# GREAT INEXPENSIVE CLASSES-INSTITUTE FOR LEARNING WINTER/SPRING 2020

#### 20-101 GENETIC MODIFICATIONS AND HOW THEY WORK

Louise Grabell, Mondays 10 am to 12 noon

Sonoran Room: January 6, 13, 20, 27 February 3, 10

By first investigating how DNA and genes function, this course will delve into the world of GMOs [genetically modified organisms]. Participants will examine what GMOs are, how they are used, and what their effects are on the human population and the general world ecology. Since this process has already carried over into human reproduction, this topic will be included with the most upto-date information about GMBs [genetically modified babies] with a discussion of the pros and cons of this extension of genetic modification.

### 20-102 AMERICAN ROOTS—MUSIC AND CULTURE IDENTITY

Susan Kravitz, Mondays 1 - 3 pm Sonoran Room: January 6, 13, 20, 27

This course will take a historical look at the musical migrations of America's early immigrant populations from Northern Europe and the musical impact of the African slave trade. We will trace the evolution and hybridization of this music that resulted in the genres and styles of folk ballads, Appalachian Mountain music, country, blues, and gospel. The music and lyrics will be analyzed as a window into the cultural identity and lives of the people who sang these songs. The music presented in class will be both live and in video format.

#### 20-103 THE COMIC GENIUS OF NEIL SIMON

Linda Griffin, Tuesdays 10 am - 12 noon

Sonoran Room: January 7, 14, 21, 28 February 4

This course will analyze several plays by Neil Simon and try to ascertain why he was known as one of the finest comic writers in America. He turned his unpleasant childhood experiences and unhappy marriages into scenarios which make us laugh. We will look at various types of comedy and examine how he uses many comedic devices. Sections of some of his plays will be shown on DVD's and also performed in class. Students should purchase The Collected Plays of Neil Simon: Volume 1. [It has 7 plays including The Odd Couple.]

## 20-104 MINERALS AND GEMS (UPDATED REPEAT)

Harlan Clare, Tuesdays 2 - 4 pm

Sonoran Room: January 7, 14, 21, 28 February 4,11

Minerals and gems can be beautiful, but did you know that many of the products you use today come from common minerals? Come join us and learn about common, and not so common, minerals. You will participate in hands-on activities and demonstrations, while learning how and why minerals are different and how they are used. Find out how minerals can be altered to enhance their value. All of these topics will increase your appreciation of specimens when you attend the largest gem and mineral show in the world in Tucson, Arizona. As an optional experience, The instructor will lead a tour of the Tucson Mineral, Gem and Fossil Showcase.

(Participants attending the tour will be required to sign a waiver.)

# 20-105 GROUNDBREAKING ARTISTS THROUGH THE YEARS (PART 3)

Laurie Brussel, Wednesdays 10 am - 12 noon Sonoran Room: January 8, 15, 22, 29 February 5

This course will cover in detail five different groundbreaking artists throughout history in chronological order. One artist will be presented each week. With the help of videos, participants will delve into the lives of Rembrandt (1606-1669), Claude Monet (1840-1926), John Singer Sargent (1856-1925), Gustav Klimt (1862-1918) and Andy Warhol (1928-1987). Students need not to have experienced Groundbreaking Artist through the Years Part 1 and 2 in order to take this class.

#### 20-106 THE CONSTITUTION IN TIMES OF CRISES

Mel Durchslag, Thursdays 10 am - 12 noon

HOA1 Activity Center: January 9, 16, 23, 30 February 6

This course will explore how all three branches of our federal government and even the states have responded to times of crisis, mostly war or the threat of war. Except for the first session, the course will be organized more or less chronologically, starting with the Alien and Sedition Laws of 1798, and ending with the exercise of presidential power during the "war on terrorism." Between those events, we will look at Lincoln's suspension of the writ of habeas corpus during the Civil War, assaults on free speech during and immediately after World War I, the McCarthy era, and the internment of Japanese Americans during World War II.

While we look at each branch of the federal government, because this is essentially a course in constitutional law, the focus, where appropriate, will be on the response of the judiciary both to legislative restrictions on free speech and the exercise of extraordinary presidential power as Commander in Chief.

# 20-107 MEDICAL TECHNOLOGIES AND NEW DISCOVERIES THAT WILL AFFECT YOUR HEALTH

Ken Marich, Thursdays 10 am - 12 noon

Cactus Room: January 9, 16, 23, 30 February 6, 13

How will technology affect your health? This course will present an overview of existing and new technologies that are used to diagnose and treat diseases. An in-depth view of past, present and future technologies that will improve your medical care will be presented. Weekly classes will include: (1) organ systems and laboratory medicine (blood tests), (2) medical imaging and noninvasive surgery, (3) organ transplantation, artificial organs and regenerative medicine (stem cells), (4) bacterial/viral infections and vaccines, followed by advances in prosthetics and medical robotics, (5) naturopathic medicine, and (6) technologies that promise to impact the future, such as artificial intelligence, genomic testing and telemedicine.

### 20-108 INTRODUCTION TO GEMOLOGY

Gloria Quigg, Fridays 10 am - 12 noon

Cactus Room: January 10, 17, 24, 31 February 14

Sonoran Room: February 7

Have you ever wondered: What are gemstones? Where do they come from? What is the geology and mineralogy of gemstones? What makes a mineral important as a gemstone? Why are some minerals used as gemstones and others not? Why do some gemstones have color? Where does that color come from? If so, this is the course for you. You will learn the answers to all these questions and more.

# 20-109 ARAB SPRING (UPDATED REPEAT)

Sandy McNabb, Wednesdays 10 am - 12 noon Sonoran Room: February 12, 19, 26 March 4, 18, 25

This course will explore the events that led to the Arab Spring uprisings in Egypt, Tunisia, and Syria, and also ask the question of why the monarchies (Saudi Arabia, UAE, Qatar and Kuwait) escaped the turmoil. The course will also look at the rise of Political Islam and how the Muslim Brotherhood gained and then lost political power. Finally, we will investigate the origins of ISIS in Iraq and Syria and try to understand the objectives of ISIS, Al Qaeda, and El Shabab in their struggle for control of radical Islam.

# 20-110 CHINA AND AMERICA: FACING NEW ECONOMIC, POLITICAL, AND DIPLOMATIC CHALLENGES

Boyd Bosma, Thursdays 10 am - 12 noon

HOA1 Activity Center: February 13, 20, 27 March 5, 12, 26

No international relationships today are more complex or important than the give-and-take between China and the United States. Rising from a position of economic distress little more than thirty years ago, China's economy has grown exponentially, allowing it to surpass the US on measures of national wealth and prosperity, and it is now challenging our country for economic and cyber dominance not only in its own region but across Asia, Africa, Europe, and around the world. China's military is newly aggressive, and we are facing new challenges as the US seeks to keep trade routes open in the South China Sea and elsewhere. All this is complicated by the stop-and-go machinations around the US trade war and cyber competition with China. Our future will depend on the diplomatic skills of our own leaders.

This course will focus on the history, economics, and political and diplomatic issues with China from ancient times to the present day.

### 20-111 SIX GIGANTIC SYMPHONIES OF GUSTAV MAHLER

Punch Howarth, Mondays 10 am - 12 noon

Sonoran Room: February 17, 24 March 2, 9, 16, 23

Gustav Mahler was a world-class conductor of opera and symphony orchestras who found time to compose huge symphonies. Mahler, who was Czech, was a Germanic Romantic composer.

This six-week class will focus on six works in the symphony form, covering one work each class. The first three classes will cover symphonies 1-2-3, the Wunderhorn Symphonies where 2 and 3 include vocal forces. The final three classes will include the Ruckert Symphonies 5-6-7 that are pure orchestra works.

The course will feature five of the works on DVD in order to see as well as hear great orchestras perform. Mahler was the first of several conductors who were extremely demanding of musicians, and his scores include exact details of performance.

### 20-112 AMAZING VISUAL SYSTEM (REPEAT)

Robert Springer, Mondays 2 - 4 pm

Sonoran Room: February 17, 24 March 2, 9, 16, 23

Many of us believe that our eyes work like a camera. That explanation may be simple, but it is not true. In fact, the eye works more like a sophisticated computer than a camera, recognizing objects by analyzing their features.

Visual images come through a blurry lens, pass through a web of blood vessels, and land on a shaking field of receptors in our eyes. Yet these images look like sharp images to us. In this class we will examine the stages of visual processing to understand how this happens. We will view interesting demonstrations of many of these stages of processing.

We will also learn about the errors that the visual system makes. These errors can result in some amazing optical illusions that we will show and come to understand.

Finally, this course will also discuss the changes in the visual system that often occur with increasing age and some of the visual problems that older people may experience.

## 20-113 CHINESE CULTURE AND RELIGIONS (UPDATED REPEAT)

Ann Kuperberg, Tuesdays 10 am - 12 noon Sonoran Room: February 18, 25 March 3, 10, 17

Chinese culture has not changed much over 5,000 years in relation to family traditions, education and horoscopes. Medicinal practices, silk-making, pottery & calligraphy are a reflection of that society. This course will cover these topics as well as myths about creation and the spiritual world. We will discuss Confucianism, Daoism and Buddhism and how those teachings have affected Chinese leadership and politics in the past and present.

# 20-114 TRUTH, JUSTICE AND ACCOUNTABILITY

Paul Frederickson, Tuesdays 2 - 4 pm

Sonoran Room: February 18, 25 March 3, 10, 17, 24

This course will examine numerous historically significant court cases from the past 100 years. We will use the cases to review and discuss several important individual and societal issues. Major course topics will include: 1) How do we know right from wrong? 2) What is a lie? 3) How should liars be held accountable? 4) Who should be held accountable for injuries caused by Coca-Cola, hot coffee, guns, tobacco, opioids, and more? 5) When is discrimination wrong / illegal? We will use history, philosophy, ethics and law to analyze these complex and controversial topics.

### 20-115 PSYCHOLOGY OF PERSONALITY (REPEAT)

Chuck Stump, Thursdays 10 - 12 noon

Cactus Room: February 20, 27 March 5, 12, 19, 26

What makes us "tick?" Why do we do what we do or say the things we say? How are we similar to everyone else, and how are we different? Why do children born in the same family and raised by the same parents turn out so differently? Why do identical twins, separated at birth and having no contact with each other until they are well into adulthood, have similar characteristics and interests? These are common questions that arise regarding human personalities and will be explored in this class. A variety of personality theories will also be discussed and application of knowledge regarding personality in daily life will be presented.

# 20-116 GEOLOGY OF ARIZONA LANDSCAPES (REPEAT)

Karen Gray, Fridays 10 am - 12 noon

Cactus Room: February 21, 28 March 6, 13, 27

Sonoran Room: March 20

This class will examine the three different geologic regions of Arizona, and then discuss the geology of five areas in detail. The areas are the Catalina Mountains, Tucson Mountains, the Grand Canyon, Sedona and northern Arizona, and several of our beautiful National Parks. There will be three field trips: 1) Catalina State Park about 2 1/2 hrs; 2) Catalina Mountains from the base to the top. (an all day car trip with eight stops); 3) Tucson Mountains which includes four short hikes (some with elevation) to examine features of the volcanic range. This will be an all day excursion.

This class has optional field trips. Participants will be required to sign a waiver.

#### 20-117 ASTRONOMY'S GREATEST DISCOVERIES

Lockwood Carlson, Fridays 10 am - 12 noon

Sonoran Room: February 28, HOA1 Activity Center: March 6, 13, 20

Advances in telescope and camera technology, both land and space based, have resulted in dramatic advances in astrophysics and cosmology. This course will cover these advances and explain the science behind the "headlines." No math required.