

UC Berkeley Fall '16 Class Pass: Mondays, Wednesdays, & Fridays

Visitor & Parent Services, Public Affairs

Suggested Course List

- **Individual Morality and Social Justice, Philosophy 2**
 - 145 Dwinelle
 - **MWF 9-10AM**
 - Introduction to ethical and political philosophy.
- **Introduction to General Biology, Bio 1A**
 - 1 Pimentel
 - **MWF 8-9AM**
 - General introduction to cell structure and function, molecular and organismal genetics, animal development, form and function. Intended for biological sciences majors, but open to all qualified students.
- **Introduction to General Chemistry, Chem 1A**
 - 1 Pimentel
 - **MWF 9-10AM**
 - Stoichiometry of chemical reactions, quantum mechanical description of atoms, the elements and periodic table, chemical bonding, real and ideal gases, thermochemistry, introduction to thermodynamics and equilibrium, acid-base and solubility equilibria, introduction to oxidation-reduction reactions, introduction to chemical kinetics.
- **Introduction to Computer Programming for Scientists and Engineers, Engineering 7**
 - 105 Stanley
 - **MW 9-10AM**
 - Elements of procedural and object-oriented programming. Induction, iteration, and recursion. Real functions and floating-point computations for engineering analysis. Introduction to data structures. Representative examples are drawn from mathematics, science, and engineering. The course uses the MATLAB programming language.
- **Introduction to Environmental Sciences, ESPM 15**
 - 100 Genetics and Plant Biology
 - **MWF 9-10AM**
 - Introduction to the science underlying biological and physical environmental problems, including water and air quality, global change, energy, ecosystem services, introduced and endangered species, water supply, solid waste, human population, and interaction of technical, social, and political approaches to environmental management.
- **Introduction to American Politics, PS 1**
 - Pauley Ballroom
 - **MWF 10-11AM**
 - An introductory analysis of the structure and operations of the American political system, primarily at the national level.

- **Introduction to Economics, Econ 1**
 - Hertz 320
 - **MW 10-11AM**
 - Professor Olney
 - A survey of economics designed to give an overview of the field.
- **Calculus, Math 1A**
 - 2050 Valley Life Science Building
 - **MWF 12-1PM**
 - This sequence is intended for majors in engineering and the physical sciences. Continuation of Math 1A. Techniques of integration; applications of integration. Infinite sequences and series. First-order ordinary differential equations. Second-order ordinary differential equations; oscillation and damping; series solutions of ordinary differential equations.
- **A History of Race and Ethnicity in Western North America Eth Std 10AC**
 - 390 Hearst Mining
 - **MWF 12-1PM**
 - This course explores the role of "race" and ethnicity in the history of what became the Western United States from the Spanish invasion of the Southwest to contemporary controversies surrounding "race" in California. Rather than providing a continuous historical narrative, or treating each racialized "other" separately, the course works through a series of chronologically organized events in which issues of racial differences played key roles in creating what became a western identity.
- **Properties of Materials, Engineering 45**
 - 2040 Valley Life Sciences Building
 - **MWF 12-1PM**
 - Application of basic principles of physics and chemistry to the engineering properties of materials. Special emphasis devoted to relation between microstructure and the mechanical properties of metals, concrete, polymers, and ceramics, and the electrical properties of semiconducting materials. Sponsoring Department: Materials Science and Engineering
- **Introduction to General Chemistry, Chem 1A**
 - 1 Pimentel
 - **MWF 1-2PM**
 - Stoichiometry of chemical reactions, quantum mechanical description of atoms, the elements and periodic table, chemical bonding, real and ideal gases, thermochemistry, introduction to thermodynamics and equilibrium, acid-base and solubility equilibria, introduction to oxidation-reduction reactions, introduction to chemical kinetics.
- **Introduction to Logic, Philo 12A**
 - 50 Birge Hall
 - **MWF 1-2PM**
 - Syntax, semantics, and proof theory of sentential and predicate logic.
- **Principles of Business, UGBA 10**
 - Dwinelle 155
 - **MWF 2-3pM**
 - This course provides an introduction to the study of the modern business enterprise. The course is taught in five modules, the order of which may vary from semester to semester. The first examines the role and governance of business enterprise in a market economy. The second concentrates on financial issues, while the third looks at the problems of managing people in

organizations. The fourth examines product pricing, marketing, and distribution issues and the last concentrates on the international business environment.

- **Calculus, Math 1A**
 - 2050 Valley Life Science Building
 - **MWF 2-3PM**
 - This sequence is intended for majors in engineering and the physical sciences. Continuation of Math 1A. Techniques of integration; applications of integration. Infinite sequences and series. First-order ordinary differential equations. Second-order ordinary differential equations; oscillation and damping; series solutions of ordinary differential equations.
- **The Structure and Interpretation of Computer Programming, CS 61A**
 - Pauley Ballroom
 - **MWF 2-3PM**
 - Professor Denero
 - Introduction to programming and computer science. This course exposes students to techniques of abstraction at several levels: (a) within a programming language, using higher-order functions, manifest types, data-directed programming, and message-passing; (b) between programming languages, using functional and rule-based languages as examples. It also relates these techniques to the practical problems of implementation of languages and algorithms on a von Neumann machine. There are several significant programming projects, programmed in a dialect of the LISP language.
- **Introduction to Physics Physics 8A**
 - Pimentel 1
 - **MWF 2-4PM**
 - Introduction to forces, kinetics, equilibria, fluids, waves, and heat. This course presents concepts and methodologies for understanding physical phenomena, and is particularly useful preparation for upper division study in biology and architecture.
- **Beauty and Joy of Computing, CS 10**
 - Pauley Ballroom
 - **MW 3-4PM**
 - An introduction to the beauty and joy of computing. The history, social implications, great principles, and future of computing. Beautiful applications that have changed the world. How computing empowers discovery and progress in other fields. Relevance of computing to the student and society will be emphasized. Students will learn the joy of programming a computer using a friendly, graphical language, and will complete a substantial team programming project related to their interests.
- **Introduction to General Astronomy, Astro C10**
 - 320 Hertz
 - **MWF 3-4PM**
 - Professor Filippenko
 - A description of modern astronomy with emphasis on the structure and evolution of stars, galaxies, and the Universe. Additional topics optionally discussed include quasars, pulsars, black holes, and extraterrestrial communication, etc. Individual instructor's synopses available from the department. Also listed as Letters and Science C70U.

UC Berkeley Fall '16 Class Pass:

Tuesdays & Thursdays

Visitor & Parent Services, Public Affairs Suggested Course List

- **Introduction to Empirical Analysis and Quantitative Methods PS 3**
 - 2050 Valley Life Sciences
 - **TT 9:30-11**
 - Professor Laura Stoker
 - This course is an introduction to the methods employed in empirical political science research. We will cover basic topics in research design, statistics, and formal modeling, considering many examples along the way. The two primary goals of the course are: (1) to provide students with analytic tools that will help them to understand how political scientists do empirical research, and (2) to improve students' ability to pose and answer research questions on their own.
- **Introduction to International Relations PS 5**
 - Boalt 175
 - **TT 9:30-11**
 - This course is designed to introduce students to the major theoretical approaches to international politics, to explore important historical and contemporary questions and debates in international affairs, and to teach students to think critically about international relations.
- **United States from Settlement to Civil War, History 7A**
 - 245 Li Ka Shing
 - **TT 9:30-11PM**
 - This course is an introduction to the history of the United States from the beginning of the European colonization of North America to the end of the Civil War. It is also an introduction to the ways historians look at the past and think about evidence. There are two main themes: one is to understand the origin of the "groups" we call European-Americans, Native-Americans, and African-Americans; the second, is to understand how democratic political institutions emerged in the United States in this period in the context of an economy that depended on slave labor and violent land acquisition.
- **Calculus, Math 1A**
 - 2050 Valley Life Science Building
 - **TT 11-12:30PM**
 - This sequence is intended for majors in engineering and the physical sciences. An introduction to differential and integral calculus of functions of one variable, with applications and an introduction to transcendental functions
- **Earthquakes in Your Backyard, L&S C70Y**
 - 245 Li Ka Shing
 - **TT 11-12:30PM**
 - The goal of this class is to inform future leaders of our society about the various hazards associated with earthquakes and tsunamis. You will learn to evaluate scientific information, solve problems and influence policy through the use of case studies.

- **Introduction to Biomedicine for Engineers, BioE 10**
 - 159 Mulford
 - **TT 11-12:30PM**
 - This course is intended for lower division students interested in acquiring a foundation in biomedicine with topics ranging from evolutionary biology to human physiology. The emphasis is on the integration of engineering applications to biology and health. The goal is for undergraduate engineering students to gain sufficient biology and human physiology fundamentals so that they are better prepared to study specialized topics, e.g., biomechanics, imaging, computational biology, tissue engineering, bio-monitoring, drug development, robotics, and other topics.
- **Introduction to Social/Cultural Anthropology, Anthro 2AC**
 - 155 Dwinelle
 - **TT 11-12:30AM**
 - The structure and dynamics of human cultures and social institutions from a comparative perspective with special attention to American cultures and their roots. Case studies will illustrate the principles presented in the course.
- **Introduction to Western Music, Music 27**
 - 320 Hertz Hall
 - **TT 11-12PM**
 - Devoted to the development of listening skills, and a survey of major forms and types of Western art music.
- **Survey of World History, IAS 45**
 - 145 Dwinelle
 - **TT 11-12:30PM**
 - This course focuses on benchmarks of the history of various nations and civilizations. It begins with the ancient Greeks, Romans, and Chinese, but emphasizes world developments since the 15th century. The purpose of the course is to gain a better understanding of the rise and decline of states, empires, and international trading systems. Therefore, political and economic structures and developments as well as military factors will be presented along with the more traditional historical perspectives.
- **World Religions, Peoples and States, PS5**
 - F295 Haas Faculty Wing
 - **TT 11-12:30PM**
 - This course will provide a framework for recognizing and analyzing the major distinctive regions of the world in comparative context. The most important interrelations between environment, economy, ethnicity, and the national identity and viability of states will be explored.
- **Introduction to American Studies, AS 10**
 - 180 Tan Hall
 - **TT 12:30-2PM**
 - American culture and cultural change, with attention to the multicultural basis of American society and emphasis on the need for multiple methods of analysis. The course will consistently draw on the arts, material culture, and various fields affecting cultural production and meaning.
- **Introduction to Asia, AS 10**
 - A1 Hearst Annex
 - **TT 12:30-2PM**
 - This course is designed to interest students in Asian cultures early in their undergraduate studies. Topics such as trade, social and political formations,

religions, food, and expressive culture that have been important in history as well as in contemporary times in East, South, and Southeast Asia will serve as unifying themes. Comparative thinking across regions of Asia and the perspectives of multiple disciplines will be brought to bear on the themes.

- **Introduction to Human Nutrition, NST 10**
 - Hertz 320
 - **TT 2-3PM**
 - This course focuses on relationships between diet and health, and responses of the human body to diet and food components, including macro and micro nutrients, water, phytochemicals, and alcohol. This course also provides an overview of the interplay between nutrients and physiological and behavioral responses. Lectures, which address contributions of diet to optimal health or disease risk, are based on current nutritional, biochemical, and medical knowledge. Goals include enabling students to make informed decisions about their nutritional needs and current issues concerning nutrition.
- **Introduction to Human Physiology, MCB 32**
 - 2050 Valley Life Science Building
 - **TT 12:30-2PM**
 - A comprehensive introduction to human cell biology. The course will concentrate on basic mechanisms underlying human life processes, including cells and membranes; nerve and muscle function; cardiovascular, respiratory, renal, and gastrointestinal physiology; metabolism, endocrinology, and reproduction.
- **European Civilization from the Renaissance to the Present, History 5**
 - 3 LeConte Hall
 - **TT 2-3:30PM**
 - This course is an introduction to European history from around 1500 to the present. The central questions that it addresses are how and why Europe--a small, relatively poor, and politically fragmented place-- became the motor of globalization and a world civilization in its own right. Put differently how did "western" become an adjective that, for better and often for worse, stands in place of "modern."
- **Introduction to Statistics, Stat 2**
 - 105 Stanley
 - **TT 2-3:30PM**
 - Population and variables. Standard measures of location, spread and association. Normal approximation. Regression. Probability and sampling. Binomial distribution. Interval estimation. Some standard significance tests.
- **Origins: from the Big Bang to the Emergence of Humans ASTRON C13**
 - 390 Hearst Mining
 - **TT 2-3:30**
 - This course will cover our modern scientific understanding of origins, from the Big Bang to the formation of planets like Earth, evolution by natural selection, the genetic basis of evolution, and the emergence of humans. These ideas are of great intrinsic scientific importance and also have far reaching implications for other aspects of people's lives (e.g., philosophical, religious, and political). A major theme will be the scientific method and how we know what we know.
- **People and Environmental Design, ED1**
 - 112 Wurster
 - **TT 3:30-5PM**

- o Environmental design involves the study of built, natural, global, and virtual environments. Various forms of practice include architecture, planning, urban design, and social and environmental activism. This course is a survey of relationships between people and environments, designed and non-designed, with an introduction to the literature and professional practices. Open to all undergraduate students in the College of Environmental Design as well as other colleges and majors.
- **Introduction to Peace and Conflict Studies, PACS 10**
 - o 4 Leconte
 - o **TT 5-6:30PM**
 - o This course introduces students to a broad range of issues, concepts, and approaches integral to the study of peace and conflict. Subject areas include the war system and war prevention, conflict resolution and nonviolence, human rights and social justice, development and environmental sustainability. Required of all Peace and Conflict Studies majors.
- **Oceans, Integrated Biology C82**
 - o 1 Pimentel
 - o **TT 5-6:30PM**
 - o This course offers multidisciplinary approach to begin answering the question "Why are oceans important to us?" Upon a physical, chemical, and geologic base, we introduce the alien world of sea life, the importance of the ocean to the global carbon cycle, and the principles of ecology with a focus on the important concept of energy flow through food webs.
- **Principles of Sociology: American Cultures**
 - o 245 Li Ka Shing
 - o **TT 5-6:30PM**
 - o Comparing the experience of three out of five ethnic groups (e.g. African Americans, Asian Americans, Chicano/Latino, European Americans, and Native Americans) we shall examine historically how each people entered American society and built communities and transformed their cultures in the process. Students will be introduced to the sociological perspective, characteristic methods of research, and such key concepts as culture, community, class, race, social change, and social movements.