2021 Courses
Fall 2020

2022 Major Supreme Court Decisions That Changed America

October 7, 14, 21, 28 10 am to 12 pm
Location: Zoom online
Instructor: Arthur Rolston

Some Supreme Court decisions are simply more important than others due to their impact on ordinary Americans' economic, social, cultural, and/or political lives. We'll look at a number of them over the course of American history and place them in historical context as both indicators and agents of cosmic changes in American life.
 October 7 will look at Dartmouth College vs. Woodward (1819) and Charles River Bridge vs. Warren Bridge (1837) in the context of the social, transportation, and early industrial revolutions during the first half of the 19th Century. This class was taught in the Spring but will be repeated for those who missed it, and those of us who will enjoy hearing it again.
 October 14, we'll focus on Dred Scott vs. Sanford (1857) and the coming of the Civil War.
 October 21 we'll address Brown vs. Board of Education (1954) and America's Second Reconstruction.
 October 28 will examine the influence of the libertarian resurgence in three cases: District of Columbia vs. Heller (2008) on the Second Amendment; Citizens United vs. Federal Election Commission (2010) on corporations and free speech; and Obergefell vs. Hodges (2015) on marriage equality.
While there's no assigned reading, Google searches of the cases will lead to numerous links to the Court's majority and minority opinions.

Arthur Rolston is new to Santa Cruz, arriving in 2017, and this is his first time teaching for OLLI. He has a JD from UC Berkeley (1967), and a PhD in History from UCLA (2006). Prior to moving to Santa Cruz Arthur practiced law in Los Angeles for over 30 years and then taught history at UCLA as an adjunct lecturer from 2006-2016. He taught a class at Cabrillo College this past spring.

2023 Women in the Ancient Western World

September 24, October 1, 8, 15 10 am to 12 pm

Location: Zoom online
Instructor: Gail Greenwood

Have you ever wondered what we're doing with bunnies bringing eggs at Easter, and pine trees covered with baubles to celebrate the birth of a Jewish baby? Gail Greenwood did, and it never made sense to her until she learned about women's history. She is now offering us an 8-hour survey course she's calling "Women in the Ancient Western World." The primary idea examined will be that the story changes when the point of view of the story teller changes; though the actual facts may be the same, the significance of the facts and even which dates matter alter when viewed from women's rather than from men's perspective. The course will begin with Prehistory — The Great Mother and her cave children, with an examination of why we don't begin with the Greeks — followed with the Ancient Near East, Egypt, and Crete. Then we will (in a great sweep of thousands of years in an hour or two) look at ancient and classical Greece, Rome, and the Judeo-Christian heritage.

Gail Greenwood is a retired community college history teacher. For thirty-four years, she taught survey courses in American History, Western Civilization, and Women in both American and Western Civilization. In the 1970s she created the first Women in American History courses at American River College.

2024 Molecular Biology

November 7, 14, 21, and Dec. 5 10:30 am to 12 pm
Location: Zoom Online
Instructor: Barry Bowman

A typical animal cell contains more that 40,000 different kinds of molecules. In the past 20 years great progress has been made in understanding how these molecules combine and interact to form a living creature.
As in previous years Professor Emeritus Barry Bowman will organize the course and offer two lectures. Two other professors from the Molecular, Cell and Developmental Biology Department at UCSC will present lectures covering topics related to their research programs. These talks are intended for a general audience. A scientific background or knowledge of biology is not expected. Barry Bowman, the course coordinator, will begin with a basic review of genes, proteins and cells.
Lecture #1. Professor Emeritus Barry Bowman, An introduction to the basics of molecular biology
Lecture #2. Assistant Professor Josh Arribere, How quality control protects our cells
Lecture #3. Professor Martha Zuniga, SARS Wars: Immune defenses against SARS-CoV-2 and COVID-19 pathology
Lecture #4. Professor Emeritus Barry Bowman, Digging deeper into DNA

Barry Bowman is Professor Emeritus of Molecular, Cell and Developmental Biology at UCSC.

2025 The Beauty of Mathematics: Equations

January 5, 12, 19, 26, 10 am to noon
Location: Zoom online
Instructor: Peter Farkas

These lectures will be slightly different from my previous OLLI lectures on mathematics: there will be hardly any proofs, and much more history. I will present just enough formalism to be able to state the theorem about solving equations, understand and appreciate it in its context, and appreciate what is involved in proving it. You may remember that in your first algebra (or pre-algebra) class you were taught formulas for solving 1st and 2nd degree equations. (Never mind if you don't remember the formulas or the equations, or even ever having seen them.) In this class we will review such equations, and tell the story of the quest for finding formulas for solving them. Surprisingly no formulas exist for *some* equations; it is not that people could not find them; rather, such formulas do not exist! We will take a look at the amazing story of the proof of this fact. We will take frequent detours to see the larger context, and to learn about some of the people and history (some of it unusually dramatic) related to this topic. The only prerequisite for this class is curiosity about the topic, and a desire to explore the beauty and history of mathematics. There will be moments when I will talk of technical subjects, but I will introduce and explain everything we need. No special knowledge beyond middle school mathematics will be assumed.

Peter started out as a mathematician with a master's degree in mathematics from the University of Bucharest, Romania, and a Ph.D from the University of Chicago. He started an academic career as a mathematician but swerved at some point and became a software engineer. Throughout his software engineering career, his love and awe for mathematics persisted, and now, in retirement, he is returning to it. He had a faithful and absorbed audience for his three earlier courses for OLLI.

2026 The Ecology of Infectious Disease

Thursdays, January 7, 14, 21, 28 10 a.m. to noon
Location: Zoom online
Instructor: James A. Estes

The Covid pandemic is on everyone's minds these days. How did this disease originate, where did it come from, and how long will it last? These are questions for ecology and evolutionary biology. Moreover the same questions can be asked about numerous other infectious diseases, many of which also impact human societies and human welfare. We will address these and related questions via lectures from four of the world's experts on the ecology of infectious disease.
January 7. Dr. Felicia Keesing, Bard College---**Biodiversity and Infectious Disease**
January 14. Dr. Drew Harvell, Cornell University---**Disease in the Oceans**

January 21. Dr. Richard Outfield, Cary Institute of Ecosystem Studies--**The Ecolog of Lyme Disease**
January 28. Dr Marm Kilpatrick, University of California, Santa Cruz--**The Ecology of Covid-19**
Not only are these individuals among the world's best disease ecologists, they are dedicated public servants and gifted public speakers. Please join us for what promises to be a unique and important learning experience.

Jim Estes received a bachelor's degree from the University of Minnesota in 1967 and a doctorate from the University of Arizona in 1974. He worked as a research scientist for the US Fish and Wildlife Service and the US Geological Survey. After retiring from federal service in 2007, Jim joined the faculty of the Department of Ecology and Evolutionary Biology at the University of California at Santa Cruz. He retired from the University in 2018 although he continues to occasionally teach and work with students. Jim is an internationally known expert on species interactions, especially those involving predators. He has published more than 200 scientific articles and several books and monographs including a co-edited volume with John Terborgh (Trophic Cascades: Predators, Prey and the Changing Dynamics of Nature, Island Press) and his memoir (Serendipity: An Ecologist's Quest to Understand Nature). He has served on the editorial boards of various scientific journals. Jim is a Pew Fellow in marine conservation, a Fellow of the California Academy of Sciences, and a member of the National Academy of Sciences. He received the Western Society of Naturalist's Lifetime Achievement Award in 2011 and the American Society of Mammalogists' C. Hart Merriam Award for excellence in research in 2012.

2027 American Prisoners of War in Vietnam: The joy of release and the challenges of returning home, a firsthand account by the physician in charge.

Dates: February 16, 23 10 a.m.
Location: Zoom online
Instructor: Dr. Richard Hancey

Throughout the Vietnam conflict, our ground troops were usually killed, not captured. As Air Force and Navy fighters and bombers joined the combat and were shot down, the aircrews who survived were captured and held as "war criminals" in North Vietnamese prisons. As a group they were in no way like "average" POWs from any prior war. When the men were released in February 1973, most had been in captivity an average of 6 years. They had summoned remarkable coping techniques to sustain themselves through years of torture, months in solitary confinement, near-starvation food portions, tropical diseases, and other life-threatening challenges. Their first joyous hours of freedom were aboard USAF cargo planes specially configured for their comfort and staffed with flight surgeons and nurses trained by our speaker.

February 16, 2021: Dr. Hancey will describe his firsthand involvement in the emotionally charged mission of receiving the repatriated POWs in Hanoi, then accompanying them to their

American home bases and (for some) reunion with their family. He has photos and videos of the mission.
February 23, 2021: This class will focus on the extraordinary circumstances endured by the wives of flyers listed as Missing In Action (MIA). In the mid-1960s the now-unaccompanied wives were often considered an inconvenience by military commanders. Politically, the wives were strongly cautioned to remain silent about their husband's status, to not organize or contact elected representatives nor talk to the press, and to basically "not make waves." Personally, they had to decide how to start their lives over, earn their own living, and raise their children "not knowing if I'm a wife or a widow." They, too, had to develop remarkable coping techniques.

Richard Hancey obtained his M.D. from Baylor College of Medicine in 1962, then entered the USAF as a Flight Surgeon. After assignments in Nevada and Germany he was assigned to the USAF School of Aerospace Medicine (USAFSAM) in San Antonio as a resident in Aerospace Medicine. While there, he became the only Air Force officer involved in the early planning for evacuating and medically evaluating American POWs once they were released. In February 1973, he was the senior Flight Surgeon on flights bringing our men out of Hanoi. After his involvement with the returning POWs Dr. Hancey went on to become board certified in Psychiatry, retiring from the USAF in 1981 as Chief of the psychiatric service at Travis Air Force Base in California. Following his Air Force retirement, he worked for civilian organizations, for the Veteran's Association, and, finally, for a major corporation, before retiring again in 1996. He now resides in Scotts Valley with his wife Susan.

2028 Gravity – Apples to Black Holes

Dates: Wednesdays, March 31, April 7, 14, 21, 28; 10 a.m. to Noon
Location: Zoom online
Instructor: Roger Knacke

The last five years have seen a spectacular revolution in our understanding of the force of gravity and its implications. We've detected gravitational waves for the first time; seen huge black holes collide in titanic explosions; witnessed a neutron star collision with the formation of heavy elements including gold; saw many of Einstein's ideas about general relativity corroborated; and, in 2019, imaged a colossal black hole's shadow. The course will begin with Isaac Newton's first ideas of gravity, discuss major twentieth century theoretical and observational developments, describe the recent discoveries, and conclude with issues at the forefront of science. No background in science is required for this non-mathematical course.

Meetings
1. Newtonian Gravity
2. The Einstein Relativity Revolution
3. Black Holes Revealed
4. The Mystery of Dark Matter

5. Gravitational Waves

Dr. Roger Knacke is Emeritus Professor of Physics and Astronomy, Penn State Erie, where he retired as Director of the School of Science in 2010. His research interests are in interstellar matter and planetary atmospheres.

2029 Santa Cruz Shakespeare 2021

Tuesdays, March 2, 9, 16, 23, 30 and April 6 10-12 a.m.
Location: Zoom (Online)
Instructor: Michael Warren

The texts for this series of five lectures will be two great and also very different plays that may be relatively unfamiliar to local audiences: *Richard II* and *Troilus and Cressida*.

Richard II is the first part of Shakespeare's second tetralogy of English histories, a sharply focused political play that deals with the last years of the reign of King Richard II and his clash with Henry Bolingbroke. Their contrasting personalities, the ambiguities in their motivations, and the complex political issues surrounding their conflict, Richard's deposition, and Bolingbroke's assumption of the throne produce an intense poetic drama that provides the foundation for understanding the dynastic conflicts of The Wars of the Roses.

By contrast, *Troilus and Cressida* is a large expansive play, set during the Trojan War; it is unusual in that it defies the customary categories of comedy, history, and tragedy while it combines elements of all three. It is a brilliant and profound work of disenchantment. In the conduct of the war the nobility and heroism of the legendary warriors—Agamemnon, Achilles, Hector, and Ajax *et al*—are subjected, often comically, to skeptical examination. Within the context of the war the young lovers Troilus and Cressida find their love thwarted by external circumstance; the conclusion of their tale, unlike that of Romeo and Juliet, is neither romantic nor tragic, but rather deeply painful.

For the first class please read *Richard II* to the end of Act 3 Scene 2.

If you wish to purchase editions of the plays that are both responsibly annotated and inexpensive, I recommend either the Pelican or Folger series. One can access the Folger texts online for free at <shakespeare.folger.edu>, but they are without notes.

Michael, a very knowledgeable and entertaining Shakespeare scholar, will discuss with us the two plays that Santa Cruz Shakespeare will be presenting next summer. We will send out a notice when the plays are announced. Over the years our members have found that taking this class greatly enhances their understanding and enjoyment of the plays.

Professor Warren is emeritus professor of literature at UCSC and Textual Consultant and Dramaturg to Santa Cruz Shakespeare since its inception, earlier as Shakespeare Santa Cruz.

2030 The People Who Discovered the Nature of the Gene: Mendel, Franklin, Watson and Crick

Dates: Thursdays, 10:20 to noon, May 6, 13, 20, 27, 30
Where: Zoom online
Instructor; Barry Bowman

Barry Bowman is Professor Emeritus of Molecular, Cell and Developmental Biology at UCSC

I will present the biographies of four scientists who played central roles in the discovery of the genetic material that directs heredity. The monk Gregor Mendel was the first person to show that traits were inherited as particles of information. These particles were later shown to be DNA. Rosalind Franklin, James Watson, and Francis Crick discovered the structure of DNA, which soon led to our understanding of how a molecule could contain hereditary information. The course will focus on information in the books listed below. Participants are not expected to read all of these books but if you want to read just one I suggest "The Double Helix," James Watson's famous, but controversial, memoir.

BOOKS

The Monk in the Garden by Robin Marantz Henig
Rosalind Franklin: The Dark Lady of DNA by Brenda Maddox
Francis Crick: Discoverer of the Genetic Code by Matt Ridley
The Double Helix by James Watson
Francis Crick: Discoverer of the Genetic Code, by Matt Ridley