This course serves up a *mezze*-plate introduction to the world's most important ideas and disciplines. It is the conceit of this course that there are precious few important ideas that have relevance beyond their specific disciplines, but it is these very ideas that comprise the *sine qua non* of a modern education. A wide range of subjects will be covered including Psychology, Economics, Biomedical Research, Linguistics, History, Physics, Politics, Statistics and more. Within each topic, we will discuss the most current, innovative ideas in the field, dissect them, and look at how they impact not only the world at large, but our own lives as well. How does Demography predict our planet's future? How is Linguistics a window to understanding the brain? These lectures will be presented by leading experts from top institutions around the country, and will be delivered via the Internet. The course is designed to introduce students to a variety of topics of concentrations in a way that allows them explore unfamiliar territory, pose difficult questions, and look at different subjects in a new light.

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#### Texts

- Paul Bloom, *How Pleasure Works* (2010). (Chapter 3)
- ✂ Paul Bloom, "The Moral Life of Babies," New York Times Magazine. Link: <http://www.nytimes.com/2010/05/09/magazine/09babies-t.html>
- Nicholas Christakis and James Fowler, *Connected: The Surprising Power of Our Social Networks and How They Shape Our Lives-How Your Friends' Friends' Friends Affect Everything You Feel, Think, and Do* (ISBN: 978-0-316-03614-6 (Chapters 1-4 & 7-9)
- Joel Cohen, *How Many People Can the Earth Support?* W. W. Norton, New York (1995). (pp. 25–31, 97-105, 356–364)
- Hubert Dreyfuss & Sean Kelly, *All Things Shining*. (pp. 118–142)
- Adam Glick, *A Child's Guide To Money*.
- ✂ H. Charles J. Godfray, John R. Beddington, Ian R. Crute, Lawrence Haddad, David Lawrence, James F. Muir, Jules Pretty, Sherman Robinson & Camilla Toulmin, *Philosophical Transactions of the Royal Society* (London) Theme issue "Food Security: Feeding the World in 2050," September 27, 2010; 365 (1554). Link: <http://rstb.royalsocietypublishing.org/content/365/1554.toc>
- Benjamin Graham, *The Intelligent Investor*. (Chapter 20)



- ✚ I.B.S. Haldane, “On Being the Right Size.” Link: <http://bit.ly/CpeaP>
- ✚ Thomas Hobbes, Selections from *Leviathan*. Link: <http://bit.ly/qnrDjL>
  - Michio Kaku, *Hyperspace* (Chapters 1 - 2)
  - Clark Kerr, *The Uses of the University*.
  - Anthony Kronman, *Education's End*. (pp. 37–90)
  - Michael Lewis, *Moneyball*. (ISBN: 978-0-393-32381-5) Price: \$18
  - Massimo Livi-Bacci, *A Concise History of World Population: An Introduction to Population Processes*. (3rd rev. ed. Blackwell Publishers, Cambridge MA and Oxford UK. 2001) (Section 5.4, pp. 147–154)
- ✚ Joseph A. McFalls Jr, *Population: A Lively Introduction*. Population Bulletin. 62(1); 2007. Link: <http://www.prb.org/pdf07/62.1LivelyIntroduction.pdf> (pp.1-33)
  - Robert Nozick, *Anarchy State and Utopia*. (149-50, 150-164)
  - Steven Pinker, *The Language Instinct: How the Mind Creates Language*. New York: Harper Collins (1994/2007). (Chapters 1,2, & 4)
  - John Rawls, *A Theory of Justice*. (3-4, 7, 10-19, 52-56)
- ✚ Leo Tolstoy, *What Is Art?* Link: <http://is.gd/tolstoy>
  - Paul Valery, *Eupalinos, or, The Architect*.
  - Samuelson & Nordhaus, *Economics*, 17th edition. (Chapter 9)
- ✚ Michael Sandel, “The Case Against Perfection.” Link: <http://bit.ly/aY6x0d>
  - Kenneth A. Shepsle, *Analyzing Politics: Rationality, Behavior and Institutions* (ISBN: 0393935078) Price: \$27. (Optional)
- ✚ Shankar Vedantam, “See No Bias,” [washingtonpost.com](http://www.washingtonpost.com/ac2/wp-dyn/A27067-2005Jan21?language=printer). Link: <http://www.washingtonpost.com/ac2/wp-dyn/A27067-2005Jan21?language=printer>



## Week 1

### Introduction

Overview of Course Format and e-Learning Platform

## Week 2

### Demography

### **Malthus Miffed: Are People the Problem, the Solution, or Both? An Introduction to Demography and Populations Study Through an Examination of the World's Population.**

JOEL COHEN, Abby Rockefeller Mauzé Professor of Populations, Rockefeller University, Mathematical Biologist, Columbia University

- Joel E. Cohen, *How Many People Can the Earth Support?* W. W. Norton, New York. (1995) (pp. 25–31, 97-105, 356–364)
- ✎ H. Charles J. Godfray, John R. Beddington, Ian R. Crute, Lawrence Haddad, David Lawrence, James F. Muir, Jules Pretty, Sherman Robinson & Camilla Toulmin, *Philosophical Transactions of the Royal Society* (London) Theme issue “Food Security: Feeding the World in 2050” September 27, 2010; 365 (1554). Link: <http://rstb.royalsocietypublishing.org/content/365/1554.toc>
- Massimo, Livi-Bacci, *A Concise History of World Population: An Introduction to Population Processes*. (3rd rev. ed. Blackwell Publishers, Cambridge MA and Oxford UK. 2001) (Section 5.4, pp. 147–154)
- ✎ Joseph A. McFalls Jr, *Population: A Lively Introduction*. Population Bulletin. 62(1). 2007 Link: <http://www.prb.org/pdf07/62.1LivelyIntroduction.pdf> (pp.1-33)

## Week 3

### Physics

### **The Universe in a Nutshell: The Physics of Everything.**

MICHIO KAKU, Henry Semat Professor of Theoretical Physics, CUNY

- Michio Kaku, *Hyperspace*. (Chapters 1 - 2)



## Week 4

Political  
Philosophy

### **Of the People, by the People, for the People? The Rawls-Nozick Debates as an Introduction to Political Philosophy.**

TAMAR GENDLER, Department of Philosophy Chair, Yale University

- ✎ Thomas Hobbes, *Selections from Leviathan*. Link: <http://bit.ly/qnrDjL>
  - Book I, chapter XIII, paragraphs 1-14
  - Book I, chapter XIV, paragraphs 1-5
  - Book II, chapter XVII, paragraphs 1-15
- Robert Nozick, *Anarchy State and Utopia*
  - (Optional) Preface, entire (pp. ix-xiv)
  - Chapter 7, Introduction (pp. 149-150)
  - Chapter 7, Section I, up to “Sen’s Argument” (pp. 150-164)
- John Rawls, *A Theory of Justice*
  - Chapter I, opening paragraph (pp. 3)
  - Chapter I, section 1, paragraphs 1-2 (pp. 3-4)
  - Chapter I, section 2, paragraph 1 (p. 7)
  - Chapter I, section 3, paragraphs 1-8 (pp. 10-15)
  - Chapter I, section 4, entire (pp. 15-19)
  - Chapter II, section 11, entire (pp. 52-56)

Recommended (must purchase)

- Kenneth E. Shepsle and Mark S. Bonchek, *Selections from Analyzing Politics: Rationality, Behavior and Institutions* (1997)
  - Chapter 8, entire (pp. 198-218)
  - Chapter 10, selections (“The Problem of the Commons”), (pp. 288-296)

## Week 5

Linguistics

### **Say What? Linguistics as a Window to Understanding the Brain.**

STEVEN PINKER, Psychologist, Cognitive Scientist, Linguist, Harvard University

- Steven Pinker, *The Language Instinct: How the Mind Creates Language*. New York: HarperCollins (1994/2007). (Chapters 1, 2 & 4)



## Week 6

### Economics

#### **Do Not Pass Go, Do Not Collect \$200: Monopolies as an Introduction to Economics.**

SAUL LEVMORE, William B. Graham Distinguished Professor of Law, University of Chicago

- Samuelson & Nordhaus, *Economics*, 17th edition. (Chapter 9)

## Week 7

### Psychology

#### **The Psychology of Everything: What Compassion, Racism, and Sex tell us about Human Nature.**

PAUL BLOOM, Cognitive Psychologist, Yale University

- Paul Bloom, *How Pleasure Works* (2010). (Chapter 3)
- ✂ Paul Bloom, "The Moral Life of Babies," *New York Times Magazine*. Link: <http://www.nytimes.com/2010/05/09/magazine/09babies-t.html>
- ✂ Shankar Vedantam, "See No Bias," *washingtonpost.com*. Link: <http://www.washingtonpost.com/ac2/wp-dyn/A27067-2005Jan21?language=printer>

## Week 8

### Sociology

#### **If You're So Free, Why Do You Follow Others? The Sociological Science Behind Social Networks and Social Influence.**

NICHOLAS CHRISTAKIS, Professor of Sociology, Internist, Social Scientist, Harvard Medical School

(must purchase)

- N.A. Christakis and J.H. Fowler, *Connected: The Surprising Power of Our Social Networks and How They Shape Our Lives*, New York: Little Brown, 1999. (Chapters 1–4 & 7–9)

## Week 9

### Biomedicine

#### **What's Up, Doc? Is Biomedical Research Really Close to Curing Anything?**

DOUGLAS MELTON, Thomas Dudley Cabot Professor of the Natural Sciences, Harvard University, Molecular and Cellular Biologist

- ✂ Michael Sandel, "The Case Against Perfection." Link: <http://bit.ly/aY6x0d>



## Week 10

Investing

### **If You're So Smart, Why Aren't You Rich?**

WILLIAM ACKMAN, Activist investor, Hedge-Fund Manager

- Benjamin Graham, *The Intelligent Investor* (Chapter 20)
- ✂ J.B.S. Haldane, "On Being The Right Size." Link: <http://bit.ly/CpeaP>
- ✂ Adam Glick, *A Child's Guide To Money*.

## Week 11

Art

### **Art Now: Aesthetics Across Music, Painting, Architecture, Movies, and More.**

LEON BOTSTEIN, President, Leon Levy Professor in the Arts and Humanities, Bard College

- ✂ Leo Tolstoy, *What Is Art?* Link: <http://is.gd/tolstoy>
- Paul Valery, *Eupalinos*, or, *The Architect*.

## Week 12

The Classics

### **Standing on the Shoulders of Giants: The Essential Value of a Classic Education**

JEFFREY BRENZEL, Philosopher, Dean of Undergraduate Admissions, Yale University

- Hubert Dreyfuss & Sean Kelly, *All Things Shining*. (pp. 118–142)
- Anthony Kronman, *Education's End*. (pp. 37–90)

## Week 13

Education

### **The Authority of Ideas: Decoding the DNA of Education in Search of Actual Knowledge.**

LAWRENCE SUMMERS, Charles W. Eliot University Professor, Harvard University, Economist, Former President of Harvard

- ✂ Clark Kerr, *The Uses of the University*.

Recommended (must purchase)

- Michael Lewis, *Money Ball*.



**WILLIAM ACKMAN** • Activist investor, Hedge-Fund Manager

William Ackman is founder and CEO of Pershing Square Capital Management. Formed in 2003, the hedge-fund has acquired significant shares in companies such as JC Penney, General Growth Properties, Fortune Brands and Kraft Foods. Ackman advocates strategies of “activist investing,” the practice of using stock shares in publicly-traded companies to influence management practices in a way that benefits shareholder interests.

In his lecture “If You’re So Smart, Why Aren’t You Rich? Everything You Need to Know about Finance and Investing in Less Than an Hour,” Mr. Ackman will explain the logistics of the modern portfolio theory of investment, handing students the tools to become the savvy investors of tomorrow.



**PAUL BLOOM** • Suzanne Ragen Professor of Psychology and Cognitive Science at Yale University

Dr. Paul Bloom is an award-winning author and a world-renowned scholar in the field of psychology. Dr. Bloom’s research explores the evolutionary development of our common-sense understanding of ourselves and other people in our physical and social world. His work centers on morality, art, fiction and religion. In 2006 he was made fellow of the American Psychological Society, in recognition of his “sustained outstanding contributions to the science of psychology.” In 2007, his Introduction to Psychology class was selected as an outstanding Yale course to be made available worldwide through the Open Yale Courses initiative. Dr. Bloom will shed light on some of the fundamental questions of human nature and behavior.

In his lecture “The Psychology of Everything: What Compassion, Racism, and Sex tell us about Human Nature,” Dr. Bloom will shed light on what compassion, racism and sex can tell us about human nature.



**LEON BOTSTEIN** • Conductor, President of Bard College

Leon Botstein is the conductor of the American Symphony Orchestra and president of Bard College in New York. He became the youngest college president in US history when he took the head post at Franconia College at age 23. Dr. Botstein has published scholarly works in numerous disciplines, including music, education, and culture. Botstein is the author of the popular book *Jefferson’s Children: Education and the Promise of American Culture*, in which he lays out a progressive view of education.

President Botstein’s lecture, “Art Now: Aesthetics Across Music, Painting, Architecture, Movies, and More,” will examine the aesthetics of various genres in contemporary art.



**JEFFREY BRENZEL** • Philosopher, Dean of Undergraduate Admissions, Yale University

In his professional life, Dr. Jeffrey Brenzel has always embraced two worlds, that of business, and that of academia. A graduate of philosophy, Dr. Brenzel turned to business in the early years of his career, occupying senior management positions at the National Association of Security Dealers and at the Kentucky and Michigan Chambers of Commerce. He even became a Jesuit novice for two years before returning to philosophy and later founding InterLearning, a for-profit educational venture. Currently Dr. Brenzel is the Dean of Undergraduate Admissions at Yale University.

In his lecture “Standing on the Shoulders of Giants: The Essential Value of a Classic Education” Dr. Brenzel will explore the seminal works of classical philosophers and writers such as Plato and Homer, examining their lasting relevance and impact on modern thinking.

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**NICHOLAS CHRISTAKIS** • Professor of Medical Sociology, Medicine, and Sociology at Harvard University

Dr. Nicholas Christakis is known for his research on the social factors that affect health, health care, and longevity. His most recent research was published in a general audience book entitled “Connected: The Surprising Power of Our Social Networks and How They Shape Our Lives.” He is Professor of Medical Sociology in the Department of Health Care Policy at Harvard Medical School; Professor of Medicine in the Department of Medicine at Harvard Medical School; and Professor in the Department of Sociology in the Harvard Faculty of Arts and Sciences.

In his lecture, “If You’re so Free, Why do you Follow Others? The Sociological Science Behind Social Networks and Social Influence.” Dr. Christakis will explore the relationship between social networks and health.





**JOEL COHEN** • Abby Rockefeller Mauzé Professor of Populations, Rockefeller University, Mathematical Biologist, Columbia University

Joel Cohen, PhD, DrPH, is a mathematical biologist and a professor of Populations. His research deals with the demography, ecology, epidemiology and social organization of human and non-human populations and with mathematical concepts useful in these fields. Dr. Cohen is a MacArthur fellow member of the National Academy of Sciences and a member of the board of trustees of the Population Reference Bureau. He shared the Tyler Prize for Environmental Achievement from the University of Southern California in 1999 and earned the Fred L. Soper Award for Excellence in Health Literature from the Pan American Health and Education Foundation in 1998 for his work on Chagas disease. Dr. Cohen is currently the Abby Rockefeller Mauzé Professor of Populations at the Rockefeller University in New York City and at the Earth Institute of Columbia University.

In his lecture, “Malthus Miffed: Are People the Problem, the Solution, or Both? An Introduction to Demography and Populations Study Through an Examination of the World’s Population,” Dr. Cohen will examine the major issues and potential solutions associated with population growth.



**TAMAR GENDLER** • Department of Philosophy Chair, Yale University, Cognitive Scientist

Dr. Tamar Gendler is a leading scholar of philosophy. Her primary areas of study are the Philosophy of Psychology, Epistemology and Metaphysics. Professor Gendler’s work has earned her many fellowships from such foundations such as the Andrew W. Mellon Foundation and the National Science Foundation. Her 2008 essay entitled “Alief and Belief” was selected by the *Philosopher’s Annual* as one of the best articles published in *Philosophy* in 2008. In 2010, she became the first woman to Chair the Department of Philosophy at Yale. Dr. Gendler has taught philosophy and cognitive science at Yale since 2006.

In her lecture, “Of the People, by the People, for the People? The Rawls-Nozick Debates as an Introduction to the Philosophy of Politics and Economics,” Dr. Gendler will introduce students to the philosophy of politics and economics through the works of political philosophers Robert Nozick and John Rawls.



**MICHIO KAKU** • Henry Semat Professor of Theoretical Physics, CUNY

Dr. Michio Kaku is a leading theoretical physicist credited with co-founding the “string field theory” of physics. A popularizer of science, Dr. Kaku has written best-selling books for the general public and made numerous appearances on TV shows and documentaries. His latest best-selling work, *Physics of the Future*, explores how technological advances will change daily life over the next 100 years. Dr. Kaku is currently the Henry Semat Professor of Theoretical Physics at the City University of New York (CUNY).

In his lecture, “The Universe in a Nutshell: The Physics of Everything,” Dr. Kaku will teach selected lessons from his most popular works and seek to explain the entire universe in roughly 45 minutes.



**SAUL LEVMORE** • William B. Graham Distinguished Professor of Law, University of Chicago

Dr. Saul Levmore is a renowned academic and professor of law. He is a member of the American Academy of Arts and Sciences as well as the past president of the American Law Deans Association. Dr. Levmore’s extensive experience in teaching has made him a highly sought-after expert in various facets of the law. His published works range from game theory and insurance to tax law and intellectual property rights. Most recently, Dr. Levmore has studied topics in public choice, Internet anonymity, financial risk regulation, and double jeopardy. He is the author of *Super Strategies for Games and Puzzles* and *Foundations of Tort Law*, and the co-editor of the book *The Offensive Internet: Speech, Privacy, and Reputation*. Dr. Levmore is currently the William B. Graham Distinguished Professor of Law at the University of Chicago.

In his lecture “Do Not Pass Go, Do Not Collect \$200: Monopolies as an Introduction to Economics” Professor Levmore will teach students about the economic implications of monopolies.



**DOUGLAS MELTON** • Thomas Dudley Cabot Professor of the Natural Sciences, Harvard University, Molecular and Cellular Biologist

Dr. Douglas Melton is a leading biologist in cellular research. His ground-breaking work, which focuses on the developmental biology of the pancreas, aims to provide diabetics with insulin-producing beta-cells. Dr. Melton is a founding member of the International Society for Stem Cell Research. He has been spearheading a collaboration between the Howard Hughes Medical Institute, Harvard University and the Boston In Vitro Fertilization clinic to develop human embryonic stem lines for research purposes. In addition to serving as the Thomas Dudley Cabot Professor of the Natural Sciences at Harvard University, Dr. Melton works as the co-director of Harvard’s Stem Cell Institute and as a lead investigator of the Howard Hughes Medical Institute.

In his lecture, “What’s Up, Doc? Is Biomedical Research Really Close to Curing Anything?” Dr. Melton will explore the promise of biomedical research to meet global medical challenges.



**STEVEN PINKER** • Johnstone Family Professor, Harvard University, Psychologist, Cognitive Scientist, Linguist

Dr. Steven Pinker is a professor of psychology who specializes in visual cognition psycholinguistics. He is best known for his theory of language acquisition and his pioneering work on language and cognition. Dr. Pinker's research in cognitive science has earned him numerous awards. He was named one of *Time Magazine's* 100 most influential scientists and thinkers in the world in 2004. In 2005, *Forbes* and *Foreign Policy* both included him on the list of the 100 top public intellectuals. He is the author of seven books, the most popular of which include *How the Mind Works* and *The Blank Slate*. Dr. Pinker taught at MIT for over twenty years before accepting his position as the Harvard College Professor and Johnstone Family Professor in the Department of Psychology at Harvard University in 2008.

In his lecture, "Say What? Linguistics as a Window to Understanding the Brain," Dr. Pinker will examine the role of linguistics as a gateway to understanding the workings of the brain.



**LAWRENCE SUMMERS** • Charles W. Eliot University Professor, Harvard University, Economist, Former President of Harvard

Dr. Lawrence Summers is an American economist and senior political figure. Dr. Summers boasts a remarkable career, occupying several senior-level policy positions in the US government, the World Bank and Harvard University. From 2009 to 2010, Dr. Summers served as the director of the White House National Economic Council for President Barack Obama. From 2001 to 2006, Summers served as the 27<sup>th</sup> president of Harvard University. Summers also served as Secretary of the Treasury for the Clinton administration from 1999 to 2001 and as chief economist of the World Bank from 1991 to 1993. Dr. Summers is currently the Charles W. Eliot University Professor at Harvard University's Kennedy School of Government.

In his lecture, "The Authority of Ideas: Decoding the DNA of Education in Search of Actual Knowledge" Dr. Summers will explore the way that knowledge is engaged in formal education in the 21st century.

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*For further information and licensing, please contact*

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