Classes

HONORS CORE COURSES

Every student will be enrolled in one of two Honors Core Courses, which will meet each morning.

American Culture Viewed through a Comparative Lens
Dr. Fletcher Linder, Professor, Interdisciplinary Liberal Studies

Have you ever wondered why Americans live like they live? Why do they value having only one spouse at a time? Why do they tend to have small families? Why do they think they must go to college to get a good job? And why do they buy so much stuff? This short course in cultural anthropology will explore these questions and more, and will help you gain a cross-cultural and historical perspective on yourself and your own home culture.

Biology in the Movies
Dr. Christopher Rose, Professor, Biology Department

Advances in genetics and developmental biology allow scientists to manipulate genes, cells, and embryos in ways that increasingly challenge traditional concepts of human identity and could permanently alter the structure of human society. At the same time, media bombard the public with science-based entertainment that is timely, engaging, and at some level credible to an increasingly savvy and demanding audience. This course explores the intersection of these trends by addressing how popular culture presents science in movies and the potential costs of its misrepresentation. Topics include human cloning, genetic engineering, origin and evolution of humans, and artificial and extraterrestrial intelligence.

SUBJECT-AREA CLASSES

Offered once during the week for 90-minutes. Students will choose a selection of classes that fit their interests and goals.

Art History – Art in Florence
Dr. Linda Cabe Halpern

This class will be a brief introduction to artistic innovation in the fifteenth-century Italian Renaissance in Florence. Students will investigate several well-known works of painting and sculpture, and discuss issues of artistic patronage, interest in classical antiquity, stylistic choices, audience, and meaning. We will spend time learning how to look at works of art and how to understand them in the context of the time and place when they were made.

Astronomy – Exploring the Night Sky at the John C. Wells Planetarium
Dr. Shanil Virani

Our ancestors were adept at decoding the sky to learn their position on the surface of the planet, to tell the passage of time, and to learn when winter was approaching. Today, astrophysics is an academic enterprise in which we have learned our universe is filled with billions of galaxies, each of which can have billions of stars. We are now learning that planets around these stars are common. Is the discovery of life next? In this special class at the state-of-the-art John C. Wells Planetarium, students will learn more about our night sky, and how starry nights are slowly disappearing from skies because of light pollution.

Biotechnology – Phage Discovery Lab
Dr. Stephanie Stockwell

Viral Discovery and Genomics is an exciting biotechnology course series offered to JMU students of all levels and interests. This 2-part Honors Institute series is designed to give you a taste of this innovative program by allowing you to try your hand at a variety of microbiology techniques used to cultivate bacteria and the viruses that infect them. You will grow mixed and pure bacterial cultures, set up infections, and analyze REAL scientific results. Please come to the first session with a small soil sample collected from on or off campus.

Computer Science – Hour of Code with Python
Dr. Chris Mayfield

Discover a new world of creativity and fun with computer programming. Using Python code, you and a partner will program Finch robots to do a dance, avoid obstacles, and react to light. We will sharpen your problem-solving skills and introduce you to the basic building blocks of computing. Come see why Python is the most popular language for teaching introductory computer science at top-ranked universities. No experience necessary...anyone can learn!

Economics – Risk and Uncertainty
Dr. Andre Neveu

English – Studying Popular Culture: Pulp Magazines
Dr. Brooks Hefner

In this class, students will discuss the idea of popular culture and why studying popular texts might be valuable or important. After a brief lecture on the history of pulp magazines, students will
engage with pulp magazines from JMU’s special collections and give short presentations.

**Geographic Science – Why Where Matters**  
Dr. Bob Kolvoord

In this session, we’ll explore a world where maps tell stories and mobile devices are a gateway to new kinds of understanding. You’ll get a chance to have hands-on experience with geospatial technologies and real data from a number of different fields. If you want to see beyond Google Earth and learn why geography matters to many problems, this is the session for you.

**Geology & Environmental Science – Volcanic Eruptions and Magma Viscosity**  
Dr. Elizabeth Johnson

How does the viscosity, or resistance to flow, of magma affect the style of a volcanic eruption and the associated volcanic hazards? In this class, we will create experimental lava flows out of food items to evaluate volcanic eruption dynamics. We will use our model results to interpret volcanic rock textures from different types of eruptions, and to explain the behavior of volcanic eruptions captured on video.

**History – 3D Printing History**  
Dr. Evan Friss

This course will introduce students to the ways in which technology influences how we understand, research, think about, and teach history. In particular, we will examine the recent popularization of 3D printers and have a discussion about how historians might use the printers (and 3D modeling software) to enhance our understanding of the past. In groups, students will brainstorm potential applications of the technology and think about some of the related methodological questions of the historical discipline. How do historians create narratives? What is the role of artifacts and other primary sources compared to secondary sources in history? How has technology played a role (and how could it) in the way that we think about history? Finally, students will have a chance to play with the 3D modeling software and the printers themselves and we will print something “historical.”

**Marketing – What Sales is Really About**  
Prof. Steve Hertzenberg

When people think of sales representatives, most think of fast-talkers who trick people into buying things they don’t want. And they think sales is something they would not, or could not, do to earn a living – despite the fact that sales reps are always one of the top ten in-demand jobs. But good sales representatives are not fast-talking tricksters. They are consultative problem solvers who spend more time listening than talking, and many earn six figure incomes in return. In this class, you will experience the basics of selling via hands on exercises so you can see for yourself what this lucrative field is really about.

**Mathematics – Are We There Yet? Effective Mathematics and Hilbert’s Tenth Problem**  
Dr. E.T. Brown

Posed in 1900, Hilbert’s Tenth Problem asks if there are effective ways to solve a certain type of simple equation. The answer took seventy years to find; its discovery is a tale of intrigue, invention, and international tensions. Come see why the problem was so interesting in the first place, and how its solution illuminates a growing area of modern mathematics.

**Physics – Physics and Sports**  
Dr. Chris Hughes

**Political Science – Religion and Politics**  
Dr. Martin Cohen

People have said that religion and politics are two subjects not to be discussed in polite company. Well, in a polite environment we will be discussing both of them at the same time. We will focus on the role personal morality and religiosity plays in forming public opinion and impacting voting behavior. The first part of the class will be devoted to exploring the mechanisms linking religion and politics while the second part will consist of an activity and discussion designed to illuminate the personal connections people make between their religion and their politics.

**Psychology – The Biopsychology of Deceit**  
Dr. Melanie Shoup-Knox

Do polygraphs really work? What are they testing anyways? In this session you will have the opportunity to witness digital detection of concealed information using modern physiology equipment. We will discuss the meaning of these measurements, the psychology of lying and concealing information, other ways psychologists attempt to detect lies, and ways in which liars attempt to conceal information.

**Religion – Religious Terrorism**  
Dr. Frances Flannery

This class uses methods from the academic study of religion to introduce students to the causes, dynamics, and characteristics of religious and ideological terrorism, which makes up the majority of terrorism today. Students will learn the history of some famous terrorist groups and misconceptions about the religions they claim to represent. We will also examine intelligence and policy failures that have been ineffective at stopping terrorism and collectively brainstorm on ways to prevent terrorism in the future.

**Writing, Rhetoric, & Technical Communication – Multimodal Rhetoric: The Communicative Power of Images and Sound**  
Dr. Lucy Bednar

Nowadays, when we speak of rhetoric (the study of effective communication), we must speak not only of words on a page or screen but also of images and sound. Thanks to the rapid evolution of modern communication technologies, rhetoric is now multimodal. In this class, we will see how images speak, with or without words to accompany them, and we will explore how sound can impact what we read and what we write.